



# FIRE & SAFETY EQUIPMENT



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**PANTHER. The original.**  
ARFF vehicle



**CL Compact Line**  
Municipal vehicle



**AT Advanced Technology**  
Municipal vehicle

Rosenbauer offers a complete selection of Fire Fighting Vehicles for municipal, industrial, airport and military fire brigades.

# Most modern Fire Fighting Vehicles



**Industrial vehicle 2000/5600 HYDROMATIC**  
Industrial vehicle



**Aerial ladder L32A-XS**  
Aerials

# Competence in Fire & Safety Equipment





- |           |  |  |  |
|-----------|--|--|--|
| <b>1</b>  | <ul style="list-style-type: none"> <li>• HEROS helmet systems</li> <li>• Protective clothing</li> <li>• Protective boots</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Gloves</li> <li>• Heat protection equipment</li> </ul>  |  |
| <b>2</b>  | <ul style="list-style-type: none"> <li>• Full face masks</li> <li>• Filter units</li> <li>• SCBA sets</li> <li>• Guide line and personnel line</li> </ul>            | <ul style="list-style-type: none"> <li>• Airline breathing systems</li> <li>• Air filter units</li> <li>• SCBA control systems</li> <li>• Escape hoods</li> </ul>                                  |  |
| <b>3</b>  | <ul style="list-style-type: none"> <li>• Chemical protective suits</li> <li>• Hazmat pumps</li> <li>• Oil and chemical pumps</li> <li>• Earthing material</li> </ul> | <ul style="list-style-type: none"> <li>• Oil and chemical hoses</li> <li>• Oil and acid fittings</li> <li>• Containers and collecting equipment</li> <li>• Leak sealing</li> </ul>                 | <ul style="list-style-type: none"> <li>• Non-sparking tools</li> <li>• Warning signs</li> <li>• Oil barriers</li> <li>• Decontamination equipment</li> </ul> |
| <b>4</b>  | <ul style="list-style-type: none"> <li>• Gas detection</li> <li>• Radiation measuring devices</li> <li>• Temperature measuring devices</li> </ul>                    | <ul style="list-style-type: none"> <li>• Meteorological measuring devices</li> <li>• Victim location devices</li> <li>• Thermal imaging cameras</li> </ul>   |  |
| <b>5</b>  | <ul style="list-style-type: none"> <li>• Fire hoses</li> <li>• Couplings and fittings</li> <li>• Nozzles</li> <li>• Portable monitors</li> </ul>                     | <ul style="list-style-type: none"> <li>• Hydro-shield</li> <li>• Foam making branch pipes</li> <li>• Portable foam generators</li> </ul>   |  |
| <b>6</b>  | <ul style="list-style-type: none"> <li>• Fire extinguishers</li> <li>• Mobile extinguishes</li> <li>• POLY PORTEX SL 10</li> <li>• CAFS</li> </ul>                   | <ul style="list-style-type: none"> <li>• Covers, boxes and cabinets</li> <li>• Hydrant landing valves</li> <li>• Forest fire fighting</li> <li>• Portable fire pumps FOX, BEAVER, OTTER</li> </ul> | <ul style="list-style-type: none"> <li>• UHPS</li> <li>• Foam concentrates</li> <li>• NAUTILUS submersible pumps</li> <li>• Waste water pumps</li> </ul>     |
| <b>7</b>  | <ul style="list-style-type: none"> <li>• Power generators</li> <li>• Search lights and torches</li> <li>• Light systems</li> </ul>                                   | <ul style="list-style-type: none"> <li>• Floodlights</li> <li>• Cable reels</li> <li>• Distributor boxes</li> </ul>  | <ul style="list-style-type: none"> <li>• Plugs and sockets</li> <li>• Battery charging units</li> </ul>  |
| <b>8</b>  | <ul style="list-style-type: none"> <li>• Alarm sirens</li> <li>• Beacons, flashlights, megaphones</li> <li>• Traffic control equipment</li> </ul>                    |  |  |
| <b>9</b>  | <ul style="list-style-type: none"> <li>• FANERGY high performance fans</li> <li>• Tools</li> <li>• Chainsaws</li> </ul>  | <ul style="list-style-type: none"> <li>• Rescue saws</li> <li>• Drills</li> <li>• Lifting and pulling devices</li> </ul>   | <ul style="list-style-type: none"> <li>• Round slings</li> <li>• Webbing slings</li> <li>• Accessories for vehicles</li> </ul>                               |
| <b>10</b> | <ul style="list-style-type: none"> <li>• Lifting bags</li> <li>• Spreaders</li> <li>• Cutters</li> </ul>   | <ul style="list-style-type: none"> <li>• Combitoools</li> <li>• Rescue cylinders</li> <li>• Heavy duty power units</li> </ul>  | <ul style="list-style-type: none"> <li>• Hose reels</li> <li>• Door opener</li> <li>• Glass management</li> </ul>  |
| <b>11</b> | <ul style="list-style-type: none"> <li>• First aid equipment</li> <li>• Ropes and high-rise rescue</li> <li>• Lanyards</li> <li>• Firemen belts</li> </ul>           | <ul style="list-style-type: none"> <li>• Ropes and accessories</li> <li>• Karabiner and accessories</li> <li>• Jumping cushions</li> <li>• Ladders</li> </ul>                                      | <ul style="list-style-type: none"> <li>• Rescue platforms</li> <li>• Water service</li> </ul>  |
| <b>12</b> | <ul style="list-style-type: none"> <li>• Wardrobe cabinets</li> <li>• Energy supply</li> <li>• PPE cleaning</li> </ul>   | <ul style="list-style-type: none"> <li>• Detergents and cleaners</li> <li>• Breathing air compressors</li> <li>• Hose maintenance</li> </ul>   | <ul style="list-style-type: none"> <li>• Filling and testing units</li> <li>• Fire training equipment</li> </ul>   |
| <b>13</b> | <ul style="list-style-type: none"> <li>• Mobile equipment carrier</li> <li>• Stowage system COMFORT</li> </ul>   |  |  |



<b>Personal protective equipment</b>	<b>Page 11</b>
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<b>Monitoring equipment</b>	<b>Page 129</b>
<b>Fire hoses, couplings, fittings, nozzles</b>	<b>Page 153</b>
<b>Fire suppression, UHPS, portable fire pumps</b>	<b>Page 201</b>
<b>Power generators, electrical equipment</b>	<b>Page 247</b>
<b>Alarm and warning equipment</b>	<b>Page 281</b>
<b>High performance fans, technical equipment</b>	<b>Page 291</b>
<b>Hydraulic rescue tools, lifting bags</b>	<b>Page 329</b>
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<b>Stowage systems</b>	<b>Page 431</b>

## Conversion table

Conversion English, American and Metric Customary Measuring Units.

MULTIPLY	BY	TO GET / MULTIPLY	BY	TO GET
<b>LINEAR</b>				
inches	x 25.4	= millimeters (mm)	x 0.03937	= inches
inches	x 2.54	= centimeters (cm)	x 0.3937	= inches
feet	x 0.3048	= meters (m)	x 3.281	= feet
<b>AREA</b>				
square inches	x 645.16	= square millimeters (mm <sup>2</sup> )	x 0.00155	= square inches
square inches	x 6.452	= square centimeters (cm <sup>2</sup> )	x 0.155	= square inches
square feet	x 0.0929	= square meters (m <sup>2</sup> )	x 10.764	= square feet
<b>WEIGHT/AREA</b>				
ounces/square yards	x 33.70	= grams/square meters (g/m <sup>2</sup> )	x 0.03	= ounces/square yards
<b>VOLUME</b>				
cubic inches	x 16387.0	= cubic millimeters (mm <sup>3</sup> )	x 0.000061	= cubic inches
cubic inches	x 16.387	= cubic centimeters (cm <sup>3</sup> )	x 0.06102	= cubic inches
cubic inches	x 0.01639	= liters (l)	x 61.024	= cubic inches
quarts	x 0.94635	= liters (l)	x 1.0567	= quarts
gallons (US)	x 3.7854	= liters (l)	x 0.2642	= gallons (US)
gallons (imp.)	x 4.546	= liters (l)	x 0.21994	= gallons (imp.)
barrels	x 0.03175	= gallons (US)	x 31.5	= barrels
cubic feet	x 28.317	= liters (l)	x 0.03531	= cubic feet
cubic feet	x 0.02832	= cubic meters (m <sup>3</sup> )	x 35.315	= cubic feet
fluid oz	x 29.57	= milliliters (ml)	x 0.03381	= fluid oz
<b>MASS</b>				
ounces (av)	x 28.35	= grams (g)	x 0.03527	= ounces (av)
pounds (av)	x 0.4536	= kilograms (kg)	x 2.2046	= pounds (av)
tons (2000 lb)	x 907.18	= kilograms (kg)	x 0.001102	= tons (2000 lb)
tons (2000 lb)	x 0.90718	= tons (t)	x 1.1023	= tons (2000 lb)
<b>POWER</b>				
horsepower (bhp)	x 0.746	= kilowatts (kW)	x 1.34	= horsepower (bhp)
horsepower (DIN)	x 0.735	= kilowatts (kW)	x 1.36	= horsepower (DIN)
ft-lbf/min	x 0.0226	= watts (W)	x 44.25	= ft-lbf/min

### Temperature Conversion

To convert Celsius to Fahrenheit multiply the number by 9, divide by 5, and add 32.

To convert Fahrenheit to Celsius subtract 32 from the number and multiply by five, then divide by 9.



# PERSONAL PROTECTIVE EQUIPMENT

HELMETS

PROTECTIVE CLOTHING,  
BOOTS, GLOVES,  
HEAT PROTECTION

# 1



**HEROS-xtreme: full shell**



**HEROS-smart: 3/4-shell**



## HEROS FIRE FIGHTING HELMETS EN 443:2008 CERTIFIED

Rosenbauer have more than 20 years experience with protective helmets. The fire fighting market is inconceivable without the fire fighting system HEROS. Firefighters worldwide rely on HEROS fire helmets, which are famous for safety, durability and comfort even under toughest conditions.

Performance characteristics	HEROS-smart	HEROS-xtreme
EN 443:2008	Yes	Yes
Helmet type	Type A/3b (3/4-shell)	Type B/3b (full shell)
pr EN 16471:2012	Yes	Yes
pr EN 16473:2012	Yes	Yes
ISO 16073	Yes	Yes
Size adjustment from outside	●	●
Size	51 - 65	51 - 65
Face shield as per EN 14458	○	●
Eye protection visor as per EN 14458	○	○
Neck protector	○	●
Edge protector	○	○
Helmet stripes	○	○
Helmet crests	○	○
Integrated torch holder	●	●
Torch holder as accessory	○	○
Integrated mask adaptor	-	●
Radio headset	○	○
Leather lining	○	○
Comfort padding chin strap	○	●

○ optional    ● standard    - unavailable

**REQUIREMENTS ACCORDING TO EN 443:2008**

Heat radiation	<ul style="list-style-type: none"> <li>• 8 minutes</li> <li>• <math>14 \text{ kW/m}^2 \geq 300 \text{ }^\circ\text{C}</math> helmet temperature</li> </ul>
Shock absorption	<ul style="list-style-type: none"> <li>• Hemispherical striker</li> <li>• 5 kg from a height of 2.5 m</li> <li>• In heated condition <math>&gt; 300 \text{ }^\circ\text{C}</math> helmet temperature</li> <li>• Force transmitted to head <math>&lt; 15 \text{ kN}</math></li> </ul>
Penetration resistance	<ul style="list-style-type: none"> <li>• Flat blade striker</li> <li>• 1 kg from a height of 2 m</li> <li>• In heated condition <math>&gt; 300 \text{ }^\circ\text{C}</math> helmet temperature</li> <li>• No contact with test head</li> </ul>
Flame engulfment	<ul style="list-style-type: none"> <li>• Flame engulfment <math>1,000 \text{ }^\circ\text{C} / 10 \text{ sec}</math></li> <li>• No afterburning <math>&gt; 5 \text{ sec}</math></li> <li>• No dripping</li> </ul>



**Shock absorption**



**Penetration resistance**



**Flame engulfment**

HEROS-helmets clearly outreach all requirements according to EN 443 and provide highest protection in all fire fighting operations.





## FIRE FIGHTING HELMET HEROS-XTREME

### Safety in extreme situations

With a considerable number of important details, the HEROS-xtreme is one of the best fire fighting helmet systems worldwide:

- Certified as to EN 443:2008, helmet type B/3b
- High strength and impact resistance even at extremely high temperatures
- Revolutionary helmet torch system\*
- New inner lining provides maximum safety and excellent wearing comfort
- Trapezoidal chinstrap for better stability
- Easily adjustable helmet size from outside
- 2 Visors: large face shield and eye protector\*, both retractable

### HEROS-xtreme is fully tested and certified according to EN 443:2008

- Helmet type B / 3b
- CE 0158 notified body EXAM/BBG
- Additional testing: E2E3C\*\*\*
 

E2E3	electric isolation
C	contact with liquid chemicals
***	- 30 °C



pr EN 16471:2012 Helmet for wildland fire fighting

pr EN 16473:2012 Helmets for technical rescue, CE 0299

### Helmet shell

Glass fibre reinforced composite helmet shell

- Designed for toughest requirements
- Unique glass fibre reinforced plastic composite material
- Tested for structural fire fighting and fire container operations
- Excellent mechanical strength in combination with equally high impact resistance (at low AND high temperatures)
- Far greater energy absorption due to special impact resistance modifications

\* optionally available



**Internal features**

- Excellent wearing comfort: individual adjustment of the wearing height, front and rear
- High-comfort padding for the prevention of pressure points during longer operations
- Best possible hearing and heat sensitivity in combination with excellent ear protection
- Optimum weight balance
- Made of high quality materials (heat- and flame-resistant, sweat absorbent, machine washable)

**Size adjustment from outside**

- Helmet size is easily adjustable from outside even when wearing gloves
- The required setting can be changed quickly depending on the operation

**Trapezoidal chinstrap for still better stability**

- Ergonomic, optimised 3-point chinstrap
- Made of flame- and heat-resistant material
- For a stable fit
- Integrated ear protection padding
- Washable

**Mask attachment**

- Compatible with all common breathing masks

**Visor**

- Extensive facial protection certified as to EN 14458:2004
- Suitable for wearers of spectacles (common sizes)
- Eye protector\* clear or tinted certified as to EN 14458:2004

**Neck protector**

- Heat- and flame resistant
- Also available as allround neck protector



Face shield and eye protection visor can be used individually or in common



Size adjustment with rotary knob



Eye protector tinted\*  
Helmet torch\*



156800



156801



156802



156804



156805



156806



156807



156808

### HEROS-xtreme

Comes complete with neck protector and face shield.

Weight: approx. 1.55 kg

Order no.	Colour
156800	Luminous
156801	High visibility red - RAL 2005
156802	High visibility yellow - RAL 1026
156804	Blue - RAL 5015
156805	Black - RAL 9004
156806	White - RAL 9016
156807	Silver - RAL 9006
156808	Red - RAL 3020





**RECOMMENDED ACCESSORIES FOR HEROS-xtreme**

**157049 HEROS-xtreme helmet torch system, LED, explosion-proof**  
 Revolutionary and extremely powerful hi-tech LED beam. Explosion-proof: II 2 G/D - Ex ib IIC T4 Gb / Ex ib IIC 21T 135°C Db; IP 66. The helmet torch is easily detachable and can also be used as a hand lamp. Comes complete with 3 AAA batteries.  
 Weight: approx. 0.17 kg (incl. batteries)



157049

**157048 Holster for helmet torch with belt loop**



157048

**Face shield**

Visors are also suitable for wearers of spectacles (common sizes).

- 156850 Face shield clear, as spare part**
- 15685101 Face shield gold coated, instead of standard visor, mounted onto the helmet**
- 156851 Face shield gold coated, as spare part**



156850



156851

**Eye protector**

Can be used together with the face shield. Visors are also suitable for wearers of spectacles (common sizes). Weight: approx. 0.1 kg

- 156854 Eye protector clear, mounted onto the helmet**
- 15685402 Eye protector clear, as spare part**
- 15685401 Eye protector tinted, mounted onto the helmet**
- 15685403 Eye protector tinted, as spare part**



15685402



15685403

**Clamping strip-set**

For mask adaptations. Colour: white. Weight: approx. 0.04 kg (Special mask adaptors needed)

- 156862 Mounted onto the helmet**
- 15686201 Loose, as spare part**

**156831 Duo adaptor for mask with spring clamp**  
 Instead of standard adaptor.



156862

(comes without helmet and mask)



156831

For mask adaptors please refer to chapter 2, page 57.

Helmet crests upon request.



Symbolic picture of mask adaptor



Helmet crest



15686401



15686501



156869



15686803



15687001



156871

**FIRE & RESCUE FIRE & RESCUE**

158891

158892



156873



156671



156876



15684301

#### Helmet trims (double)

Made of 3M Scotchlite.

- 156864 Colour: red, mounted onto the helmet
- 156865 Colour: silver, mounted onto the helmet
- 156866 Colour: yellow, mounted onto the helmet
- 156867 Colour: blue, mounted onto the helmet
- 15686401 Colour: red, as spare part
- 15686501 Colour: silver, as spare part
- 15686601 Colour: yellow / gold, as spare part
- 15686701 Colour: blue, as spare part

#### Neck protector

Made of heat and flame resistant material.

- 156869 Standard neck protector, as spare part
- 15686803 Allaround neck protector (model Holland), as spare part. Weight: approx. 0.18 kg
- 15686802 Allaround neck protector (model Holland), instead of standard neck protector

#### 15686902 PU neck protector

Made of PU-coated cotton fabric.

#### Head band inner lining

- 15687001 Made of textile, as spare part
- 15687002 Made of leather, as spare part
- 15687003 Made of leather instead of textile, mounted

#### 156871 Chin guard, made of leather

#### Lettering "FIRE & RESCUE"

Height: 3 cm.

- 158891 Colour: black, loose
- 158892 Colour: red, loose

#### 156671 Cleaning agent profi for fire helmet HEROS

40 ml spray bottle.

#### 156873 Edge protector

Mounted onto the helmet shell, made of silicone, black. Flame and heat resistant (not for retrofitting).

#### Protection cover

- 156874 Made of NOMEX®
- 156876 Made of PBI

#### 15684301 Carrying and washing bag

Made of 100 % cotton, breathable. Limited protection. Weight: 0.19 kg

#### 156858 Fixing kit for IMPACT-COM

Please refer to page 26.

- 156859 Head band with textile lining
- 15685901 Head band with leather lining

For protective hoods please refer to page 52.

**SPARE PARTS FOR HEROS-xtreme**

No.	Part	Order no.
01	Helmet shell	
02	Mounting plate	156856
03	Front cover, black	156857
04	Adaptor for mask with spring-clamp (1 pair)	156855
05	Adjustment knob	156861
	Gearbox (without adjustment knob)	156860
06	Energy absorption device	
07	Head net	15686303
	Head net with hole for mounting helmet communication system SAVOX	15686304
08	Helmet band	15685902
09	Head band	15685903
10	Head band lining, made of textile	15687001
10a	Head band lining, made of leather	15687002
	Front part of the head band without lining	156875
11	Chin guard	156870
12	Neck protector	156869
12a	Allround neck protector	15686803
13	Mask adaptors / clamping strips	15686201
14	Face shield, clear	156850
14a	Face shield, gold coated	156851
15	Eye protector clear	15685402
15a	Sun eye protector, tinted	15685403
16	Helmet torch	157049
17	Helmet trims, double, red	15686401
17	Helmet trims, double, silver	15686501
17	Helmet trims, double, yellow	15686601
17	Helmet trims, double, blue	15686701
	Harness complete with textile lining (07, 08, 09, 10)	156863
	Retrofitting set for helmet radio SAVOX	15686302





## FIRE FIGHTING HELMET HEROS-SMART

Low weight, comfortable helmet shell, however fully certified for all fire fighting operations as per EN 443:2008.

- Helmet type A/3b
- EN 443:2008
- CE 0158
- Additional testing: E2E3C\*\*\*
- E2E3 electric isolation
- C contact with liquid chemicals
- \*\*\* - 30 °C

### ISO 16073:2011 (Wildland fire fighting)

- Additional requirements:
- 440 V electric isolation
- \*\*\* - 20 °C
- LD lateral deformation



0736/12  
SOLAS certification

pr EN 16471:2012 Helmet for wildland fire fighting  
pr EN 16473:2012 Helmets for technical rescue, CE 0299  
AN/NZS 1801

The HEROS-smart has been developed for the hardest operations and is characterised by its particularly low weight, good ventilation and wearer comfort.

### Helmet shell

- Glass fibre reinforced composite material
- High strength and impact resistance at extreme temperatures

**Visors**

- Certified as to EN 14458
- Extensive facial protection visor\*
- Eye protection visor\*

**Size adjustment from outside**

- Easily adjustable helmet size from outside
- Adjustment possible from the outside even when wearing gloves
- Required setting can be changed quickly depending on the operation

**Optimised wearer comfort**

- Ergonomically optimised headband
- Very good fit to individual head shape due to size-adjustable headband
- Fatigue-free wear

**Inner lining**

- High-comfort padding for comfort to head pressure points even during extended operation time
- Best possible hearing and heat sensitivity
- Optimum weight balance
- Excellent wearer comfort
- Heat and flame resistant material
- Sweat-absorbent, machine-washable headband

**Trapezoidal chinstrap:**

- Ergonomic, optimised 3-point chinstrap
- Heat and flame resistant material
- Machine washable (+ 40°C)

**Scope of delivery**

Helmet colour	Face shield and neck protector	
	Included	Not included
Luminous	157100	157000
High visibility red – RAL 2005	157101	157001
High visibility yellow – RAL 1026	157102	157002
Blue – RAL 5015	157104	157004
Black – RAL 9004	157105	157005
White – RAL 9016	157106	157006
Red – RAL 3020	157108	157008
	Weight: 1.3 kg	Weight: 1.15 kg



\* optionally available



308001



1566202 / 307859



156850



15685403



15685402



156851



15706401



15706501



15706601



15706701

## RECOMMENDED ACCESSORIES FOR HEROS-smart

### 308001 HEROS-smart helmet torch

Can be mounted onto the helmet front directly.

- Ex II 3 GD, Ex nAnL IIB T4/IP 64
- 3 different lightning modes 30, 40 and 50 lm
- Burning time up to 12 hours
- Rotatable until 90°
- 2 LED

Weight: 0.16 kg (with batteries)

### 307859 LED-explosion-proof-torch UK 3AA

Mounted onto the helmet with torch holder.

Explosion proof II 2G Ex e ib IIC T6, II 2D Ex ibD 21 T 61 °C, LED ELED CPO ET. Batteries included.

Weight: 0.15 kg (with batteries)

### 1566202 Torch holder (hook and pile)

A pile lower part with a covering hook part. The pile part is glued onto the helmet shell and makes the connection to the hook part with the helmet torch. Replaceable. High temperature resistant.

Weight: 0.025 kg

## Face shield

Visors are also suitable for wearers of spectacles.

### 15685001 Face shield clear, mounted onto the helmet

### 156850 Face shield clear, as spare part

## Eye protector

Visors are also suitable for wearers of spectacles.

### 156854 Eye protector clear, mounted onto the helmet

### 15685402 Eye protector clear, as spare part

### 15685401 Eye protector tinted, mounted onto the helmet

### 15685403 Eye protector tinted, as spare part

## Helmet trims

Made of 3M Scotchlite. Double.

### 157064 Colour: red, mounted onto the helmet

### 157065 Colour: silver, mounted onto the helmet

### 157066 Colour: yellow, mounted onto the helmet

### 157067 Colour: blue, mounted onto the helmet

### 15706401 Colour: red, as spare part

### 15706501 Colour: silver, as spare part

### 15706601 Colour: yellow, as spare part

### 15706701 Colour: blue, as spare part

## Neck protector

Heat- and flame retardant material.

### 15686906 Standard neck protector, mounted onto the helmet

### 156869 Standard neck protector, as spare part

## Helmet crests upon request.

Inner lining

- 157700 Made of textile, as spare part
- 15687002 Made of leather, as spare part
- 15687003 Made of leather instead of textile, mounted

- 156871 Chin guard, made of leather, as spare part

Lettering "FIRE & RESCUE", Height 2 cm.

- 157091 Colour: black, loose
- 157092 Colour: red, loose

Other letterings on request.

- 156873 Edge protector  
Made of silicone, mounted onto the helmet (not for retrofitting).

- 156671 Cleaning agent profi for fire helmet HEROS  
40 ml spray bottle.

For protective hoods please refer to page 52.

SPARE PARTS FOR HEROS-smart

No.	Part	Order no.
01	Helmet shell	
02	Mounting plate	
03	Adjustment knob	156861
	Gearbox (without adjustment knob)	156860
	Gear wheel	15686001
04	Energy absorption device	
05	Head net	15686303
	Head net with hole for mounting helmet communication system SAVOX	15686304
06	Helmet band	15685902
07	Head band	15685903
08	Head band lining, made of textile	157700
08a	Head band lining, made of leather	15687002
	Front part of the head band without lining	156875
09	Chin strap	157070
10	Neck protector	156869
10a	Allround neck protector	15686803
11	Face shield clear	156850
12	Eye protector clear	15685402
12a	Sun eye protector tinted	15685403
13	Helmet trims, double, red	157064
13a	Helmet trims, double, silver	157065
13b	Helmet trims, double, yellow	157066
13c	Helmet trims, double, blue	157067
	Harness complete with textile lining (05, 06, 07, 08, 09)	157063
	Retrofitting set for helmet radio SAVOX	15686302



156871

FIRE & RESCUE FIRE & RESCUE

157091

157092



156873



156671





NFPA 1971, 2013 edition compliant

## FIRE FIGHTING HELMET HEROS-XT

Based on 20 years of experience with protective helmets, Rosenbauer developed the new fire fighting helmet HEROS-xt in accordance with the NFPA 1971, 2013 edition.

With a considerable number of important details, the new HEROS-xt is one of the best fire fighting helmet systems worldwide:

- High impact and penetration resistant helmet shell even at extreme temperatures
- Revolutionary helmet torch system (optionally available)
- Ergonomic inner lining
- Trapezoidal chinstrap for better stability
- Easily adjustable helmet size from outside
- Face shield and eye protection visor (eye protection visor optionally available)
- Unique glass fibre reinforced composite material
- High strength and impact resistance at extreme temperatures
- Tested for structural fire fighting under extreme conditions
- Protective helmet for structural fire fighting according to NFPA 1971, 2013 edition



**HEROS-xt helmet**

Comes complete with ear covers (including limited neck protection), one face shield and helmet trims.

Weight: approx. 1.54 kg

Order no.	Colour
156880	White – RAL 9016
156881	High visibility yellow – RAL 1026
156882	Yellow – RAL 1018
156883	Red – RAL 3020
156884	Black – RAL 9004
156885	Luminous

**RECOMMENDED ACCESSORIES FOR HEROS-xt**

15689105 Eye protector clear

157049 Helmet torch

156871 Chin guard leather

**SPARE PARTS FOR HEROS-xt**

156890 Face shield

156891 Eye protector

156893 Ear covers / neck protector

156894 Helmet trims yellow

156895 Helmet trims red

156892 Chin strap



156880



156882



156883



156884



156881



15665612 / 15665405



156858



15686301

(comes without communication system)



156651



15686302



15665201

## COMMUNICATION SYSTEMS FOR HEROS-XTREME, HEROS-SMART AND HEROS-XT

### Bone conduction communication kit IMPACT-COM

- Suitable for helmets HEROS-xtreme, HEROS-smart and HEROS-xt
- Microphone and speaker in one housing
- Expansion bellows microphone on the side of the head picks up speech
- Large PTT (push to talk) switch, which can also be pressed with underarm or elbow
- Easy to mount with a hook and pile fastener onto the chin strap

### 15665612 IMPACT-COM

With microphone and speaker in a single housing. Connection cable with safety plug and PTT-button, without radio plug. Weight: 0.12 kg

**156858 Fixing kit.** For IMPACT-COM. Made of leather.

### Radio-plugs

**15665404** For Kenwood TH-22, TH-25, TK-240/-340, TK-250/-350

**15665405** For Motorola GP300/CP040

**15665417** For Motorola GP320/GP328/GP340/GP360/GP339

**15665406** For Motorola 12 PIN plug

**15665409** For Motorola MX1000/2000/3000 series, Saber/CQP7000

**15665410** For Motorola VISAR

**15665412** For Motorola HT1100/MT2100/MTS2000/GP900/XTS3000

Other radio plugs as well as IMPACT-COM explosion-proof upon request.

### SAVOX communication system: advanced solution

- Suitable for helmets HEROS-xtreme, HEROS-smart and HEROS-xt
- The integration into the helmet enables enhanced personal safety and more efficient working as it enables hands-free communication and full concentration on the current task
- Quick-release connector
- Adapts to SAVOX C-C400/C-C500 Com-Control units

### 156651 Helmet COM-unit

Bone conduction microphone, 1 loudspeaker, connection cable and safety plug for connection with PTT button.

### Helmet harness for use of SAVOX communication system

**15686301** Instead of standard harness, mounted

**15686302** Retrofitting set

### PTT buttons with radio-plugs

**156652** SAVOX C-C500 with radio-plug for Motorola WARIS

**15665201** SAVOX C-C500 with radio-plug for Motorola GP300/GP040

**15665204** SAVOX C-C500 with radio-plug for Kenwood TK-290-11B

**15665211** SAVOX C-C400 with radio-plug for Motorola MTP850S

**1566531** SAVOX C-C400 with radio-plug for Motorola GP340S

Other PTT buttons and swan neck communication kit upon request.

## PROTECTIVE CLOTHING

Personal protective clothing refers to the garments firefighters need to wear while performing on the job. Full protective clothing for structural fire fighting consists of the following:

### Protective jackets and trousers (turnout suits)

Protective clothing designed to protect firefighters during fire fighting and technical operations. It does not provide protection for head, hands and feet. These garments are designed and certified as to EN 469:2005 “Protective clothing for firefighters”.

#### EN 469:2005 “Protective clothing for firefighters”:

Requirement	Performance Level 1	Performance Level 2
Heat transfer Flame Xf1 or Xf2 Radiation Xr1 or Xr2	low isolation low isolation	high isolation high isolation
Water penetration Y1 or Y2	permeable	mostly waterproof
Water vapour Z1 or Z2 transfer	high water vapour resistance	low water vapour resistance

### Protective boots

Protective boots provide limited protection against burn injuries and puncture wounds. Designed and certified as to EN 15090 “Footwear for firefighters”.

### Protective gloves

Protective gloves protect the hands of firefighters from burn injuries and puncture wounds. Designed and certified as to EN 659 “Protective gloves for firefighters”.

### Heat protection equipment

Protect the firefighters in special high risk situations (reflective protective clothing). Designed and certified as to EN 1486 “Protective clothing for firefighters”.

All equipment is to meet current applicable standards like EN (European Standards) or NFPA (National Fire Protection Association, USA). There is a variety of protective clothing available that has been tested to determine different characteristics. Special chemical-resistance suits must be considered for handling chemical emergencies. The firefighters must understand the design and purpose of the various types of protective clothing and be aware of each garments inherent limitations.

## STATION WEAR

These garments are designed to protect the worker against dirt and are used at the fire station for standby duty and instruction. They do not protect against mechanical, thermal and chemical hazards, against atmospheric exposures, etc. These garments can be overalls, trousers or shirts.



Xf2  
Xr2  
Y2  
Z2

Protective clothing according to EN 469 has to be marked as follows (depending on performance level)

EN 469:2005



141200 / 141201

Jacket and trousers



EN 469:2005

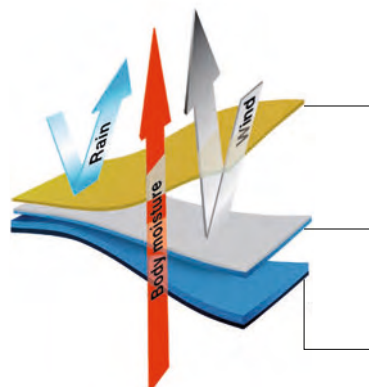


EN 1149-5:2008



141204

### Fabric structure



Outer fabric: NOMEX® Tough  
Weight: approx. 195 g/m<sup>2</sup>  
Colours: dark blue or gold

Outer shell: PBI Matrix  
Weight: approx. 205 g/m<sup>2</sup>  
Colour: golden yellow

Moisture barrier (liner): PTFE membrane  
on Basofil non-woven carrier, water- and  
windproof, breathable  
Weight: approx. 105 g/m<sup>2</sup>

Safety thermal lining:  
Basofil non-woven material with  
quilted cover layer of mixed  
aramid / viscose fabric  
Weight: approx. 180 g/m<sup>2</sup>



Sleeve with thumb hole



Highly resistant zipper

Heat protection and  
radio pocketsRadio pocket with  
microphone holder

Lamp holder



Inspection opening

## PROTECTIVE SUIT FIRE MAX 3

Certified as to EN 469:2005 and EN 1149-5:2008 (antistatic).

This protective suit provides maximum protection class in all three categories of the EN 469:2005: heat resistance, water density and steam permeation resistance. Jacket and trousers are certified as to Annex B of EN 469:2005.

The new FIRE MAX 3 protective suit was developed to offer firefighters maximum protection (safety thermal lining!) and to guarantee excellent wearing comfort at the same time.

Thanks to the totally new material structure, a low value of steam permeation resistance is achieved and sweat is quickly transported off the body to the outside.

The mandatory standard value in the highest class requires a steam permeation value of  $\leq 30 \text{ m}^2 \text{ Pa/W}$  - FIRE MAX 3 achieves a low value of just  $15 \text{ m}^2 \text{ Pa/W}$ .

The new protective suit weighs in at just 3.1 kg (for size 48-50) and therefore is markedly lighter than most of the turnout suits on offer at present in the fire industry market.

FIRE MAX 3 is available with two different outer fabric materials:

### NOMEX® Tough

- Best established textile for fire fighting suits
- Excellent mechanical and thermal resistance
- Simple care and maintenance

### PBI

- The TOP-product in the protective clothing market
- Organic fibre which does not burn or melt
- Fabric remains supple and does not shrink or become brittle after exposure of heat and flame
- Excellent breaking strength, tear strength and resistance to a lot of chemicals

### FIRE MAX 3 - jacket

Certified as to EN 469:2005 (highest protection standard Xf2 Xr2 Y2 and Z2) and EN 1149-5:2008.

- Comfortable and ergonomically designed protective jacket with high protection and many features
- Highly resistant zipper with double cover flap
- Ergonomically shaped elbows with reinforcements made of flame-retardant, silicon-carbon coated paraaramid fabric
- Shoulder area with extra heat protection
- Sleeves with innovative NOMEX® knitted wristlet and thumb hole
- Radio pockets on both sides
- Two applied inside pockets
- Lamp holder on front cover
- Holding loop for manual microphone on left
- Inspection opening with zipper to check status of membrane
- Sleeves and collar with silver reflective braid
- Backside length 85 cm (size 52 - 54 C)

Sizes: 40-42 to 60-64 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 48-50 C): 1.63 kg

**FIRE MAX 3 - trousers**

Certified as to EN 469:2005 (highest protection standard Xf2 Xr2 Y2 and Z2) and EN 1149-5:2008.

- Comfortable, ergonomically designed protective trousers with high protection and many features
- 5 cm wide suspenders, removable thanks to hook and pile fastener
- Elastic waistband for perfect adjustment
- With belt loops for using a belt
- Fly with zipper and hook and pile fastener, covered by flap
- Two side pockets with flap, under each side pocket flap with ring for attaching gloves
- 15 x 2.5 cm fleece strip for attaching a name strip on left side pocket flap
- Two tie pockets with zipper
- Trousers seams with moisture blocker made of flame retardant PU coated aramid, therefore better protection against the penetration and soaking of water (anti-wicking barrier)
- Ergonomically shaped knees with reinforcements and sewn-in knee pads made of water-repellant cellulose rubber
- Reinforcements at the knees, on the cuffs and interior seams of the pants made of flame retardant silicon-carbon coated paraaramid fabric
- Inspection opening with zipper to check status of membrane

Sizes: 40-42 to 60-64 in three lengths:  
 B (164-172), C (172-180) and D (180-188)  
 Weight (size 48-50 C): 1.46 kg

Outer fabric	Order no. jacket	Order no. trousers
NOMEX® Tough, colour: dark blue approx. 195 g/ m <sup>2</sup>	141200	141201
NOMEX® Tough, colour: gold approx. 195 g/ m <sup>2</sup>	141202	141203
PBI matrix, colour: golden yellow approx. 205 g/ m <sup>2</sup>	141204	141205

Sizes: please refer to page 38.

**RECOMMENDED ACCESSORIES FOR FIRE MAX 3 JACKET:**

**1405966 Name strip**  
 Approx. 15 x 3 cm.  
 Please state tape and embroidery colours!

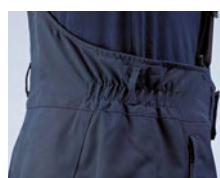
**Lettering on back**  
 In upper-case letters, font height 4 cm. With text in two lines.  
 Please state lettering and lettering colour with order!

- 140949 Printed directly onto the jacket**
- 140948 Lettering fixed on a hook and pile fastener**  
 10 x 45 cm.
- 14059922 Pile tape**  
 Suitable for affixing a 10 x 45 cm lettering.



141205

141201



Waistband with belt loops



Reinforcements at interior seams



Knee reinforcements



Removable suspenders



Side pockets with fleece strip for attaching a name strip



Inspection opening

## Jacket and trousers

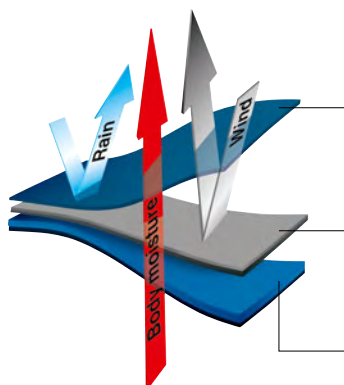


EN 469:2005



141063 / 141064

## Fabric structure



Outer fabric: NOMEX® Tough  
Weight: approx. 195 g/m<sup>2</sup>  
Colours: dark blue or gold

Outer shell: PBI Matrix  
Weight: approx. 205 g/m<sup>2</sup>  
Colour: golden yellow

Moisture barrier (liner): Membrane  
water- and windproof, breathable

Safety thermal lining:  
Insulating layer in a 100% aramid  
nonwoven and an aramid / visco-  
se quilting.  
Weight: approx. 270 g/m<sup>2</sup>

## PROTECTIVE SUIT FIRE MAX II

Certified as to EN 469:2005.

The FIRE MAX II turnout suit has been developed to offer maximum protection and excellent comfort for the firefighters at the same time. The FIRE MAX II achieved the highest protection standards in all three EN 469:2005 test categories: heat resistance, water density and steam permeation resistance.

Reinforcements to large areas of the jacket and trousers clearly show that the FIRE MAX II is perfectly constructed for heavy duty on fire fighting missions.

FIRE MAX II is available with two different outer fabric materials:

## NOMEX® Tough

- Best established textile for fire fighting suits
- Excellent mechanical and thermal resistance
- Simple care and maintenance

## PBI

- The TOP-product in the protective clothing market
- Organic fibre which does not burn or melt
- Fabric remains supple and does not shrink or become brittle after exposure of heat and flame
- Excellent breaking strength, tear strength and resistance to a lot of chemicals

## FIRE MAX II - jacket

Certified as to EN 469:2005 (highest protection standard Xf2 Xr2 Y2 and Z2)

- Arm and jacket seams with moisture blocker made of flame retardant PU coated aramid, therefore better protection against penetration or soaking of water (anti-wicking barrier)
- Special sleeve construction with "mobility wedge" for excellent mobility
- Additional reinforcements at the elbows and shoulders made of silicone-coated paraaramid fabric
- Flame protection collar can be pulled up under the helmet, closure with hook and pile fastener at the front
- Sleeves width can be adjusted individually due to hook and pile fastener
- Sleeves with NOMEX® knitted wristlet with thumb hole
- Radio pockets on both sides
- With two side pockets with flap
- With lamp holder on front cover
- With cord for adjusting around waist
- Loops for mounting shoulder patches
- 15 x 2.5 cm fleece strip for attaching a name strip above left radio pocket
- 5 cm wide silver and two 1.5 cm wide yellow reflective stripes around torso and sleeves
- Backside length 89 cm (size 52-54C)

Sizes: 40-42 to 60-64 in three lengths:  
B (164-172), C (172-180) and D (180-188)  
Weight (size 48-50 C): 2.1 kg



Quick open zipper



Reinforcements at the elbows



Lamp holder for Adalit lamp

**FIRE MAX II - trousers**

Certified as to EN 469:2005 (highest protection standard Xf2 Xr2 Y2 and Z2).

- Trousers with adjustable, non-detachable 5 cm wide suspenders
- Adjustable elastic straps for fixing the waistband individually
- Fly with zipper and hook and pile fastener, covered by flap
- With two side pockets with flap
- Trousers hem with moisture blocker made of flame retardant PU coated aramid, therefore better protection against the penetration or soaking of water (anti-wicking barrier)
- Reinforcements at the knees, on the cuffs and interior seams of the pants made of flame retardant silicon-carbon coated paraaramid fabric
- With fix mounted padding under the knee protection
- 5 cm wide silver and two 1.5 cm wide yellow reflective stripes around trousers legs

Sizes: 40-42 to 60-64 in three lengths:  
 B (164-172), C (172-180) and D (180-188)  
 Weight (size 48-50 C): 1.6 kg

Outer fabric	Order no. jacket	Order no. trousers
NOMEX® Tough, colour: dark blue approx. 195 g/ m <sup>2</sup>	141063	141064
NOMEX® Tough, colour: gold approx. 195 g/ m <sup>2</sup>	141066	141067
PBI Matrix, colour: golden yellow approx. 205 g/ m <sup>2</sup>	141019	141032

Sizes: please refer to page 38.

**RECOMMENDED ACCESSORIES FOR FIRE MAX II JACKET:**

**140947 Pocket**  
 In covered front closure (Napoleon pocket)

**1405966 Name strip**  
 Approx. 15 x 3 cm.  
 Please state tape and embroidery colours!

**Lettering on back**  
 In upper-case letters, font height 4 cm. With text in two lines.  
 Please state lettering and lettering colour with order!

**140949 Printed directly onto the jacket**  
**140948 Lettering fixed on a hook and pile fastener**  
 10 x 45 cm

**14059922 Pile tape**  
 Suitable for affixing a 10 x 45 cm lettering.



14 1064



14 1032



Specially resistant reinforcements at the knees and at the trousers seam

## Jacket and trousers



EN 469:2005



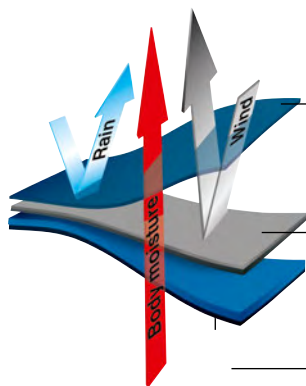
14056217/14056218/  
140635



**Extra protection:**  
sewn-in elastic at ankles

14056236/14056237

## Fabric structure



Outer fabric: NOMEX® Tough  
Weight: approx. 195 g/m<sup>2</sup>  
Colours: dark blue or yellow

Moisture barrier (liner):  
Membrane water- and  
windproof, breathable

Safety thermal lining: Insulating  
layer in a 100 % aramid nonwoven  
and an aramid / viscose quilting  
Weight: approx. 270 g/m<sup>2</sup>

## PROTECTIVE SUIT BREGA

Certified as to EN 469:2005. Ergonomic and functional design for optimal freedom of movement. Waterproof protective clothing by the use of high tech membranes and precise seam sealing.

## BREGA - jacket

- Backside length 91 cm (size 52-54 C)
- Water-, windproof and breathable due to high performance membrane
- Wide shoulder seams provide unlimited range of movement
- Chest pocket for a radio or personal monitor and two side hip pockets with flaps, antenna strap on the right breast pocket
- Flame protection collar on the backside to wear up to the helmet bottom, at the front closure with hook and pile fastening
- NOMEX® knitwear wristlet: extend over the hands and are equipped with thumb holes
- 15 x 2.5 cm fleece strip above the radio pocket for a name strip
- 45 x 10 cm fleece strip on wide reflecting yellow strips at the ends of the jackets back side and around the end of the sleeves
- A parallel set of 5 cm wide stripes, Scotchlite reflective and high-contrast yellow and silver, completely surround the base of the jacket and sleeve ends, on front zipper cover with vertically silver reflective stripe

Sizes: 44-46 to 60-64 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 48-50 C): 1.75 kg

**14056236 BREGA jacket, colour: navy blue**

**14056217 BREGA jacket, colour: yellow**  
(includes reflective silver stripes only)

## BREGA - trousers

- Water-, windproof and breathable due to high performance membrane
- Rear trouser extension provides extra kidney protection, non removable suspenders
- 2 side hip pockets with hook and pile flaps
- Trousers offer high freedom of movement, including a low-cut crotch seam
- Highly heat-resistant zipper with cover flap
- Changeable knee protection padding
- Sewn-in elastic at ankles
- A parallel set of 5 cm wide stripes, Scotchlite reflective and high-contrast yellow and silver, completely surround the trousers legs just below the knees

Sizes: 44-46 to 60-64 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 48-50 C): 1.5 kg

**14056237 BREGA trousers, colour: navy blue**

**14056218 BREGA trousers, colour: yellow**  
(includes reflective silver stripes only)

## RECOMMENDED ACCESSORIES FOR BREGA JACKET:

**1405966 Detachable name strip**

3 x 15 cm on hook and pile fastener, for affixing to the front of the garment. Name the colour of the strip and the lettering!

**140635 Detachable retro-reflective lettering on hook and pile fastener**

Detachable silver retro-reflective lettering 10 x 45 cm with text in two lines, on hook and pile fastener, for affixing onto the back of the garment.



## PROTECTIVE SUIT FIRE FIT

Certified as to EN 469:2005.

Economical type turnout suit, consists of jacket and trousers.

### FIRE FIT - jacket

- Backside length 91 cm (size 52-54 C)
- Wide shoulder seams give plentiful freedom of movement
- Water-, windproof and breathable due to high performance membrane
- Highly heat-resistant, stable zip with cover flaps
- Two side hip pockets with flaps
- Flame protection collar, on the backside to wear up to the helmet bottom, at the front closure with hook and pile fastening
- NOMEX® knitwear wristlets extend over the hands
- 5 cm wide silver stripes at the ends of the jacket's back side and around the end of the sleeves

Sizes: 44-46 to 60-64 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 48-50 C): 1.75 kg

### 14056010 FIRE FIT jacket, colour: navy blue

### FIRE FIT - trousers

- High freedom of movement through a loose, especially low-necked crotch seam
- Waterproof and breathable due to high performance membrane
- The back of the trousers is extended upwards, so as to provide additional protection to the kidney areas
- On the trousers legs circulating, 5 cm wide silver stripes
- 2 side hip pockets with hook and pile flaps

Sizes: 44-46 to 60-64 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 48-50 C): 1.5 kg

### 14056020 FIRE FIT trousers, colour: navy blue

### Lettering on the back

Individual two line high silver-reflective lettering

**140949 Printed directly onto the jacket**

**140635 On navy blue hook and pile fastener (10 x 45 cm)**

**14059922 Pile tape suitable for affixing a 10 x 45 cm lettering**

**Sizes: please refer to page 38.**

Jacket and trousers

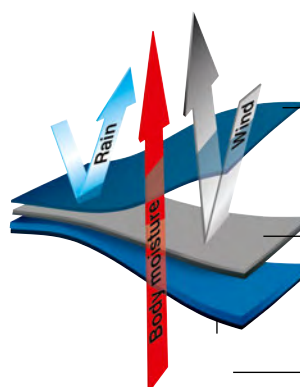


EN 469:2005



14056010/14056020

### Fabric structure



Outer fabric: Nomex® Tough  
Weight: approx. 195 g/m<sup>2</sup>  
Colour: dark blue

Moisture protection (Liner):  
Membrane water-,  
windproof and breathable

Safety thermal lining: Insulating  
layer in a 100% aramid nonwoven  
and an aramid / viscose quilting  
Weight: approx. 270 g/m<sup>2</sup>



Jacket and trousers



EN 469:2005



EN 1149-5:2008

140646/140647

## PROTECTIVE SUIT FOR TECHNICAL RESCUE

Designed for technical rescue and wildland fire fighting.  
Certified as to EN 469:2005 (performance level Xf1, Xr1, Y2 and Z2).  
No protection against risks associated with fighting fire in structures.

### TECHNICAL RESCUE - jacket

- With zipper for reliable attachment trousers and jacket
- Jacket seam with moisture blocker made of flame retardant coated aramid, therefore better protection against the penetration or soaking of water (anti-wicking barrier)
- Golf pleat on back of jacket for comfortable freedom of movement
- Heat-resistant zip with cover flap
- Ergonomically designed reinforcement at the elbows made of siliconcoated paraaramid fabric
- Sleeves width can be adjusted individually with elastic material and hook and pile fastener
- Two breast pockets; left side pocket for radio
- Holding strap for microphone
- 15 x 2.5 cm fleece strip above left radio pocket for name strip
- Reflective stripes: 7.5 cm yellow/silver/yellow circulating around the body and the sleeves, on breast side and two stripes vertically on back side
- Backside length 76 cm only (size 52-54C)

Sizes: 40-42 to 64-66 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 52-54C): 1.37 kg

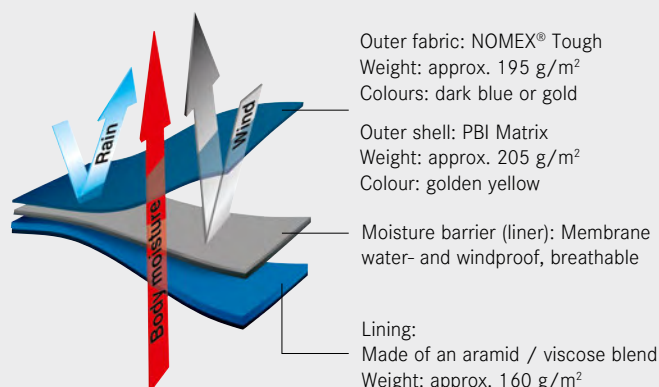


Covered front zipper



Covered zipper for reliable attachment trousers and jacket

### Fabric structure



**TECHNICAL RESCUE - trousers**

- With covered zipper for reliable attachment trousers and jacket
- Quick-fix flies with zipper and hook and pile fastener with flap
- Two side pockets with flap
- Two pockets with zipper
- Back side pocket
- Trousers hem with flame retardant coated aramid moisture blocker
- Ergonomically designed reinforcement at the knees and end of trousers made of siliconcoated paraaramid fabric
- With padding under the knee protection
- Reflective stripes: 7.5 cm yellow/silver/yellow circulating on trousers legs and 5 cm silver reflective stripes vertically on outside trousers legs

Sizes: 44 to 62 in three lengths:

B (164-172), C (172-180) and D (180-188)

Weight (size 52-54 C): 1.2 kg

Outer fabric	Order no. jacket	Order no. trousers
NOMEX® Tough, colour: dark blue approx. 195 g/ m <sup>2</sup>	140646	140647
NOMEX® Tough, colour: gold approx. 195 g/ m <sup>2</sup>	140648	140649
PBI matrix, colour: golden yellow approx. 205 g/ m <sup>2</sup>	140643	140644

Sizes: please refer to page 38.



140646/140647



Individual adjustment with elastic material and hook and pile fastener



End of trousers reinforced

## Trousers and trousers part of the overall



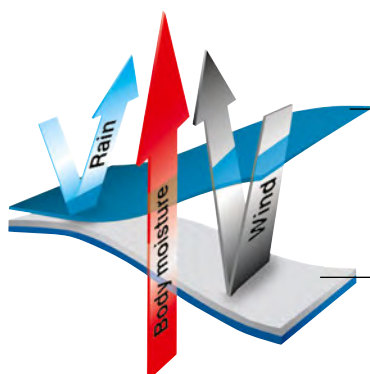
Xf1  
Xr1  
Y2  
Z2

EN 469:2005



137830 / 106650

## Fabric structure for trousers and trousers part of the overall



Outer fabric:  
35% aramid, 64 % viscose FR,  
1 % elasthan.  
Weight: approx. 310 g/m<sup>2</sup>

Laminated lining:  
water-, windproof membrane  
laminated onto fabric: aramid /  
viscose.  
Weight: approx. 165 g/m<sup>2</sup>.

## TURNOUT SUIT

This turnout suit is only one part of the personal protective equipment stipulated by EN 469:2005. The CE labelling of this product (two-piece suit and overall) only denotes conformity with EN 469:2005 when the product is used in conjunction with an appropriately tested protective jacket.

Material for tunic: blended fabric consisting of 35 % aramide fibre and 65 % viscose FR (flame retardant), 300 g/m<sup>2</sup>.

**133100 Tunic for turnout suit (no STRETCH)**

Tunic with two patch pockets, golf pleat on back of tunic makes for unimpeded freedom of movement, hook and pile fastening for cuffs and collar, 2 shoulder flaps. Reflective stripes 50 mm wide on back, chest and cuffs. Weight: 0.7 kg

Material for trousers and overall:

- Blended fabric consisting of 35 % aramid fibre and 64 % viscose FR (flame retardant), 1 % elasthan, 310 g/m<sup>2</sup>
- Lining: 35 % aramid fibre and 65 % viscose FR laminated with watertight, windproof membrane, 165 g/m<sup>2</sup>
- Colour: navy blue as per RAL 5011
- Turnout suits in colour green upon request

This special STRETCH material (patented by Rosenbauer) which is used as outer layer for protective trousers and overalls, offers a more comfortable wearing experience while meeting all requirements for fire fighting apparel - no unpleasant tight at places like the knees, thighs and buttocks!

**137820 Protective trousers STRETCH for turnout suit**

The trousers are completely lined. They have two patch pockets and two thigh pockets. Reflective stripes, silver, 50 mm wide, on legs. Comes without belt. Weight: 0.9 kg

**137830 Protective turnout overall STRETCH**

Tunic with two patch pockets, golf pleat on back of tunic makes for unimpeded freedom of movement, hook and pile fastening for cuffs and collar, 2 shoulder flaps. The trousers parts of the overalls are completely lined. The trousers have two patch pockets and two thigh pockets. Reflective stripes, silver, 50 mm wide, on back, chest, cuffs and legs. Comes without belt. Weight: 1.7 kg

Sizes: please refer to page 38.

**106650 Textile belt**

32 mm wide. Strap buck. Colour: black. Made of 100 % polypropylene. Weight: 0.09 kg

## STATION WEAR

- 133600 Station wear trousers**  
Designed for use at the fire station and for instruction purposes only – not for use in fire fighting operations! The fabric comes in a blend of 65 % polyester and 35 % cotton, in a 245 g/m<sup>2</sup> material. One layer, unlined. Designed with 2 side pockets, 1 back pocket and 2 patch pockets. Special pocket for a mobile phone. Colour: navy blue.  
Sizes: 40 – 70; length B, C and D.  
Weight (size M): 0.52 kg

- 106650 Textile belt**  
32 mm wide. Strap buck. Colour: black.  
Weight: 0.09 kg

- 105167 Station wear polo shirt**  
The fabric comes in a blend of 67 % cotton and 33 % polyester, in a 190 g/m<sup>2</sup> material, without lettering or logo. Colour: navy blue.  
Sizes: S, M, L, XL and XXL. Weight: 0.3 kg

- 105171 Station wear T-shirt**  
Made of 100 % cotton, approx. 160 g/m<sup>2</sup>, without lettering or logo. Colour: navy blue.  
Sizes: S, M, L, XL and XXL. Weight: 0.1 kg

- 105164 Emblem embroidered (company logo)**  
Stitched onto the polo shirt or T-shirt, l/h breast side. Please provide high resolution images when ordering.

- 105441 Station wear cap**  
Warm cotton knit, designed in six parts. Snap-tab back, so one size fits all. Without lettering or logo. Colour: navy blue. Weight: 0.05 kg

- 105442 Emblem embroidered (company logo)**  
Stitched onto the cap. Please provide high resolution images when ordering.



105171



106650

133600 / 105167 / 105441

## RAIN PROTECTION WEAR

Manufactured according to EN 343:2003. Performance level 3/1. Made of Nylflex, a double PVC-coated nylon material with good resistance to hazardous liquids. Enormous tear resistance. The high-frequency welding of the seams guarantees absolute water tightness. Colour: yellow.  
Sizes: 46/48 (S), 50/52 (M), 54/56 (L), 58/60 (XL) and 62/64 (XXL).

- 141600 Rain protection coat with hood**  
Raglan-cut design with press stud closure, rain channel, back yoke and two side pockets with flap. The coat features an integral hood with draw cord.  
Weight: 0.9 kg

- 141610 Rain protection trousers**  
Bib type trousers with adjustable elastic suspenders. Elastic waist with studded gusset adjustment. Side access slit. Weight: 0.8 kg

Sizes: please refer to page 38.



141610



141600

### Size table for FIRE MAX 3, FIRE MAX II, BREGA, FIRE FIT and TECHNICAL RESCUE jackets

Body height <b>(A)</b>	Body height: 164 -172 Length B					Body height: 172 -180 (182) Length C					Body height: 180 -188 (192) Length D				
	Chest width <b>(D)</b>	86-94	94-102	102-110	110-118	118-129	86-94	94-102	102-110	110-118	118-129	86-94	94-102	102-110	110-118
Size	S short	M short	L short	XL short	XXL short	S	M	L	XL	XXL	S long	M long	L long	XL long	XXL long
European size	44-46-B	48-50-B	52-54-B	56-58-B	60-64-B	44-46-C	48-50-C	52-54-C	56-58-C	60-64-C	44-46-D	48-50-D	52-54-D	56-58-D	60-64-D

### Size table for FIRE MAX 3, FIRE MAX II, BREGA and FIRE FIT trousers

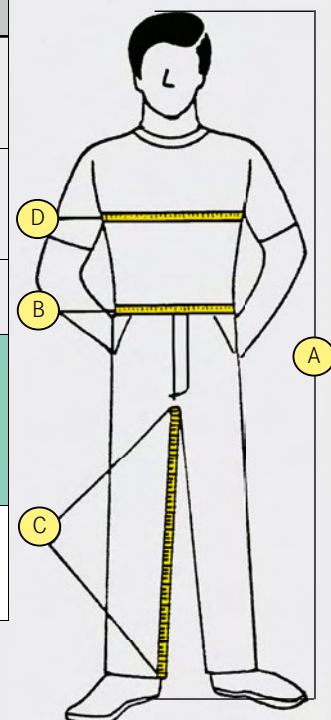
Body height <b>(A)</b>	Body height: 164 -172 Length B					Body height: 172 -180 (182) Length C					Body height: 180 -188 (192) Length D				
	Waist <b>(B)</b>	74-82	82-90	90-98	98-106	106-117	74-82	82-90	90-98	98-106	106-117	74-82	82-90	90-98	98-106
Length of one's stride <b>(C)</b>	74	74	74	74	74	78	78	78	78	78	82	82	82	82	82
Size	S short	M short	L short	XL short	XXL short	S	M	L	XL	XXL	S long	M long	L long	XL long	XXL long
European size	44-46-B	48-50-B	52-54-B	56-58-B	60-64-B	44-46-C	48-50-C	52-54-C	56-58-C	60-64-C	44-46-D	48-50-D	52-54-D	56-58-D	60-64-D

### Station wear trousers, turnout trousers and TECHNICAL RESCUE trousers

Body height <b>(A)</b>	Body height: 164 -172 Length B										Body height: 172 -180 (182) Length C										Body height: 180 -188 (192) Length D															
	Waist <b>(B)</b>	66-70	70-74	74-78	78-82	82-86	86-90	90-94	94-98	98-102	102-106	106-111	111-117	66-70	70-74	74-78	78-82	82-86	86-90	90-94	94-98	98-102	102-106	106-111	66-70	70-74	74-78	78-82	82-86	86-90	90-94	94-98	98-102	102-106	106-111	111-117
Sizes	40-B	42-B	44-B	46-B	48-B	50-B	52-B	54-B	56-B	58-B	60-B	62-B	40-C	42-C	44-C	46-C	48-C	50-C	52-C	54-C	56-C	58-C	60-C	62-C	40-D	42-D	44-D	46-D	48-D	50-D	52-D	54-D	56-D	58-D	60-D	62-D

### Station wear tunic, turnout tunic and overall

Body height <b>(A)</b>	Body height: 164 -172 Length B					Body height: 172 -180 (182) Length C					Body height: 180 -188 (192) Length D							
	Chest width <b>(D)</b>	78-86	86-94	94-102	102-110	110-118	118-129	78-86	86-94	94-102	102-110	110-118	118-129	78-86	86-94	94-102	102-110	110-118
Waist <b>(B)</b>	66-74	74-82	82-90	90-98	98-106	106-117	66-74	74-82	82-90	90-98	98-106	106-117	66-74	74-82	82-90	90-98	98-106	106-117
Length of one's stride <b>(C)</b>	74	74	74	74	74	74	78	78	78	78	78	78	82	82	82	82	82	82
Size	XS short	S short	M short	L short	XL short	XXL short	XS	S	M	L	XL	XXL	XS long	S long	M long	L long	XL long	XXL long
European sizes	40-42-B	44-46-B	48-50-B	52-54-B	56-58-B	60-64-B	40-42-C	44-46-C	48-50-C	52-54-C	56-58-C	60-64-C	40-42-D	44-46-D	48-50-D	52-54-D	56-58-D	60-64-D



- (A)** ..... Body height  
**(B)** ..... Waist measurement  
**(C)** ..... Length of one's stride  
**(D)** ..... Chest measurement  
 Measurements in "cm"

If the required size is outside of the standard size table, please kindly provide the following measurements:

**139140 Firefighters rolling gear kit bag**

Multiple pockets to hold and separate turnout gear, helmet, gloves etc. Main hold delivers full cargo capacity. One zippered pocket 400 x 200 x 350 mm. Separate dirty laundry bag, 650 x 650 mm. Two lateral pockets for manuals, syllabuses etc., zippered outside front pocket 250 x 250 mm. Industrial grade size 10 double-pull zippers, made of metal. Bearing skate wheels and end strap.

- Made of nylon, double coated. Repels water and resists abrasion tears, scuffs and punctures
- Total capacity 115 litres
- Colour: black/grey with red trimming
- Dimensions: 780 x 400 x 380 mm
- Weight: approx. 2 kg



139140

**CLEANING AND CARING PRODUCTS****Cleaning and caring of protective clothing**

The correct and regular cleaning of protective clothing is essential. If a few instructions regarding cleaning, care and storage are followed, keeping the protective clothing neat and functional is straightforward.

**Washing:**

Turnout suits should be cleaned using a commercial washer extractor, or by a professional laundry. Subject to certain limitations, an in-house washing machine can also be employed, although the following points have to be taken into account during washing:

- Wash fire service clothing separately (apart from other items)
- Empty the pockets before washing
- Completely close jackets (all zips and hook and eye strip fasteners)
- Turn the jacket round the right way (face fabric on the outside)
- Cover the open hook sections of the strip fasteners
- Remove any spring hooks from the pockets
- Use three rinses, spin at intervals
- Only use mild wash cycles; max. 60°C
- Employ standard fine washing agents (no fabric conditioners, no heavy-duty detergents)

**Impregnation:**

If a suit no longer shows a water-repellent effect, it has to be re-impregnated. Impregnate protective clothing after every second wash. If chemical cleaning is used, re-impregnation is necessary on every occasion. Do not employ standard impregnation sprays for fire service clothing.

**140428 Impregnation agent Saprit Protect**

Add the agent to the final rinse. In order to activate it, the clothing must be "fixed" in a drier at approximately 80°C. Contains: 1 litre

**140430 Impregnation agent TX Direct Wash-in**

Recommended by Gore-Tex und Sympatex. Is added to the final rinse. No treatment in a drier required. Contains: 1 litre

**Storage:**

Care must be taken that the clothing is stored in a dry and well-ventilated place. Textile items should not be exposed unnecessarily to bright sunlight. Open clothing cupboards are to be safeguarded against direct sunshine.



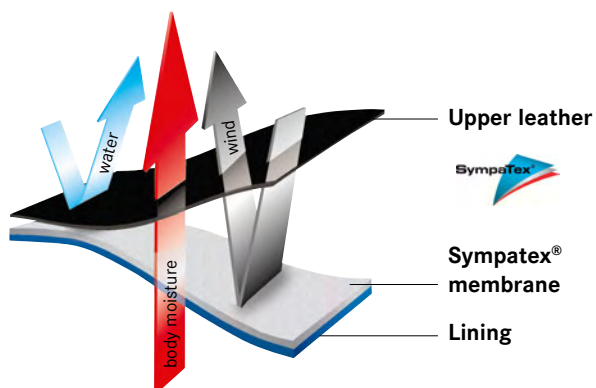
140428



140430



144950



## FIRE FIGHTING BOOT TWISTER

Certified according to EN 15090:2012 and AS/NZS 4821:2006 F2A HI3 CI AN SRC.

The fire fighting boot TWISTER can be put on and off in a flash due to its innovative lightening fast lacing system. A covered stainless steel cord goes through the boot and can be adjusted and fixed at the press of a button. The new boot adapts itself exactly to the individual foot shape and leads to a perfect wearing comfort.

### Demonstrates perfection at operations

- Ankle protector for maximum protection
- Improved structure of the boot
- 4 flex-zones for increased wearing comfort - even while kneeling and driving
- Robust pull on straps for comfortable getting in and out
- Reflex-elements at sightable areas
- New mechanism
- Easy to clean
- Extreme low weight



**Selected materials**

- Black tanned hydrophobic waterproofed leather
- Lined with Sympatex® climate membrane, watertight and breathable. Limited protection against viruses, bacteria and body fluids. Resilient against various chemicals (as per separate data sheet).
- High-grade laminate lining with foamed material, highly abrasion-resistant
- 3M reflective material, silver, made of heat-retardant material
- Ankle-zone stiffening, with specially shaped and reinforced rear strap for additional stabilisation
- Joint-supportive leather heel insert
- Steel toe cap and steel midsole
- Leather insole: antibacterial, for optimum moisture regulation
- Nitrile outsole: antistatic, with air chambers, guarantees excellent insulation from heat and cold, is skid-proof and wear-resistant, oil and petrol-proof
- Rubber toe-cap to protect the upper leather
- Anatomically shaped and breathable insert sole (washable: 30°C)

**BOA® lacing system:**

- Perfect wearing comfort
- Perfect fit
- Comfortable and lightening fast getting in and out
- Very robust
- Extremely easy to clean

Sizes: EU 36 to 50 / UK 3.5 to 14  
 Width: 10 and 12  
 Height: approx. 28 cm (size 42)  
 Weight: approx. 2.7 kg (1 pair, size 42)

**144950xx\* TWISTER according to EN 15090:2012**

**144951xx\* TWISTER according to EN 15090:2012**  
 Width 12

**144954xx\* TWISTER according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand)**

**144955xx\* TWISTER, Width 12, according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand)**

**ACCESSORIES FOR TWISTER**

**14495001 Replacement coiler for TWISTER**  
 (all sizes)

**14495002 Replacement lace for TWISTER**  
 Size 36 to 40 / 3.5 to 6.5

**14495003 Replacement lace for TWISTER**  
 Size 41 to 50 / 7 to 14



14495001



14495002 / 14495003

Sympatex® is a registered brand from Sympatex Technologies GmbH.  
 BOA® is a registered brand from BOA Technology Inc.

\* Instead of "xx", add the size to the article number, e.g.: 14495043 for TWISTER, size 43

**NEW**


## FIRE FIGHTING AND RESCUE BOOT TWISTER-cross

Certified according to EN 15090:2012 and AS/NZS 4821:2006 F2A HI3 CI AN SRC.

The new TWISTER-cross is a short boot with amazing properties. It was specially designed for fire department and rescue needs and is the first boot with this shaft height to be Class C certified for all fire fighting and rescue operations.

TWISTER-cross: Unique. Revolutionary. First class.

- Innovative BOA® lacing system
- Can be put on and taken off in a flash
- More safety thanks to numerous protection functions e.g. ankle protection, 3M reflective materials, penetration resistance
- Improved wearing experience thanks to comfort features
- Highly waterproof and breathable Sympatex® climatic membrane (optional)
- Robust and easy to care for

Sizes: EU 36 to 50 / UK 3.5 to 14  
 Width: 10 and 12  
 Height: approx. 19 cm (size 42)  
 Weight: approx. 2.2 kg (1 pair, size 42)

**144960xx\*** TWISTER-cross according to EN 15090:2012, with Sympatex® membrane

**144961xx\*** TWISTER-cross according to EN 15090:2012, with Sympatex® membrane, Width 12

**144962xx\*** TWISTER-cross according to EN 15090:2012, without Sympatex® membrane

**144963xx\*** TWISTER-cross according to EN 15090:2012, without Sympatex® membrane, Width 12

**144964xx\*** TWISTER-cross according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand), with Sympatex® membrane

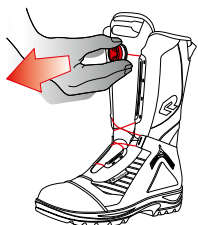
**144965xx\*** TWISTER-cross, according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand), with Sympatex® membrane, Width 12

### ACCESSORIES FOR TWISTER-cross

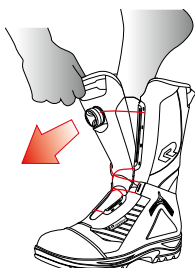
**14495001** Replacement coiler for TWISTER-cross (all sizes)

**14496002** Replacement lace for TWISTER-cross  
 Size 36 to 40 / 3.5 to 6.5

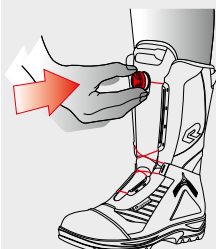
**14496003** Replacement lace for TWISTER-cross  
 Size 41 to 50 / 7 to 14



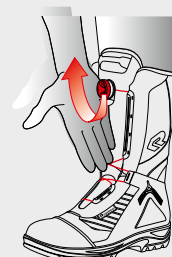
1. Fasten BOA® coiler



2. Push the leather tongue forward and put it on



3. Press the BOA® coiler



4. Turn the BOA® coiler with the edge of your hand until the boot fits perfectly

## FIRE FIGHTING BOOT TORNADO NEW

Certified according to EN 15090:2012 and AS/NZS 4821:2006 F2A HI3 CI AN SRC.

The fire fighting boot TORNADO NEW combines the advantages of a lace-up boot with the ease of quick entry of a slip-on boot. The quick entry is realised with a zip and a 2-zone lacing system with heat resistant NOMEX® laces.

The protective boot TORNADO NEW convinces with the following features:

- Ankle protection
- Flex-zones
- Robust pull on loops
- Perfect wearing comfort

### Selected materials

- High quality, hydrophobic waterproofed leather
- Lined with Sympatex® climate membrane, watertight and breathable. Limited protection against viruses, bacteria and body fluids. Resistant against various chemicals (as per separate data sheet).
- High-grade laminate lining with foamed material, abrasion resistant
- 3M reflective material, silver, made of heat-resistant material
- Ankle-zone stiffening, for additional stabilisation
- Steel toe cap and steel midsole
- Nitrile outsole: antistatic, guarantees excellent insulation from heat and cold, skid-proof and wear-resistant, oil and petrol-proof
- Rubber toe-cap to protect the upper leather
- Anatomically shaped and breathable insert sole (washable: 30°C)

Sizes: EU 36 to 50 / UK 3.5 to 14  
 Width: 10 and 12  
 Height: approx. 28 cm (size 42)  
 Weight: approx. 2.8 kg (1 pair, size 42)

**144970xx\*** TORNADO NEW according to EN 15090:2012, with Sympatex® membrane

**144971xx\*** TORNADO NEW according to EN 15090:2012, with Sympatex® membrane, Width 12

**144974xx\*** TORNADO NEW according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand), with Sympatex® membrane

**144975xx\*** TORNADO NEW according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand), with Sympatex® membrane, Width 12

### ACCESSORIES FOR TORNADO NEW

#### Replacement zip for TORNADO NEW

**144970001** Up to size 40  
**144970002** From size 41 to 45  
**144970003** From size 46

**144970004** Replacement shoe laces for TORNADO NEW fire fighting boots. Made of NOMEX®. Colour: black.



Symbolic picture

**NEW**

**144980**


## FIRE FIGHTING BOOT AUSTRIA NEW

Certified according to EN 15090:2012 and AS/NZS 4821:2006 F2A H13 CI AN SRC.

The AUSTRIA NEW slip-on boots give the wearer perfect grip in any operation situation thanks to elastic instep adjustment. The wearer is maximum protected due to ankle protection, penetration resistance and high temperature resistant materials.

All the seams on the new AUSTRIA NEW boots are specially treated with seam sealant to achieve best possible water proofing. This boot is also available with Sympatex® climate membrane for maximum watertightness.

Sizes: EU 36 to 50 / UK 3.5 to 14  
 Width: 10 and 12  
 Height: approx. 18 cm (size 42)  
 Weight: approx. 2.4 kg (1 pair, size 42)

### Selected materials

- High quality, hydrophobic waterproofed leather
- 3M heat-resistant reflective material
- Steel toe cap and steel midsole
- Nitrile outsole: antistatic, with air chambers, guarantees excellent insulation from heat and cold, is skid-proof and wear-resistant, oil and petrol-proof
- Rubber toe-cap to protect the upper leather
- Anatomically shaped and breathable insert sole (washable: 30°C)

**144980xx\*** AUSTRIA NEW according to EN 15090:2012, with Sympatex® membrane

**144981xx\*** AUSTRIA NEW according to EN 15090:2012, with Sympatex® membrane, Width 12

**144982xx\*** AUSTRIA NEW according to EN 15090:2012, without Sympatex® membrane

**144983xx\*** AUSTRIA NEW, according to EN 15090:2012, without Sympatex® membrane, Width 12

**144984xx\*** AUSTRIA NEW according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand), with Sympatex® membrane

**144985xx\*** AUSTRIA NEW according to EN 15090:2012 and AS/NZS 4821:2006 (Australia and New Zealand), with Sympatex® membrane, Width 12

\* Instead of "xx", add the size to the article number, e.g.: 14498043 for AUSTRIA NEW, size 43

**RECOMMENDED ACCESSORIES FOR ROSENBAUER FIRE FIGHTING AND RESCUE BOOTS**

**143939 SOLITAIRE Triple care- and impregnation spray**  
 For all smooth and suede leather, textiles and membranes. Is reliant water-resistant and dirt-repellent. Maintains breathability of membranes and is recommended by Sympatex®. Special care-components keep the leather smooth.



143939

**143937 NIKWAX care kit for leather footwear**  
 Consists of cleaning gel, aqueous wax and brush. Maintains the quality and function of your boots. Cleans the material in order to revitalise breathability and prepares the leather for waterproofing. NIKWAX aqueous wax (neutral) 125 ml - proofs and maintains the leather without impeding breathability.



143937

**143936 Cleaning agent SOLITAIRE BRILLANT**  
 Clean, care and impregnation for leather-boots with integrated membrane. Solvent free. The leather remains supple and breathable. Tube contents: 75 ml.



143936

**143760 Standard replacement sole insert**  
 for TWISTER, TWISTER-cross, AUSTRIA and TORNADO fire fighting boots. Needled fleece material, especially good perspiration wicking and moisture regulation. Anatomically shaped foot bed, washable at 30°C. Sizes: 36 to 50.



143760

**Replacement zip for TORNADO with chain saw protection**

- 143793 Up to size 40**
- 143794 Size 41 to 45**
- 1437941 Size 46**

Sizes																		
USA	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12	13	14	15
GB	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12½	13	14
EU	38	39	40	41	42	43	44	45	46	47	48							



143210

143220



143600



143205



143201

## SYNTHETIC SAFETY BOOTS

### Safety boots

According to EN 20345:2006. Made of heavy-duty PVC. Provided with sanitised-hygienic lining. Steel toe cap and steel plated midsole for maximum protection. Sole with special slip resistant profile, chemical resistant and antistatic.

Sizes: EU 38 to 47 / UK 5.5 to 12

Weight: 2.5 kg (size 42)

**143210 Colour black**

**143220 Colour yellow**

### 143600 Fording trousers Robust

Water-proof trousers made of special heavy duty 740 g/m<sup>2</sup> polyester fabric, double coated. Grey colour. HF-heat sealed. Reaches up to the armpits, to prevent water from entering the trousers. Comes with suspenders and welded-on, safety type PVC boots with slip resistant sole. Best features regarding tear strength and chilliness. Also good consistence against seawater, fuel oil and acids. Sizes: EU 40 to 48 / UK 6.5 to 13. Trousers: one size fits all. Weight: 4 kg

### 143205 Electrician's boots

The upper part of the boot is entirely made of flame resistant nitrile rubber, and certified to comply with EN 20345-2 standard. Excellent resistance against chemicals. Provided with sanitised lining. Steel toe cap and steel plated midsole for maximum protection. The sole has a special slip resistant profile, and is made of a blend of 70 % nitrile rubber and 30 % hypalon rubber. The sole is limited chemical and flame resistant up to 300 °C, and is certified to be isolated up to 20,000 Volt, with a maximum leakage current of 5 mA. Colour: black. Sizes: EU 37 to 45 / UK 4 to 10.5 Weight: 2.2 kg

### 143204 Electrician boots TST SA 20,000 V, EN 345 SBPE

Completely isolated under 20,000 V (sole and upper) in conformity with the HTA 70 B specification of EDF (Electricité de France).

Sizes: EU 37 to 45 / UK 4 to 10.5

Weight: 2.2 kg

### 143201 Rescue and work CHUKKA boots

Safety boot made of full lunar grain waterproof cow-hide leather with soft leather collar, natural suede split leather inside and easy lacing eyelet-hooks. Removable insole, dual density sole with midsole and toecap.

Sizes: EU 38 to 47 / UK 5 to 12

Weight: 1.4 kg

### 143250 Chemical protection boots HAZMAX

Please refer to page 84.

## FIRE FIGHTING GLOVES CERTIFIED AS TO EN 659:2008

### SAFE GRIP 3 fire fighting gloves

Certified as to EN 659:2008. These new protective gloves for fire fighters provide excellent heat and flame protection, excellent touch sensitivity and optimal fit. Due to the Gore-Tex® X-TRAFIT Technology the gloves are water- and windproof and breathable. As all three layers in the glove are interconnected, there is no danger of material becoming loose, or slipping when putting on or taking off the gloves. Palm side is made of new excellent silicon-carbon-mineral-coated NOMEX KEVLAR® doubleface fabric for high abrasion, puncture and cut resistance and anti-slip also on wet and smooth surfaces.

- Flexible wristlet adjustment
- With pleats on the fingers for excellent movement and optimal fit
- Adjustable hook and pile fastening
- Polyurethane impact protectors on the back of the hand with additional heat insulation
- Cuff with 3M yellow/silver/yellow reflective stripes and silver reflective braid
- Hook and eye for connection
- Machine washable up to 60°

Sizes: 6, 7, 8, 9, 10, 11 and 12

Weight: 0.32 kg

Performance criterion	Level
Abrasion resistance (EN 388)	4
Cut resistance (EN 388)	4
Tear resistance (EN 388)	4
Puncture resistance (EN 388)	3
Burning behaviour (EN 407)	4
Convective heat resistance (EN 367/407)	✓
Radiant heat resistance (EN ISO 6942)	✓
Contact heat resistance (EN 702)	✓
Shrinkage (ISO 17493)	✓
Dexterity (EN 420)	4
Removal of gloves (EN ISO 15383)	✓
Water permeability (EN ISO 20344)	✓
Fluid permeability (ISO 15383)	✓
Chemical permeability (EN 368)	✓

### Fire fighting gloves SAFE GRIP 3 with cuff

Cuff with 3M yellow/ silver/ yellow reflective stripes, hook and eye for connection, adjustable hook and pile fastening, breathable membrane and inner lining.

Length: approx. 350 mm.

**142750** Colour: dark blue

**142760** Colour: gold

**142740** Fire-fighting gloves SAFE GRIP 3 with wristlet

100 % NOMEX® wristlet. Length: approx. 320 mm.

Colour: dark blue.



142750



142760



142740





142884



142896


**NEW**


142690

### FIRE PRO E fire fighting gloves

Certified as to EN 659:2008, and designed according to NFPA 1971. The FIRE PRO E is made of split cow leather, which is extremely supple and remains supple and flexible even after frequent soaking and drying of glove. The thumb reinforcement ensures extra protection in this strongly stressed place. The gloves are water-proofed and breathable.

#### Material structure

Upper leather: heat resistant, washable cow leather, water- and oil resistant  
 Membrane: water resistant and breathable Gore-Tex® membrane  
 Inner lining: 100 % KEVLAR®  
 Wristlet: 100 % KEVLAR® double-knitted

#### 142884 Fire fighting gloves FIRE PRO E yellow

Colour: yellow upper leather with yellow KEVLAR® - wristlet. Length: approx. 320 mm  
 Washable: at 60 °C  
 Sizes: S, M, L, XL, XXL  
 Weight: 0.32 kg

#### 142896 Fire fighting gloves FIRE PRO E blue

Colour: dark blue upper leather with black NOMEX® - wristlet. Length: approx. 320 mm  
 Washable: at 60 °C  
 Sizes: S, M, L, XL, XXL  
 Weight: 0.32 kg

#### 142690 Fire fighting gloves FIRE PRO Red

Certified as to EN 659:2008. Smooth and ductile fire fighting gloves made of grain leather. These gloves are suitable for all fire fighting and rescue operations. Due to the seamless knitted lining, the gloves offer a very good protection against mechanical stress. Made of red cow grain leather with reinforcements and black knuckle protectors. 100 % KEVLAR® knitted cuff and lining made of 100 % KEVLAR® with polyester-glass knitting. Membrane made of Gore-Tex®, waterproof and breathable.  
 Sizes: 6 to 12  
 Weight: 0.30 kg

Performance criterion	FIRE PRO E	FIRE PRO Red
Abrasion resistance (EN 388)	3	3
Cut resistance (EN 388)	2	5
Tear resistance (EN 388)	4	3
Puncture resistance (EN 388)	4	3
Burning behaviour (EN 407)	4	4
Convective heat resistance (EN 367/407)	✓	✓
Radiant heat resistance (EN ISO 6942)	✓	✓
Contact heat resistance (EN 702)	✓	✓
Shrinkage (ISO 17493)	✓	✓
Dexterity (EN 420)	4	5
Removal of gloves (EN ISO 15383)	✓	✓
Water permeability (EN ISO 20344)	✓	✓
Fluid permeability (ISO 15383)	✓	✓
Chemical permeability (EN 368)	✓	✓



**142930 Fire fighting leather gloves PATRON FIRE**  
 Certified as to EN 659:2008. Suitable for all fire fighting and rescue operations. Made of 100 % special black heat-resistant and water-repellent cowhide with knuckle and wrist protector. Leather cuff adjustable using hook and pile fastening tab. Cuff with 50 mm wide flame-retardant yellow/silver/yellow reflective panel, on back hand with yellow braid. Manufactured with KEVLAR® sewing thread, with hook and eye for connection. Insert: water and wind tight and breathable. Inner lining made of extremely tight knit 100 % KEVLAR®. Sizes: 7, 8, 9, 10, 11, 12 (other sizes upon request)  
 Weight: 0.34 kg



142930

**WORKING GLOVES**

**142650 Operator gloves RESCUE**  
 Certified as to EN 388: 2003. Gloves for hand protection for emergency-rescue, construction and extreme works (no heat and flame protection!) Palm made of KEVLAR® with silicone-carbon-coating and reinforced with pads of blended KEVLAR® fabric with high abrasion level. Backhand made of red nylon fabric with additional shock protector over the knuckles and reinforcements along the fingers. Rubberised fingertips. Elastic shirring at wrist and a glass splinter protection at the cuff-end. Lining made of cut resistant KEVLAR®/ fiberglass fabric.

- Abrasion resistance 3
- Cut resistance 4
- Tear resistance 3
- Puncture resistance 3

Sizes: 6, 7, 8, 9, 10, 11 and 12  
 Weight: 0.2 kg



142650

**142900 Leather working gloves FLORIAN**  
 According to CE 1. Five finger type gloves, made of soft chrome leather. Length: 350 mm. One size fits all. Weight: 0.21 kg



142900

**Safety gloves GRIP-TEX**  
 These safety gloves are used especially for handling of broken glass, iron sheets etc. They are cut resistant and ensure the wearer of a safe grip. One size fits all.

**142300 With knit band, 260 mm long**  
**142400 With cuff, 300 mm long**



142300

**SPECIAL GLOVES**

**510302 Electrician's gloves 20,000 Volt**  
 According to EN 60903:2005 class 2. Resistant to oil, acid, ozone, and very low temperatures. Colour: Beige. Length: 36 cm. Size 10. Weight: 0.4 kg



510302

**141994 Inspector's gloves**  
 Five finger gloves, made of vinyl. Suitable for inspection works. One size fits all. Box: 100 pcs. Weight per box: 0.001 kg



141994

**142503 Chemical protection gloves CAMAPREN**  
 Please refer to page 84.



167909



167760



16729501

## HEAT PROTECTION EQUIPMENT

Reflective protective clothing which has to offer higher protection than required by EN 469:2005 is specified in EN 1486:2007. This standard specifies reflective protective clothing, which provides higher levels of protection against radiant heat than the non-reflective clothing specified by EN 469:2005.

### Scope for EN 1486:2007

This standard specifies test methods and minimum performance requirements for reflective protective clothing used in specialised fire fighting. This clothing provides protection against flame lick and intense radiant heat and is worn for short periods only, to enable the firefighter to enter specific high-risk fire fighting and fire rescue situations, which also require the use of breathing apparatus and head, hand and foot protection.

This standard only covers protective clothing that relies upon the ability of the outer material to reflect intense radiant heat. This type of reflective clothing may also be used for industrial applications involving high levels of radiant heat. The reflective clothing specified in this standard is not covered by EN 469:2005.

#### 167760 Duty heat protection hood

With face shield 300 x 160 mm

For medium heavy use.

- Exterior layer made of metallised fabric (weight approx. 520 g/m<sup>2</sup>)
- Suitable in conjunction with helmet and breathing mask
- Gold-vaporised visor made of polycarbonate 300 x 160 mm

Weight: 0.8 kg

#### 167909 Heat protection gloves

Certified as to EN ISO 11612 and EN 420.

One size, aluminised, length: 430 mm.

- Back of the hand and cuff made of paraaramid-carbon/alu 475 g/m<sup>2</sup>
- Palm: Seba-heat leather
- Lining incl. cuff with flame retardant wool

Weight: 0.4 kg

#### 16729501 Light-duty heat protection suit

Certified as to EN ISO 11612:2008. This suit reflects approx. 90 % of the radiation heat. It is soft, comfortable and permits full freedom of movement during rescue and extinguishing operations.

- The complete suit consists of:
  - Protection jacket
  - Trousers
  - Pair of gloves
  - HEROS-xtreme silver
  - Pair of boots, colour: silver

Sizes: S, M, L, XL

Weight: 7.2 kg

**165165 Heat protection suit type R1, glass composite**

Certified as to EN 1486:2007. Made of a modern and extremely resistant glass composite fibre. The fabric is high-vacuum metallised and reflects 90 % of the heat it is exposed to. This suit protects the wearer and the breathing apparatus against heat radiation and proximity with flames for a short period of time. Backpack type back part for accommodation of a SCBA set.

The suit consists of:

- Coverall with integrated hood (allows for wearing a fire fighting helmet according to EN 443, EN 397 or EN 14052)
- Heat protection boots EN 15090 Type 3 (size 46)
- Heat protection 5-finger-gloves
- Carved gold vaporised polycarbonate window (300 x 160 mm) and braces for individual adjustment
- Carrying bag

Sizes:

- S for persons up to 170 cm tall (165166)
- M for persons up to 180 cm tall (165167)
- L for persons up to 200 cm tall (165168)

Weight: 11 kg



165165

**165228 Heat full-body protection suit type R2**

Certified as to EN 1486:2007. Made of a modern and extremely resistant KEVLAR® / carbon fibre. The fabric is high-vacuum metallised and reflects 90 % of the heat it is exposed to. This suit protects the wearer and the breathing apparatus against heat radiation and contact with flames for a short period of time.

The suit consists of:

- Coverall with integrated hood (allows for wearing a fire fighting helmet according to EN 443, EN 397 or EN 14052)
- Integrated overboots with galosh heat protection-gloves
- One piece of carved gold vaporised safety compound glass (150 x 250 mm)
- Suspenders for individual adjustment
- Carrying bag

The overboots feature a heat and flame proof sole, made of nitril. Backpack type back part for accommodation of a SCBA set.

Sizes:

- S for persons up to 170 cm tall (165230)
- M for persons up to 180 cm tall (165231)
- L for persons up to 200 cm tall (165232)

Weight: 11 kg



165165

**165236 Spare visor, gold-vaporised, 150 x 250 mm for heat protection suit type R2**

Curved dimensions: 150 mm x 250 mm x 4.5 mm  
Weight: 0.6 kg



165236



158158



158163



158164

## PROTECTIVE HOODS

### 158158 Protective hood

Certified as to NFPA 1971, 2007 edition UL listed. 100 % NOMEX® double layer hood, single layer pieced bib style, full hemmed face opening and bottom, flat-lock and seam construction, sewn with NOMEX® thread.

One size fits all.

Colour: white.

Weight: approx. 0.2 kg

### 158163 Protective hood

Certified as to EN 13911:2004. Heat and fire retardant hood, made of 100 % NOMEX® III, approx. 245 g/m<sup>2</sup> material. Double layer hood, single layer piece bib style. Fully hemmed face opening and bottom. Sewn throughout with KEVLAR® and NOMEX® thread. Can be worn in combination with fire helmets and SCBA face-masks. One size fits all.

Colour: navy blue.

Weight: approx. 0.1 kg

### 158164 Protective hood, made of PBI gold

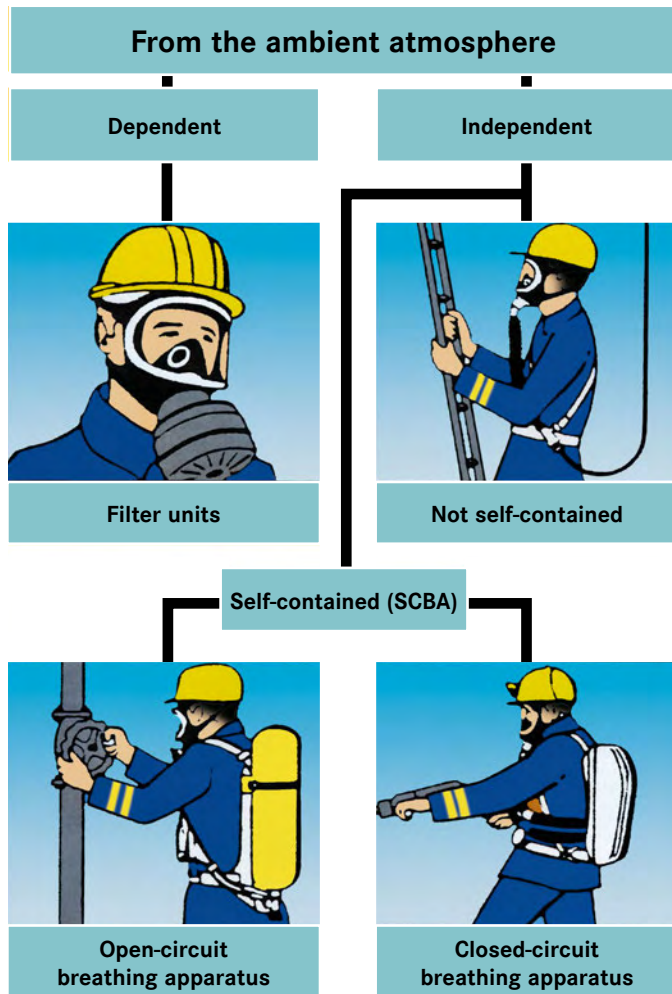
Certified as to EN 13911: 2004. Heat and fire retardant hood, made of PBI gold approx. 200 g/m<sup>2</sup>, with inner layer made of Kermel/Lenzing FR, approx. 220 g/m<sup>2</sup> material. Double layer hood, single layer piece bib style. Fully hemmed face opening and bottom. One size fits all. Colour: yellow.

Weight: approx. 0.1 kg



**RESPIRATORY  
PROTECTION**

**2**



## PREAMBLE

Respiratory protection units are extremely efficient devices to protect firemen's health in any environment. They have to be used for all works involving harmful gases and vapours as well as particulate matter to ensure the health of the firemen's respiratory organs. The respiratory protective equipment can be divided into the following groups:

### Ambient air dependent respiratory protective devices (filtering devices)

- Filter masks
- Gas filter masks
- Particle filter masks
- Combined filter masks against gases and particulate matter
- Escape-type filter masks

An apparatus system operating in dependence of the ambient atmosphere means that the inhaled air is taken from the ambient atmosphere and cleaned of dangerous substances while being breathed, e.g. all filter units.

### Ambient air independent respiratory protective devices

- Self-contained breathing apparatus sets (SCBA)
- Compressed airline breathing apparatus
- Closed-circuit breathing apparatus

An apparatus system operating independently from the ambient atmosphere supplies the user with breathable air from an external breathing air source or with air coming from the apparatus itself (i.e. compressed airline breathing apparatus through supply pipes; self-contained open-circuit breathing apparatus through breathing air containers or closed-circuit devices).

## FILTER RESPIRATORS

A filter respirator is a respiratory protection device which filters the ambient atmosphere (air) during respiration in order to purify it sufficiently from unwanted particles. Therefore, it prevents restriction of the normal functioning of the respiratory organs and sickness or/and death caused by inhaling of polluted air.

A filter consists of a face piece and one or several filters (gas filters, particle filters or combined filters)

CAUTION: Not suitable against containments immediately dangerous to health, such as extremely toxic levels of dust, gases and fumes.

### Classification of gas filter types

Gas filters are classified referring to their main area of use and marked with distinguishing letters or/and colours.

- **Gas filter type A**  
Colour: brown  
Main area of use: organic gases and vapours, e.g. from fine fumes
- **Gas filter type B**  
Colour: grey  
Main area of use: inorganic gases and vapours, e.g. chlorine, hydrogen sulphide, hydrocyanic acid
- **Gas filter type E**  
Colour: yellow  
Main area of use: sulphur dioxide and hydrogen chloride
- **Gas filter type K**  
Colour: green  
Main area of use: ammonia

## Preamble, filter respirators

**Filter masks**

These air purifying devices consist of a face piece and an exchangeable filter. They are provided for use in atmospheres not immediately dangerous to life. This means the hazardous atmospheres may produce physical discomfort immediately, chronic poisoning after repeated exposure, or acute adverse physiological symptoms after prolonged exposure. The approval requires the use of the proper filter type. Face pieces are available either as half masks or as full face masks. Full face masks are used where eye, face and respiratory protection is required at the same time. Filter masks can be used for working or for retreating from hazardous atmospheres.

CAUTION: Filter masks must not be used inside enclosed and confined spaces, such as containers, sewers, silos, tanks, mines, pipelines, hoppers or well shafts. In case of high oxygen-deficiency or very high concentration of toxic substances, respiratory protection devices that are environment-independent have to be used. Also, in atmospheres where the concentrations and the identity of the hazard are unknown and generally when the concentrations are greater than those for which the respirator is marked or regulations permit, filter masks must not be used. Do not use filter masks in fire fighting operations!

**Filters for respirators and gas masks**

Gas and combination filters are classified to EN 141, particulate matter filters to EN 143, AX-coded filters to EN 371. Filter cartridges and canisters protecting against aerosols are marked with letters 'Pt' and a white ring.

- Advantages: lightweight, low prime costs, no restrictions in mobility
- Disadvantages: filter masks are air purifying devices. Designed solely to remove specific contaminants from the air, it is essential that their use is restricted to atmospheres which contain sufficient oxygen to support life (at least 17 Vol.-%) and which contain generally not more than 2 % concentrations of toxic gases and vapours per volume. The composition of the hazard must be known for an effective choice of filters limited service and shelf life.

**Full face masks**

- Advantages: positive sealing guarantees effective protection for the whole face (eyes included).
- Disadvantages: not as comfortable as half masks.

CAUTION: not to be used in concentrations above 5,000 ppm!











**Storage of filters (shelf life)**

When the filters are unused, factory packed and sealed and stored in rooms of normal humidity, temperature and air-compound, it can be expected that gas or combined filters usually have a shelf life of Type A: 5 years, Types B and CO: 4 years, Types E and K: 3 years.

**Gas filter classes**

- Gas filter class 1: small ability to absorb up to 1,000 ppm
  - Gas filter class 2: medium ability to absorb up to 5,000 ppm
  - Gas filter class 3: strong ability to absorb up to 10,000 ppm
- For instance, A3 means: strong ability to absorb organic gases

**Marking of filters**

Colour code	Code letter	Main area of application
	<b>A</b>	Organic vapours, solvents with boiling point $\leq 65$ °C
	<b>AX</b>	Organic vapours, solvents with boiling point $\leq 65$ °C
	<b>B</b>	Acidic gases (e.g. halogens, hydrogen halogenides), hydrogen cyanide, hydrogen cyanide with irritant (as in insecticides), hydrogen sulphide, arsine, phosphine, to a lesser degree also like A, E and K
	<b>E</b>	Sulphur dioxide
	<b>K</b>	Ammonia
	<b>CO</b>	Carbon monoxide
	<b>Hg</b>	Mercury vapour
	<b>NO</b>	Nitrous fumes
	<b>Reactor</b>	Radioactive ionide, organic ionide compounds
	<b>P</b>	Particulate matter

Particle filter class	Protection against	Ability to hold back
P1, 4 x MAK*	Solid particles	Low
P2, 10 x MAK*	Solid particles and liquid	Medium
P3, 30 x MAK*	Solid particles and liquid	High

\* Maximum concentration of toxic substances you are allowed to be exposed to for 8 hours a day, 5 days a week.

#### Legislation and further information:

Standard	Description / Application	Class or filter	Nominal PF	Assigned PF
EN 149	Filtering face piece for particulates. These devices are substantially constructed of the filter media itself and should be disposed of after each shift. There are three protection classes and the devices only cover the nose, mouth and chin.	FFP1 FFP2 FFP3	4 12.5 50	4 10 20
EN 136	Full face masks that cover the whole face. They are manufactured out of a flexible rubber or silicone and are fitted with a transparent visor. The mask can be fitted with particulate and gas filters.	P2 P3 GAS GAS+P3	7 1000 2000 —	10 40 20 20
EN 139	Compressed airline breathing apparatus incorporating a full or half mask. These products operate on a constant flow or positive pressure demand valve. They are generally regarded as high protection devices when fitted to full face masks. A full face mask when fitted with a positive pressure demand valve is recommended for use in confined space working.	(a) c/w half mask (b) c/w full face mask I.) constant flow II.) positive pressure demand	50 2000 2000	20 100 2000
EN 139	Self contained open circuit breathing apparatus which is positive pressure on demand. Air is contained in one or more cylinders and supplied by a high pressure regulator and demand valve to the wearer's mask. These devices are designed for use in the most hazardous environments and are generally used for fire fighting and other high risk respiratory environments.	positive pressure demand	2000	2000

- EN 141 and EN 143 for filter masks
- EN 132 for airline units
- EN 402 for escape type apparatus
- EN 137 for self contained breathing apparatus
- EN 397 for protective hoods - head protection
- EN 166 for eye protection
- EN 146 for protective hoods
- EN 148-1 for respiratory protective devices – threads for face pieces Part 1: standard thread connection)

#### Particle filter classes

(as per definition of the respiration protection code of practice, edition 10.1981)

- Particle filter Class 1: protection against inert substances as per MAK list
- Particle filter Class 2: protection against noxious and toxic particles as well as asbestos
- Particle filter Class 3: protection against very toxic particles, radioactive substances, carcinogenic particles, as well as spore, bacteria, viruses and proteolytic enzyme.

CAUTION: P3 filters should only be used in combination with full face masks.

In general, particulate matter can be divided into 3 types:

- Dust results when solid materials are broken into fine particles which float in the air and come to rest due to gravity. Dust is generated by processes such as grinding and sawing.
- Mists are airborne droplets produced by the condensation of vapour or the atomisation of a liquid. The droplets may carry substances in solution or particles in suspension. Mists can be generated by spraying or mixing.
- Fumes are particles forming an airborne suspension. They are caused by the heating of a solid to such an extent that it vaporises and then condenses into small particles in the surrounding air. Fumes are thermally generated by processes such as welding and the pouring of molten metal.

#### Protective hoods

Protective hoods combine respiratory and complete head protection in one unit. They are available in various materials, depending on their application. Protective hoods are usually equipped with a gas/particle filter (like filter masks). This type is mainly used as escape-hood.

#### Airline units

Airline units are usually supplied as integral units featuring a full face mask with a speech diaphragm, a demand valve (which supplies air upon demand, i.e. when breathing, and builds up a slight positive pressure inside the mask which results in a better sealing), a pressure reducing valve, an airline and a trolley with compressed air cylinders. A harness usually holds all valves and the airline in place. Additional features include alarm devices and an escape set, in case the air supply gets cut off accidentally.

#### Self-contained breathing apparatus sets

SCBA sets are designed for use in extremely toxic areas with high gas concentrations or oxygen deficiency where a high degree of mobility is required and are available for working or as escape type apparatus. The working type SCBA basically consists of a harness and carrying frame for mounting the assembly onto the body, shoulder straps and a waist belt, an audible warning device, a pressure air cylinder and a full face mask. The mask is supplied with a positive pressure type regulator. This system is approved for use in extremely toxic atmospheres where even minute levels of inward leakage into the face piece would be dangerous.

#### Closed-circuit breathing apparatus

The closed-circuit breathing apparatus are respiratory protective devices which operate independently from the open-circuit compressed air breathing apparatus by which the inhaled air volume is exhaled into the ambient atmosphere. With the closed-circuit breathing apparatus the breathable air moves in a closed circuit. The exhaled air is purified by carbon dioxide through a regeneration cartridge, and after addition of oxygen the air is again supplied to the user.



## FULL FACE MASKS FOR FILTER UNITS

**401300 Breathing mask Panorama Nova RA-EPDM**  
 Certified as to EN 136:1998 Class 3. Made of soft neoprene which improves comfort and facial seal. Comes with an inner mask with non-return valves as well as separate inhalation and exhalation channels. Features a 5 strap adjustable head harness. Visor, made of impact and scratch resistant polycarbonate, offers a wide field of vision. High efficiency speech membrane allows for improved communication while wearing the face piece. Suitable for use with a screw-in type filter cartridge, CO filter canisters, fresh air appliances and positive pressure SCBA.  
 Weight: 0.5 kg



401300

**401356 Breathing mask TR82**  
 Modern auto-defog mask, certified as to EN 136:1998, Class 2. Only suitable in areas where the contaminated air contains at least 17 % of oxygen. Made of soft moulded natural rubber-EPDM mix, which improves comfort and facial seal. Comes with an inner mask with 2 check valves which prevent the visor from steaming up. Two exhalation valves. Features a 5 strap adjustable head harness. Exchangeable visor, made of impact resistant polycarbonate, offering a wide field of vision. High efficiency speech membrane allows for improved communication while wearing the face piece. Protects against a concentration of contamination up to 400 x TLV. Suitable for use with a screw-in type filter cartridge with knuckle thread as per EN 148-1, but comes without a filter cartridge, that is available at extra cost.  
 Weight: 0.7 kg



**401400 Breathing mask AUER 3 S**  
 Modern mask with panoramic visor. Seamless neoprene mask-body with double sealing frame, inner mask, inhalation and exhalation valve, proven quick-adjustment and carrying strap. Round-thread connection in accordance with DIN 3182:1996. Suitable for use with breathing filters, fresh air appliances and normal pressure SCBA.  
 Weight: 0.7 kg.



141356



401400

**402002 Carrying bag for face masks MABOX**  
 Carrying box for all common full-face masks. With an adjustable belt. Made of plastic.  
 Weight: 0.7 kg



402002

**402200 Can of disinfectant GIGASEPT AT FORTE**  
 2 l bottle, for disinfecting face mask.  
 Weight: 2.1 kg



402200



404917



40492302



404935

## FILTER UNITS

### 404917 Particle filter 100P3

Screw-in type filter, suitable for the use with full face masks with knuckle thread as per EN 148-1. It filters out all solid and liquid particulate matter (class P3 - heavy duty type) by means of paper filters.

Colour: white.

Weight: 0.05 kg

### 40492302 Multipurpose gas/particle filter 203 A2B2E2K2P3

Screw-in type filter cartridge, suitable for face masks with knuckle thread as per EN 148-1. It filters out all particles by means of filter papers and provides additional protection from organic and inorganic gases, hydrogen dioxide, hydrogen chloride and ammonia by means of an activated charcoal filter. Typical for fire-fighters and to protect civil-defence forces.

Colour: white / brown / grey / yellow / green.

Weight: 0.37 kg

### 404935 Combined gas/particle filter K2P3

Screw-in type filter suitable for face masks with knuckle thread as per EN 148-1. It filters out all particles by means of filter papers and provides additional protection against acid gases and vapours, like e.g. ammonia, dimethylhydrazine, hydrazine etc., by means of an activated charcoal filter.

Colour: white / green.

Weight: 0.35 kg

**Other filter types upon request.**

## SELF CONTAINED BREATHING APPARATUS

### SCBA Scott ACS – advanced carrying system

Reduced user burden

- ACS is the lightest carrying system in its class: increasing comfort, ease of movement and reducing wearer fatigue
- ACS features a sculptured, soft, back plate, which has been developed following research with osteopaths, fabric and industrial technologies to provide greater comfort and flexibility of movement
- The ACS range is the only carrying system in the world to feature this new ThermoFlex technology

Lower through life costs

- Corrosion resistant nickel plated components
- Flame retardant webbing and cylinder band
- All components are user serviceable, low cost and easy to maintain

Wide range of specifications

- From compliance set to fully adjustable professional set
- Class 1 and Class 2 approved
- Available in a range of materials with padded and unpadded harness

Wide range of face mask, cylinder and options available

- Face mask Vision 3 and ProMask PP available
- Wide range of steel and composite cylinder
- Airline and second mask attachment (AC), split DV (SDC) and Y-Piece (Y2C) available

#### 40735402 ACS with ProMask full face mask and one composite air cylinder 6.8 l / 300 bar

Comes complete with one carbon fully wrapped composite air cylinder 6.8 l / 300 bar (50 min. nominal duration), delivered empty.

Weight: approx. 10 kg

#### 40735403 ACS with Vision 3 full face mask and one cylinder 6 l / 300 bar

Comes complete with one air cylinder 6 l / 300 bar (45 min. nominal duration), made of steel, delivered empty.

Weight: approx. 14 kg

Recommended accessories please refer to page 60.

#### 408917 ProMask PP face mask

Certified as to EN 136, made of non-dermatic neoprene, equipped with an impact and scratch resistant polycarbonate visor. Low profile, quick lock, bayonet DV (demand valve) connection, integral spectacle frame mounting and superior speech reproduction. Weight: 0.53 kg

#### 40735024 Vision 3 PP face mask

Certified as to EN 136. Features injection moulded liquid silicone outer mask, thermoplastic elastomer (TPE) inner mask and an impact and scratch resistant double curvature visor with double coating. Low profile, quick lock, bayonet demand valve connection, integral spectacle frame mounting and superior speech reproduction. Weight: 0.63 kg



SCBA ACS



408917



40735024



40735027



40735004

### SCBA Set Scott ProPak

Certified as to EN 137:2006 Class II and EN 139. The Scott ProPak is an open circuit self contained compressed air breathing apparatus, positive pressure type.

- Proven tempest demand valve
- Trusted high performance pneumatics
- 100% KEVLAR® webbing
- Easy adjust parachute style buckles
- New rapid adjust cylinder band design
- Easy upgrade path

The ProPak consists of back plate, flame retardant harness and a pneumatic system consisting of cylinder connector, reducer, pressure gauge, whistle and demand valve. This SCBA set is used in conjunction with a range of composite or steel cylinders and a Vision3 or ProMask PP face mask.

### Further certifications

- Lloyds Register of Shipping (SOLAS 1983)
- Australian Standard AS1716
- MED certifications

### 40735301 ProPak with ProMask full face mask and one composite air cylinder 6.8 l / 300 bar

Comes complete with one carbon fully wrapped composite air cylinder 6.8 l / 300 bar (50 min. nominal duration), delivered empty.

Weight: 9.8 kg

### 40735027 ProPak with Vision 3 full face mask and one composite air cylinder 6.8 l / 300 bar

Comes complete with one carbon fully wrapped composite air cylinder 6.8 l / 300 bar (50 min. nominal duration), delivered empty.

Weight: 9.8 kg

### 40735303 ProPak with ProMask full face mask and one cylinder 6 l / 300 bar

Comes complete with one air cylinder 6 l / 300 bar (45 min. nominal duration), delivered empty.

Weight: 14.5 kg

### RECOMMENDED ACCESSORIES FOR SCBA SETS ACS AND PROPAK

#### 40735019 Tool kit

Weight: 1.6 kg

#### 407355 Service kit for 6 years operation

Consisting of sintered filter, connector o-ring, exhale valve c/o o-ring, inner mask valve flaps, o-ring for DV outlet, visor coated and visor guard.

Weight: 0.2 kg

#### 40735004 SCBA carrying case

Moulded suitable for one SCBA with cylinder.

Weight: 4 kg

#### 40735007 Airline attachment

For extended work, comes with CEN couplings. Apparatus CE marked to EN 139. To be used in conjunction with an Airline System as depicted on page 67.

Weight: 0.35 kg

Further models and options upon request.

**SCBA Dräger PSS 7000**

Certified as to EN 137:2006 Class II and EN 136. A key measure of the performance of breathing apparatus is the degree to which it provides confidence and safety to the user during operational use. The multitude of tasks and different operational demands require that the breathing apparatus be easily configured to suit a wide range of operational requirements.

In addition the breathing apparatus must seamlessly integrate and interface with the face mask, communications equipment and head protection to create a high performance personal safety system.

The new harness is a key feature of the Dräger PSS 7000.

The advanced compression moulded comfort padding combines high temperature performance, exceptional wear resistance and a high grip anti-slip surface ensures the harness remains in position and the set remains secure on the body. A quick release mechanism on both the waist belt and shoulder harness permits quick and easy detachment for easy cleaning and maintenance.

Comes with positive pressure full face mask FPS 7000 with positive pressure demand valve with plug-in connection.

**40899302 PSS 7000 with FPS 7000 full face mask and one cylinder 6 l / 300 bar**

45 minutes nominal duration, cylinder made of steel, delivered empty.

Weight of set: 14.6 kg

**40899303 PSS 7000 with FPS 7000 full face mask and one composite air cylinder 6.8 l / 300 bar**

50 minutes nominal duration, cylinder delivered empty.

Weight of set: 9.9 kg

**40899304 PSS 7000 with FPS 7000 full face mask and two composite air cylinders 6.8 l / 300 bar**

100 min. nominal duration, cylinder delivered empty.

Weight of set: 16.9 kg

**40899305 PSS 7000 with FPS 7000 full face mask and one composite air cylinder 9 l / 300 bar**

90 min. nominal duration, cylinder delivered empty.

Weight of set: 13.6 kg

**40897005 Belt holder for positive pressure demand valve**

Weight: 0.06 kg



PSS 7000



40897005



40899701



401201



408970



408328

## SCBA Dräger PSS 5000

### Breathing apparatus Dräger PSS 5000

The breathing apparatus Dräger PSS 5000 has been designed to be not only comfortable but also extremely stable during use in harsh firefighting environments. Incorporating a rigid harness connection to a fixed-height back plate, advanced harness materials and a pivoting waist belt, the Dräger PSS 5000 remains in position regardless of the task in hand. Certified as to EN137:2006 (Type 2).

#### 40899701 SCBA PSS 5000 with gauge

- Ergonomic carrying system
- Advanced harness choice
- Service friendly and easy to maintain
- Integrated and versatile hose routing
- Wide variety of system configurations and accessories
- Electronic monitoring with the Dräger Bodyguard® 7000

Weight: 4 kg

#### 401201 Breathing mask DRÄGER FPS 7000 P

Certified as to EN 136 Class 3. Best protection and an optimal view (without any distortion) through the coated PC-visor and an absolutely tight fitting.

Weight: 0.6 kg

#### 408970 Positive pressure demand valve PSS-A

With quick lock bayonet type connection

#### 408328 SCBA MS AUER AirGo Pro

Certified as to EN 137:2006 Class II and EN 136. Lightweight positive pressure breathing apparatus. The back plate is made from high strength polyamide with carbon fibre to provide chemical and impact resistance and incorporate moulded carrying handles for easy transportation. This breathing apparatus requires minimum maintenance. Additional comfort with shoulder padding and a waist pad. Weight is distributed evenly and kept close to your body to reduce stress and fatigue.

Comes with Ultra Elite positive pressure full face mask and positive pressure demand valve with plug-in connection.

#### 40832801 AirGo Pro with Ultra Elite full face mask and one cylinder 6 l / 300 bar

45 minutes nominal duration, made of steel, delivered empty. Weight of set: 14.7 kg

#### 40832802 AirGo Pro with Ultra Elite full face mask and one composite air cylinder 6.8 l / 300 bar

50 minutes nominal duration.  
Weight of set: 10 kg

#### 40129701 Breathing mask MSA AUER ULTRA ELITE PS MAXX

Full-face mask with plug in connection for lung demand valve MSA AUER AutoMaXX AS.

#### 408348 Lung demand valve AutoMaXX AS SHORT

With plug in connection.

**408384 Breathing mask INTERSPIRO S**

**408385 Lung demand valve INTERSPIRO S**

**408386 SCBA INTERSPIRO QS II**

Basic apparatus for normal and positive pressure in EURO-version including secondary pressure hose for breathing valve, small pressure regulator and injectorless - carried on the breast - warning signal in approved plug-in-technology for easy service. Ready for operation only in connection with Interspiro breathing valve. Delivery without breathing valve, mask and compressed air cylinders.

Weight: 3.4 kg



**408386**

## CYLINDERS AND CYLINDER COVERS

**408922 Spare cylinder 6 l / 300 bar, steel**

45 minutes nominal duration. Will be supplied empty.  
Weight: 11.6 kg

**40892015 Spare cylinder 6.8 l / 300 bar, carbon composite**

50 minutes nominal duration. Will be supplied empty.  
Weight: 4.9 kg

**408082001 Cylinder cover made of NOMEX®**

Colour: navy blue, strongly recommended for 6.8 l / 300 bar fully wrapped carbon composite air cylinder.  
Weight: 0.1 kg

**40892008 Spare cylinder 6.8 l / 300 bar, carbon composite**

50 minutes nominal duration, with excess flow valve.  
Will be supplied empty.  
Weight: 4.2 kg

**40902509 Spare cylinder 9 l / 300 bar, carbon composite.**

Will be supplied empty.

**408924 SCBA cabinet**

**710625 Seals for SCBA cabinet**

Made of plastic. 100 pieces.

**Further models and options upon request.**



**40892015**



**408082001**



**40892008**

## DISTRESS SIGNAL UNIT

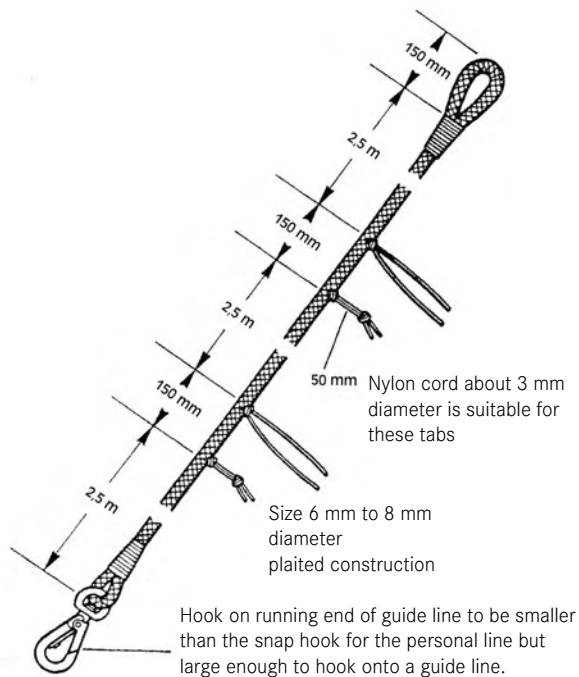
**41136810 SUPER PASS II EEx ib IIC T4 CE**

A clear identification window provides the opportunity for specific identification of the SUPER PASS II user. The SUPER PASS II is designed to automatically turn on when it is removed from the storage position. When there is a lack of motion for approx. 18 - 23 seconds, the unit will go into pre-alert mode. Then the yellow wig-wag display is interrupted by intermittent pulsing of four red LEDs, accompanied by a progressive louder sweeping pre-alert audio signal. When there is a lack of motion for approx. 30 - 35 seconds, the unit will go into alarm mode (min. 98 dBA to 3 m). Comes complete with a non-rechargeable 9 Volt Alkaline block cell battery, MN 1604. Colour: yellow.

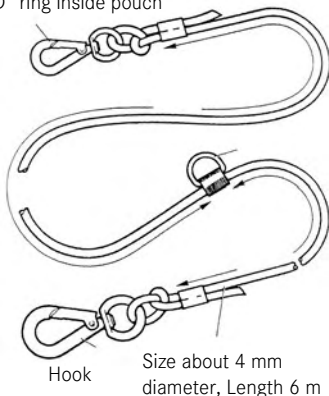
Weight of complete unit: 0.20 kg



**SUPER PASS II**



Small hook or other secure means for attaching "D" ring inside pouch



**41136821**



**41136822**

## GUIDE LINE AND PERSONNEL LINE

### **41136820 Breathing apparatus main guide line with bag**

A plaited line with approx. 6 mm diameter, for the purpose of allowing subsequent SCBA teams to proceed directly to a fire in a smoke logged building, by following the route of the guide line while attached to it via a snap hook. The guide line is housed in a bag which pays out the line as the team advances. It is 60 metres long, with 2 separate knots every 2.5 m. These knots allow the team to tell by touch if they are heading to the fire or the exit. Personnel lines are used to attach to this guide line.

Weight: 2 kg

### **41136821 Breathing apparatus personnel line with pouch**

The line is 4 mm diameter, and 6 metres in length. It comes in two sections, with a clip which releases to extend it to full length. The first section is 1.25 metres and the second 4.75 metres. It is used for firemen to attach to each other, or to a guideline, or both.

Weight: 1 kg

### **41136822 Breathing apparatus main guide rope with bag**

A plaited line with approx. 6 mm diameter, for the purpose of allowing subsequent SCBA teams to proceed directly to a fire in a smoke logged building. The guide line is housed in a transport bag which pays out the line as the team advances. It is 50 metres long, and for optimal orientation a combination of 1 and 3 separate knots every 2.5 m. These knots allow the team to tell by touch if they are heading to the fire or the exit. Personnel lines are used to attach to this guide line.

Weight: 1.4 kg

### **41136824 Personnel safety rope AUTOROLL V6 MAX**

Made for operations with safety ropes like POLARIS.

- Fireproof cable, length: 6 m
- Rope lock at 1.25 m
- Metal carabiner on guard line for adaptation, etc.
- Adaptation by elastic loop (variable) or by plastic clip (permanent installation)

Weight: 0.56 kg



## AIRLINE BREATHING SYSTEMS

What to consider when specifying airline breathing apparatus

Before specifying airline breathing apparatus, it is vital that the intended work site and specific job are assessed and that the equipment is provided for these requirements.

As you will see on the next pages, Rosenbauers range of airline breathing apparatus provides effective solutions to all these considerations.

### Areas to consider include:

#### Primary air source

This can be a factory airline, a compressor or compressed air cylinders. If a factory airline or compressor is to be used, is the air supply clean? An AFU (Air Filter Unit) will only remove water, particulates and oil mist. If there is any possibility of carbon monoxide or carbon dioxide in the air supply, then an air purifier will need to be used or an alternative clean air supply is to be found.

#### Supply pressure warning devices

How will the wearer know if there is a drop in his medium pressure supply? In-line warning whistles will give an audible warning.

#### Reserve air supplies

Do you need to provide an alternative supply of air? In addition to stand-alone supply systems, the ModulAir trolley system can be used as backup supply system should a compressor supply fail.

#### Connecting up the system

How are you going to connect the users to their air supply? Rosenbauer have a range of hose types and lengths and CEN-approved couplings to meet your operational requirements.

#### Choosing the right airline breathing apparatus for the job in hand

Will the wearer always work from the same airline supply line, or is there a need for mobility between lines? Is the wearer working in a confined space? If so, he will need an independent supply of air for escape purposes. If escape provision is part of the contingency plan, how much air will the wearer need to make his escape?

#### Airline breathing apparatus

All airline breathing apparatus are supplied with a positive pressure face mask. Either a strong, non-elastic, five-point head harness or an adapter system to fit the mask to the HEROS helmets; both are easy to adjust for simple and effective fitting.

All Rosenbauer airline breathing apparatus features CEN pattern airline couplings which allow for quick connection and include a safety lock mechanism which prevents unintentional release.

Rosenbauer airline supply systems can be used in combination with all types of SCBA's (Self Contained Breathing Apparatus) in conjunction with the airline attachment for extended work and are CE marked to EN 139.



Rosenbauer also supply 'Y' piece connections 'branch line' hoses to enable two workers to operate from the end of an approved hose length.

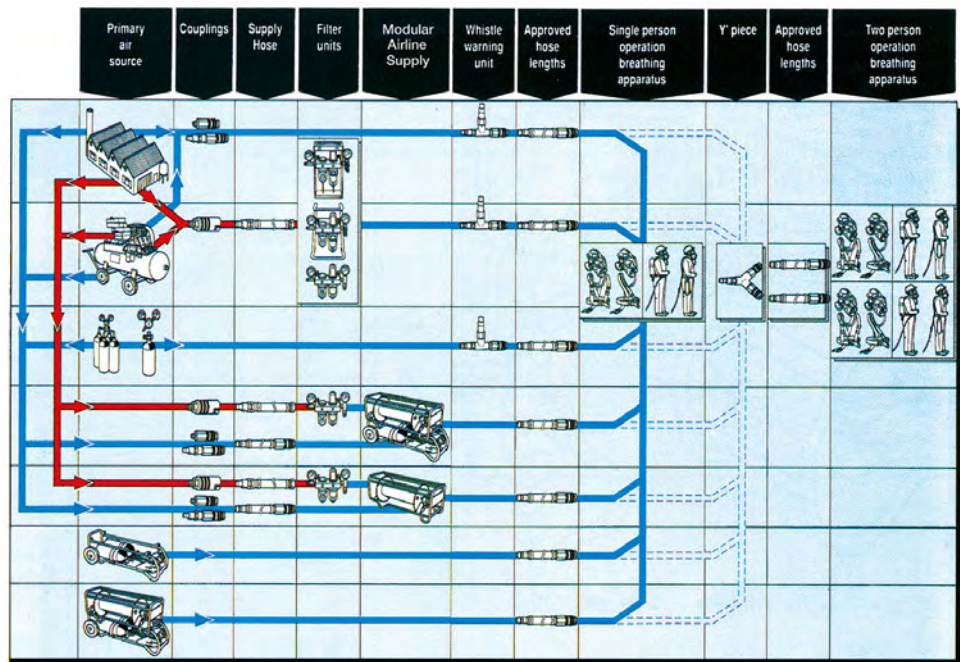
When working with compressed-air airline equipment, it is vital that safety rescue personnel are aware of any drop in supply pressure. Trolley units are fitted with medium-pressure warning whistles that give an audible alarm. All airline trolley systems are fabricated in stainless steel to provide high levels of corrosion resistance.

**Airline breathing system options**

The chart summarises the various options of supply source and breathing apparatus, that can be combined to make a system to meet your particular requirements. Depending upon the available primary air source, it may be necessary to clean the air supply to a breathing quality standard.

The chart shows that dedicated couplings and hoses are required upstream of the filter unit, when the air supply is dirty (red line).

A selection of filter units are available for independent use. A medium pressure whistle unit can be supplied to warn of any reduction in supplied pressure to the wearer. Air supplied from the clean air source or after filtering (blue line), is supplied via approved hose lengths to alternative types of breathing apparatus, selected with regard to operational requirements. Please contact our Customer Support Department or your local Rosenbauer distributor for further information or advice.



**ModulAir airline supply trolley system**

Designed for restricted-access operations for up to two breathing apparatus wearers, the ModulAir consists of a hose reel unit and a cylinder frame that can be used either together or separately. Each cylinder frame is designed to carry a pair of cylinders and features an adjustable cylinder band to allow the use of various cylinder sizes. Where required, cylinder frames can be stacked to increase capacity to four cylinders. The high-pressure cylinder connections can be used with either 200 bar or 300 bar cylinders and feature non-return bleed valves to facilitate the replacement of one cylinder while another one is still in use.

The high pressure 300 bar regulator can deliver up to 1000 litres per minute of breathing air and is fitted with both high and medium-pressure gauges and a high-pressure warning whistle.

The ModulAir is fitted with wheels and a handle for easy transport.

Both can be removed if required. ModulAir cylinder frames are also an ideal "crash rescue" pack for supplying air tools and lifting equipment.

The ModulAir Airline System Trolleys come with two cylinders either 6 l / 300 bar or 6.8 l / 300 bar. Stainless steel tubular frame, fixed in fully adjustable cylinder bands, high pressure pneumatic system with 55 bar whistle, 200/300 bar with CEN outlet coupling. ModulAir hose reel fitted with antistatic hose. Comes with CEN coupling.

**40735008 ModulAir 30 with 6 l / 300 bar**

Comes with two cylinders 6 l / 300 bar, made of steel. Hose reel fitted with 30 m of 3/8" bore antistatic hose. Weight: 61 kg

**40735009 ModulAir 60 with 6 l / 300 bar**

Comes with two cylinders 6 l / 300 bar, made of steel. Hose reel fitted with 60 m anti-static hose with couplings. Weight: 75 kg

**40735017 ModulAir 30 with 6.8 l / 300 bar**

Comes with two cylinders 6.8 l / 300 bar, made of composite material. Hose reel fitted with 30 m of 3/8" bore antistatic hose. Weight: 55.5 kg

**407350095 ModulAir 60 with 6.8 l / 300 bar**

Comes with two cylinders 6.8 l / 300 bar, made of carbon composite. Hose reel fitted with 60 m anti-static hose with couplings. Weight: 69.5 kg

**RECOMMENDED ACCESSORIES FOR MODULAIR SYSTEM TROLLEYS****408922 Spare air cylinder 6 l / 300 bar**

45 minutes nominal duration. Made of steel, will be supplied empty. Weight: 8 kg

**40892015 Spare composite air cylinder 6.8 l / 300 bar**

50 minutes nominal duration. Will be supplied empty. Weight: 4.9 kg

**40575225 Y-piece**

For connection of a second BA wearer, c/w one CEN inlet nipple and two CEN outlet couplings. Weight: 0.3 kg

**40575227 Delivery hose 10 m**

Including fittings for connection of Y-Piece of the airline system to the flite-CEN system. Weight: 6.4 kg

**40735008 (incl. options)****408922****40892015**



4080008

**4080008 Flite airline escape breathing apparatus (2 l / 200 bar)**

The set is intended for use with a suitable airline system. An escape or "Bail-Out" type cylinder provides maximum protection and safety, allowing for an escape time of approx. 10 minutes, in case of failure of the airline system. Each set consists of a light weight "Vision 3" positive pressure face mask, automatic positive pressure demand valve with new lower pressure first breath mechanism and hand-free true by-pass, supply hose and pigtail with male 5/8" thread connection in accordance with EN 144 for connection to a suitable compressed air source, bandolier harness and a 2 l/200 bar steel cylinder.

Weight of the set: approx. 6.28 kg

**40800024 Flite airline escape breathing apparatus (2 l / 300 bar)**

Features as per order no. 40800008 but with one 2 l / 300 bar cylinder, providing a nominal escape time of 15 minutes.

**RECOMMENDED ACCESSORIES FOR FLITE AIRLINE ESCAPE BREATHING APPARATUS**

**40800002 Spare air cylinder 2 l / 200 bar**

Made of steel, certified as to DIN 477:1990. Complete with combined cylinder valve and regulator with bag and connection hose to apparatus. Will be delivered empty. Weight: 2.7 kg

**407999 Spare air cylinder 2 l / 300 bar**

Made of carbon composite, certified as to DIN 477:1990. Complete with combined cylinder valve and regulator with bag and connection hose to apparatus. Will be delivered empty. Weight: 2.7 kg

**Other airline systems upon request.**

## AIR FILTER UNITS

The AFU series of compressed airline filtration units has been designed to offer an economical supply of breathing air. They offer the following features:

- Effective two stage filtration of particulates including dust and oil droplets
- Charcoal element for removal of organic vapours
- Lightweight, robust carrying frame, easily detachable for wall mounting
- Pop-up indicator to warn of prefilter clogging
- Auto drain to prevent build-up of oil
- Easy filter element replacement without use of tools

The units have the capacity to supply air flows to the latest recommendations for breathing apparatus and will assist in ensuring air quality can meet EN 12021:1999 and BS 4275:1997 requirements. They are, however, not suitable where there may be carbon monoxide or carbon dioxide in the air supply. Special units allowing for removal of carbon monoxide and carbon dioxide are available upon request.

### Technical data:

Recommended temperature range: 0 - 40 °C

Normal inlet pressure range: 5 - 8 bar

Maximum recommended operating pressure: 10 bar

Remaining oil content: less than 0.003 mg/m<sup>3</sup> at 21 °C

Particle removal: 0.01 µm

Inlet connection: 1/2" BSP parallel female thread

Outlet connection(s): as above, fitted with replaceable CEN pattern self sealing socket coupling(s)

#### 40800014 Air filter unit AFU-300-STA

Designed to supply a single BA wearer, this unit can filter in excess of 300 l/min air at inlet pressures over 4 bar. AFU 300 air filter unit (2 stage) c/w frame and one CEN outlet coupling.

Weight: 5.7 kg

#### 40800114 Spare filter set for air filter unit AFU-300-STA

Each set consists of service kit for pre-filter, pre-filter, service kit for second stage, main filter as well as an activated carbon adsorption filter element.

Weight: 0.24 kg

#### 40800013 Air filter unit AFU-600-STA

Designed to supply at least two BA wearers. More than 600 l/min air is available at inlet pressures over 4 bar. AFU 600 air filter unit (2 stage) comes with frame and two CEN outlet couplings.

Weight: 5.9 kg

#### 40800113 Spare filter set for air filter unit AFU-600-STA

Each set consists of service kit for pre-filter, pre-filter, service kit for second stage, main filter as well as an activated carbon adsorption filter element.

Weight: 0.24 kg



40800013



40831205



40831204



40896008

## SCBA CONTROL SYSTEMS

### 40831205 SCBA control checkbox 5+1

Checkbox provides safe monitoring of wearers of breathing apparatus by means of an electronic recording system. For risk reduction in the use of breathing apparatus in fire, tunnel, radiation protection, hazardous material and diving applications. This checkbox was developed in close cooperation with emergency service providers under simulated operating conditions. This checkbox was developed in close cooperation with emergency service providers under simulated operating conditions.

- Operational monitoring for up to 6 teams (minimum of 2 to 3 individuals)
  - Realtime clock
  - Personal name key
  - Automatic battery capacity recognition
  - When the 5+1 does switch off it automatically saves all data, which can be used at a later time and in connection with a PC
  - Robust anti-spray housing
  - Serial port
  - Risc-processor-technology
- Dimensions (W x H x D): 220 x 160 x 55 mm  
Weight: 1 kg

### 40831204 SCBA control board REGIS 300

Used to record and control firemen using SCBA sets in an emergency situation. The control board comes with a mechanical alarm, and consists of a handheld case made of ABS plastics. On one side an aluminium sheet is attached with a printed layout. For writing, an overhead sheet is clamped to it. On top of the board 3 timers with 100 minutes indication and 15 minutes overdue indication are incorporated.

The board also holds a clock and a waterproof pencil. On the bottom there are 9 holes (3 per team) to attach nameplates. The REGIS 300 offers a perfect registration which team, at what time entered the premises. Dimensions (W x H x D): 41 x 33 x 5.3 cm  
Weight: approx. 1.2 kg

### Nameplates

Different respiratory protection systems can be marked by the different colours. E.g. red for self contained breathing apparatus, yellow for self contained breathing apparatus long duration or blue for closed-circuit breathing apparatus. Contents: 10 plates

408313 Colour: red. 30 minutes

408314 Colour: yellow. 50 minutes

408315 Colour: blue. 120 minutes

### 40896008 SCBA holster

Comes with tubular loop 180 cm, 3D timber wedge, screw lock carabiner Typ B, marker and elastic safety strap.

## ESCAPE HOODS

### General purpose escape hood model S-CAPE

Certified as to EN 403:2004. Within seconds the escape hood protects head, eyes, and respiratory organs from smoke and fire gases. The combination type filter clears the inhalation air from toxic smoke and gases of EN classes ABEK2 - for instance: carbon monoxide, chlorine, hydrogen, chloride, hydrogen cyanide, sulphur dioxide, and ammonia. It also protects against noxious or toxic particles (EN 403:2004). Provides protection for at least 15 minutes, depending though, on the concentration of the toxic gases and particles. One size fits all, also suitable for children.

#### 409941 Packed in a carton box

Weight: 0.76 kg

#### 409940 Packed in a two-part plastic box, suitable for wall mounting

Weight: 1.2 kg

#### 408961 Industrial type escape mask FAST-mask

Certified as to EN 402:2003. Positive pressure emergency escape breathing apparatus features an automatic inflating head harness for safe - in as little as 3 seconds - donning of the facemask, which requires limited training before use while providing immediate protection escaping from a wide variety of hazardous environments. The FAST-mask is instantly activated when the mask is deployed and can be reset in the event of a non-emergency. Key features:

- Automatic inflating head harness for simple fast donning
- Silicone facemask with low resistance exhalation valve
- Automatic positive pressure demand valve regulator with only two moving parts for enhanced reliability and performance
- Cylinder 3 l / 200 bar
- Automatic opening cylinder valve
- Spool valve design ensures zero leak from cylinder
- Constant reading cylinder pressure gauge and safety burst disc

Weight approx. 5.7 kg

#### 40575221 Escape breathing apparatus ELSA 15-B, nominal duration 15 min. C/W hood and air cylinder, 3 l

Open circuit, constant flow compressed air escape breathing apparatus in accordance with EN 1146. The breathing apparatus consist of: cylinder with combined cylinder valve and reducer, supply hose to constant flow hood and stowage bag. Nominal duration 15 minutes c/w with a bag in high visibility PVC material. Additional features: The ELSA is an escape breathing apparatus which provides a constant flow of air into the hood at 38 lpm providing a duration in excess of 15 minutes. The combined cylinder valve and pressure reducer is activated upon opening the bag whereby a pin which is attached to the flap of the bag via a strap. This 15 minutes apparatus uses a 3 litre, 200 bar alloy steel cylinder. Cylinders are manufactured to EC specifications.

Weight: 6.15 kg



409941



408961







**HAZMAT &  
DECONTAMINATION  
EQUIPMENT**

**3**



**HAZMAT SOF with control room / A2 B2 C3 D2**



**HAZMAT Van / B1 C2 D1**



**HAZMAT GWG WLA / B1 C3 D1**



**Decontamination truck D3**

## HAZMAT AND DECONTAMINATION EQUIPMENT

Rosenbauer offer complete solutions to handel **HAZardous MATerials** "HAZMAT" situations, e.g.:

- Fires or spills in the chemical industry
- Road accidents
- Terrorist attacks

Examples for HAZMAT solutions:

- Vehicle concept
- Roll on roll of containers
- Mobile equipment sets
- Decontamination equipment

## PROTECTIVE CLOTHING

### EN 943-1:2002

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles. Performance requirements for ventilated and non-ventilated "gas-tight" (Type 1) and "non-gas-tight" (Type 2) chemical protective suits.

### EN 943-2:2002

Protective clothing against liquid and gaseous chemicals, aerosols and solid particles. Performance requirements for gas-tight (Type 1) chemical protective suits for emergency teams (ET). These suits are typically used for HAZMAT-teams.

### EN 14605:2005 – Type 3 or 4

Liquid-tight protective clothing (Type 3) or spray tight (Type 4) connections, including items providing protection to parts of the body only.

### ISO 13982-1:2004

Protective clothing for use against solid particulates. Part 1: Performance requirements for chemical protective clothing providing protection to the full body against solid particles (Type 5).

### EN 13034:2005

Protective clothing against liquid chemicals. Performance requirements for chemical protective clothing offering limited protective performance against liquid chemicals Type 6.

**EU Directive 89/686/EEC**

Based on the EEC-directive 89/686/EEC, the PPE is classified as follows:

- Category I: protection against minor hazards; minimal risks
- Category II: protection against medium hazards; not being classified in Category I or II
- Category III: protection against major hazards; high, irreversible and life-endangering risks. Category III itself contains of 6 types of protective classes:
  - Type 1: gastight protective clothing
  - Type 2: non gastight protective clothing
  - Type 3: liquid-tight protective clothing
  - Type 4: spray-tight protective clothing
  - Type 5: protective clothing against airborne solid particles
  - Type 6: limited splash-tight protective clothing

**NFPA Levels:**

- Level A:** Level A protection should be worn when the highest level of respiratory, skin, eye and mucous membrane protection is needed. The type of environment and the overall level of protection should be reevaluated periodically as the amount of information about the site increases and as workers are required to perform different tasks.
- Level B:** Level B protection should be selected when the highest level of respiratory protection is needed, but a lower level of skin and eye protection. Level B protection is the minimum level recommended on initial site entries until the hazards have been further identified and defined by monitoring, sampling, and other reliable methods of analysis, and equipment corresponding with those findings utilized.
- Level C:** Level C protection should be selected when the type of airborne substance is known, concentration measured, criteria for using air-purifying respirators met, and skin and eye exposure is unlikely. Periodic monitoring of the air must be performed.
- Level D:** Level D is primarily a work uniform and is used for nuisance contamination only. It requires only coveralls and safety shoes/boots. Additional PPE is depending on the situation (types of gloves, etc.). It should not be worn on any site where respiratory or skin hazards exist.





41121015



411226



411228

#### 41121015 Total encapsulating suit TRELLECHEM VPS FLASH NFPA

Certified to NFPA 1991 including the chemical flash fire and liquefied gas protection requirements. Protection against hazardous chemicals in liquid, vapour, gas and solid form. The suit is made of a uniquely integrated blend of rubber and super-polymer barrier materials. The suit can be fitted with an air supply and internal ventilation system (available at extra cost). Aramid base fabric combined with an outside chloroprene rubber coating and an inside multilayer plastic film offers an outstanding chemical barrier. Welded seams – continuous chemical barrier providing the same chemical protection as the suit material. Sewn-on sock in the suit material. Wide vision visor with 3D depth of 20 cm, giving extra side view. Long heavy-duty gastight zipper protected by an external splash protective flap.

Sizes: M – XXL

Weight: approx. 6 kg

#### 411226 Total encapsulating suit TRELLECHEM EVO

Certified as to NFPA 1991, Level A including the optional chemical flash fire and liquefied gas protection requirements. It is “antistatic” according to EN 1149-5. Total encapsulating suit expanded back to integrate an SCBA excellent resistance against aggressive chemicals (outer Viton- layer) and flame resistance. 2 mm rigid visor impact and chemical resistant PVC. Strong and durable gastight chloroprene rubber coated zipper. Gloves consists of two layers: inner 4H silver shield barrier and outer glove made of KEVLAR®, attached with the bayonet glove ring system. Suit is equipped with a sewn-on sock in the suit material.

Colour: red

Sizes: M – XXL

Weight: 8 kg

#### 411228 Chemical protective suit TRELLECHEM EVO Type T

According to NFPA 1991, Level B. Non-encapsulating design (SCBA worn outside the suit). The combination of elastomers and plastics with a NOMEX® fabric makes a strong and flexible material that offers an outstanding chemical barrier - more than 24 hours protection against a wide range of chemicals, coupled with an excellent resistance to attack from aggressive chemicals (provided by the outer Viton® layer) and flame resistance. The material has impressive abrasion resistance. The suit is equipped with a sewn-on sock in the suit material (no boots included).

Colour: red

Sizes: M – XXL

Weight: 8 kg

**RECOMMENDED ACCESSORY:****143259 Chemical protection boots HAZPROOF**

With the growing reality that chemical warfare agents are now a threat to the civilian population, domestic preparedness programs are developing rapidly. The HazProof boot, made of special polymer material, has also been tested to Military Standard 282 and will provide protection against certain chemical warfare blister and nerve agents. Certified as to NFPA 1991, 2005 edition for chemical and hazmat cleanup, emergency response, and domestic preparedness.

- Injection molded seamless construction for 100% liquid proof protection
- Larger foot area is engineered to accommodate the extra bulk of an encapsulated suit, for comfortable fit
- Smooth exterior surface for easy decontamination
- Stretch fastener closure system allows for easy on/off while wearing gloves
- Meets ANSI spec. Z41 PT99 M I/75 C/75 EH, for steel toe impact and compression, and electrical protection
- Steel mid-sole meets and exceed ANSI Z41 PT 99 PR
- Steel shank provides firm arch support
- Blown closed cell EVA mid-sole for all day cushion comfort
- Sure grip cleated outsole has excellent abrasion and slip resistance
- Bright orange colour for high visibility
- Sizes: 7-13

Weight: 2.8 kg

**143259****4200001****MISCELLANEOUS PROTECTIVE SUITS****4200001 Protection suit KONTAC 200 / A**

Registration no.: KSA/FW/GSF 028809. Made of NOMEX III, 265 g/m<sup>2</sup>. Permanently antistatic through BEKINOX steel fibre, oil- and water repellent fabric, permanently flame-retardant. Combination with tight hood and rubber face collar, concealed zip fasteners on sleeves, trousers-legs and back. Colour: white. Weight: 1.3 kg

**4200011 Protection hood 200/ H**

Registration no.: KSA/FW/GSF 028810. With tight rubber face collar and long overlapping chest and shoulder protection.

Weight: 0.15 kg

**4200011**



920011/920111/920301



41070805

### ISOPANT protective clothing

Flame retardant, oil and chemical resistant according to the loading lists for "Oil damage / dangerous products vehicles". In case of accidents involving oil and pipeline repair works if one has to reckon with the inflammation of leaking liquids. If, for instance, an ISOPANT-equipped man is splashed over with petrol and this petrol should inflame immediately thereafter, then only the petrol film would burn off without injuring the man. The face is protected against splashes by the front-mounted Isotemp glass window.

#### 920011 ISOPANT jacket

High visibility colour. Standard size will fit all persons up to size 54 (European sizing). The jacket comes without pockets, with turn-down collar. Internal fastening by heavy-duty zipper. Special synthetic non-porous coating. If flammable liquids ignite the coating, the parts of the jacket exposed to flame and heat will swell into a foaming crust which prevents burning.  
Weight: 1.15 kg

#### 920111 ISOPANT trousers

High visibility colour. Standard size will fit all persons up to size 54 (European sizing). Adjustable waistband, adjustable suspenders, pocket in breast flap, elastic in legs. Special synthetic non-porous coating. If flammable liquids ignite the coating, the parts of the overall exposed to flame and heat will swell into a foaming crust which prevents burning.  
Weight: 1.2 kg

#### 920301 ISOPANT protective hood

High visibility colour, with additional shoulder, back and chest protection, with flame protective screen and poly-glass visor, including gloves. Weight: 1.5 kg

### RECOMMENDED ACCESSORIES:

#### 920400 Pack bag

For ISOPANT protective clothing. Weight: 0.60 kg

#### 41070805 Disposable coverall TYVEK, model CLASSIC

CE mark type 5 and 6. Made of Tyvek® (style 1431N). Chemical splash resistant. Ultra-smooth surface that repels inorganic liquids and discourages solid particles from adhering. Durable, extremely tough, tear, puncture and abrasion resistant. Comfort, permeable to both air and water vapour, allowing the fabric to breathe. Extremely light, soft and flexible. Both surfaces are antistatic treated. Coverall in comfortable design, zipper front with storm flap, attached hood. Elastic at hood, wrists, and ankles. Set sleeve design with underarm gussets (extra fabric) to allow greater movement. External stitched seams (3-thread overlock).  
Sizes: M, L, XL  
Weight: 0.2 kg

**41070810 Disposable coverall TYCHEM F Standard**

CE certified as per category III, type 3. Made by laminating Tyvek® to a barrier film which is coated with a polymer. At only 118 g/m<sup>2</sup>, it is very light, yet strong and 100% particle tight. Protects against concentrated inorganic acids and bases, and against a wide range of organic chemicals. Resists liquid splashes. Antistatic coating on the white inside surface. Coverall features comfortable pattern, special (Velcro fastener) chin flap, compounds mask with hood, double special zipper front with Velcro fastener storm flap, special inlaying flap, attached hood. Elastic at hood, wrists, and ankles. Set sleeve design with underarm gussets (extra fabric) to allow greater movement. Welded and overtaped 100% tight seams. Respiratory protection, as well as chemical protection gloves and boots are available at extra cost.

Colour: orange

Sizes: S, M, L and XL

Weight: 0.5 kg



41070810

**410634 Coverall MICROCHEM 5000 MODEL 151**

Developed for first responders and the emergency services (HAZMAT). Rear entry suit, with neoprene rubber face seal for a close fit to full face respirators. Ideal for use in hazardous areas where protection against concentrated chemicals and biological agents is required. CE certified as per category III, type 3, 4 and 5. EN 1073-2\*\* protective clothing against radioactive particulate contamination but gives no protection against radioactive radiation. EN 14126 protective clothing against infective agents. EN 1149-1 and EN 1149-5 protective clothing with electrostatic properties, if garment and wearer are properly grounded.

Suit Features:

- Neoprene rubber face seal
- Rear horizontal zip entry
- Attached socks with boot overflap
- Ultrasonically welded and taped seams
- Includes attached Ansell barrier gloves, with over sleeves and finger loops

Colour: orange

Sizes: S - XXL

Weight: approx. 1 kg

410634  
(symbolic picture)**41121805 Chemical protective suit TRELLECHEM SPLASH 1000**

Certified as to EN 14605:2005 (liquid tight type 3). A new advance in chemical splash protection against aggressive liquid chemical hazards, in the flame retardant design. Reliable head-to-toe chemical splash-protective suit, can be put on quickly and easily at the scene of an accident directly over the fire protective clothing and breathing apparatus. Attached protective gloves which eliminate the risk of inward leakage. Light and comfortable to wear, comes on a universal size consisting of a jacket and trousers both having adjustment zippers. Allows connection of rescue mask / external air supply. Requires a minimum of storage space and is supplied in a simple bag for stowing in an emergency vehicle. Made of a special PVC material, flame retardant and good chemical barrier properties.

Colour: bright yellow

Universal size

Weight: 4.8 kg



41121805



411211



411210



411213

#### 411211 **Total encapsulating suit TRELLCHEM LIGHT EXTRA**

Certified as to EN 943:2002, part 1. Medium duty, gas-tight and chemical proof suit for use against all common chemicals and gases. Styled as an expanded back, total encapsulating suit, to integrate with a SCBA set, that is worn inside. The suit can be fitted with an internal ventilation system. Please refer to page 82. The suit's material is based on a polyamide fabric, coated on both sides with Butyl, completed with a Viton coating on the outside. The suit features one pair of welded heavy-duty PVC boots. These boots feature a puncture resistant stainless steel midsole and steel toe. The suit also features a pair of gastight heavy duty five finger gloves, made of coated Neoprene. Seams between suit and gloves resp. suit and boots are double welded, to prevent risk of leakage. Fly-front with heavy-duty, gas tight zipper. Raglan sleeves. Seams are lapped shielded and electronically double welded. Integrated hood.

Colour: bright orange

Sizes: M, L, XL, XXL

Weight: 9 kg

#### 411210 **Total encapsulating suit TRELLCHEM SUPER EXTRA**

Certified as to EN 943-1:2002 and 943-2:2002. Heavy duty, gas-tight and chemical proof suit for use against all common chemicals and gases. Styles as expanded back, total encapsulating suit to integrate with SCBA that is worn inside. Manufactured of double Butyl coated polyamide fabric, completed with a Viton coating on the outside. Features a pair of gastight connected five finger gloves manufactured of coated neoprene and one pair of welded heavy-duty PVC boots. Boots feature a puncture resistant stainless steel midsole and steel toe. Designed to be worn over regular work clothes. Can be decontaminated after each use. The suit can be fitted with an internal ventilation system. Please refer to page 82. Fly-front with heavy-duty, gas tight zipper. Raglan sleeves. Seams are lapped shielded and electronically double welded (seams between gloves, boots, and suit are double welded to prevent risk of leakage). Integrated hood.

Colour: bright yellow

Sizes: L, XL, XXL

Weight: 7.2 kg

#### 411213 **Chemical protective suit TRELLCHEM SUPER**

Certified as to EN 943-1:2002. Heavy duty, gas-tight and chemical proof suit for use against all common chemicals and gases. Styled as tight fitting suit, allowing for a maximum freedom of movement. The suit can be fitted with an internal ventilation system. Please refer to page 82. The suit material is based on a polyamide fabric, coated on both sides with Butyl, completed with a Viton coating on the outside. The suit features one pair of welded heavy-duty PVC safety boots. Fly-front with heavy-duty gas tight zipper, raglan sleeves. Seams are lapped shielded and electronically double welded, integrated hood.

Colour: bright yellow

Sizes M, L, XL

Weight: 8 kg



**411215 Total encapsulating suit TRELLECHEM VPS**

Certified as to EN 943-1 and EN 943-2/ET. Protection against hazardous chemicals in liquid, vapour, gas and solid form. The suit is made of a uniquely integrated blend of rubber and super-polymer barrier materials. The suit can be fitted with an air supply and internal ventilation system (available at extra cost). Polyamide fabric coated on both sides with chloroprene and with an additional multilayer super-polymer barrier film laminate on inside. Double reinforced butt seam stitched with a polyamide thread. Inner glove made of a multilayer silver coloured polymer barrier film laminate, attached with the TRELLECHEM® Bayonet glove ring system, which offers quick and simple glove exchange. Outer glove made of a special flame retardant chloroprene rubber semi-attached to the suit by an elastic band. High-impact resistant visor, 2 mm PVC. Long heavy-duty gastight zipper protected by an external splash protective flap. Black nitrile rubber safety boots with European approval as firemen's boots. The boots are fixed with an ergonomically designed ring attachment, which simplifies boot exchange.

Colour: yellow

Sizes: M - XXL

Weight: approx. 7.3 kg



411215

**411216 Total encapsulating suit TRELLECHEM NEO (limited use)**

TRELLECHEM® NEO is a new limited-use suit certified to EN 943-1 and EN 943-2/ET. TRELLECHEM® NEO offers excellent chemical resistance in combination with very good mechanical strength and low weight. Encapsulating design with hump, BA worn inside the suit. The CV visor is made from a rigid 2 mm impact and chemical resistant PVC. A new type of limited-use garment material, which offers long permeation times along with very good abrasion resistance and strength. A multilayer construction with a built-in chemical barrier with low weight for enhanced comfort.

**Gloves & attachments**

The glove assembly consists of two layers: inner 4H silver shield barrier glove and outer glove made from flame retardant chloroprene rubber. The gloves are attached with the TRELLECHEM® Bayonet glove ring system, which offers quick and simple glove exchange.

**Footwear & attachments**

Black nitrile rubber safety boots with European approval as firemen's boots. The boots are fixed with an ergonomically designed ring attachment, which simplifies boot exchange and provides a smooth yet tight fit of suit material around the boot shaft.

**Zipper**

Strong and durable gastight PVC zipper. Closing downwards for added safety. The zipper is protected by a splash guard (flap).

**Ventilation**

The suit can be fitted with an internal ventilation system. Please refer to page 82. Two outlet valves in the back of the hood ventilates the air out of the suit.

Colour: Blue

Sizes: M - XXL

Weight: 6 kg



411216



411171



411205

#### Over pressure in the suits ensures increased safety:

With the air supply system, the TRELLECHEM protective suit can be provided with over pressure via an internal system of tubes from the breathing equipment or from external air supply. This pressurised safety system, in which the air flow can be set at either 2 l, 30 l or 100 l/min when operating together with external air supply (airline), offers protection against leaks through, for example accidental perforations and also provides the suit with ventilation. The encapsulated models have a ventilation flow through the hood to prevent the visor from misting (fogging) up. Attention: It is very dangerous to take air for ventilation from a SCBA as this can result in death.

#### 411227 Total encapsulating suit TRELLECHEM EVO

Certified as to EN 943-1 and EN 943-2/ ET. It is antistatic according to EN 1149-5. Total encapsulating, suit expanded back to integrate an SCBA excellent resistance against aggressive chemicals (outer Viton-layer) and flame resistance. 2 mm rigid visor impact and chemical resistant PVC. Strong and durable gastight chloroprene rubber coated zipper. Gloves consists of two layers: inner 4H silver shield barrier and outer glove made from flame retardant chloroprene rubber, attached with the TRELLECHEM® Bayonet glove ring system. It is equipped with black nitrile rubber safety boots fixed by ring attachment, which simplifies boot exchange. The suit can be fitted with an internal ventilation system.

Colour: red

Sizes: M - XXL

Weight: 8 kg

#### 411171 Training suit TRELLECHEM TTE

Made of polyurethane coated fabric, welded seams, colour green, total encapsulating suit to integrate with SCBA. These suits are only to be used for training purposes, and will dramatically extend the service life of the real chemical suits.

Sizes: M- XXL

Weight: 6.2 kg

#### RECOMMENDED ACCESSORIES FOR CHEMICAL PROTECTIVE SUITS:

##### Air supply system and internal ventilation system for SCBA

Available for order no. 411210, 411211, 411213, 411215, 411216, 411227 and 411171. This system ensures that during normal operation, no air is taken from the SCBA set, so that the SCBA will only serve as an escape system. The internal ventilation system can be set at 2, 30 or 100 l/min air capacity. The system not only increases wearing comfort in hot zones, it also prevents hazardous gases to penetrate the suit, in case it is being damaged during operations.

##### The system consists of:

- Airline system valve
- Coupling for connection to the airline system
- Waist belt with sliding buckle
- Internal connection hose
- T-type connector with check valve

Weight: 2 kg

#### 411205 With IS (Interspiro) coupling

#### 411206 With Euro coupling

##### Airline and emergency connection hose for protective suits

Length of the hose: 20 m, comes with IS type hose connector.

Serves to connect to either an air-supply-system, or to an external SCBA set during decontamination operations. Hoses with 2.5 m, 5 m or 10 m upon request.

Weight: 3 kg

#### 411306 With IS (Interspiro) coupling

#### 411307 With Euro coupling

#### 411203 Wax stick for zip fastener

Weight: 0.3 kg

**41120405 Cooling Vest model TST**

Designed to cool firemen who must wear hot, non-breathable clothing; highly recommended for use together with chemical protection suits or heat protection gear. Remarkably easy to use, comfortable to wear and adaptable enough to fit under almost any garment. The cooling effect is obtained from the vest's 22 PCM (Phase Change Materials) elements. PCM is a substance with a high heat of fusion which, melting and solidifying at a certain temperature, is capable of storing and releasing large amounts of energy. Heat is absorbed when the material changes from solid to liquid and vice versa; PCM's are classified as latent heat storage units. Initially, the solid-liquid PCM's behave like sensible heat storage materials (SHS). Their temperature rises as they absorb heat. Unlike conventional SHS, however, when PCM's reach the temperature at which they change phase (their melting temperature) the PCM continues to absorb heat without a significant raise in temperature until all the material is transformed to the liquid phase. When the ambient temperature falls, the PCM solidifies, releasing its stored latent heat.

Sizes: S, M, L and XL

Weight: 2.1 kg



41120405



411148

**411148 Leak testing device**

For checking and testing the protective suits for leaks. Comes with test accessories and gauge stored in a plastic case.

Weight: 2.2 kg

**411151 Repair set**

Comes complete with manual.

Weight: 1.3 kg



411151

**Underwear made of NOMEX®**

Made of 100% NOMEX®. Designed to be worn under heat protection suit or fire fighting protection suit. Colour: white

Sizes: S, M, L, XL

**166966 Long sleeve undershirt**

Weight: 0.3 kg

**166967 Long style undertrousers**

Weight: 0.3 kg

**411180 Long style underwear overall**

Designed to be worn under heat protection suits and chemical protection suits. Made of 100% cotton. Comes with hood and Velcro fastener.

Colour: creme

Sizes:

- European size 50 (XS), order no.: 41118050
- European size 52 (S), order no.: 41118052
- European size 54 (M), order no.: 41118054
- European size 56 (L), order no.: 41118056
- European size 58 (XL), order no.: 41118058
- European size 60 (XXL), order no.: 41118060

Weight: 0.5 kg



166966/166967



411180



4112863

411159  
(symbolic picture)

137875



143250



142503



285204

**Training suit**

Consisting of jacket and trousers. Colour of the jacket: red. Made of cotton. Colour of the trousers: black.

Weight: 1.1 kg

4112863 **Size M**  
4112864 **Size XL**

**411159 Gym shoes**

Made of synthetic materials.

Weight: 1.2 kg

**137875 Socks**

Made of 60 % wool / 25 % viscose / 15 % polyamide. Hard wearing quality. Colour: olive.

Weight: 0.1 kg

**143250 Chemical safety boots HAZMAX**

Heavy duty chemical protection boot. Protects against acids, oils, chemicals, greases and various solvents. Oil resistant vulcanized. Comes with steel toe cap, steel plated mid-sole and nitrile rubber slip resistant sole. According to CE Kat. III, EN ISO 20345:2004; S 5 P, EN 943-1:1996, EN 344-2:1996. European sizes available: 39 to 47.

Weight: 2.6 kg

**142503 Chemical protection gloves CAMAPREN**

Multipurpose gloves, made of chloroprene. Certified as to EN 388 and EN 374. Anatomically curved fingers allow for increased dexterity. Heavy duty quality, that meets all requirements in respect of resistance to abrasion, cuts, punctures and chemicals.

Length 300 mm. Size: 7 to 11.

Weight: 0.2 kg

**410580 Over-gloves, PVC**

According to EN 420, 388 and 374. Colour: red.

Weight: 0.25 kg

**411172 Textile gloves for encapsulating suits**

Colour: creme, 1 Pack = 5 pairs

**410687 Protective goggles**

Weight: 0.03 kg

Colour of frame: blue

Material: polycarbonate (scratch-resistant, anti-fogging)

**285204 Safety glasses GOGGLE KLAR**

With indirect ventilation, distortion-free field of view.

Standard: EN 166, 3 to 1.2 D1B

Weight: 0.1 kg

## HAZMAT PUMPS AND ACCESSORIES

### Preliminary remarks – acid protection:

For the metallic parts of the equipment – especially fittings and couplings which can come into contact with hazardous substances and products – materials are used which have acid and alkali resistances corresponding to those of special steel casting metal 1.4410/1.4408 and/or of special steel 1.4571.

In the case of a very few appliances (e.g. buckets, hand-operated diaphragm pump) where special versions are not possible, simpler special-steel alloys are used. Attention is specifically drawn to these in the appliance descriptions. All hoses are electrically conductive and fitted on both sides with earthing leads with unloseable wing-nuts.

The coupling systems used in this catalogue meet the most important European standards. All outgoing couplings are male couplings, while all further couplings are female. We also, of course, supply coupling systems such as e.g. Storz V4A, standardised threaded, etc. in nominal diameter 50. Other diameters upon request.

### Please note

In this chapter the following abbreviations and terms are used:

DN	Nominal diameter
PN	Nominal pressure
VK	Male coupling
MK	Female coupling
TW	Tank wagon coupling (consists of male coupling and female coupling with clamping ring and lever)

Couplings and fittings made of gunmetal – order no. in **orange**

Couplings and fittings made of stainless steel – order no. in **blue**

### 912815 Hand-operated diaphragm pump SUPER

For pumping both low and high-viscosity media as well as heavily contaminated ones. All materials sucked in by the hose can be pumped, e.g. stones, sand, metal parts etc. 1.2 m long pump lever with cold-insulated handle and carrying frame (also made of stainless steel) – this nonsparking, direction of flow is indelibly marked, grain passage min. 10 mm diameter, capacity max. 100 l/min. Delivery head approx. 6 m, suction head approx. 5 m. On pressure side: female coupling 50 (tank wagon coupling), stainless steel, curved piece with Teflon seal. On suction side: male coupling 50 (tank wagon coupling), stainless steel, sealing ring piece with Viton seal, form GSD.

Weight: 11.5 kg

### RECOMMENDED ACCESSORIES:

#### 912809 Spare diaphragm

Weight: 0.68 kg

#### 912810 Set of spare seals

Consisting of 2 valve flaps and 2 mounting plates for valve flaps.

Weight: 0.17 kg



912815



912838

**912838 Compressed air diaphragm pump**

Based on an air-operated diaphragm pump, this emergency pump is allowing an utmost flexibility in use. The compressed air will be supplied by one air cylinder. The pressure reduction from 300 bar to the operating pressure of 8 bar is made by a pressure reducer. The delivery rate of this pump which will achieve approx. 25 l/min is controlled by a ball valve installed in the air supply line. The volume of one air cylinders will be sufficient for an operating time of approx. 10 minutes. Comes with base accessories in a carrying case (dimensions: 46 x 32 x 20 cm).

Weight: 9 kg

**RECOMMENDED ACCESSORIES:****91283801 Truck brake connector**

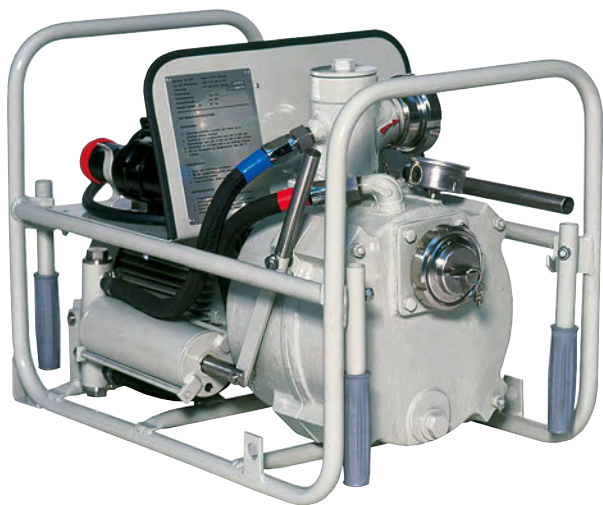
Weight: 0.3 kg

**91283802 Air pressure hose**

8 mm diameter, 7 m long. Weight: 0.9 kg

**91283804 Earthing cable**

Weight: 0.15 kg



912612

**912612 Stainless steel acid decanting pump DIN 14427 GUP 3-1.5 DN 50**

Certified as to DIN 14427. Single stage, self-priming centrifugal pump, made of stainless steel, material no. 1.4408 and 1.4571. The pump is suitable for handling of hazardous materials, mineral oils and aggressive liquids like acids, caustics etc. Certified for the use with aviation fuel Jet A1, JP 4 etc.

The pump comes with a manual priming pump, for a max. suction lift of 8 m. The centrifugal pump has an output of 620 l/min at 0.5 bar, with a 2 m suction lift (decanted media: water). Pump inlet: female tank coupling 50 VA, made of stainless steel. Pump outlet: male tank wagon coupling 50 VA, made of stainless steel.

We do not recommend the use of BS 336 couplings as to avoid that standard fire hoses might be used for this pump. The pump is driven by a 3-phase 50 Hz, 400 V electric motor 2.5 kW, 4.8 Amp. Explosion proof as per class EEx e II T3. Comes complete with explosion proof motor switch, cable and explosion proof 5-pin plug, certified as to EEx de II CT 6. Dimensions of the pump, including carrying frame: 620 x 390 x 460 mm.

Weight of the complete pump: approx. 82 kg

**RECOMMENDED ACCESSORIES:****912611 Spare Viton gaskets for acid decanting pump**

Set of spare seals and gaskets for GUP 3-1.5.

Weight: 0.22 kg.

**Hoses:** please refer to page 95 f.

### Functional principle of the hose pump

The rotor rotates inside the lubricant-filled pump housing and squeezes the hose with its outer driver assembly. This hermetically separates the suction side from the pressure side (Fig. 1). The rotation impels the (liquid or gas) medium in the hose towards the outlet, creating a partial vacuum on the suction side. Medium is then sucked in. The volume present between the two sliders (Fig. 2) is equal to half the volume delivered per rotation. This volume is constantly impelled towards the outlet by the rotation of the rotor, while the same volume is admitted on the suction side (see Figs. 3 and 4).

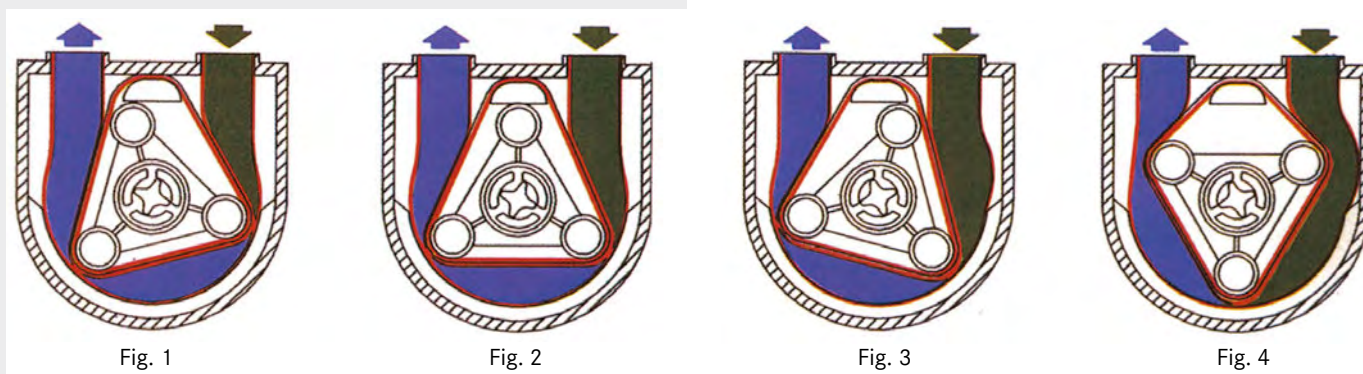


Fig. 1

Fig. 2

Fig. 3

Fig. 4

### 912892 HAZMAT hose pump ELRO GP 20/ 10 EX with tank wagon couplings

Suitable for decanting hazardous liquids, approved as per prevailing EN standards and DIN 14427:2005 and TÜV certified. Self-priming pump with built-in antistatic "Hypalon" feed hose. As the liquid being decanted comes only into contact with the inside of the hose, the pump is perfectly suitable for handling aggressive media. Also, media with a very high viscosity can be handled without problems, provided that the pump speed is adjusted. Electric motor 400 Volt 3-phase 50 cycles in explosion proof design as per class EEx e II, T3. Nominal output: 2.75 / 2.1 kW. Other voltages upon request.

The motor is set for two operating speeds:

- Stage 1: 120 RPM = 9 m<sup>3</sup>/h
- Stage 2: 240 RPM = 18 m<sup>3</sup>/h, max. pressure 2 bar.

The pump is supplied with a carrying frame with 4 swing-out handles! Sheathing made of stainless steel. Suction height: 9 m dry-self-priming.

Temperature range of decanted liquids: -20 °C up to +70 °C.

Set of instantaneous couplings - female/male, consisting of:

- Suction side: tank wagon coupling male DN 50.
- Delivery side: tank wagon coupling female DN 50, second outlet with pulsation damper.

Weight of the complete pump: 98 kg



912892



(symbolic picture)



912891

912878  
(symbolic picture)

912865

912862  
(symbolic picture)

912863



912861



912864

**RECOMMENDED ACCESSORIES FOR ELRO GP 20/10 EX:**

- 912891 Stainless steel flat suction attachment**  
Flat suction unit, made of stainless steel, comes with male tank wagon coupling 50 mm diameter.  
Weight: 1.9 kg
- 912878 Stainless steel suction pick-up tube**  
For flat suction operations. Bent design for easy operation. Comes with male tank wagon coupling 50 mm diameter.  
Weight: 3.8 kg
- 912865 Hypalon spare feed-hose**  
Designation: Hypalon CSM. Elastomeric, created by polymerisation of chlorosulphonated ethylene: abrasion-resistant, electrically conductive. Chemical resistant: acids and alkalis, alcohols, paints, foaming agents, hot water, steam to temps. of max. 120 °C. Limited resistance to: petrol (gasoline), benzol, heating fuel, gear lubricant oil. Thermal tolerance range: -25 °C to +120 °C.  
Weight: 2.5 kg
- 912866 Hose-cleaning scraper**  
Weight: 0.15 kg
- 912862 Separator**  
Weight: 0.35 kg
- 912863 Thrust bearing**  
Oil-resistant. Weight: 1.5 kg
- 912861 Set of o-ring seals**  
Weight: 0.05 kg
- 912864 Can of silicon slip agent**  
5 l. Weight: 5.2 kg



**912856 Transport barrel ELRO, stainless steel**  
 180 litres, with screw-on lid. Flange opening DN 250, Viton seal. Traffic-engineering approval UN-1A1. Particularly suitable for vacuum operation. Where small quantities of liquids need to be collected that have been contaminated by foreign bodies, the ELRO-GP 20/ 10 EX is used as vacuum pump for the transport barrel. The contaminated liquid is sucked directly into the transport barrel by the vacuum. The pump itself does not come into contact with the liquid. Where a tanker is available for transporting away the hazardous materials, the transport barrel and its filling device are used as a sediment trap. Foreign bodies and contaminants are separated in the barrel and kept away from the pump and the tank.  
 Weight: 48 kg

**912858 Filling device, stainless steel**  
 Suction inlet: female tank wagon coupling DN 50-VA with sealing ring piece with Viton compound GSD sealing.  
 Suction outlet I: Storz D coupling with Teflon seal  
 Suction outlet II: male tank wagon coupling VK 50 VA with blanking cover VA  
 Weight: 17 kg

**91285711 Vacuum hose, 10 m**  
 One side 1" Storz D coupling, other side tank wagon coupling male DN 50.



912856



912858  
(symbolic picture)



## OIL AND CHEMICAL PUMPS

Barrel and container pumps can be depended upon to give safe and reliable service – in even the most critical mission areas. No matter whether it is neutral, aggressive or combustible low-viscosity media that need pumping – FLUX offers just the right pump for the job, as FLUX pumps come in various materials and diameters, and with various different explosion-protected drive motors. All motors have a connection for an earthing cable so that electrostatic charges can be safely discharged when easily combustible liquids are being pumped.

### Motorheads for barrel pump:

Order no.	912618	912650
		
Description	F 450 Ex - Barrel and container pump for inflammable, thin, neutral, corrosive liquids	F 460-1 Ex - Barrel and container pump for inflammable, thin, neutral, corrosive liquids
Examples of suitable liquids	Solvents, petrol, synthetic, resin varnishes, acetone, oils, acids, alkalis	Solvents, petrol, synthetic, resin varnishes, acetone, oils, acids, alkalis
Delivery rate (max.)	135 l / min	220 l / min
Delivery height (max.)	20 m	23 m
Motor	Explosion-proof commutator motor with on / off and overload cut-out switch and no-volt release; 460 W: 230 V/50 - 60 Hz	Explosion- proof commutator motor with on / off and overload cut-out switch and no-volt release; 700 W: 230 V/50 -60 Hz
Protection class standards	EEx de II C T 6 resp. T 5, protection class I resp. III, splash-proof, protected to IP 54, radio shielded	EEx de II C T 6 resp. T 5, protection class I resp. III, splash-proof, protected to IP 54, radio shielded
Weight	5.1 kg	5.9 kg



Tube sets are at extra cost, please refer to page 91.

**Barrel pump tube sets**

These pump tubes are very easy to mount to the motor. The motor power is transmitted to the pump shaft via an elastic, self-adjusting coupling.

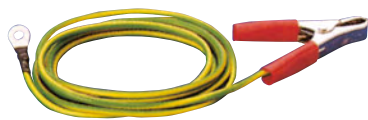
Barrel pump tubes made of special steel 14571 are approved for use in Zone 0, Temperature Category 4, to IEC and VbF, for pumping easily combustible liquids.

Use Barrel pump tubes made of polypropylene (PP) for pumping aggressive, low-combustibility fluids, acids and alkalis, and for virtually all low-viscosity, neutral substances.

	Order no.	Order no.
Container and 1000 mm barrel pump 1200 mm tube sets	<b>912652 (3.30 kg)</b> <b>912653 (3.70 kg)</b> 	<b>912662 (1.80 kg)</b> <b>912663 (1.90 kg)</b> 
Pump tube set with mechanical seal	F 430 - 41 / 38 suitable and approved for Zone 0	F 430 PP - 50 / 38 only suitable for non flammable liquids
Examples of suitable liquids at 20° C	Acetone, petrol, test petrol, solvents, synthetic resin spray paint, trichlorethylene, perchlorethylene, food, fruit juice, salad oil, milk, ammoniac, sodium hydroxide, potash lye bone glue, sulphuric acid (up to 7.5% and above 96% F 430 S 2 is not suitable for sulphuric acid), nitric acid (up to 60%), various nitrating acids, distilled water	Acetic acid, fruit acid, lactic acid, formic acid, boric acid, hydrofluoric acid, hydrochloric acid, sulphuric acid, tanning extracts, sodium hydroxide, caustic potash solution, photo developers and fixers, thin oils, thinned bone glues, soap solution, liquid manures, glycerine glucose, glycol, copper chloride chromic acid, ammoniumpersulphate, distilled water, and many others
Temperature range up to approx.	120° C / 248 ° F (short periods)	50° C / 122 ° F
Pump tube set materials	Stainless steel (14571)	Polypropylen
Impeller materials ETFE	ETFE	ETFE
Outer tube diameter (mm)	41	50
Impeller diameter (mm)	38	38
Thread of hose connection	R 1¼"	R 1¼"

Each pump tube set comprises a detachable outer tube and an inner tube inside which is the drive shaft, double sealed against the liquid being pumped. Motor power is transmitted to the shaft through a resilient coupling. The impeller is located at the lower end of the shaft where the liquid enters the tube set and drives the liquid upwards between the outer and inner tube to the outlet.

As well as the pump tubes and motors outlined here, we offer a wide selection of other versions - e.g. pumps in aluminium, Hastelloy C and polyvinylidene fluoride (PVDF).



912657



912634



912667 / 912668



912680 / 912681



912648



91264801

## RECOMMENDED ACCESSORIES FOR BARREL PUMPS:

### 912657 Earthing cable

Complete with spring clip. Serves as an electrically conductive link between pump and container, as an earth connection and equipotential bonding.

Length: 2.1 m

Weight: 0.13 kg

### 912634 Threaded barrel closure

For fastening the barrel pump securely in the bunghole of a barrel. R2" male thread on M 64 x 4; made of V2A stainless steel.

Weight: 0.5 kg

### Hose set TOP 10 DN 25

Special hose for delivery of not combustible fluids and a wide range of chemical compounds (e.g. not oxidising acids and alkalis). Inner core made of chlorpolyethylene, without steel coil.

One end of the hose comes with R 1 1/4" thread, the other end is connected to the trigger type outlet nozzle.

Diameter: 1" (25 mm).

Operating pressure: max. 10 bar.

### 912667 Length: 5 m

Weight: 4.8 kg

### 912668 Length: 10 m

Weight: 9.1 kg

### Hose set SUPERCHEM DN 25

Special hose for delivery of combustible fluids and a wide range of chemical compounds. Exterior made of EPDM, inner core made of UPE. Intermediate layer: textile lining, steel coil, copper cord.

Both ends of the hose comes with R 1 1/4" thread. One end can be connected to the barrel pump. The other end is fitted with a trigger type outlet nozzle. The hose is electrically conductive.

Diameter: 1" (25 mm)

Operating pressure: max. 16 bar.

### 912680 Length: 5 m

Weight: 5.6 kg

### 912681 Length: 10 m

Weight: 9.6 kg

## Pump strainer

### 912648 For order no. 912652 and 912653

Stainless V4A, 41 mm, to fit pipe set F 430 S/VK.

Weight: 0.18 kg

### 91264801 For order no. 912662 and 912663

Polypropylen, 50 mm, to fit pipe set F 430 PP.

Weight: 0.04 kg

**912608 Submersible acid pump EEX**

400 V - P1 - 1,000 W, coupling VK50-VA. Submersible pump, made of stainless steel as per DIN 14408 and DIN 14571. The unit is suitable for pumping chemical contaminated sewage water and acids. The pump is explosion proof as per class Ex II 2G EEx d IIB T4, so it can be used in hazardous areas. Although the pump is explosion proof, it should not be used for decanting of inflammable liquids (zone 0). Contaminations up to 10 mm grain size can be handled. Maximum viscosity 150 mm<sup>2</sup>/s. Driven by a 3-Phase, 50 Hz, 400 V - P1 - 1,000 W electric motor (special voltage upon request at extra charge). Pump output 400 l/min at free discharge, or 240 l/min at 8 m water head. Comes complete with 8 m connection cable, with 4-pole EEx plug Ex II 2G Ex de IIC T6 GHG511 7406 R0001 fitting the motor protection switch box. 5 m of the cable are protected against acids and chemicals by means of a corrugated, stainless steel protection hose. Pump should be used with a motor protection switch box (order no.: 912609) Pump outlet is provided with a male 50 VA tank wagon coupling, made of stainless steel. Weight (including cable): 50 kg

**912608****RECOMMENDED ACCESSORIES:****912609 Explosion-proof motor protecting switch box**

According to DIN 14555, part 12, intrinsically safe as per class EEx d IIB T4. The switch box comes with 10 m cable on the power supply side, complete with 5-pole EEx plug GHG 511 7506 R0001. On the power outlet side, there is also 10 m cable, but fitted with a 4-pole EEx socket GHG 511 3406 R0001. Weight: 12 kg

**912609****933081 Hoisting cable**

Special steel hoisting cable, 6 mm thick, 15 metres long, with two 0.6 m long load cables and snap hooks. Suitable for lowering and raising the submersible pump. Weight: 3.2 kg

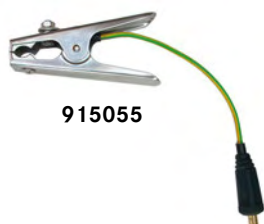
**Corrugated stainless steel hose**

Description please refer to page 96.

**912714 Length: 5 m**  
Weight: 10 kg

**912715 Length: 10 m**  
Weight: 19 kg

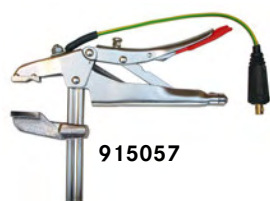
**912714**



915055



915056



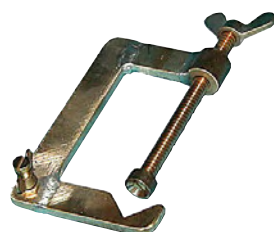
915057



315841



915020



915022



915016

## EARTHING MATERIAL

### Copper-grounding-system 6 mm<sup>2</sup>, model HK

Plastic-coated with bayonet connectors on both ends.

**915054**    **Length: 5 m**  
Weight: 0.4 kg

**915053**    **Length: 10 m**  
Weight: 0.8 kg

**915052**    **Length: 15 m**  
Weight: 1.1 kg

**915055**    **Grounding pliers**  
Made of chrome steel. Opening width 40 mm, with 300 mm long device cable. Weight: 0.3 kg

**915056**    **Grounding pliers**  
Made of brass, system HK. Opening width 30 mm, with 300 mm long device cable. Weight: 0.7 kg

**915057**    **Grounding clamp**  
System HK, chromed opening until 100 mm. Weight: 1 kg

**915058**    **Copper device cable, 6 mm<sup>2</sup>, 300 mm, system HK**  
This cable is necessary for change over equipment of e.g. the HAZMAT truck to the new grounding system. For example the stainless steel pump station of the drum pump or the HAZMAT transfer pump GUP (peristaltic pump and centrifugal pump), provided ground magnetic clamps, brass vices, earth spikes etc. Weight: 0.5 kg

**915059**    **Earth spike 600 mm**  
Galvanized steel, system HK with device cable 6 mm<sup>2</sup>, bayonet socket and 4 earth screws for connecting possible existing grounding systems (old) with hooked cable looms and 300 mm long device cable with plug. Weight: 1.2 kg

**315841**    **Earthing conductor**  
50 m, 16 mm<sup>2</sup>. On cable reel. Weight: 12 kg

**Earthing stake, galvanized**  
510 mm long. Insert it into the earth, and it will prevent electrostatic charging. With T-handle, earthing stud and M8 wing nut.

**915020**    **Earthing stake**  
Weight: 0.75 kg

**915022**    **Earthing stake with cable**  
Cable 10 m long. 16 mm diameter. Weight: 2.65 kg

**915012**    **Earthing screw clamp**  
Made of brass. Comes with 10 m of earthing cable, 16 mm<sup>2</sup>. Weight: 2.65 kg

**915016**    **Earthing clamp, magnetic**  
50 mm diameter, 10 mm height. Weight: 0.5 kg

## OIL AND CHEMICAL HOSES

The hoses used for dealing with hazardous substances basically differ in terms of their resistance to chemicals and hydrocarbons (e.g. heating fuel, petrol, kerosene, etc.). For this reason it is always to be checked – before using the hose – whether it is resistant to the medium to be pumped. Generally speaking, you will know what material each hose is made of, so you can refer to our resistance list to find out exactly how resistant the hose is, and which substances it is resistant to.

### Oil resistant delivery hose

Fully synthetic oil spillage mop-up pressure hose, special fabric made of 100 % polyester, tubular woven in twill weave, with 3 woven-in copper tinsel conductors. Electrically conductive rubber coating on inside, made of high-grade synthetic rubber bonded to the fabric by direct vulcanisation. Couplings with earthing screws and unloseable M8 wing nuts. 52 mm diameter, 15 m long.

#### 912929 With brass Storz C coupling

Weight: 8.13 kg

#### 91292901 With male/female tank wagon couplings 50 brass

Weight: 8.13 kg



912929

### PVC suction and pressure hose

Transparent, with steel spiral, generally resistant to most highly diluted acids and alkalis and to salt solutions, limited resistance to oil (when used for short periods), electrically conductive only via M8 earthing connection with unloseable wing nuts made of stainless steel, temperature resistant from -10 °C to +60 °C, bolt-together coupling collars with stainless-steel half-round sections.

DN 50 with stainless steel tank wagon couplings. At one end female coupling 50 sealing-ring piece with Viton seal - form GSD. At the other end a male coupling 50 curved piece.

#### 912732 Length: 5 m

Weight: 12.5 kg

#### 912734 Length: 10 m

Weight: 24 kg



912732

### Nitrile rubber oil resistant delivery hose

Electrically conductive, with fabric plies and steel wire spiral, for operating pressures of up to 10 bar, bursting pressure min. 30 bar. With M 8 earth connection and unloseable wing nut made of stainless steel, temperature resistant from -20 °C to +70 °C, bolt-together coupling collars with stainless steel half-round sections. Resistant to technical alcohols, petrol, diesel, heating fuel, oil emulsion, petroleum, vegetable and animal fats, glycol and water. Not resistant to aviation fuel, chlorinated hydrocarbons or those with a high aromatic component, ester-type oils. Colour: black.

DN 50 with stainless steel, tank wagon coupling at one end female coupling 50 sealing-ring piece with Viton seal - form GSD. At the other end a male coupling 50 curved piece.

#### 912923 Length: 5 m

Weight: 9.2 kg

#### 912913 Length: 10 m

Weight: 17.7 kg



912923



912731



912715

### Suction and pressure hose

For aviation fuel with tank wagon coupling MK50/VK50, for pumping of aviation fuel.

- Temperature: from -20°C (-40°F) to +70°C (+ 158°F)
- Tube: black, smooth, NBR- rubber
- Reinforcement: high strength synthetic cord plus steel helix wire
- Cover: black, smooth (wrapped finish), conductive and auto-extinguishing
- Synthetic rubber, weathering, abrasion and oil resistant
- Electrically conductive only via M 8 earthing connection with unloseable wing nuts

**912737**      **Length: 5 m**  
Weight: 13.7 kg

**912776**      **Length: 10 m**  
Weight: 23.8 kg

### Polypal plus hose

According to EN 12115:2006, electrically conductive. Ideal hose for nearly all chemicals up to temperatures of +90 °C, sterilisable at +130 °C for max. 30 minutes. Not resistant to oleum, bromine or chlorosulphonic acid.

- Inner liner: UPE, black, smooth, conductive
- Plies: polyamide textile plies, with steel wire spiral
- Cover: EPDM, black, conductive, abrasion-resistant, ozone and UV resistant, all-through spiral identification with blue-white spiral

Operating pressures up to 16 bar, bursting pressure min. 48 bar, with M8 earth connection and unloseable wing nut made of V4A, bolt-together coupling collars with stainless steel half-round sections. DN 50 with stainless steel tank wagon coupling. Wall thickness 7 mm, bending radius 300 mm, female coupling 50 sealing-ring piece with Viton seal - form GSD - at one end, and male coupling 50 curved piece at the other end.

**912731**      **Length 5 m**  
Weight 12.5 kg

**912736**      **Length 10 m**  
Weight: 24 kg

### Corrugated stainless steel hose

Corrugated stainless steel hose for suction and pressure uses, non-collapsible, stainless steel mantle with earth connection and captive stainless steel M8 wing- nuts, coupling collars with bolt-together stainless-steel half-round sections. Not resistant to chlorinated media. DN 50 with stainless steel tank wagon couplings. At one end female coupling 50 sealing-ring piece with Viton seal - form GSD. At the other end a male coupling 50 curved piece.

**912714**      **Length 5 m**  
Weight 10 kg

**912715**      **Length 10 m**  
Weight: 19 kg



## OIL AND ACID FITTINGS

### Tank wagon filling couplings

Made of stainless steel, PTFE thread gasket, Hypalon coupling gasket.

#### Male couplings

<b>913508</b>	<b>DN 50 - 1¼"</b>	<b>female thread</b>	Weight: 0.6 kg
<b>913502</b>	<b>DN 50 - 2"</b>	<b>female thread</b>	Weight: 0.6 kg
<b>913690</b>	<b>DN 80 - 3"</b>	<b>female thread</b>	Weight: 0.73 kg

#### Female couplings

<b>913598</b>	<b>DN 50 - 1¼"</b>	<b>female thread</b>	Weight: 0.94 kg
<b>913602</b>	<b>DN 50 - 2"</b>	<b>female thread</b>	Weight: 0.94 kg
<b>913803</b>	<b>DN 80 - 3"</b>	<b>female thread</b>	Weight: 1.45 kg

### Tank wagon blank caps

Made of stainless steel, with Hypalon-TWF coupling gasket, green.

#### Female blank caps

<b>914080</b>	<b>50 for male coupling 50</b>	Weight: 0.83 kg
<b>914081</b>	<b>80 for male coupling 80</b>	Weight: 1.7 kg

### Tank wagon welsh plugs

Made of stainless steel.

#### Male Welsh Plugs

<b>914082</b>	<b>50 for female coupling 50</b>	Weight: 0.3 kg
<b>914083</b>	<b>80 for female coupling 80</b>	Weight: 0.83 kg

### Viton coupling gaskets

For tank wagon filling couplings VA.

#### GSD profiles

<b>914336</b>	<b>For female coupling 50</b>	Weight: 0.01 kg
<b>914337</b>	<b>For female coupling 80</b>	Weight: 0.02 kg

### Teflon thread gaskets

For tank wagon filling couplings, made of stainless steel.

<b>914360</b>	<b>60 x 49 x 2, for female/male coupling 50</b>	Weight: 0.01 kg
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<b>914361</b>	<b>88 x 77 x 3, for female/male coupling 80</b>	Weight: 0.02 kg
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### Adapters Storz – tank wagon coupling, made of stainless steel

STORZ coupling with Viton coupling gasket on tank wagon filling coupling with PTFE thread gasket.

<b>914100</b>	<b>STORZ C – male coupling 50</b>	Weight: 1.26 kg
<b>914200</b>	<b>STORZ C – male coupling 80</b>	Weight: 1.73 kg
<b>914098</b>	<b>STORZ B – male coupling 50</b>	Weight: 2.4 kg
<b>914216</b>	<b>STORZ B – male coupling 80</b>	Weight: 2.83 kg
<b>914101</b>	<b>STORZ C – female coupling 50</b>	Weight: 1.49 kg
<b>914105</b>	<b>STORZ C – female coupling 80</b>	Weight: 2.25 kg
<b>914104</b>	<b>STORZ B – female coupling 50</b>	Weight: 2.4 kg
<b>914214</b>	<b>STORZ B – female coupling 80</b>	Weight: 3.2 kg



913502



913602



914080



914082

914360  
(symbolic picture)

914100



914101



914203

#### Adapters tank wagon – tank wagon coupling, made of stainless steel

Tank wagon filling coupling to tank wagon filling coupling with Viton coupling gasket and PTFE thread gasket.

##### Male coupling-male coupling

914103	Male coupling 50 – m. coupling 50	Weight: 0.83 kg
914099	Male coupling 50 – m. coupling 80	Weight: 1.59 kg
914090	Male coupling 80 – m. coupling 80	Weight: 2.3 kg
914091	Male coupling 80 – m. coupling 100	Weight: 3.3 kg

##### Female coupling-female coupling

914102	Female coupling 50 – f. coupling 50	Weight: 1.53 kg
914093	Female coupling 50 – f. coupling 80	Weight: 1.87 kg
914094	Female coupling 80 – f. coupling 80	Weight: 3.05 kg
914096	Female coupling 80 – f. coupling 100	Weight: 4.6 kg

##### Male coupling-female coupling

914106	Male coupling 50 – f. coupling 50	Weight: 1.15 kg
914203	Male coupling 50 – f. coupling 80	Weight: 1.93 kg
914204	Male coupling 80 – f. coupling 50	Weight: 1.49 kg
914097	Male coupling 80 – f. coupling 80	Weight: 2.33 kg

#### Stainless steel flange adaptors

##### Flange PN 6 according to DIN 2527 on thread DN 50

91437230	DN 40 – male coupling 50	Weight: 1.9 kg
91437231	DN 50 – male coupling 50	Weight: 2.1 kg
91437232	DN 65 – male coupling 50	Weight: 2.9 kg
91437233	DN 80 – male coupling 50	Weight: 3.9 kg
91437234	DN 100 – male coupling 50	Weight: 5.2 kg

##### Flange PN 10/16 according to DIN 2527 on thread DN 50

91437240	DN 40 – male coupling 50	Weight: 2.1 kg
91437241	DN 50 – male coupling 50	Weight: 2.2 kg
91437242	DN 65 – male coupling 50	Weight: 3.1 kg
91437243	DN 80 – male coupling 50	Weight: 4.2 kg
91437244	DN 100 – male coupling 50	Weight: 5.4 kg

##### Flange BS 150 psi according to BS 1560 on thread DN 50

91437250	DN 1½" – male coupling 50	Weight: 2.3 kg
91437251	DN 2" – male coupling 50	Weight: 3.1 kg
91437252	DN 3" – male coupling 50	Weight: 4.1 kg
91437253	DN 4" – male coupling 50	Weight: 5.2 kg
91437254	DN 5" – male coupling 50	Weight: 6.3 kg

##### Flange PN 6 according to DIN 2527, on tank wagon filling coupling DIN 28450

914373	DN 40 – male coupling 50	Weight: 1.7 kg
914388	DN 50 – male coupling 50	Weight: 1.9 kg
914374	DN 65 – male coupling 50	Weight: 2.7 kg
914389	DN 80 – male coupling 50	Weight: 3.7 kg
914390	DN 100 – male coupling 50	Weight: 5 kg

**Flange PN 10/16 according to DIN 2527, on tank wagon filling coupling DIN 28450**

91437210	DN 40 – male coupling 50	Weight: 1.7 kg
91437211	DN 50 – male coupling 50	Weight: 1.9 kg
91437212	DN 65 – male coupling 50	Weight: 2.7 kg
91437213	DN 80 – male coupling 50	Weight: 3.7 kg
91437214	DN 100 – male coupling 50	Weight: 5 kg

**Flange BS 150 psi according to BS 1560 on tank wagon filling coupling acc. to DIN 28450**

914376	DN 1½" – male coupling 50	Weight: 1.9 kg
91437601	DN 2" – male coupling 50	Weight: 2.1 kg
914377	DN 3" – male coupling 50	Weight: 2.9 kg
914378	DN 4" – male coupling 50	Weight: 3.9 kg

**Flange gaskets**

Made of Viton, thickness 2 mm. One set consists of 8 pieces.

- 91439301** For flanges PN 6 – DN 40, DN 50, DN 65, DN 80, and DN 100, according to DIN 2690  
Weight: 1.6 kg
- 91439302** For flanges PN 10/16 – DN 40, DN 50, DN 65, DN 80, and DN 100, according to DIN 2690  
Weight: 1.6 kg
- 91439303** For flanges DN 1½", DN 2", DN 3", DN 4", and DN 5", according to ANSI B 16-21  
Weight: 1.6 kg
- 91439304** For universal flanges covering PN 6, PN 10, PN 16, and BS 1560 – DN 40, DN 50, DN 65, DN 80, and DN 100, with elongated holes  
Weight: 1.6 kg
- 91439305** For flanges DN 50, DN 80, DN 100, according to DIN 28461  
Made of Viton, thickness 3 mm. One set consists of 8 pieces  
Weight: 2 kg

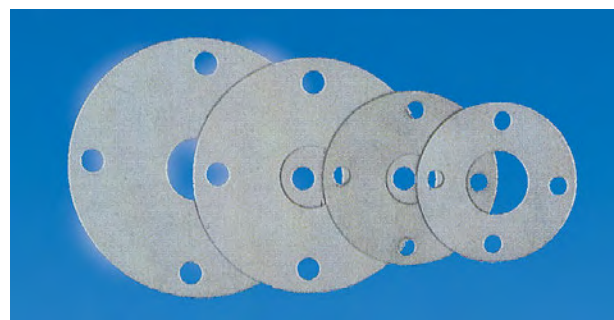
**Stainless steel hexagon screws**

according to DIN 933, with nuts according to DIN 934 and plain washers to DIN 125. One set consists of 20 pieces.

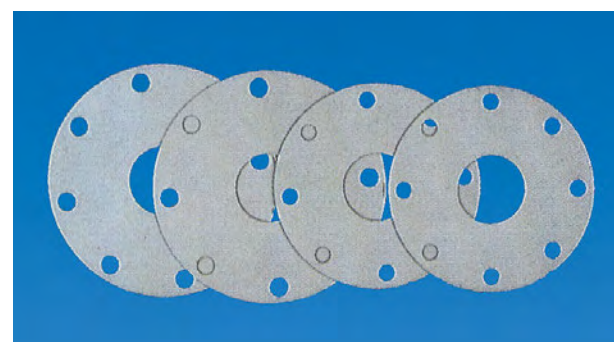
- 914395** **M16 x 60**  
For flanges according to DIN 2527, DN 40 – 100.  
Weight: 3.5 kg.
- 914396** **M12 x 50**  
For flanges according to DIN 28461, DN 100.  
Weight: 2.1 kg
- 914397** **M10 x 60**  
For flanges according to DIN 28461, DN 40 – 80.  
Weight: 2.1 kg



91437211



Set of flange gaskets for flanges to DIN 2527



Set of flange gaskets for flanges to DIN 28461



Set of stainless steel hexagon screws



914635



914702

914508  
(shown with female coupling)914602  
(shown with male coupling)

913103



913093



914641



914713



914714

**914635 Outlet tube**

DN 40, female TW coupling 50, 300 mm long. Made of stainless steel with 45° elbow, for fastening to ball valve, with Viton coupling gasket and PTFE thread gasket. Weight: 1.6 kg

**914702 Suction strainer**

With female TW coupling 50. Made of stainless steel, with PTFE thread gasket, with Perbunan valve ball and suction sieve, with Viton coupling gasket. Weight: 2.7 kg

**914508 Acid suction pipe**

DN 50 with male coupling, 1,000 mm long. Made of stainless steel, with earthing screw, with strainer, tube elbow and cold insulator. Weight: 5.2 kg

**914602 Safety delivery pipe**

1,000 mm long. Made of stainless steel. With earthing screw, strainer, tube elbow, with female tank wagon coupling DN 50, with Viton gasket and cold insulator. For delivering inflammable liquids into containers. Guarantees laminar outflow and prevents dangerous electrostatic charging. Weight: 5.8 kg

**Railway tank wagon filling coupling UNIKA**

Elbow made of stainless steel, with TW coupling, acid thread connection, or Storz couplings, and Viton coupling gasket, PTFE thread gasket.

<b>913104</b>	<b>With male TW coupling 50</b>	Weight: 8.5 kg
<b>913103</b>	<b>With female TW coupling 50</b>	Weight: 8.9 kg
<b>912999</b>	<b>With STORZ C coupling</b>	Weight: 8.5 kg
<b>913099</b>	<b>With STORZ B coupling</b>	Weight: 8.3 kg

**Tank wagon adapter 5 1/2"**

Made of stainless steel. With STORZ coupling or with tank wagon coupling and PTFE thread gasket.

<b>913093</b>	<b>With male TW coupling 50</b>	Weight: 5.2 kg
<b>913094</b>	<b>With female TW coupling 50</b>	Weight: 5.4 kg
<b>913410</b>	<b>With STORZ C coupling</b>	Weight: 5.2 kg
<b>913420</b>	<b>With STORZ B coupling</b>	Weight: 5.4 kg

**Pipe elbow**

Made of stainless steel with female tank wagon couplings DN 50 mm with Viton coupling gasket and male DN 50 with Teflon thread gasket.

<b>914641</b>	<b>90°, diameter 50 mm</b>	Weight: 2.7 kg
<b>914638</b>	<b>45°, diameter 50 mm</b>	Weight: 2 kg

**914713 Shut-off valve, stainless steel**

With tank wagon couplings. With Viton coupling gasket and Teflon thread gasket. DN 50, with outlet female/male coupling. Weight: 3.3 kg

## Containers and collecting equipment

**Three-way valve**

Made of stainless steel. With tank wagon-couplings, with Viton coupling gasket and Teflon thread gasket.

**914714 DN 50, with 1 female coupling 50 mm and 2 male couplings 50 mm**

Weight: 9.1 kg

**910521 Tray conveyor**

Made of stainless steel, approx. 2,000 mm long, approx. 77 mm high, approx. 450 mm wide. Outlet with male coupling 50 mm with earthing lead with wing nut. Weight: 10.3 kg

**CONTAINERS AND COLLECTING EQUIPMENT****910530 Funnel**

With drain tube 600 mm earthing lead with wing nut. Outlet male coupling tank wagon 50, stainless steel. Dimensions (L x W x H): 400 x 400 x 150 mm. Weight: 6 kg

**910615 Funnel**

Made of stainless steel, 250 mm diameter. Weight: approx. 0.5 kg

**Decanting Funnel****910610 Light alloy, 250 mm diameter**

Weight: 0.3 kg

**910620 Polypropylene, 250 mm diameter**

Weight: 0.3 kg

**910625 Polypropylene, 350 mm diameter**

Weight: 0.5 kg

**904321-001 Tray, stainless steel**

Suitable for collecting and storing spilled chemicals, oil, acids and other liquids, but also sand, oil binding agents etc. which makes a catching of liquids possible also at difficult accessible places. The trays are conical in shape, and can be stacked. They come with 2 carrying handles for ease of transport. Dimensions (LxWxH): 610 x 410 x 180 mm. Weight: 8 kg

**904356 Bucket**

15 l, stainless steel. Weight: 1.6 kg

**910430 Oil and acid shovel**

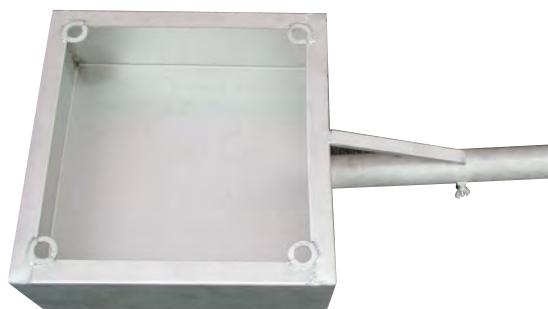
For scooping up very flat areas of liquid. Glass-reinforced, polyester, with handle. Colour: orange. Dimensions (LxWxH): 310 x 330 x 130 mm. Weight: 1 kg

**904330 Jerry-can**

20 l. Screw type cap, chain holded, with PTFE gasket, stainless steel (1.4301). Weight: 3.6 kg



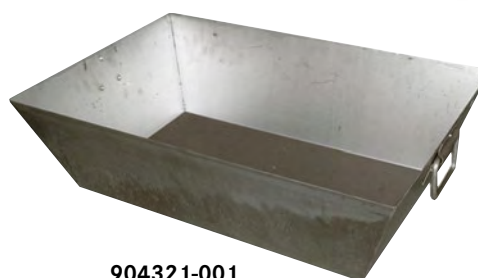
910521



910530



910615



904321-001



904356



910430



904330



904372



904254



904256



90425602

### Oil and acid containers

Made of glass fibre reinforced polyester, edges partially with steel inserts. Rectangular, with carrying handles. With lid. Colour: yellow-orange.

**904230**    **260 l.**  
Weight: 20.5 kg

**904231**    **420 l.**  
Weight: 27 kg

**904232**    **620 l.**  
Weight: 35 kg

### 904254    Chemical resistant container

Stackable, inside and outside smooth surfaces, transparent, approx. 100 l contents with handles. Complete with lid. Diameter: 590 mm. Height: 540 mm. Weight: 7.5 kg

### 904372    Containment barrel, 427 l, stainless steel

The special-steel containment barrels are ideal for containment and disposal of damaged containers with hazardous (or not immediately identifiable) contents. Diameter: 710 mm. Height: 1,364 mm. Plate thickness: 1.5 mm. Weight: 58 kg

### 904256    Safety drum

Provides optimum tightness of the cover for leaking steel or plastic drums that are filled with hazardous materials. The drums can be stacked. Made of polyethylene. Resistant to most acids, lyes, and oils. Dimensions (Diameter x H): 800 x 1,060 mm. Volume: 360 l. Colour: orange. Weight: 23 kg

### RECOMMENDED ACCESSORIES FOR SAFETY DRUM:

#### 90425602    Barrel hook

For lifting drums and barrels, made of steel, without any chain or cable. Weight: 8 kg

## FRAMED CONTAINERS

Framed containers consist of the container and a tubular frame.  
Container made of double-sided coated polyester fabric. Comes with frame, made of stainless steel.

	Capacity	1,600 l, 400 l Safety volume	3,000 l, 400 l Safety volume
	<b>Bottom</b>	1.50 x 1.50 m	2.00 x 2.00 m
	<b>Height</b>	0.90 m	0.90 m
<b>Applications</b>	<b>Material</b>	<b>Order no.</b>	<b>Order no.</b>
Water	PVC	<b>90121001</b>	<b>90131001</b>
Water, heating oil, diesel oil	PVC	<b>90122001</b>	<b>90132001</b>
Water, oil, petrol, 24h benzol, several chemical liquids	Perbunan N	<b>90124001</b>	<b>90134001</b>
Wide chemical resistance (e.g. petrol, 24h benzol)	TPE (thermo-plastic elastomere)	<b>90123001</b>	<b>90133001</b>

### RECOMMENDED ACCESSORIES FOR FRAMED CONTAINERS:

#### Carrying bag made of polyester PVC:

**901270** For container with 1,600 l capacity Weight: 0.7 kg

**901370** For container with 3,000 l capacity Weight: 1 kg

#### Flange

**902940** With valve and Storz C coupling

Blank cap, light alloy. Weight: 1.06 kg

**902950** With valve and Storz B coupling

Blank cap, light alloy. Weight: 1.52 kg

**902970** With valve and coupling Storz 65

Light alloy. Weight: 1.62 kg

**902975** Filling and discharging valve

Screw down type, with flange and 2.5" BS male coupling. Will be fitted to the container. Weight: 3 kg



902970



902940

## SELF-ERECTING INTERCEPTIVE TANKS

Interceptive tanks are suitable for interventions to intercept leaking liquids that are hazardous to the environment. Self-erecting interceptive tanks with a capacity of 10,000 litres upon request.

	Capacity	1,500 l	3,000 l	5,000 l
	<b>Bottom (diameter)</b>	2.1 m	2.5 m	3.25 m
	<b>Height</b>	0.75 m	0.8 m	0.85 m
<b>Applications</b>	<b>Material</b>	<b>Order no.</b>	<b>Order no.</b>	<b>Order no.</b>
Water	PVC	<b>902410</b>	<b>902610</b>	<b>902810</b>
Water, heating oil, diesel oil	PVC	<b>902420</b>	<b>902620</b>	<b>902820</b>
Water, oil, petrol, 24h benzol, several chemical liquids	Perbunan N	<b>902440</b>	<b>902640</b>	<b>902840</b>
Wide chemical resistance (e.g. petrol, 24h benzol)	TPE (thermo-plastic elastomere)	<b>902430</b>	<b>902630</b>	<b>902830</b>

### RECOMMENDED ACCESSORIES FOR SELF-ERECTING INTERCEPTIVE TANKS:

#### Carrying bag made of Polyester PVC:

**902470** For tank with 1,500 l capacity Weight: 1 kg

**902670** For tank with 3,000 l capacity Weight: 1.5 kg

**902870** For tank with 5,000 l capacity Weight: 2 kg



Tanks with 10,000 litres capacity upon request.

## SELF-ERECTING CLOSED STORAGE CONTAINER

Closed tanks are designed for safe storage of liquids. For drinking water, polluted water, fuels, and different chemicals. Small sized tanks can be used for carrying with various conveyances. They are cushion-shaped and are fitted up with two connections: the first one is located in the middle of the upper surface and is intended for venting; the second is located on the side of the tank and is intended for charging and discharging of liquids.

	Capacity	3,000 l	5,000 l	10,000 l
	<b>Bottom</b>	3.60 x 2.40 m	5.00 x 2.40 m	5.50 x 3.20 m
	<b>Height</b>	0.75 m	0.80 m	0.85 m
<b>Applications</b>	<b>Lining</b>	<b>Order no.</b>	<b>Order no.</b>	<b>Order no.</b>
Water, heating oil, diesel oil	PVC	<b>90287501</b>	<b>90287605</b>	<b>902877</b>
Water, oil, petrol, 24h benzol, several chemical liquids	Perbunan N	<b>902875</b>	<b>902876</b>	<b>90287702</b>



symbolic picture

### RECOMMENDED ACCESSORIES FOR SELF-ERECTING CLOSED STORAGE CONTAINERS:

#### Carrying bag made of Polyester PVC:

- 902880** For storage container with 3,000 l capacity  
Weight: 1.3 kg
- 902870** For storage container with 5,000 l capacity  
Weight: 2.1 kg
- 902885** For storage container with 10,000 l capacity  
Weight: 3.2 kg
- 902941** Flange with valve and Storz C coupling  
With blank cap, light alloy. Weight: 1.1 kg
- 902942** Flange with valve and Storz B coupling  
With blank cap, light alloy. Weight: 1.5 kg
- 902944** Filling and discharging valve  
Screw down type, with flange and 2.5" BS male coupling. Will be fitted to the container.  
Weight: 3 kg

#### Supporting tarpaulin, made of PVC

650 g/m<sup>3</sup>, colour: red, with eyes. Protection for the tent floor when the subsoil is poor. Eyes every 50 cm.

- 903122** 3 x 3 m. Weight: 6.3 kg
- 903128** 4 x 4 m. Weight: 11.2 kg
- 9031281** 5 x 5 m. Weight: 17.5 kg

Tarpaulins in green and yellow colour available upon request.

#### RECOMMENDED ACCESSORY FOR TARPAILINS:

- 904528** Press studs  
To be used for joining several tarpaulins to each other.  
Contains: 100 pieces.  
Weight: 0.1 kg



**Drain covers**

Pyramid-shaped, made of mineral-oil resistant 0.5 mm thick PVC special film, welded, filled with either water or sand.

<b>911510</b>	<b>600 x 600 x 250 mm.</b>	Weight: 0.5 kg
<b>911520</b>	<b>800 x 800 x 400 mm.</b>	Weight: 0.8 kg
<b>911530</b>	<b>1,450 x 1,450 x 450 mm.</b>	Weight: 2.5 kg

**SEALING BAGS 1.5 BAR FS****912301 Set of pipe and sewer sealing bags 1.5 bar FS**

Suitable for sealing and plugging of pipes and sewers with a diameter of up to 100 cm. Chloropren-Rubber (CR) material ensures increased resistance to chemicals. Working pressure: 1.5 bar.

The basic equipment consists of:

- 1 Pressure reducer 300/200 bar
- 1 Single controller 1.5 bar, fitting type
- 1 Inflation hose 10 m, blue
- 1 Pipe sealing bag RDK 10/20 FS for openings 10 - 20 cm (order no. 912266)
- 1 Pipe sealing bag RDK 20/40 FS for openings 20 - 40 cm (order no. 912267)
- 1 Pipe sealing bag RDK 30/60 FS for openings 30 - 60 cm (order no. 912268)
- 1 Pipe sealing bag RDK 50/100 FS for openings 50 - 100 cm (order no. 912269)

Weight of the complete set: 33.5 kg

**Pipe sealing bags FS 1.5 bar**

Good resistance to chemicals

- Withstands counterpressure up to 5 m WC (7.25 psi)
- Working pressure: 1.5 bar (21.75 psi)
- Test pressure: 1.95 bar (28.5 psi)
- Test counterpressure: 5 m water column (7.25 psi)

<b>912266</b>	<b>RDK 10/20</b>	Weight: 0.9 kg
<b>912267</b>	<b>RDK 20/40</b>	Weight: 3.1 kg
<b>912268</b>	<b>RDK 30/60</b>	Weight: 7.3 kg
<b>912269</b>	<b>RDK 50/100</b>	Weight: 16.5 kg
<b>912270</b>	<b>RDK 80/140</b>	Weight: 48 kg

Pipe diameter ø cm	Diameter ø cm	Cylinder length cm	Total length cm	Air requirement, at working pressure litres l
10/20	9	51	55.5	28.8
20/40	19.5	51	57	112
30/60	29.5	73.5	78	362.5
50/100	45	111	117	1525
80/140	78.5	181	185.5	3125



911510/911520/911530



912266



912267



912268



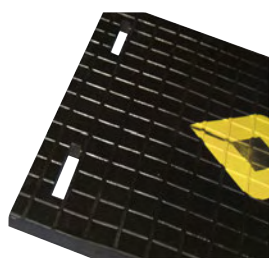
912269



912352



912371



## VETTER SEALING BAGS

### Vetter gully sealing bag

For quick sealing of all road gullies with outlets of 10 to 15 cm to keep out pollutants after accidents with hazardous goods. The high operating pressure of 2.5 bar withstands back-pressure of between 1 and 1.5 bar.

- Just one system for all the usual road gullies, very compact
- Minimum air requirements, ultra-fast in application
- Foot pump with safety valve and pressure regulator suffices for sealing operation
- No separate controller required; simple, practical positioning system
- Positioning rod can be extended, as needs dictate
- Each bag with 2.5 m inflation hose
- Also useful as sealing bags for pipe diameters between 10 and 15 cm
- 1 size for outlets of between 10 and 15 cm

### 912352 Set of gully sealing bags

Consisting of:

- 4 Universal gully sealing bags 2.5 bar, type 10/15 with 2.5 m inflation hose
- 1 Foot pump with safety valve and pressure gauge
- 1 Positioning rod 1.5 m long, 3-part
- 1 Portable case, plastic, 60 x 40 x 18.3 cm

Weight: 13.5 kg

### 912371 Set of gully sealing bags

Consisting of:

- 1 Compact gully sealing bag with 2 m inflation hose and 2 m tethering line, test counter pressure max. 2 m WC, for gullies up to 50 cm
- 1 Inflation and safety device with finger-tight connector, pressure reducer, safety valve, pressure gauge, quick-action coupling
- 1 Compressed air cylinder 1 l, 200 bar, unfilled
- 1 Portable case, plastic, 60 x 40 x 22 cm

Weight: 11.7 kg

### Vetter leak sealing bags 1.5 bar

Vetter leak sealing bags do their job swiftly, plugging sudden leakages from tanks, drums, pipes or road or rail tankers with diameters greater than 50 cm.

Both bag types are equipped with swivel eyes, which can be fastened at all angles, or non-sparking belt slits. They require a working pressure of only 1.5 bar, reducing the risk of additional damage to the container wall.

- Patented, reinforced and low-stretch top plate concentrates the sealing pressure on the highly stretchable sealing plate
- Integrated metal plates at both ends to distribute tensile load over entire bag width
- Flat design, usable in small gaps

Order no.	9 12299	9 12280
Sealing bag	<b>Leak sealing bag LD 50/30 S</b>	<b>Leak sealing bag LD 50/30 W</b>
Working pressure max.	1.5 bar	1.5 bar
Testing pressure	1.95 bar	1.95 bar
Sealing pressure max.	1.4 bar	1.4 bar
Nominal content	7.0 l	7.0 l
Weight	4.2 kg	6.9 kg

#### 912294 Set of leak sealing bag LD 50/30 W with swivel eyes

Consisting of:

- 1 Foot pump with safety valve 1.5 bar
- 1 Inflation hose, 10 m, blue with chain and deflation nipple
- 1 Leak sealing bag, type LD 50/ 30 W, with swivel eyes
- 2 Ratchet belts, each 2 m, orange and blue
- 2 Fastening belts, each 5 m, orange and blue
- 1 Tensioning and extension belt, 10 m, orange, with ratchet
- 1 Tensioning and extension belt, 10 m, blue, with ratchet
- 2 Sealing plates, 600 x 300 x 30 mm
- 1 Anti-acid protective cover, PVC, yellow for LD 50/ 30 W
- 1 Sealing plate 100 x 300 x 30 mm
- 1 Transport case

Weight: 32 kg



912294

#### 912296 Set of Leak sealing bag LD 50/30 S with belt guiding slits

Consisting of:

- 1 Foot pump with safety valve 1,5 bar
- 1 Inflation hose, 10 m, blue with chain and deflation nipple
- 1 Leak sealing bag, type LD 50/30 S with belt guiding slits
- 2 Tensioning and extension belts, 10 m, orange, with ratchet
- 2 Tensioning and extension belts, 10 m, blue, with ratchet
- 2 Sealing plates, 600 x 300 x 30 mm, CR
- 1 Sealing plate, 1,000 x 300 x 30 mm, CR
- 1 Anti-acid protective cover, PVC, yellow for LD 50/30 S
- 1 Transport case

Weight: 29 kg



912296

#### Leak sealing bandages 1.5 bar

When pipes burst without warning, Vetter leak sealing bandages staunch the leak quickly and reliably, protecting people and the environment from outflowing pollutant and poisonous liquids.

The leak patches are especially advantageous for sealing pipe leaks in the most awkward and inaccessible places. They have proved their effectiveness time and again, on pipe diameters from 5 cm up to 48 cm.



Leak-sealing-bandage



647460



646540



646538



Order no.	912281	912282
Sealing bandage	<b>Leak sealing bandage LB 5-20</b>	<b>Leak sealing bandage LB 20-48</b>
Size	98 x 21 cm	177 x 21 cm
Sealing surface	19 cm wide	19 cm wide
Working pressure max.	1.5 bar	1.5 bar
Test pressure	1.95 bar	1.95 bar
Weight	2.3 kg	4 kg

#### RECOMMENDED ACCESSORIES:

##### 646538 Single fitting controller 1.5 bar

##### 647460 Pressure regulator 200/300 bar

Comes with 2 m connection hose green and instantaneous coupling. Comes without shut off and control valve and two pressure gauges. Required for use with compressed air cylinder. Complete with quick release air couplings.

##### 646540 Inflation hose

10 m, 1.5 bar blue, with chain and deflation nipple, blue.

#### Mini leak sealing bags 1.5 bar

For sealing leaks on small drums, pipes, containers, iron-hooped barrels from 10 to 90 cm in diameter.

- Quick and easy to use, with non-metal tensioning belt with velcro strip fastener
- Low nominal content and quickly inflated, only 5 to 15 strokes with the foot pump
- Available as complete set in portable case, with inflation and safety hose and foot pump
- Very small and useful leak sealers on small drums down to 100 mm in diameter

##### 912355 Mini leak sealing bag type LDK 10/10

Size (LxWxH): 15.0 x 15.0 x 1.2 cm  
 Sealing surface: 9.5 x 9.5 cm  
 Working pressure max.: 1.5 bar  
 Test pressure: 1.95 bar  
 Weight: 0.5 kg

##### 912356 Mini leak sealing bag type LDK 10/25

Size (LxWxH): 15.0 x 31.0 x 1.2 cm  
 Sealing surface: 9.5 x 25.5 cm  
 Working pressure max.: 1.5 bar  
 Test pressure: 1.95 bar  
 Weight: 0.8 kg

##### 912357 Mini leak sealing bag type LDK 20/20

Size (LxWxH): 25.0 x 25.0 x 1.2 cm  
 Sealing surface: 19.5 x 19.5 cm  
 Working pressure max.: 1.5 bar  
 Test pressure: 1.95 bar  
 Weight: 1 kg

**912358 Set Vetter mini leak sealing bags 1.5 bar**

Consisting of:

- Mini leak sealing bags type LDK 10/ 10, LDK 10/ 25, LDK 20/ 20
- 1 Foot pump with safety valve
- 2 Tensioning belts, 150 cm long
- 3 Tensioning belts, 300 cm long, blue, with Velcro strip fastener
- 1 Portable case, 60 x 40 x 18.3 cm

Weight: 10.4 kg



912358

**Leak sealing lance 1.5 bar**

The Vetter leak sealing lances are for fast sealing of leaks in storage tanks or road or rail tankers by a single person. The extendable lance (with three extensions for safe operation) allows the operator to mount wedge-type or cone-type bags in and beneath cracks, 15 to 60 mm, and holes, 30 to 90 mm in diameter, and plug leaks quickly. The bags are made of highly flexible material with an anti-slip profile. They require a minimum of air to do their job, and are quickly inflated to working pressure by a foot pump.

- Single operator
- Fast leak sealing
- Insertion of leak sealing bags from a safe distance (with a lance that can be extended from 35 to 140 cm)
- Cone-type bag seals holes from 3 to 9 cm
- Wedge-type bags seal holes from 1.5 to 6 cm
- Inflatable with foot pump (very low air requirement of 0.6 to 3.1 l)
- Lance with three extensions
- Supplied as complete set in portable packing case with safety controller, shut-off unit and foot pump

**912400 Set Vetter leak sealing lance**

Sealing lance 1.5 bar.

Consisting of:

- 3 Wedge-type bags: bag 6, bag 8 and bag 11
- 1 Cone-type bag 7
- 1 Lance 35 cm long with chain and deflation nipple
- 1 splash disk
- 3 Lances each 35 cm long
- 1 Shut-off unit
- 1 Foot pump with safety valve
- 1 Portable case, plastic, 40 x 30 x 22 cm

Weight: 8.1 kg



912400

	<b>Wedge-type 6</b>
Bag size (LxWxH) with coupling 4.7 cm	23 x 6 x 5 cm
Working pressure max.	1.5 bar
	<b>Wedge-type 8</b>
Bag size (LxWxH) with coupling 4.7 cm	23 x 8 x 5.5 cm
Working pressure max.	1.5 bar
	<b>Wedge-type 11</b>
Bag size (LxWxH) with coupling 4.7 cm	23 x 11 x 7 cm
Working pressure max.	1.5 bar
	<b>Cone-type 7</b>
Bag size (LxWxH) with coupling 4.7 cm	23 x diam. 7 cm
Working pressure max.	1.5 bar



912300



912045

**912300 Vetter high pressure leak sealing system HLS**

Suitable for sealing of components, up to a pressure of maximum 10 bar, which are difficult to access. Enables to carry out sealing on smooth surface pipelines as well as shaped components such as pipeline bends, T-pieces and fittings on slide rods and valves. It adapts to the various pipe diameters due to the different hose length. Consisting of:

- Sealing hose 1,500 mm, 2,500 mm and 3,500 mm
- Inflation valve
- Inflation hose for sealing hose
- Pressure reducer 200/ 300 bar
- Plastic case 600 x 400 x 183 mm
- Sealing plate material: NBR, EPDM and FKM

Weight: 12.3 kg

**Pipe sealing sleeve**

Suitable for mechanical sealing of pipes and pipelines operating at a pressure of up to 16 bar. Useful equipment for fire brigades, in the chemical industry, at water works and district heating plants.

- Withstand backpressure of 16 bar
- Seal cracks and holes even in the smallest pipe sizes down to 1/2"
- Requires no compressed-air
- Fastened with 4 to 6 socket head cap screws
- 9 sizes from 1/2" to 4"
- Material: malleable iron
- Perbunan sealing, heat resistant up to 80 °C

**912045 Set vetter pipe sealing sleeves**

Consisting of:

- 9 Sealing sleeves 1/2" to 4"
- 1 Stud driver for socket head screws
- 1 Wrench for socket head screws
- 1 Portable case 400 x 300 x 183 mm

Weight: 23.3 kg

**912046 Sealing sleeve 3"**

Weight: 3.4 kg

**912047 Sealing sleeve 4"**

Weight: 4.5 kg

**Recommended accessories for 1.5 bar operation:****646538 Single controller**

1.5 bar, fitting.

Weight: 1.8 kg

**646536 Dual controller**

1.5 bar, fitting.

Weight: 2.7 kg

**646540 Inflation hose**

10 m, 1.5 bar, blue.

Weight: 2.8 kg

**646539 Inflation and safety hose**

10 m 1.5 bar, blue.

Weight: 3.3 kg

**Ratchet belt for LD 50/ 30 W****912303 2 m, orange.**

Weight: 2.57 kg

**912304 2 m, blue.**

Weight: 2.57 kg



646538



646536



646540



646539

**Tensioning belt for LD 50/ 30 W****912436** 5 m, orange. Weight: 1 kg**912437** 5 m, blue. Weight: 1 kg**912310 Set of extension and tensioning belts**

Required for use with sealing bags LD 50/ 30 W, LD 50/ 30 S, and DLD 50/ 30.

Each set consisting of:

- 1 belt 10 m, orange colour
- 1 belt 10 m, blue colour

Weight of the complete set: 6 kg

**912303 / 912304****912436 / 912437****912310****912315 / 912316****Sealing plates****912315** 600 x 300 x 30 mm (2 pcs.)

Weight: 3 kg

**912316** 1000 x 300 x 30 mm (1 pc.)

Weight: 1.7 kg

	Cold-resistance	Cold	Heat-resistance long term	Heat-resistance short term
Hot-vulcanised	-40 °C	-20 °C	90 °C	115 °C
Cold-vulcanised	-40 °C	-20 °C	70 °C	85 °C

Product	Mat.	Reinforced Material	Type
Lifting bags 0.5 bar	C	Aramide/polyester	Cold-vulcanised
Lifting bags 1.0 bar	C	Aramide/polyester	Cold-vulcanised
Leak sealing bandage	C	Nyloncord	Hot-vulcanised
Leak sealing bags	C	Nyloncord	Hot-vulcanised
Leak sealing lance	C	Nyloncord	Hot-vulcanised
Air supply and inflation hoses	E	Polyester	
Mini lifting bags	D	Steelcord/aramide	Hot-vulcanised
Mini leak sealing bags	C	Nyloncord	Hot-vulcanised
Pneumatic lifting sleeve	A	Nyloncord	Hot-vulcanised
Packer sieve	A	Nyloncord	Cold-vulcanised
Pipe sealing bags	A	Nyloncord	Hot-vulcanised
Acid cover for leak sealing bags	E	Polyester	
Universal gully sealing bags	C	Nyloncord	Hot-vulcanised

Agent	Material				
	A	B	C	D	E
Aceton	+	-	o	o	-
Acetylene	+	+	+	+	o
Alum watery	+	o	+	+	+
Anilene	-	-	-	-	-
ASTM-oil 1	-	+	o	o	nd
Petrol	-	+	o	o	-
Benzene	-	-	-	-	-
Boric acid	+	+	+	+	+
Bromine (moist)	-	-	-	-	-
Butyric acid	-	o	-	-	o
Chlorin gas (moist)	-	-	-	-	-
Diesel fuel	-	+	o	o	o
Iron chloride	+	+	+	+	+
Petroleum	-	+	o	o	o
Acetic acid	+	o	o	o	o
Copper sulphate	+	+	+	+	o
Methyl chloride	-	-	-	-	-
Sea water	+	+	+	+	+
Ozone	-	-	o	+	o
Perchloric acid	-	-	o	o	o
Phenol (watery)	-	-	-	-	-
Phosphoric acid (concentrated)	-	-	-	-	+
Nitric acid (fuming)	-	-	-	-	+
Sulphur dioxide (dry)	-	-	-	-	o
Sulphur acid (50%)	o	-	+	+	o
Carbon tetrachloride (moist)	-	-	-	-	-
Toluene	-	-	-	-	-

Materials react more quickly to chemicals when they are stretched than when they are static or at rest. The greater their stretch or elongation, the lower their chemical resistance. Consequently, this list of resistance strengths can serve only as a guide. They are influenced in practice by variable factors, e.g. temperature, intensity, length of exposure etc.

All that was taken into account in compiling this list.

The symbols hereinafter denote the following conventions:

- + resistant
- o conditionally resistant
- non-resistant
- nd no details

The findings represent the present state of our know-how and are to be taken as guidelines. We will gladly provide materials samples to users wishing to conduct their own chemical-resistance tests.



912040



912041



912003



912004

**912040 Leak-sealing paste**

In situations where petrochemical products, acids and alkalis and other chemicals are being dealt with day in, day out, a supply of leak-sealing paste is a 'must' when it comes to providing the First Aid needed in leakage emergencies (other than water leakages), as it prevents damage getting any worse until permanent repairs can be carried out. The paste does not even lose its safe adhesion properties on rusty, greasy or dirty surfaces, and even withstands counterpressures of as much as 0.4 bar. The leak-sealing paste is neither toxic nor combustible, and should always be kept accessible as a "First-Aid-Pack" for all eventualities. Consisting of 8 cans, each 500 ml, in a box.

Weight: 4.8 kg

**912041 Leak sealing paste**

Description please refer to order no. 912040 above. Consisting of 1 can of 500 ml.

Weight: 0.6 kg

**912003 Sealing wedges**

Made of soft wood, length of wedges 300 mm.

Consisting of:

- 5 Wedges 200/70 mm
- 5 Wedges 150/70 mm
- 5 Wedges 100/70 mm
- 5 Wedges 50/70 mm

Weight: 12 kg

**912004 Sealing stoppers**

Made of soft wood, 300 mm long.

Consisting of:

- 5 Stoppers 90/25 mm diam.
- 5 Stoppers 60/10 mm diam.
- 5 Stoppers 30/10 mm diam.
- 5 Stoppers 25/10 mm diam.

Weight: 3.7 kg

**912110 Foam rubber sealing wedge**

Oil resistant, dimensions: 450 x 250 x 200 mm.

Weight: 0.8 kg

**911700 Foam rubber sealing plate**

Dimensions: 90 x 90 x 2 cm

**912060 Worm drive hose clips**

According to DIN 3017, with cylinder screw, galvanised. Each set consists of 5 pieces for diameters 25 - 40 mm, 32 - 50 mm, 50 - 70 mm.

Weight: 0.3 kg

**912065 Stainless steel wire**

1.5 mm diameter. Roll of 20 meters.

Weight 5.6 kg



- 910010 Shovel**  
Made of light alloy. 400 x 330 mm with handle.  
Weight: 4 kg
- 
- 910412 Scoop**  
Made of stainless steel. 4 l, with handle, 1.7 m long.  
Weight: 2 kg
- 
- 912042 Plug N'Dike pre-mix**  
It is a non-toxic material which forms an immediate seal to control flammable and/or hazardous leaks and spills. The pre-mix is a combination of a polymer in a bentonite base that produces a seal against penetration of fuels and chemicals. No surface preparation needed. Made of plugging material; it does not absorb.  
Weight: 4.5 kg
- 
- 910427 Scoop**  
Made of stainless steel. 3 l.  
Weight: 2.5 kg
- 
- 910425 Hand scoop**  
Made of stainless steel. 1 l.  
Weight: 0.4 kg
- 
- 910810 Oil binder removing shovel**  
With handle, made of light alloy perforated plate, 400 x 350 mm, to taxing away oil bonding agents on waters, with swivelling handle adjustment 45 degrees up to 90 degrees. Length: 1.8 m.  
Weight: 3 kg
- 



910010



912042



910425



910810



910995



911200

**911002 Rubber slider FIX-O-MAT**

Consisting of: 1 rubber slide FIX-O-MAT, 580 mm width, with foam rubber doubling tires, oil resistant, 1 FIX-O-MAT patent handle with safe handle attachment. Weight: 1.5 kg

**910995 Rubber slider**

Galvanised, 50 cm with handle. Weight: 2 kg

**911100 Broom PIASSAVA**

Made of Piassava material (Piassava is a natural fibre, which causes no electrostatic loading compared to normal plastics), size 420 x 75 mm, with screw type wooden handle, approx. 1.7 m long. Weight: 2 kg

**911200 Broom with stick**

Made of plastic material, size 420 x 75 mm. With screw type wooden handle, approx. 1.7 m long. Weight: 2 kg

**Mallet**

With handle.

**910110 Rubber** Weight: 0.5 kg

**910120 Rubber** Weight: 1 kg

**910210 Copper** Weight: 1 kg

**910220 Copper** Weight: 2 kg

**910320 Wood** Weight: 0.7 kg

**Hammers****910050 Rubber-plastic hammer**

60 mm diameter. Weight: 1.3 kg

**911829 Lead hammer.**

With handle. Weight: 1 kg

**912232 Lead wool.**

Weight: 2 kg

**911750 Cellular rubber plate**

Dimensions: 50 x 100 x 3 cm. Weight: 2.5 kg

**911821 Plastic sealing band, 10 m, black**

Width: 100 mm, 0.15 mm thick on spool. Weight: 0.4 kg

**911822 PTFE sealing tape**

10 m long, 12 mm width. Weight: 0.1 kg

## NON-SPARKING TOOLS

Non-Sparking Tools are the best for non-sparking application purposes in potentially explosive environments. All tools are forged after casting to achieve the best quality in the market, both in mechanical properties and attractive finishing. The tools are manufactured according to the strict control of ISO 9001-200, certified by the most prestigious institution for hand tool manufacturing.

Tools made of Cu-Be alloy can be used in all groups (I, IIA, IIB, IIC) in a safe way, always respecting the maximum surface temperature allowed, except with acetylene that can create explosive gases.

**908205 Round point shovel**  
240 x 290 mm, 1,350 mm long, non sparking, beryllium-copper.  
Weight: 1.5 kg

**908305 Scoop shovel**  
240 x 290 mm, 1,350 mm long, non sparking, beryllium-copper.  
Weight: 1.5 kg

**908405 Spade**  
180 x 280 mm, 1,120 mm long, non sparking, beryllium-copper.  
Weight: 1.5 kg

**908515 Clay pick**  
56 x 410 mm, 1,050 mm long, non sparking, beryllium-copper.  
Weight: 2 kg

**908525 Clay pick**  
56 x 470 mm, 1,050 mm long, non sparking, beryllium-copper.  
Weight: 2.5 kg

**908526 Sledge hammer**  
Non sparking, beryllium-copper.  
Weight: 3 kg

**908527 Sledge hammer**  
Non sparking, beryllium-copper.  
Weight: 5 kg

**908528 Wrecking bar**  
600 mm long, non sparking, beryllium-copper.  
Weight: 2.4 kg

**908610 Pinchbar**  
850 mm long, non sparking, beryllium-copper.  
Weight: 4.5 kg

**908611 Pinchbar**  
1,500 mm long, non sparking, beryllium-copper.  
Weight: 8.5 kg



908205



908305



908405



908515



908525



908526



908527



908528



908610



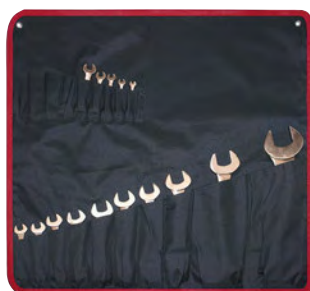
908611



908612



908613



908614



908615



908617



9097101

**908612 Pliers**  
200 mm long, non sparking, beryllium-copper.  
Weight: 0.25 kg

**908613 Groove joint pliers**  
12" long, non sparking, beryllium-copper.  
Weight: 0.7 kg

**908614 Double open end wrench**  
Set 6 - 50 mm, non sparking, beryllium-copper.  
Weight: 2 kg

**908615 Rake**  
450 x 120 mm, non sparking, beryllium-copper.  
Weight: 1.5 kg

**908617 Tool kit**  
Non sparking, beryllium-copper in toolbox.  
Weight: 7.5 kg

**9097101 Tool bag leather**  
430 x 160 x 270 mm.  
Weight: 1.8 kg

## WARNING SIGNS

Triangle in European standard design, yellow background, black border. Made of aluminium sheet, ScotchLite coated for high visibility also during night-time. Black pictogram.

The sign can be mounted onto a multi purpose stand that is available at extra costs. Height 400 mm.

Weight: 0.7 kg

672530	“Explosion Hazards”
672531	“Toxic Substances”
672532	“Oxidising Substances”
672533	“High Voltage”
672534	“Radiation Hazards”
672535	“General Danger”
672536	“Corrosive Substances”
672537	“Biohazards”
672538	“Fire Hazards”

676315 **Banner tape**  
“Caution do not enter” yellow, 3", 300 m long

672036 **Warning sign**  
“Entry”, 315 mm, blue

672037 **Warning sign**  
“Exit”, 315 mm, blue

676200 **Multipurpose stand for warning signs**  
For holding two signs of different or identical size and shape, galvanised tubing, collapsible, sturdily designed.  
Weight: 3.5 kg

## Prohibition Signs

Round prohibition signs in European standard design, white background, red border and stripe. Made of aluminium sheet. The sign can be mounted onto a multi purpose stand. Diameter: 315 mm.

Weight: 0.5 kg

672030	“Do not extinguish with water”
672031	“No Entry”
672032	“Naked Flames and Smoking”
672033	“Smoking Prohibited”
672034	“Non-Potable Water”
672035	“Combustion Engines Running”



672530



672531



672532



672533



672534



672535



672536



672537



672538



676200



672030



672031



672032



672033



672034



672035



918010



918000

## OIL AND CHEMICAL BINDING AGENTS

### 918010 **Bindox type WB 83**

Suitable for land and sea operations. Buoyant, and non-slippery on road surfaces. Bindox oil binder type WB 83 is a dry oil binder with absorbent carrier substances. It distributes itself evenly and without forming lumps, even on agitated water, and is combustible with only a low ash content. The oil binder is environment-friendly and harmless to people, animals and plants. On the surface of water, the mineral oil is separated from the water; in the soil, the oil is prevented from advancing uncontrollably. Non-slippery on solid surfaces, thus also suitable for use on roads and highways. Areas of use: on calm or flowing water, in sewage purification plants, for cleaning oil tanks, after oil road-tanker accidents, in industry, workshops, refineries, at airfields and on all kinds of roads. To remove oil pollution from water surfaces and in sewage treatment plants, the oil binder is scattered onto the surface of the water, either by hand or by special appliances, and is then skimmed off with a sieve-type shovel or drawn up by machine. In flowing water, Bindox oil binder type WB 83 is trapped by oil barriers so that it can then be skimmed off. Being highly buoyant, it floats back up to the surface even of turbulent fast-flowing water, whether oil-saturated or as an oil-free excess. Shelf Life Bindox type WB 83 remains effective for an unlimited period of time. Supplied as powder in 20 kg (= 85 l) plastic bags.

### 918000 **Bindox type FT 3**

Suitable for land operations. Universal absorber Bindox type FT 3 is an absorption agent that soaks up liquids such as oils, fats, fuels, chemicals etc., thereby preventing injury and damage not only in e.g. the manufacturing and shipping fields but also on roads and highways. The small granular size increases the oil absorption, making this oil binder type particularly cost-effective. This oil binder grade also stands out for its excellent non-skid characteristics. Supplied PE valve sacks, contents 23 kg = 48 l. When stored in dry conditions, Bindox type FT 3 remains effective for an unlimited period of time. Areas of use: industrial operations, power stations, mineral-oil distributors, filling stations, garages, workshops, tank-cleaning operations, paint and dye industries, chemical industry, fire brigades, highway maintenance departments.  
Weight: 23 kg

## OIL BARRIERS

Clean water is vitally necessary: this makes the use of fast operationally, more flexibly, efficiently and surely functioning oil barrier equipment indispensable. Oil barriers meet these requirements, have stood the test of time for years and they provide incomplete range of measures for fighting oil pollution.

Oil barriers are available in different sizes for all types of water bodies: air-inflatable (L) or solid oil barriers (F / WDF) that come optionally folded in bags / containers or stored on special oil barrier reels for transport purposes (WDF / L).

### Advantages of oil barriers:

- Rapid deployment capability due to easy handling both on water and on land
- Outstanding operational efficiency due to high oil retention rate even with fast-flowing water and wave motion
- Best-possible operational flexibility due to extensive modular accessory system
- Reliable operational safety due to rugged outer cover and stable buoyancy elements

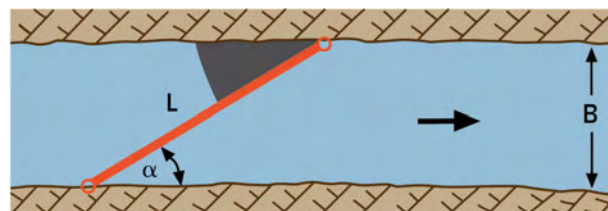
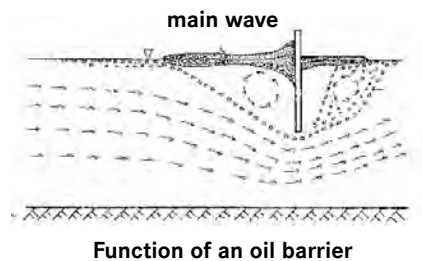
The picture on the right shows the function of an oil barrier.

### The optimal use of oil barriers:

Swimming oil barriers can be used effectively only if incident-flow velocity of the water affecting the oil barrier does not exceed 0.3 m/sec. With rising incident-flow velocity the effectivity of the oil barrier decreases due to infiltration. The incident-flow velocity is reduced, if the oil barrier is inserted diagonally for direction of flow. The angle is to be selected in such a way that the incident-flow velocity becomes as small as possible to the oil barrier.

Submergence - remaining depth: With the employment in flat, fast flowing waters it is to be made certain that the cross section of waters remaining under the oil barrier is not too strongly restricted, since otherwise to high velocities of flow under the oil barrier emerge.

Example for incident flow velocity > 0.5 - 1 m/s  
 Angle  $\alpha$  30°  
 Length of barrier  $L \sim B \times 2$   
 Traction  $F \sim L \times 60$  (N) or  $F \sim B \times 120$  (N)



### Use of oil barrier models 100, 250, 350, 600, 900 and 1100

Water body	100	250	350*	600	900*	1100*
Stream 1-10 m wide	●	●				
Small river 10-30 m		●	●			
River / canal > 30 m			●	●		
Lake		●	●	●		
Inland port		●	●	●		
Sea port				●	●	●
Coast / ocean					●	●

\* available upon special request



#### Solid brook oil barrier 100 F

This oil barrier is suitable particularly for the employment on small waters (brooks, ditches, ponds)

In this combination of oil barrier, oelsorb-material and disposal bag takes off the complete oil disposal chain and forms thereby an inexpensive basis module for oil defending units.

#### Solid oil barrier 250 F

The solid oil barrier 250 F is a flexible oil barrier for inland waters. By small submergence (170 mm) it can be used on flat and fast-flowing waters. An extensive accessory system ensures an optimal effectiveness with most different operating conditions.

#### Solid oil barrier 600 F/ L

The oil barrier 600 F/L is a flexible rapid-action barrier. It is recommended to apply the oil barrier in seaports and coastal waters. It can be operated from swap bodies / roller containers / coil containers or from the oil barrier trailer. For transport and storage, the oil barrier 600 F is folded segment by segment and packed in special carrier bags (total weight per bag: 40 kg)

Oil barrier	100 F	250 F	600 F
Height, total in mm	200	250	600
Approx. immersion depth in mm	100	100	400
Approx. freeboard in mm	100	150	200
Weight in kg/m	2.5	3.0	4.5
Segment length in m	5	5/10	10
Cover	PVC plastic-coated fabric 900 g/m <sup>2</sup> orange	PVC plastic-coated fabric 900 g/m <sup>2</sup> orange	PVC PU plastic-coated fabric 1000 g/m <sup>2</sup> orange
Ballast	Lead plates welded in	Lead plates welded in	Zinc-plated chain
Coupling	Aluminium quick action coupling	Aluminium quick action coupling	Aluminium quick action coupling
Float buoyancy	PU 100 mm, 1000 mm long	150 mm x 1,000 Ø	PU 200 mm, 1,000 mm long
Submergence	approx. 150 mm	approx. 170 mm	approx. 400 mm



Other oil barriers (e.g. 900 F / 900 L, 1100 F / 1100 L) and other segment lengths, colours and coupling systems (U-bolt, ASTM coupling) available upon request.



**919910 Basic equipment oil barrier 100 F**

Consisting of:

- 2 Brook oil barriers, with aluminium quick-action coupling, 5 m long
- 2 Bank end pieces double with mitre
- 1 Manifold bank protection barrier
- 4 Earth nails, 1,000 m long, 18 mm diameter
- 2 Swimming ropes, polypropylene, 14 mm, 15 m
- 2 Swimming ropes, polypropylene, 14 mm, 30 m
- 2 Mallets 1.5 kg each
- 10 PE disposal bags, oil-resistant, 700 x 1,100 mm
- 2 Folding buckets with line 1 m
- 40 Oil absorbing pads 480 x 430 mm
- 5 Oil absorbing socks 500 mm long, 200 mm diam.
- 1 Carrying bag PVC

Colour: orange

Dimensions: 1,200 x 600 x 500 mm

Weight: 56 kg



919910

**919920 Completion set for oil barrier 100 F (order no. 919910)**

Contains 2 brook oil barriers, 5 m long.

Colour: orange

Dimensions: 900 x 600 x 500 mm

Weight: 34 kg

**919930 Basic equipment solid oil barrier 250 F**

Consisting of:

- 2 Solid oil barriers, with light alloy coupling, 5 m long
- 2 Light alloy couplings for brook oil barrier.
- 2 Bank end pieces double with mitre
- 2 Manifold bank protection barriers
- 2 Earth nails, 1,000 m long, 18 mm diameter
- 2 Swimming ropes, polypropylene, 14 mm, 15 m
- 1 Mallet 1.5 kg
- 10 PE disposal bags, oil-resistant, 700 x 1,100 mm
- 1 Folding bucket with line 1 m
- 40 Oil absorbing pads 480 x 430 mm
- 1 Carrying bag PVC

Colour: orange

Dimensions: 1,400 x 600 x 650 mm

Weight: 40 kg



919930

**919940 Completion set for oil barrier 250 F (order no. 919930)**

Contains 2 solid oils barriers, 5 m long.

Colour: orange

Dimensions: 1,400 x 600 x 650 mm

Weight: 32 kg

**919960 Basic equipment solid oil barrier 600 F**

Consists of:

- 100 m oil barrier 600 F = 10 segments each 10 m long, height approx. 600 mm
- 14 Aluminium quick-action couplings
- 2 Bank end pieces
- 1 Manifold bank protection barrier
- 2 Anchor adapter pieces
- 2 Universal anchor sets
- 2 Magnetic fixing pieces for ships
- 1 Cable pull set

Weight: 550 kg



919960



Other oil barriers (e.g. 900 F / 900 L, 1100 F / 1100 L) and other segment lengths, colours and coupling systems (U-bolt, ASTM coupling) available upon request.

Air-inflatable (pneumatic) systems available upon request.

#### RECOMMENDED ACCESSORIES FOR OIL BARRIER 100 F:

- |               |  |
|---------------|--|
| <b>919953</b> | <b>Bank end piece</b><br>Weight: 0.84 kg         |
| <b>919951</b> | <b>Flat coupling bar</b><br>Weight: 0.2 kg       |
| <b>919881</b> | <b>Draw tail piece</b><br>Weight: 0.3 kg         |
| <b>919880</b> | <b>End piece</b><br>Weight: 0.54 kg              |
| <b>919876</b> | <b>Bank tail piece single</b><br>Weight: 0.34 kg |
| <b>919878</b> | <b>Bank tail double</b><br>Weight: 0.8 kg        |

#### RECOMMENDED ACCESSORIES FOR OIL BARRIER 100 F, 250 F AND 600 F:

- |               |  |
|---------------|--|
| <b>919961</b> | <b>Set of transport bags</b><br>Made of PVC. Each set consists of 11 bags. Suitable for transport and storage of oil barrier segments. Dimensions of each bag: 1,200 x 800 x 600 mm. Colour: orange<br>Weight: 50 kg |
| <b>919844</b> | <b>Anchor set universal</b><br>Weight: 35 kg   |

#### Storage and handling:

Oil barrier trailer / solid oil barrier trailer / air-inflatable oil barrier available upon request

#### Further equipment upon request:

- Skimmers, are used to extract hydrocarbons from bodies of water
- Flexible containers, when water-oil fluids need to be interim-stored
- Ropes, special tools, compressor, buoys, magnets, etc. counseling before assignment is necessary!

## DECONTAMINATION EQUIPMENT

Contamination is the pollution of persons, equipment, rooms or the environment by **(N)** nuclear material (radioactivity), **(B)** biological or **(C)** chemical substances.

**WARNING: On every operation, contamination will occur** in various stages!

Decontamination is a reduction and/or elimination of hazardous substances (contamination) on surfaces (especially protective clothing and own appliances). It should be done after every operation!

### Dry decontamination and wet decontamination

Dry decontamination is decontamination without using liquid decontamination agents. Mostly wet decontamination is performed.

The following decontamination-sets are available:

#### 919500 Hygiene set

For preliminary cleansing at the operation scene.  
Fits into a plastic box (facilitates retrofitting in vehicles)  
Uses standard connections and systems  
Therefore it should be available on each fire truck.

Consisting of:

- Small box
- Brushes
- Hoses
- Liquid soap
- Skin protection cream
- Paper towels
- Limited use protection clothing
- Garbage bags

#### Dry decontamination set

Dry decontamination is the cleaning of surfaces without the use of liquids. It will be performed when the use of liquids is impossible. It is done by wipe off or dap off with absorbing leaks, spills-mats and chemical-absorbents.

Consisting of:

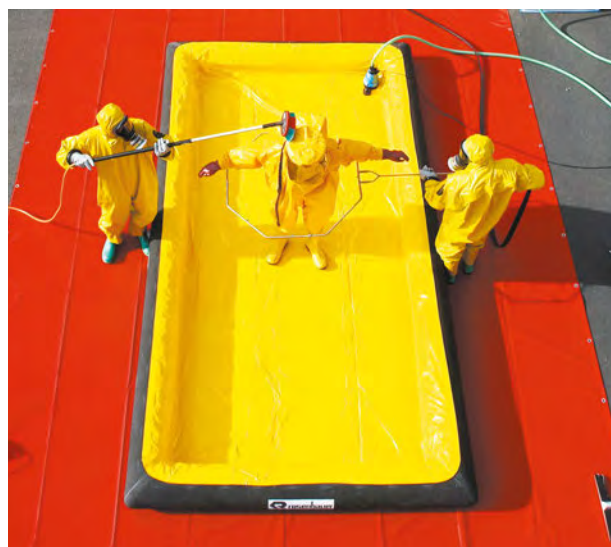
- Stainless steel trays
- Underlay tarpaulins
- Universal absorbent mat
- Limited use protection clothing
- Garbage bags
- Replacement clothes disposable

#### Emergency decon set

For fast Decontamination in emergencies.

Consisting of:

- Decontamination tub
- Underlay tarpaulin
- Decontamination fluid
- Multi-purpose-hand-spray
- Hoses
- Limited use protection clothing
- Brushes
- Garbage bags
- Universal cleansing gear
- Replacement disposable clothes



919500



Emergency decon set



Part of the standard decon set



Underlay tarpaulin coloured red, yellow, green  
(symbolic picture)

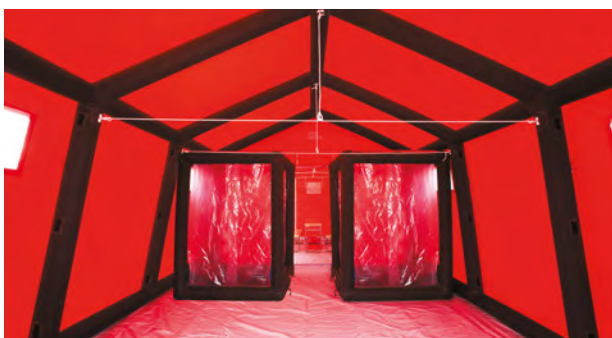
red: contaminated area (order no. 903129)

yellow: decontamination process (order no. 903149)

green: clean area (order no. 903169)



The tents can be linked together (symbolic picture)



Showers can be placed inside the tent (symbolic picture)

#### Base decon set

For fast and adequate decontamination of own units.

Consisting of:

- Decontamination tub
- Underlay tarpaulin
- Barrier tape and equipment
- Hygieneset
- Protection clothing for decontamination personnel
- Hoses and adapters
- Deconcircle
- Deconbrush
- Deconfluid
- Waste water storage
- Garbage bags
- Universal cleansing gear, bathing towels
- Replacement disposable clothes

#### Standard decon set

For decontamination of own units, equipment on medium to large operations.

Consisting of:

- Fast deployment tent Rosenbauer (including accessories)
- Decon-shower COMPACT
- Decontamination tub
- Underlay tarpaulin (red, yellow, green)
- Barrier tape and equipment
- Hygiene set
- Protective gear for decontamination personnel
- Deconcircle
- Deconbrush
- Deconfluid
- Water heater
- Hoses and adapters
- Waste water storage
- Garbage bags
- Universal cleansing gear, bathing towels
- Replacement disposable clothes

#### Mass-decon-set

For decontamination of own units, civil persons and equipment on large operations and events.

Consisting of:

- Fast deployment tents Rosenbauer (including accessories)
- Decon-shower Rosenbauer
- Decontamination tub
- Underlay tarpaulin (red, yellow, green)
- Barrier tape and equipment
- Protection clothing for decontamination personnel
- Deconcircle
- Deconbrush
- Deconfluid
- Water heater
- Hoses and adapters
- Waste water storage
- Garbage bags
- Universal cleansing gear, bathing towels
- Replacement disposable clothes
- Detecting equipment

## ROSENBAUER TENT

### 9360425 Fast deployment tent

Size (LxWxH): 5.0 x 4.5 x 3.18 m. The shelter frame is equipped with a safety device according to the maximum working pressure of 0.3 bar. The tent frame can be inflated with an electric blower or with a normal air supply (two supply connections). The bottom of the tent is removable. The shelter frame is repairable with a repair kit as well. The tent is equipped with two inner ropes to attach equipment or separation walls. Adjustment for dividing tarpaulin. Comes with 18 pegs, transport bag and repair kit in small bag.

Air requirement: 1,999 litres

Weight: 78 kg

#### Inflation device:

### 408922 Compressed air cylinder 6 l / 300 bar

Will be delivered empty. Weight: 11 kg

### 647460 Pressure reducer 200/300 bar

With 2 m filling hose. Weight: 2.6 kg

### 936070 Electric blower

Complete with filling hose. Can be used as inflation/deflation device. The tent can be taken down in less time.

Voltage: 230 V / 50/60 Hz, 0.96 kW

Weight: 7.8 kg

#### RECOMMENDED ACCESSORIES FOR FAST DEPLOYMENT TENT:

### 936065 Indoor lighting system for the tent

A lighting set contains 2 energy-saving neon tubes, each 36 W (corresponds to 200 W) and an additional socket. Service life approx. 8,000 hours. Can be joined to the supporting construction by Velcro™ strips. We recommend 2 sets per tent. Weight: 2.6 kg

### 936069 Tent heating device

A mobile heating device with heat exchanger and a separate oil burner (operates by fuel oil or diesel). Very low waste gas values and 100 % clean heat. With automatic ignitor, burner automatic, flame monitoring and thermostat.

Comes with room thermostat and 5 m spiral heating hose.

Heating capacity: 20 kW

Air capacity: 1,750 m<sup>3</sup>/h

Fuel consumption: max. 1.7 kg/h

Tank capacity: 35 l

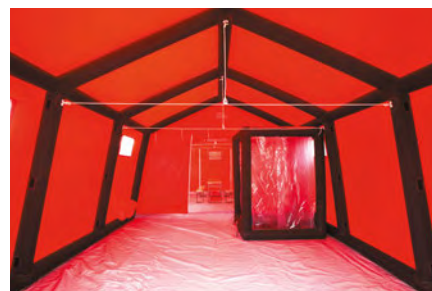
Electric supply: 230 V / 50 Hz

Dimensions: 120 x 54 x 64 cm

Weight: 48 kg

### 9360428 Dividing tarpaulin

The tent can be divided crosswise into 2 compartments.



Filling by air cylinders



Filling by electric blower



647460



9360428



411189



411190

936049  
(symbolic picture)

### Supporting tarpaulins

5 x 6 m. Protection for the tent floor, when the subsoil is poor.  
Material: PVC Complian 650 g/m<sup>2</sup>.

- 903129 **Red colour for the contaminated (dirty) area**  
903149 **Yellow colour for decontamination area**  
903169 **Green colour for registration and aftercare**

### 9360429 Adapter tarp

To join two tents of the same type of construction.

### 411189 Eye wash unit

With 3.5 l tank.

### 411190 Self contained emergency eyewash station PORTASTREAM II

This eyewash station is designed to hold 60 litres of Eyesaline mixture. This will ensure continuous eye irrigation for up to 15 minutes. The unit is gravity operated and can be placed on a suitable flat surface or can be secured to a wall.

Empty weight: 10.4 kg

### RECOMMENDED ACCESSORIES:

#### 411191 Eyesaline concentrate

For PORTASTREAM II. Each bottle holds 2 litres and is sufficient for refilling one eyewash station 60 litres.

Weight. 2.1 kg

#### 936049 Decontamination tub

Inflate using electric blower or compressed-air cylinder in connection with a pressure reducing valve.

Material support frame: PVC

Material insertion basin: PVC (900 g/m<sup>2</sup>)

Size exterior: 250 x 250 x 20 cm

Air requirement: 404 l

Package size: 140 x 30 x 30 cm

Weight (Set): 16 kg

#### 9360811 Decon circle

This decontamination shower is to decontaminate a person wearing a protective suit in a minimum of time. 8 jets. Can be dismantled in 2 pieces and 1 handle. Including 10 m hose with shut-off valve and Storz D-coupling.

Dimensions of circle: Ø 120 cm

Dimensions of rod: 120 cm

Material: Stainless steel

Water consumption (at 4 bar): approx. 40 l/min

Dimensions when packed (3 pieces): 120 x 60 x 5 cm

Weight: 3.8 kg

## Decontamination equipment

**936083 Decon brush**

Designed for preliminary cleansing of persons wearing protective clothes. Including 6 m hose with shut-off valve and Storz D coupling.  
Dimensions: approx. 120 cm  
Water consumption: approx. 20 l/min  
Weight: 1.7 kg

**936081 (symbolic picture)****Decontamination showers**

Inflatable shower cabinet, consists of an inflatable supporting construction, a shower cabinet, an integrated basin.

- Immediate inflatable
- Easy to use due to a low weight and small dimensions when packed
- Contaminated water used for shower is not splashed on the floor
- Inflated using electric blower or compressed-air cylinder in connection with a pressure reducer

**936055 Compact shower ROSENBAUER**

Inflatable shower cabine, consists of an inflatable supporting construction, a shower cabinet, an integrated basin.

- Immediate inflatable
  - Easy to use due to a low weight and small dimensions when packed
  - Contaminated water used for shower is not splashed on the floor
  - Inflated using electric blower or compressed-air cylinder in connection with a pressure reducer
  - Exterior dimensions (LxWxH): 156 x 156 x 20 cm
  - Height: 220 cm
  - Air requirement of the supporting construction: 682 l
  - Operational overpressure: 0.3 bar
  - Number of water nozzles: 8
  - Total water consumption: approx. 25 l/min.
  - Dimensions when packed 1,100 x 720 x 300 mm
- Weight: 29 kg

**936083 (symbolic picture)****936020 Decontamination shower ROSENBAUER**

Inflatable shower cabinet, consists of an inflatable supporting construction, a shower cabinet, an integrated basin.

- Immediate inflatable
  - Easy to use due to a low weight and small dimensions when packed
  - Contaminated water used for shower is not splashed on the floor
  - Inflated using electric blower or compressed-air cylinder in connection with a pressure reducer
  - Exterior dimensions (LxWxH): 276 x 156 x 20 cm
  - Height: 220 cm
  - Air capacity, supporting construction: 738 l
  - Operational overpressure: 0.3 bar
  - Number of water nozzles: 8
  - Total water consumption: approx. 25 l/min.
  - Dimensions when packed 1,100 x 720 x 300 mm
- Weight: 32 kg

**936055 (symbolic picture)****936020 (symbolic picture)**



936400

**RECOMMENDED ACCESSORIES:****936400 Water heater DECON MOBIL with proportioner and Storz D couplings**

Output: approx. max. 40l/min  
 Water temperature control: 30°C to 70°C Built in proportioner for decontaminant: proportioning 1% - 5%  
 Built-in tank: max. 20 l diesel or heating oil EL  
 Power supply AC: 230 V / 50 Hz / 0.3 kW with 10 m cable, E-Plug IP 68  
 Dimensions (WxHxD): 890 x 570 x 800 mm  
 Weight (empty): 65 kg

**402402 Disinfectant**

5 l can, for disinfecting. Weight: 5.5 kg

**919507 Decontamination fluid**

Polyethyleneglycol PEG 400, 20 l.  
 For removing chemical contamination. Weight: 21 kg  
 Further decontamination fluids upon request.

**936200 Water supply pump, type JCRM 15H**

1.1 KW, 230 V, 50 HZ. Water pump for permanent supply of water for decon shower or waterheater. Comes complete with 24 l tank, pressure switch, manometer, Storz D couplings, connection hose between tank and pump, including 5 m electric cable and plug. Fixed on a steel frame.

- Flow rate: max. 3 m<sup>3</sup>/h
- Dimensions: 600 x 500 x 380 mm

Weight: 35 kg

**DECON TROLLEY SL35 / SL50**

The mobile decontamination foam device DECON TROLLEY SL35 / DECON TROLLEY SL50 is an optimized decontamination system. By using an expandable decontamination agent in combination with CAFS the effectiveness of decontamination will be increased. Includes accessories kit (gloves, measuring cup, protective glasses, stirring staff, wipes, scale, carrier box). Weight of the DECON Trolley SL35 (filled) 75 kg (without accessories), DECON Trolley SL50 94 kg (without accessories).

**573938-001 DECON Trolley SL35 model 2010****573938-002 DECON Trolley SL50 model 2010****932902 Waste water pump with float switch, Storz D**

Fully automatic pump, to pump out decontaminated water into a suitable collecting vessel. Fitted with Storz D-coupling.  
 Dimensions (LxWxH): 41 cm x 36 cm x 35 cm  
 Capacity: 5,500 l/h  
 Engine: IP 68, 230 V, 0.27 kW  
 Weight: 4.2 kg

**RECOMMENDED ACCESSORY:****919485 Hose for waste water pump**

10 m long, with Storz D coupling.  
 Weight: 2 kg



573938-001 / 573938-002



932902 (symbolic picture)





**MONITORING  
EQUIPMENT**

**4**



410001



41031020

## GAS DETECTION

### 410001 Gas detector ACCURO

Consisting of a gas-detector pump. A choice of more than 220 different tubes to measure a wide range of gases and vapours can be ordered upon request. The bellows pump sucks in exactly 100 cm<sup>3</sup> of gas per stroke. This pump is equipped with an automatic stroke counter and a tube break-off plate. Basic unit comes without test tubes. Weight: 0.4 kg

#### BASIC ACCESSORIES FOR ACCURO:

##### Test tubes

Pack, consisting of 10 pieces. Weight: 0.2 kg

410050	Ammonia 0.5 %/a	0.5-10 Vol. %
410057	Benzene 0.5/a	0.5-10 ppm
410103	Carbon Monoxide 5/c.	5-150 ppm
410090	Formaldehyde 2/a	2-40 ppm
410055	Petroleum Hydrocarbons 100/a (n-Octane)	100-2,500 ppm
410043	Acetone 100/b	100-12,000 ppm
410080	Natural Gas Test (5 pieces per pack)	
410061	Chlorine 0.2/a	0.2-3 ppm
410191	Hydrogen Sulphide 1/c	1-20 ppm (3.5 min.)
41005505	Petroleum Hydrocarbons 10/a (n-Octane)	10-300 ppm

### 41031020 Combustible gas detector QRAE II

Diffusion type portable gas detection system, explosion proof, also to be used as personal monitor. Allows detection of combustible gases. The unit is calibrated to Methane (CH<sub>4</sub>), and gives a reading of 0-100 % of the LEL (Lower Explosion Level). Intrinsic safety certification ATEX II 2G EEx ia d IIC T4, US + Canada CSA Cl, D1, Groups A, B, C, D and T4. Water and dust resistant casing as per IP65. Simple, automatic calibration procedure. Self-test verifies integrity of sensor, circuitry and battery. Catalytic bead sensor: poison proof, replaceable, plug-in type. Changeable calibration and measuring gases for the LEL-sensor with integrated correction factors. Large, illuminated digital LCD display of gas concentration. Optical (red flashing LED) and acoustical (95 dB at 30 cm) alarm when reaching the low and high alarm: adjustable setpoints (e.g. low 10 % LEL, high 20 % LEL).

- Battery recharger 110 - 230 V
- Storage capacity for 64,000 data logging points, which can be downloaded to any PC
- Temperature: -20° to 50 °C for T4 temperature code
- Dimensions: 125 x 72 x 38 mm

Weight: 0.35 kg

#### RECOMMENDED ACCESSORIES:

### 410310201 Test and calibration set

For function control and testing sensitivity. The set includes a 34 litres methane test gas cylinder (2.2 % or 50 % of LEL), as well as a pressure reducer and storage box. Weight: 2.27 kg

**41031026 Accessory kit, model CSK 1**

Consisting of hard transport case with pre-cut foam, 2 m long tubing, 25 cm long sample probe with replaceable filter, constant-flow hand pump and tool kit.

Weight: 3 kg

**41031024 Multi-gas detector QRAE II**

Diffusion type portable multi-gas detection system, explosion proof, also to be used as personal monitor. Allows detection of combustible gases (LEL), O<sub>2</sub>, H<sub>2</sub>S and CO. Intrinsic safety certification ATEX II 2G EEx ia d IIC T4, US + Canada CSA Cl, D1, Groups A, B, C, D and T4. Water and dust resistant casing as per IP65. Simple, automatic calibration procedure. Self-test verifies integrity of sensor, circuitry and battery. Catalytic bead sensor, poison proof for combustible level organics. Solid Polymer Electrolyte oxygen sensor. Electrochemical sensor for carbon monoxide. Electrochemical sensor for hydrogen sulphide. All sensors are of the replaceable, plug-in type. Changeable calibration- and measuring gases for the LEL sensor, with integrated correction factors. Large, illuminated digital LCD display of gas concentration. Optical (red flashing LED) and acoustical (95 dB at 30 cm) alarm when reaching the low and high alarm: adjustable set-points (e.g. low 10 % LEL, high 20 % LEL)

- Battery recharger 110 - 230 V
- Storage capacity for 64,000 data logging points, which can be downloaded to any PC
- Temperature: -20° to 50 °C for T4 temperature code
- Dimensions: 125 x 72 x 38 mm

Weight: 0.35 kg



41031024

**RECOMMENDED ACCESSORIES:****410313 Test and calibration set**

For function control and testing sensitivity. The set includes a 34 litres gas mix for calibration (2,2 % or 50 % of LEL, 18 % oxygen, 25 ppm H<sub>2</sub>S, 100 ppm CO), as well as a pressure regulator and storage box.

Weight: 0.84 kg

**41031026 Accessory kit, model CSK 1**

Consisting of hard transport case with pre-cut foam, 2 m long tubing, 25 cm long sample probe with replaceable filter, constant-flow hand pump, tool kit.

Weight: 3 kg



41031029

**41031029 Multi-gas detector QRAE II with pump**

Like Multi-gas detector QRAE II order no.: 41031024 but with pump.

**410459 Gas detector, X-AM 2000, LEL, O<sub>2</sub>, CO, H<sub>2</sub>S**

The Dräger X-am 2000 is one of a new generation of gas detectors which have been specially designed for personal monitoring use. The 1- to 4-gas detector reliably measures combustible gases and vapours, as well as O<sub>2</sub>, CO and H<sub>2</sub>S. Its ergonomic design, mobile phone dimensions and low weight make it the perfect companion in your daily work. Reliable measurement technology, long sensor life and easy operation guarantee maximum safety at extremely low cost of ownership.

**Sensors:**

Ex: 0-100 % LEL or 0.5 Vol. %

O<sub>2</sub>: 0-25 Vol. %

CO: 0- 2,000 ppm

H<sub>2</sub>S: 0- 200 ppm

IP protection class: Instrument and sensor block IP 67

ATEX II 2G EEx ia d IIC T4/T3

I M2 EEx ia d I

Battery recharger 110 - 230 V

Dimensions: (WxHxD): 48 x 130 x 44 mm

Weight: 0.25 kg

**410498 Gas detector X-AM 5000, LEL, O<sub>2</sub>**

Measures combustible gases and vapours as well as O<sub>2</sub>. Comes with NiMH power pack and battery recharger 110 - 230 V.

CatEx-sensor: 0 - 100 % LEL

O<sub>2</sub>-sensor: 0 - 25 %

ATEX I M1 Ex ia I

II 1G Ex ia IIC T3 (Zone 0)

I M2 Ex d ia I

II 2G Ex d ia IIC T4/T3

## RADIATION PROTECTION

The high-energy rays given off by radioactive substances or radiation generators are not directly perceptible to human beings. Depending upon the type and intensity of the rays, the damage to health caused by this radiation will generally not become apparent for a period of anything from several days to several years. By this time, it will often be too late to take any direct counter-measures against the effects of the radiation, so all that can then be done is to attempt to influence the pathological process for the better by medical means. The "radiological protection" we mean in this context is not concerned with medical treatment but with the prevention of radiation injury by means of appropriate measures and technical precautions.

**Matter radiation:**

By material radiation particles we mean atomic particles that penetrate matter at high velocities and may cause injury and / or damage there. The principal material radiation particles are high-velocity electrons (e), protons (p), neutrons (n) and alpha particles (α). An alpha particle is one consisting of two protons and two neutrons which are ejected together - as a highly stable configuration - from a larger nucleus. Electrons emitting from nuclei as a result of disintegration processes are known as beta particles (β).

**Wave radiation:**

Similar effects to those of matter radiation may also be caused by rapid periodic changes (oscillations) of electrical and magnetic fields of force. Here too, as with other undulating motions, there is a relation between the velocity of propagation  $c$ , the wavelength (space between adjacent wave crests) and the oscillation frequency  $\nu$  (number of oscillations per time interval). This electromagnetic wave radiation is categorised as either gamma rays or X-rays, depending on its origin: gamma rays are emitted from radioactive nuclei, while X-rays are generated by the impact of high-velocity charged particles (especially electrons) onto heavy materials such as tungsten and platinum (e.g. in X-ray tubes).

**Radioactive radiation:**

This is emitted by substances containing atoms which give off radiation energy in the course of disintegration processes (radioactive decay) and turn into nuclides.

**Alpha radiation:**

Particles or corpuscular radiation with a range of several cm in air. Although even paper provides a certain degree of protection, the consequences of incorporation can be very serious indeed.

**Beta radiation:**

Particle radiation (negatively charged electrons) with a range of several metres in the air. Shielding is provided by e.g. a thin aluminium sheet.

**Gamma radiation:**

Electromagnetic wave radiation (like light or X-rays), with a range of several kilometres in the air. Shielding can be provided by steel, earth, concrete, etc.

**Neutron radiation:**

Particle radiation (neutral nuclear particles), with a range of several kilometres in the air. Shielding can be provided by water, earth or concrete.

**Sv (Sievert):**

SI unit of radiation dose.

**Becquerel:**

SI unit of activity.

One Becquerel = the activity of a given quantity of a radioactive nuclide, in which the quotient of (i) the statistical expected value for the number of disintegrations or isomeric transitions and (ii) the period in which these disintegrations or transitions occur tends towards a limit value of  $1/s$  in cases where the period is decreasing (N.B.:  $1/s$  = reciprocal second). Note: If this definition is too complicated, the following simplified definition may suffice: One Becquerel (Bq) = one nuclear reaction (radioactive disintegration) per second. The term "reciprocal second" ( $1/s = s^{-1}$ ) can also be used instead of Becquerel.



42003501



420066



420067

## RADIATION MEASURING DEVICES

### Dose rate meter 6150 AD

Universal radiation protection instrument suitable for measuring Alpha-, Beta-, Gamma and X-radiation, with internal GM-tube. For special purposes, various external probes or monitors are available at extra cost. Parallel measurement of dose rate, dose, mean value and maximum value of dose rate, with call-up of values on LCD at any time. Automatic activation and changeover of ranges and units, also during probe operation. Programmable alarm thresholds. Microprocessor-controlled compensation of GM tube fluctuations: Extremely accurate measurements combined with full interchangeability of probes and instruments. Extremely low current consumption. Dimensions: 130 x 80 x 29 mm.

#### 42003501 Dose rate meter, model 6150 AD 5

Automatic activation and changeover of ranges and units, also during probe operation. Five dose rate alarm thresholds. Dose rate: 1  $\mu\text{Sv/h}$  to 1,000 mSv/h (0.1 mR/h to 100 R/h)  
Dose: 0.01  $\mu\text{Sv}$  to 9.99 Sv (1  $\mu\text{R}$  to 999 R)  
Dimensions: 130 x 80 x 29 mm  
Weight: 0.4 kg

#### 42003502 Dose rate meter, model 6150 AD 6

Automatic activation and changeover of ranges and units, also during probe operation. Five dose rate alarm thresholds. Dose rate: 0.1  $\mu\text{Sv/h}$  to 10 mSv/h (10  $\mu\text{R/h}$  to 1,000 mR/h)  
Dose: 0.01  $\mu\text{Sv}$  to 99.9 mSv (1  $\mu\text{R}$  to 9.99 R)  
Dimensions: 130 x 80 x 29 mm  
Weight: 0.4 kg

### RECOMMENDED ACCESSORIES FOR DOSE RATE METER 6150 AD:

#### 420066 Contamination monitor, model 6150 AD-K

Suitable for mounting the dose rate meter (not included), with flat counting tube, suitable for alpha, beta and gamma radiation.

- Measurement: pulse counting
- Ranges: analogue 0.1 /s to approx. 40,000/s, digital 0.01 /s to approx. 40,000/s
- Display range for pulse counting: 1 to 999,000
- Housing: aluminium, protection class IP 67

Weight: 1.7 kg

#### 420067 Teletector probe model 6150 AD-T

The dose rate meter (not included) is positioned on the probe housing, clamped tight with a knurled screw, and connected via the probe jack with the cable of the teletector probe. The teletector probe can be telescoped out to a total length of 4.25 m. The forward end of the telescoping section incorporates two GM tubes: the end window GM tube ZP 1400 for detecting beta radiation, and the gamma GM tube ZP 1300. Both tubes can measure over the very wide dose rate measuring range of 0.1  $\mu\text{Sv/h}$  to 10 Sv/h, with switchover between the GM tubes taking place automatically.

Energy response: 65 keV - 3 MeV.

Weight: 3 kg

**308521 Block battery 9 V**

Weight: 0.05 kg

**420068 Storage and transport carrying case 6112 B 150**

One complete set, including accessories.

Dimensions: 825 x 125 x 175 mm

Weight: 3.5 kg

**42003906 Electronic alarm dosimeter ALADOX**

Direct-reading alarm dosimeter with GM tube for Gamma and X- radiation for personal protection. Dose measuring range 0.001 mSv to 9,999 mSv (0.0001 R to 999.9 R) 4-digit 7-segment LCD. Dose alarm threshold adjustable to one of 10 values.

Dose Warning: Flashing dose indication and intermittent siren-like tone (two tones per second). Can be reset by pressing the key. As soon as dose increased by a certain amount dose warning is repeated. That "post-alarm" occurs at steps of 2 % of the dose alarm threshold, or at steps of 0.001 mSv if the threshold is lower than 0.050 mSv. Radiological functions and battery condition monitored. Robust battery 9 V, IEC 6 LR 61, approx. 3,000 service hours. Robust waterproof aluminum diecast housing class IP 67.

Dimensions: 97 x 60 x 23 mm

Weight: 0.2 kg



42003906



420005

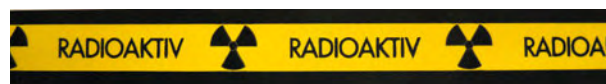
**420005 Handling tongs**

105 cm long, for handling radioactive materials.

Weight: 0.25 kg

**420006-01 Barrier-band RADIOACTIVE**

Printed on both sides yellow/black, 80 mm wide, 500 m roll. Weight: 0.2 kg



420006-01

**4200591 Drum for radioactive waste**

Contents 200 l, made of sheet steel with reinforcing rings, sandblast finished, inside and outside varnished (RAL 1004). Lid with spacer bolt closing and buna variety sealing. The drum comes with the sign "radioactive waste" as well as the warning sign.

Net weight of the drum: 65 kg



4200591

**420061 Transport container SC 111/3**

For transporting, and if needed, for storing sealed gamma emitters. Made of lead filled stainless steel. The lid is put on the container and locked by means of a switch lever. The container can be locked with a padlock. Finish of the container is steel covered, orange colour, brass nickel fittings.

Outer diameter: 133 mm

Internal diameter: 20/8 mm

Total height: 235 mm

Clear height: 9 + 7 mm

Wall thickness Pb equiv. Co60: 60 mm

Weight: 20.4 kg



420061



41137701

41137708 - comes without content  
(symbolic picture)

41133451



41133454

## TEMPERATURE MEASURING DEVICES

### 41137701 Precision-computer thermometer

With min./max. memory and hold-memory.

- Temperature range: from  $-200^{\circ}$  to  $+1,200^{\circ}$  °C
- Automatic off after 2 hours
- Resolution:  $0.1^{\circ}$  °C ( $-200^{\circ}$  to  $+299,9^{\circ}$  °C),  $1^{\circ}$  °C ( $+300^{\circ}$  to  $+1,200^{\circ}$  °C)
- Accuracy:  $-190^{\circ}$  to  $+229.9^{\circ}$  °C  $\pm 0.2^{\circ}$  °C  $\pm 1$  digit  $+300^{\circ}$  to  $+1,200^{\circ}$  °C  $\pm 2^{\circ}$  °C  $\pm 1$  digit
- Ambient temperature:  $-5^{\circ}$  to  $+50^{\circ}$  °C
- Battery: 3.6 V Lithium / 1.25 Ah, battery life: approx. 10 years
- Housing: 125 x 54 x 22 mm, ABS

Weight: approx. 0.09 kg

### INDISPENSABLE ACCESSORY:

### 41137702 Metal sheathed thermocouple probe for air, gas and fluids

Needle: inconel sheath

Diameter: 1.5 mm. Length 185 mm.

Max. service temperature:  $1,000^{\circ}$  °C

Accuracy: < DIN IEC 584, class 2

Response time (T99 water 0.2 m/s): 2.0 s

Weight: 0.14 kg

### RECOMMENDED ACCESSORIES:

#### 41137703 Extension cable

#### 41137704 Protective cover

#### 41137705 Thermal conducting paste

#### 41137706 Temperature probe for semi solid materials and liquids

#### 41137707 Battery lithium 3.6 V, size 2/3 AA

#### 41137708 Transport case

### 41133454 Infrared thermometer Extech 42570

For short distances. The EXTECH measures a temperature range of  $-50^{\circ}$  to  $900^{\circ}$  °C and features a unique 16-point laser sighting circle with a centre aiming point that defines the area you are measuring. The graphical display automatically charts the last ten temperature points using maximum and minimum values to establish the range. The MX is the basic model. Just point, shoot, and read. Applications: check for hot spots in electrical panels, circuit breakers, generators and gear-boxes. Monitor: supply and return registers, air stratification, duct leakage. Monitor temperatures: of petrol and diesel engine cylinders, railroad axles, bearings. Weight: 0.48 kg

### 41133451 Infrared thermometer LRSC L2

Laser pointer for long distances. With data logging for 100 results, 8 to  $14\ \mu\text{m}$ , D:S 120:1, temperature range  $-30^{\circ}$  to  $+1,200^{\circ}$  °C. Adjustable emissive 0.1 to 1.0 back lighted display, analogue and digital output, additional AVE/MIN/MAX display. Comes with a nylon bag, batteries, datatemp software (DOS), RS232 interface cable.

Weight: 0.95 kg



- 285110 Smoke detector TYPE 22 with 9 V batteries**  
Photo-optical smoke detector. Advanced technology in high-quality, compact and attractive design, networkable with up to 30 other smoke detectors! Used in living and sleeping areas, corridors, utility rooms, and camping. Test button to check the battery, the electronics and the smoke chamber. Temperature-range from 0 up to 50 °C.  
Battery: 9 V, AC signal when battery is empty.  
Height: approx. 40 mm  
Diameter: approx. 110 mm  
Weight: 0.1 kg



285110

## METEOROLOGICAL MEASURING DEVICES

- 677605 Wind direction sock**  
Suitable to find out the direction of wind. The sock is made of heavy duty polyester material and is extremely resistant against adverse weather conditions. Complete with holding device for affixing to a suitable pole (not included). Length: 1.8 m, diameter 30 cm. Colour of the wind sock: red/white, other colours upon request.  
Weight: 3.8 kg
- 67760501 Spare wind sock red/white without cage**  
Length: 1.8 m, diameter: 30 cm.  
Colour: white/red. Weight: 1 kg



677605

### RECOMMENDED ACCESSORIES:

- 677606 Wind sock cage**  
Hot dip galvanised, pivoted, without sock.  
Diameter: 30 cm.  
Weight: 3 kg
- 677607 Wind sock pole section**  
The section is made of high tensile steel and is hot dip galvanised for maximum corrosion protection. 42 mm diameter, 2 mm wall thickness. Length: 2 m (other length upon request).  
Weight: 2.4 kg
- 677609 Pole pedestal**  
Made of high tensile steel and dip galvanised for maximum corrosion protection.  
Weight: 31.6 kg
- 677608 Pole cover caps**  
To be used when wind socks are not in use.  
Weight: 0.067 kg
- 41135107 Wind measuring device WINDMATE 200**  
Including bag, temperature display and compass.  
Measuring of wind direction.  
Weight: 0.1 kg



41135107

- 41135110 Compass SUUNTO**  
Balanced for northern hemisphere. Serrated bezel ring, jewel bearing. Adjustable declination correction scale. Base plate with anti-slip rubber pads and rounded edges. Baseplate with magnifying lens. Easy-to-read luminous markings help to use the compass in dark conditions. Control marking holes.  
Weight: 0.05 kg



41135110



411750



411771



Part of 411771  
(symbolic picture)

## VICTIM LOCATION DEVICES

### 411750 Acoustic victim location system Life Detector

Suitable for detection of people trapped under debris after bombing raids or earthquakes. This modern system is equipped with built-in high-tech features to help you locate survivors quickly. By positioning up to 6 of the sturdy and highly responsive seismic-acoustic sensors of the Life Detector at strategically selected locations on a rubble pile, it is possible to pick up even minute structural vibrations caused by any victim moving, tapping, scratching, or calling out.

- The main unit features splash-water proof construction, wide dynamic range, multi-channel display, and powerful filtering, all in a small, energy-efficient package
- An auxiliary connector provides a remote control input and data output as well as the analogue signals from channels A and B
- The robust sensors cover seismic and acoustic frequencies and can be attached easily in any position
- A built-in, automatic self-test checks connected sensor and/or intercom probe, and also checks battery power
- The complete system comes in a six sensor configuration
- The system also includes an intercom probe for the detection of airborne sound in voids and bi-directional communications with a victim
- The complete system, also comprising 2 pairs of splash-proof headphones, 6 sensors with 10 m cables, 2 rechargeable batteries with charger, sensor spikes and magnetic clamps as well as a battery connection cable
- Case for basic accessories and carrying bag for the Life Detector are also included

Weight: 25 kg

### 411771 Optical search system SEARCHCAM 3000

Locates victims trapped in collapsed buildings. The articulating waterproof camera head with LED lighting pinpoints the victims' location so that rescuers can extract them. The SEARCHCAM's on-screen graphics direct the rescue team to where and how to begin extraction. The two-way audio allows rescuers to communicate with the victim. Rescuers can record video and voice, as well as take still photos of the search. It comes with necessary accessories in a transport case.

Weight: 25 kg

## MISCELLANEOUS DETECTION DEVICES

### 41137005 pH – indicator test stick

pH sticks are impregnated with an indicator. It is simple to use it that just indicate whether a solution is acidic or basic. Immerse the test strip briefly (for approx. 1 sec) in the sample solution. Subsequently, compare against the pH colour chart supplied with the kit. Read off the pH.

Weight: 0.01 kg

### 41173203 AQUAPHON® A 100 for water leaks detection

When pressure pipelines leak, water gushes out of the crack into the ground. The pipe material vibrates at the leakage point. These vibrations are transmitted by the pipe and can also be noticed at distant contact points, e.g. fittings. This is known as structure-borne sound and is made audible by the AQUAPHON® A 100. It comes with different microphones, rods and necessary accessories in a transport case.

Weight: 17.4 kg (including transport case)

### 410311 Liquid level indicator PORTALEVEL

PORTALEVEL is a liquid level indicator for gaseous extinguishing agents such as FM200, NAF S III, FE13 and CEA. It is mainly used by fire chief safety officers, production, operation and technical services managers, maintenance and safety engineers, marine superintendents and offshore installation managers and damage control engineers. Comes complete with carrying case, sensor and magnetic applicator and all accessories.

Weight: 2 kg

### 159756 Binocular tactical 10 x 42, waterproof

O-ring sealed for complete waterproof protection. Dry nitrogen-purged and sealed to prevent fogging, clouding and moisture damage. Fully coated optics for increased clarity. BAK-4 prisms for crisp images. Large knurled centre focus knob for precise focusing. Optimum long eye relief with twist-up eyecups (on mid-size models). Non-slip and ergonomic rubber design for a secure grip. Shock-absorbing rubber armor. Solid and sturdy construction roof prism binoculars. Ideal for all outdoor activities in all-weather conditions. Includes carrying case and neck strap.

Weight: 0.7 kg



Searching for people trapped under debris after bombing raids or earthquakes



41173203 (symbolic picture)



410311



159756



## ARGUS 4

The ARGUS 4 is a simple-to-operate, robust, self-contained camera with fully automatic operation; no control or adjustment is required in use. The camera has been specifically designed to help fire fighters to see through smoke, identify and rescue casualties and locate hot spots or the seat and spread of the fire. It also provides vision where light is unavailable.

Every object and person emanates heat, which the thermal imaging camera ARGUS 4 converts into a visual. The user of the ARGUS 4 will be able to:

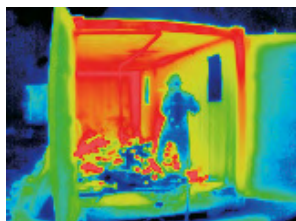
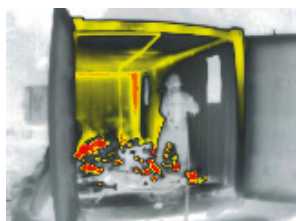
- See through dense smoke and in darkness
- Locate the seat and spread of the fire
- Move swiftly in search and rescue of casualties
- Have the ability to see in zero visibility conditions
- Significantly improve safety and mobility

### Fully automatic operation

The fully automatic operation of the ARGUS 4 helps you to do your job with more concentration! It recalibrates automatically when necessary to maintain its performance and quality. Moreover, the ARGUS 4 will switch to the optimum level of sensitivity automatically.

### Mature technology for simple operation

The ARGUS 4 is equipped with only three operating buttons. They are all located directly below the display on the front of the camera. The buttons are logically labelled with symbols and are big enough to allow problem-free operation when wearing fire fighting gloves.



## Thermal imaging cameras

**Image capture**

Up to 100 pictures can be captured and stored in the ARGUS 4. To capture an image, you just have to press the left-hand button. The camera saves important information of every image such as:

- Date and time of the photograph
- Ambient temperature during the operation
- Spot temperature shown on the display

Therefore these images can be perfectly used for the purpose of introduction or for the gapless documentation of an operation. The images can be viewed or deleted using the remote control. Using the software provided, captured images can be downloaded to a suitable laptop / PC in several formats, like .jpg, or .bmp.

**Dynamic scene colouration**

Colourises the thermal image to allow the fire fighter to pinpoint the hottest areas within the fire scene. The thermal image can be viewed in 13 different colour settings. E.g.:

- “Heat finder”-settings: red or yellow to red colouration of the hottest parts of the scene
- “Heat marker”-settings: red colouration of parts of the scene above 150 °C
- Grey scale: basic white-grey-black scale with no colouration
- “Full colour”-settings: especially suitable for checking switchgear cubicles and building insulations

**Temperature measurement**

The thermal imaging camera ARGUS 4 measures the ambient temperature from -15° to +150 °C. The spot temperature allows the operator to view the average scene temperature within a defined area in the middle of the display.

**Robustness**

The thermal imaging camera ARGUS 4 is designed for the hardest conditions in fire and rescue services:

- Impact: 4 x drop from a height of 2 metres
- Sealing: according to EN 60529, class IP 67
- Vibration / shock: BS EN 60721-3-2, Class 2M3



The ergonomic design of the ARGUS 4 allows multiple ways to hold the camera while wearing gloves – with one or two hands.



The handle makes it possible to carry the ARGUS 4 in a different way only with one hand. Simply place the handle on the bottom of the camera and then screw into place using the captive screw.



The neck strap, made of NOMEX®, provides a hands free solution to carrying any ARGUS 4 and also acts as a safety cable to avoid dropping the camera during use.



Technical data			
Models	ARGUS 4-160 LITE	ARGUS 4-320 STANDARD	ARGUS 4-HR320 PROFESSIONAL
Order number	41133183	41133184	41133186
Dimensions (HxWxD)	Without handle: 130 x 185 x 185 mm / with handle: 295 x 185 x 185 mm		
Weight incl. rechargeable battery	Without handle: 1.58 kg / with handle: 1.74 kg		
Internal battery unit	Nickel metal hydride (rechargeable)		
Battery useful life	> 4 hours at continuous usage		
Dust and splash water	IP 67		
Vibration and shock	BS EN 60721-3-2, class 2M3		
Drop test	Resists dropping from 2 m height		
Storage temperature	-10 °C to +40 °C		
Display	90 mm (3.5") full colour LCD		
Colour modes	13 different colourised settings		
Sensitivity	3 sensitivity modes (fully automatic)		
Zoom	2 x zoom (digital)	2 x and 4 x zoom (digital)	
Image recording	Recording and storage for up to 100 pictures		
Sensor type / material	Uncooled microbolometer / aSi (amorphous silicon)		
Lense	Germanium		
Sensor resolution	160 x 120 pixels	320 x 240 pixels	
Refresh rate	120 Hz	60 Hz	
Spectral sensitivity	8 to 14 µm		
Minimum temperature	0.07 °C	0.045 °C	
Ambient temperature	Measurement -15 °C to +150 °C		
Spot temperature	Measurement from 0 °C to +800 °C	Measurement from -40 °C to +1,000 °C	
PC connection	Via RS232-lead (supplied) with USB-connection		



41133183 / 41133184 / 41133185 / 41133186

#### Warranty

Camera: 24 months. Batteries and accessories: 12 months.  
No end-user maintenance is required other than recharging of batteries and post-use external cleaning with a soft cloth.

#### Scope of delivery

- Thermal imaging camera ARGUS 4
- 1 Handle, 1 neck strap
- 2 Rechargeable battery packs
- Battery charger
- End-user software
- USB connection lead for PC/ laptop
- Remote control
- User manual on CD
- Soft carrying case (300 x 200 x 180 mm)

**41133183 ARGUS 4-160 LITE**

**41133184 ARGUS 4-320-STANDARD**

**41133185 ARGUS 4-320 STANDARD 9 Hz**

**41133186 ARGUS 4-HR320 PROFESSIONAL**

**RECOMMENDED ACCESSORIES FOR ALL MODELS OF ARGUS 4:****41133199 Retractable lanyard**

Allows fixing the camera on the protection turnout suit (via karabiner).  
Weight: 0.14 kg



41133199

**411331902 Truck battery charger station**

Charger station for one battery of the ARGUS 4, truck mounted. The circuitry inside the unit will not over-charge the battery and will maintain the battery at full charge at all times. A LED indicates that the battery is being charged. Charging time: 2 hours. Sealing: IP 42. Input voltage: 12 / 24 V vehicle supplies.  
Weight: 0.7 kg



411331902

**41133208 Truck storage station with integrated battery charger**

Integrated battery charger, truck mounted, where battery can stay in camera during charging. For save in vehicle storage of the ARGUS 4 camera. The camera fits securely into the storage mount using a quick release strap. The truck storage will hold the camera either with the handle fitted or removed. The integrated battery charger will charge the camera battery pack without the need to remove the battery from the camera. Charging time: approx. 2 hours. Sealing: IP 42. Input voltage: 12 / 24 V.  
Weight: 1.8 kg



41133208



41133209

**41133189 Video adaptor incl. external power supply**

The adaptor allows the ARGUS 4 thermal imaging camera to be powered from an outside source and for the video to be viewed over a wired network connection.  
Weight: 0.7 kg

**41133209 Video capture battery pack**

Records up to 8 hours of video. The video is easy downloadable via an included USB lead. Video playback is possible with delivered Ateme® player or other common players. The video capture pack is used instead of the standard battery and powers the camera for 3 hours.  
Weight: 0.3 kg

**41133217 Long range telemetry system**

Designed to allow rugged wireless transmission of the thermal image from the camera for remote viewing outside of an incident. By using digital modulation and compression techniques, digital microwaves provides superior performance in non-line of sight and high multipath applications. The transmitter pack is used instead of the standard battery and powers the camera for 2 hours. The receiver comes in a compact hard case with 2 integrated antennas, one 8.4" LED screen and AC, DC and internal battery operation.



41133217



41133217



41133191



41133192



411331920



41133193



41133194



41133205

#### SPARE PARTS FOR ALL MODELS OF ARGUS 4:

##### 41133191 **Charging shoe for batteries**

To be used in connection with the battery charger.

Operating temperature: 0° - 40°C

Dimensions (LxWxH): 150 x 70 x 50 mm

Weight: 0.2 kg

##### 41133192 **Battery charger**

To be used in connection with the battery charging shoe. Supplied with several cable for world-wide use.

Weight: 0.3 kg

##### 411331920 **Neck strap**

##### 41133193 **Battery**

The rechargeable battery packs are designed to power an ARGUS 4 thermal imaging camera for 4 hours from a full charge and use NiMH cells. The battery pack contains circuitry that monitors the cell's temperature to ensure that maximum performance is provided and that correct charging is performed. The pack also has a recoverable short-circuit protection.

Weight: 0.25 kg

##### 41133194 **USB-lead**

##### 41133205 **Remote control**







## ARGUS Mi-TIC

The thermal imaging camera that sets new standards. The new ARGUS Mi-TIC is the world's smallest high-resolution thermal imaging camera for fire service use. Thanks to its compact size, robust design and crystal-clear thermal image, the camera offers best-in-class support for any operation.

### Scope of delivery

- Thermal imaging camera ARGUS Mi-TIC
- 2 Rechargeable batteries (approx. 2 hours operation time)
- Charger for 230V/12V/24V - acts as a cradle for the thermal imaging camera and gives users the option of charging 2 battery units
- USB data cable for PC connection
- Retractable lanyard
- Manual on SD card
- Pocket clip

### 41133230 ARGUS Mi-TIC 160-1

The Mi-TIC 160-1 is extremely easy to use. Just one button for switching ON/OFF - switch on, and you're done! The colour mode is set by default and is suited perfectly for fire service operations. Colours the relatively warmest area in the image in red.

### 41133242 ARGUS Mi-TIC 160-1, 9 Hz



41133230 / 41133242

Technical Data		
Models	ARGUS Mi-TIC 160-1	ARGUS Mi-TIC 320-3
Order number	41133230	41133231
Dimensions (HxWxD)	200 x 95 x 78 mm	
Weight incl. rechargeable battery (2 h)	760 g	
Internal battery unit	Lithium iron phosphate (rechargeable)	
Battery useful life	> 2 hours at continuous usage	
Dust and splash water	IP 67	
Vibration and shock	BS EN 60721-3-2, class 2M3	
Drop test	Resists dropping from 2 m height	
Storage temperature	-10 °C to +40 °C	
Display	69 mm (2.7") full colour LCD	
Colour modes	1 (Search)	2 (SEARCH & FIRE)
Sensitivity	3 sensitivity modes (fully automatic)	
Zoom	-	2 x and 4 x zoom (digital)
Image recording	-	Recording and storage for up to 1,000 pictures (optional)
Sensor type / material	Uncooled microbolometer /aSi (amorphous silicon)	
Lense	Germanium	
Sensor resolution	160 x 120 pixels	384 x 288 pixels
Refresh rate	120 Hz	60 Hz
Spectral sensitivity	8 to 14 µm	
Minimum temperature displayed	0.07 °C	
Spot temperature	Measurement from 0 °C to +1,100 °C	



41133231 / 41133243

#### 41133231 ARGUS Mi-TIC 320-3

The Mi-TIC 320-3 is absolutely easy to use. 3 control buttons come up for 3 functions:

- ON-/OFF-switch
- ZOOM for detailed view (2-4x)
- Control button for switching between the 2 colour modes (SEARCH & FIRE)

The Mi-TIC 320-3 is optimised for fire and search operations. The FIRE mode colours temperatures as of approx. 300 °C in the thermal image. The SEARCH mode colours the relatively warmest area in the image in yellow-red and therefore is specially suited for searching persons.

#### 41133243 ARGUS Mi-TIC 320-3, 9 Hz



## Thermal imaging cameras

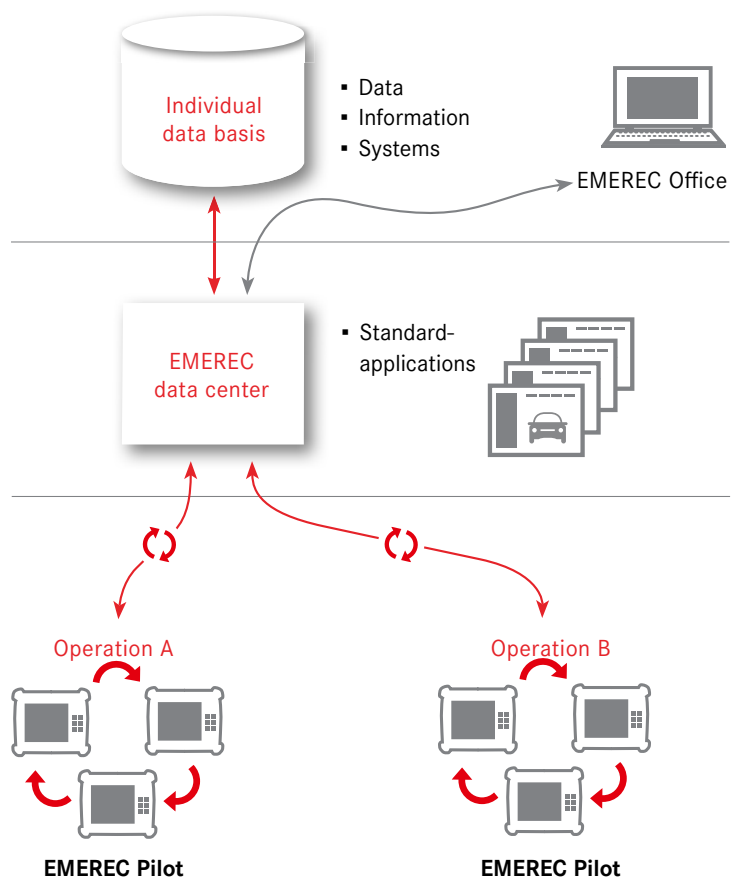
**41133232 Optional package image/video/freeze for ARGUS Mi-TIC 320-3**

The thermal imaging camera ARGUS Mi-TIC 320-3 can be fitted up with an optional package. This package includes invaluable functions like black box video recording (8h), the possibility to take up to 1,000 pictures or to freeze in the thermal image in special situations. An intuitional configuration mask enables the individual correlation of function and button. With one button it is possible to differ between two functions by pressing the button short term (1 second) or long term (more than 3 seconds). The configuration can be done very easily by turning on the camera and putting it into the docking station. After connecting to the computer via USB the thermal imaging camera is recognized as a mass storage and the configuration mask can be started. The optional package can be retrofitted very easily.

**41133232****RECOMMENDED ACCESSORIES FOR ALL MODELS OF ARGUS Mi-TIC:**

- 41133233 Spare rechargeable battery**  
For approx. 2 h operation time
- 41133234 Spare rechargeable battery**  
For approx. 6 h operation time
- 41133236 AA battery pack**  
Comes without batteries.
- 307862 LED-search lamp**
- 307863 LED-search lamp with integrated laser pointer**





## EMEREC - MOBILE INFORMATION MANAGEMENT FOR EMERGENCY FORCES

The mobile information management EMEREC supports emergency forces at their work. EMEREC Pilot is the software on mobile tablet computers. Operationally-relevant information can be accessed directly on-site. EMEREC Pilot brings data together from assorted sources - in real-time. Tools to support the incident commander are linked at a whole new level of quality. This results in a uniform situational overview for all crews involved.

The data is entered into the system once (EMEREC Office) and is then stored centrally on a server (EMEREC Data Center). The latter automatically synchronizes with the mobile end devices - so all data is stored locally and is also available offline at any time. With an internet connection the end devices can communicate with each other and exchange data. Thus all operational units have the same view of the situation.

### Advantages of EMEREC

- Integrating different data from various applications
- All information is automatically up-to-date
- Efficient cooperation and communication in real-time
- Reducing the use of radio channels
- Fast, intuitive operation of applications
- Central data management

### PT120-P001 EMEREC Pilot

## EMEREC PILOT – OVERVIEW OF STANDARD MODULES

### Location overview and alarm data

The location overview displays the progress at the incident location. The position of emergency forces is always up-to-date. Tactical signs as well as graphical symbols can be used to indicate danger zones.

- Street maps and orthophotos
- Simple maintenance of static data (e.g. object data, hydrants)
- Automatic documentation for the incident commander
- Dynamic data in real time (e.g. resource positions)

### Workbook

The Workbook is the central storage for content that is relevant to all forces involved in the operation.

- All forces are at the same level of information
- Efficient communication with the control center and fire department

### Workflow and checklist

During an emergency operation it can happen that important details or work steps are forgotten. Checklists are the ideal aid to keep track of the progress.

- Improved incident handling
- Automatic synchronization of different teams via the workbook

### Fire safety maps and object data

Whether it is a simple object datasheet or a complex fire safety map: EMEREC manages essential information for every object.

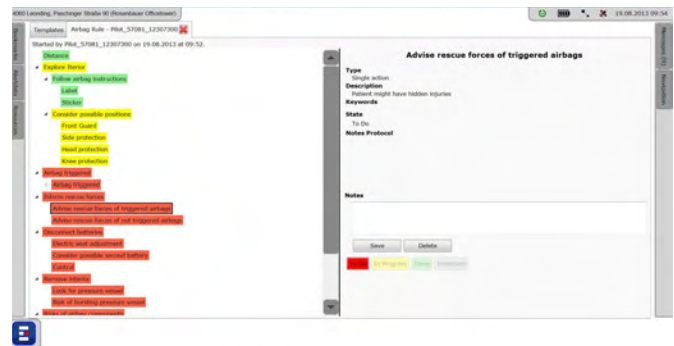
- Dynamic incident and resource management directly in the document (e.g. inserting symbols; marking danger zones)
- Shared incident overview through automatic synchronization between different EMEREC pilots



Location overview and alarm data



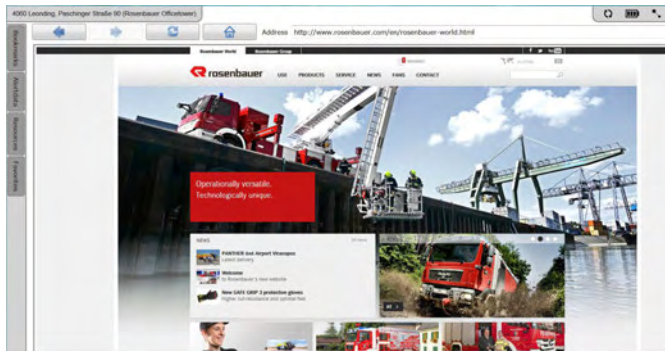
Workbook



Workflow and checklist



Fire safety maps and object data



**Internet**



**Situational image**



**Video**

### Internet

EMEREC Pilot provides access to the internet and thus connects to a multitude of databases and other sources of information.

- Access to the internet (e.g. browser, databases, webmail)
- Transfer of important links via the workbook
- Central management of frequently used links via EMEREC office

### Situational image

In order to have a unified location overview it is possible to make freehand sketches, to set graphical symbols and comments. The automatic synchronisation of all EMEREC Pilots supports and disburdens communication between the operational units.

### Video

Video cameras are the “eye” to more safety. Instead of error-prone, verbal briefings, videos can provide objectives images of the incident location.

- Live videos during the approach
- Video server (optional) for a glance into the past
- Data protection guidelines are met

## OPTIONAL MODULES

### Navigation

Voice-controlled navigation adapted to the needs of emergency forces. If EMEREC is connected to the control center, it automatically inherits the coordinates and address data of incident location.

- Application is integrated in the EMEREC Pilot
- Quick arrival at the destination
- No time-consuming input of address data by hand

### PT120-N001 EMEREC Navigation

### Crash rescue cards

The "Crash Rescue" database describes more than 3,000 vehicle types including all relevant safety features and drive mechanisms. This facilitates the efficient rescue of people from damaged vehicles.

- Always and automatically up-to-date data
- Vehicle sections (e.g. roof) can be shown or hidden interactively
- Increased safety for emergency forces and accident victims

### PT120-CR01 EMEREC Crash rescue cards

### HAZMAT Database

The HAZMAT database contains more than 51,000 substances, which will be regularly updated. It is available in following languages: Dutch, French, German and Spanish. The database provides information about:

- Chemical hazards
- Pre cautionary advice and protective equipment
- Incident mitigation actions
- Physical properties, environmental hazards and details of manufacturers and their emergency contact details

### PT120-CD01 EMEREC HazMat Database

## HARDWARE

The tablet computer ARMOR X10gx is designed to work under extreme conditions. This makes it the ideal companion for every operation.

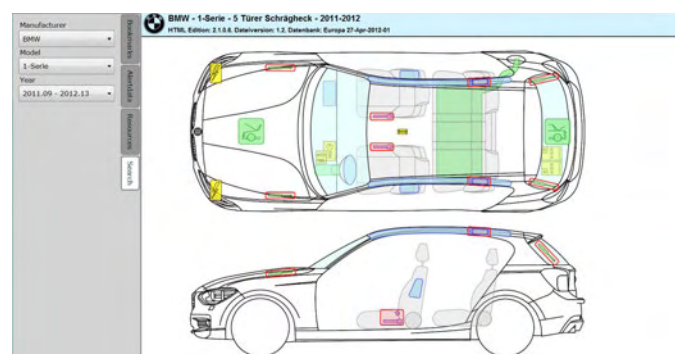
- Light and robust body
- Sunlight-readable LCD display
- Input through both pen and touch (operable also with gloves)
- Drop and shock safe; resistant to extreme temperatures
- IP67 – sealed against humidity, dust, sand, pollen, fungus and similar influences
- Hot-swappable battery packs
- Modern technology including for example WLAN, GPS, UMTS

### 579464-001 EMEREC Tablet X10gx

### 840716-001 EMEREC Tablet X10gx with HazLoc option



Navigation



Crash rescue cards



Hazmat database



Hardware



## EMEREC DEVS

EMEREC DEVS is an integrated system aimed at supporting the driver of a vehicle under poor visibility conditions as set out in the NFPA 414/2012 and the FAA advisory circular 150/5210-19A. The DEVS system consists of three parts:

- Navigation
- Tracking
- Vision enhancement

### Navigation

EMEREC DEVS provides enhanced vehicle navigation with high GPS accuracy worldwide, where regular navigation systems do not function like on airfields, factory premises, military grounds or in industrial complexes.

### Tracking

The tracking system improves situational awareness of the driver as well as the command and control center. GPS signals allow the ECC (Emergency Command Center) and all EMEREC DEVS users to see other vehicles on the map in real-time and to interact with them.

### Vision enhancement

A FLIR (forward looking infrared) camera facilitates navigation under poor weather conditions – like smoky, foggy, or dark environments – by improving visual awareness.\*

Products		EMEREC DEVS Basic	EMEREC DEVS Advanced**
Hardware	EMEREC tablet computer	✓	✓
DEVS functions	Navigation	✓	✓
	FLIR camera interface	✓	✓
	Tracking		✓
	Messaging		✓
EMEREC functions	Online connection		✓
	Integrated document management system	✓	✓
	Worldwide standard street and satellite maps	✓	✓ (incl. automatic updates)
	Geo-referenced object data (e.g. fire safety maps)		✓
	Checklists		✓
	Internet browser		✓
	Operation and alarm management		✓
	Workbook	✓ Offline	✓ Online
Document management	Central data management on a server		✓
	Automatic synchronisation		✓
	Data exchange		✓
Options	FLIR camera (video stream integrated into the EMEREC tablet display)	✓	✓
	HAZMAT database	✓	✓
	Vehicle rescue cards	✓	✓
	Interface with communication control center (CCC) (online)		✓
	Interface with local weather stations (online)		✓
	Interface with external video surveillance systems (online)		✓

\* A FLIR (forward looking infrared) camera can be integrated into the EMEREC system.

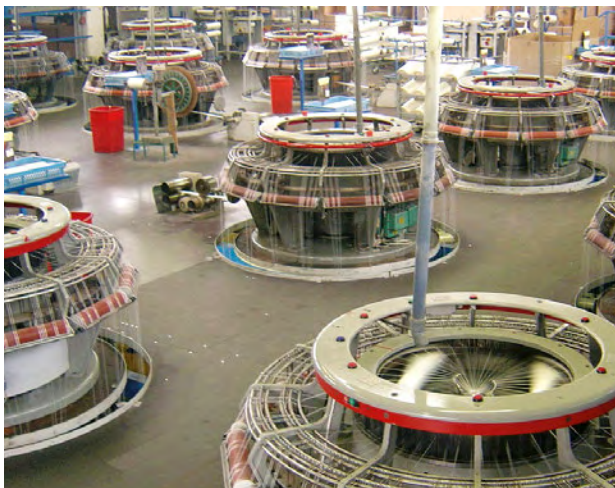
\*\* The server can be operated by Rosenbauer or by the customers themselves.





**FIRE HOSES  
COUPLINGS  
FITTINGS  
NOZZLES**

**5**



## DELIVERY HOSES

### General remarks

The raw materials for circular-woven fire hoses are high-tenacity polyester yarn and (rubber lining) made of high-grade EPDM rubber. High pressure-resistance, extremely high resistance to UV light and ozone, complete with rot resistance and neutral behaviour towards a wide range of different chemicals – all these characteristics give modern polyester hoses a virtually unlimited lifespan and mean that they require only a minimum of care and maintenance. On top of this, they offer good flexibility, low weight, very limited space requirements and scarcely measurable elongation even when subjected to intensive stressing.

### Structure

The fabric is made on circular looms from twisted high-tenacity polyester yarn – generally in a twill weave so as to preserve the greatest possible abrasion resistance. The fabric is responsible for withstanding the pressure entirely on its own. The inner lining (made of high-grade EPDM rubber) is incorporated using a special vulcanisation process, and makes the hose completely watertight. Where applied in addition to the above, a polyurethane outer coating enhances the abrasion resistance, and thus also prolongs the lifespan of the hose.

### Cleaning – Drying – Storage

- After use, clean the hoses with water and a soft brush or hose-washing equipment
- Soak badly soiled hoses before scrubbing them – never brush them when dry
- Put the hoses under pressure, locate and mark any damaged areas
- After cleaning, dry immediately and carry out any repairs that may be necessary
- Only store away the hoses in the fire station or in the vehicle once they are dry
- The hose store must be dry, well ventilated, and protected from frost and sunlight. Avoid contact with cement and concrete.

### Treatment and care instructions for pressurised fire hoses

Excerpt from ÖBFV (the Austrian Fire Service Association), guidelines on the treatment of pressure hoses:

- Lay out the hoses without any kinks or twists
- Do not drag hoses across the ground or over any sharp edges
- Never pull any hoses which are full of water, but not under pressure
- Do not place them on broken glass, debris, rubble or glowing embers
- Do not allow them to be soiled by caustic or adhesive substances
- Across roadways, lay them at right angles to the road, enclosed by hose protection ramps
- In extreme sub-zero conditions, never interrupt the flow of water
- Never forcibly roll or kink hoses that have frozen
- Do not throw or drop hose-couplings, and always protect them from soiling
- Store hoses in the vehicle in such a way that there is no risk of them being scraped or abraded during transit

Other dimensions and lengths as well as other coupling systems upon request.

**Delivery hose SYNTHETIC SPECIAL**

**Construction:** Polyester jacket, circular woven, twill weave inside lining of EPDM-rubber.

**Characteristics:** Economical, flexible, light-weight, space saving, weather resistant, rot and mildew proof, resistant to aging, ozone, seawater and many chemicals, good abrasion resistance. General purpose fire hose for pumps and vehicles.

**Certifications:** Certified as to DIN 14811 and Austrian Standard ÖNORM F 2105.

Testing pressure: 25 bar

Bursting Pressure: 50 bar



**SYNTHETIC SPECIAL – coupling system: Storz**

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>15 m long</b>					
201010	42 mm	Storz C 42	Light alloy	3.7 kg	Austrian Standard and DIN 14811
201050	45 mm	Storz 45	Light alloy	4.0 kg	
201110	52 mm	Storz C 42	Light alloy	4.8 kg	Austrian Standard and DIN 14811
201156	65 mm	Storz 65	Light alloy	6.2 kg	
<b>20 m long</b>					
200906	38 mm	Storz 38	Light alloy	4.4 kg	
201020	42 mm	Storz C 42	Light alloy	4.8 kg	
201053	45 mm	Storz 45	Light alloy	5.2 kg	
201120	52 mm	Storz C 42	Light alloy	6.2 kg	
201152	65 mm	Storz 65	Light alloy	7.9 kg	
201157	65 mm	Storz B	Light alloy	8.2 kg	
201220	75 mm	Storz B	Light alloy	10.2 kg	Austrian Standard and DIN 14811
<b>25 m long</b>					
201125	52 mm	Storz C 42	Light alloy	7.5 kg	
201225	75 mm	Storz B	Light alloy	12.5 kg	
<b>30 m long</b>					
201030	42 mm	Storz C 42	Light alloy	6.95 kg	
201130	52 mm	Storz C 42	Light alloy	8.85 kg	
201230	75 mm	Storz B	Light alloy	14.7 kg	

**SYNTHETIC SPECIAL – coupling system: British Standard and American NH Standard**

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>15 m long</b>					
200910	38 mm	1 1/2"	Light alloy	3.4 kg	British Instantaneous coupling (BIC)
20091005	38 mm	2 1/2"	Light alloy	3.9 kg	British Instantaneous coupling (BIC)
200911	38 mm	1 1/2"	Gunmetal	5.6 kg	British Instantaneous coupling (BIC)
201142	63 mm	2 1/2"	Light alloy	6.4 kg	British Instantaneous coupling (BIC)
200912	38 mm	1 1/2"	Light alloy	3.2 kg	NH, wire binding
200913	38 mm	1 1/2"	Gunmetal	5.6 kg	NH, wire binding
<b>20 m long</b>					
200915	38 mm	1 1/2"	Light alloy	4.3 kg	British Instantaneous coupling (BIC)
200916	38 mm	1 1/2"	Gunmetal	6.5 kg	British Instantaneous coupling (BIC)
201143	63 mm	2 1/2"	Light alloy	8.1 kg	British Instantaneous coupling (BIC)
201144	63 mm	2 1/2"	Gunmetal	9.8 kg	British Instantaneous coupling (BIC)
201146	63 mm	2 1/2"	Light alloy	8.1 kg	NH, wire binding
201147	63 mm	2 1/2"	Gunmetal	9.8 kg	NH, wire binding
<b>25 m long</b>					
20114905	63 mm	2 1/2"	Light alloy	9.9 kg	British Instantaneous coupling (BIC)
<b>30 m long</b>					
201149	63 mm	2 1/2"	Light alloy	11.3 kg	British Instantaneous coupling (BIC)



**Delivery hose SYNTHETIK REKORD**

#### **Delivery hose SYNTHETIK REKORD**

The ultimate hose for the experienced brigade. A specially developed binding, provides this hose with additional abrasion resistance and high flexibility. This premium product is approved and certified according to ÖNORM F2105, DIN 14811 and other international standards. Mildew resistant, rot and vermin proof, UV-light/ozone resistant and unaffected by climatic conditions, hot or cold.

**Weaving:** High tenacity polyester filament yarn woven on circular looms, in a special, reinforced binding.

**Rubber lining:** High quality EPDM rubber lining, UV-light/ozone and ageing resistant, manufactured in a special vulcanising process.

Also available in white colour.

Order no.	Diameter	Size of coupling	Coupling material	Weight approx	Remarks
<b>15 m long</b>					
<b>200790</b>	42 mm	Storz C	Light alloy	4.9 kg	
<b>200810</b>	52 mm	Storz C	Light alloy	4.9 kg	
<b>200827</b>	75 mm	Storz B	Light alloy	8.3 kg	
<b>20 m long</b>					
<b>200792</b>	42 mm	Storz C	Light alloy	6.3 kg	
<b>200812</b>	52 mm	Storz C	Light alloy	6.3 kg	
<b>200830</b>	75 mm	Storz B	Light alloy	10.7 kg	



**Delivery hose PROFESSIONAL**



**Delivery hose PROFESSIONAL**

#### **Delivery hose PROFESSIONAL**

Premium inside and outside-rubberised delivery hose in a class of its own.

**Fabric ply:** High-strength polyester/polyamide yarn, endlesswoven and completely embedded in the rubber.

**Inside and outside rubberisation:** Top-grade nitrile rubber, pressed through the fabric ply during extrusion; ribbed on the outside so as to give excellent abrasion-resistance and protection against contact heat.

**Characteristics:** Very sturdy and durable hose; resistant to oil, petrol (gasoline) and chemicals; heat and weather proof; no cleaning and drying needed.

#### **Technical data:**

Standard length: up to 100 m

Standard colour: red

Temperature range: -20 °C up to +80 °C.

Testing pressure: 24 bar (DIN), 22.5 bar (BS)

Bursting pressure: 50 bar

Certifications: DIN 14811, British Standard BS 6391 Type 3 and other national standards for delivery hose

**PROFESSIONAL – coupling system:****Storz**

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>15 m long</b>					
202816	38 mm	Storz 38	Light alloy	5.0 kg	
202826	52 mm	Storz C	Light alloy	7.0 kg	
202846	65 mm	Storz 65	Light alloy	8.0 kg	
202836	75 mm	Storz B	Light alloy	11.0 kg	
202856	102 mm	Storz A	Light alloy	17.0 kg	Soft suction
<b>20 m long</b>					
202818	38 mm	Storz 38	Light alloy	6.0 kg	
202828	52 mm	Storz C	Light alloy	9.0 kg	
202848	65 mm	Storz 65	Light alloy	11.0 kg	
202838	75 mm	Storz B	Light alloy	15.0 kg	
202858	102 mm	Storz A	Light alloy	23.0 kg	Soft suction
<b>30 m long</b>					
202829	52 mm	Storz C	Light alloy	13.0 kg	
202839	75 mm	Storz B	Light alloy	22.0 kg	

**PROFESSIONAL – coupling system:****British Standard and American NH Standard**

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>15 m long</b>					
202860	38 mm	1 ½"	Light alloy	5.0 kg	British Instantaneous coupling (BIC)
202866	38 mm	2 ½"	Light alloy	5.0 kg	British Instantaneous coupling (BIC)
202867	38 mm	2 ½"	Gunmetal	5.0 kg	British Instantaneous coupling (BIC)
202880	65 mm	2 ½"	Light alloy	8.0 kg	British Instantaneous coupling (BIC)
202881	65 mm	2 ½"	Gunmetal	8.0 kg	British Instantaneous coupling (BIC)
202870	38 mm	1 ½"	Light alloy	5.0 kg	NH, wire binding
<b>20 m long</b>					
202862	38 mm	1 ½"	Light alloy	6.0 kg	British Instantaneous coupling (BIC)
202863	38 mm	1 ½"	Gunmetal	6.0 kg	British Instantaneous coupling (BIC)
202868	38 mm	2 ½"	Light alloy	6.0 kg	British Instantaneous coupling (BIC)
202869	38 mm	2 ½"	Gunmetal	6.0 kg	British Instantaneous coupling (BIC)
202883	65 mm	2 ½"	Light alloy	11.0 kg	British Instantaneous coupling (BIC)
202884	65 mm	2 ½"	Gunmetal	11.0 kg	British Instantaneous coupling (BIC)
202882	65 mm	2 ½"	Light alloy	11.0 kg	NH, wire binding
<b>25 m long</b>					
202872	38 mm	1 ½"	Light alloy	7.0 kg	British Instantaneous coupling (BIC)
202873	38 mm	2 ½"	Gunmetal	7.0 kg	British Instantaneous coupling (BIC)
202874	38 mm	2 ½"	Light alloy	7.0 kg	British Instantaneous coupling (BIC)
202875	38 mm	1 ½"	Gunmetal	7.0 kg	British Instantaneous coupling (BIC)
202888	65 mm	2 ½"	Gunmetal	14.0 kg	British Instantaneous coupling (BIC)
202889	65 mm	2 ½"	Light alloy	14.0 kg	British Instantaneous coupling (BIC)
<b>30 m long</b>					
202864	38 mm	1 ½"	Light alloy	9.0 kg	British Instantaneous coupling (BIC)
202865	38 mm	1 ½"	Gunmetal	9.0 kg	British Instantaneous coupling (BIC)
202877	38 mm	1 ½"	Light alloy	9.0 kg	NH, wire binding
202876	38 mm	2 ½"	Light alloy	9.0 kg	British Instantaneous coupling (BIC)
202871	38 mm	2 ½"	Gunmetal	9.0 kg	British Instantaneous coupling (BIC)
202885	65 mm	2 ½"	Light alloy	16.0 kg	British Instantaneous coupling (BIC)
202886	65 mm	2 ½"	Gunmetal	16.0 kg	British Instantaneous coupling (BIC)
202887	65 mm	2 ½"	Light alloy	16.0 kg	NH, wire binding

Upon special request: **PROFESSIONAL** hoses with British Instantaneous and BS 336:1989 couplings can be fitted with rubber protection cuffs.



**Rubber protection cuff**



206610



206715



Suction hose

Suction hoses – coupling system:  
Storz

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>1.6 m long</b>					
21205001	52 mm	Storz C	Light alloy	3.2 kg	According to EN ISO 14557
21105001	75 mm	Storz B	Light alloy	5.2 kg	According to EN ISO 14557
21005001	110 mm	Storz A	Light alloy	10.5 kg	According to EN ISO 14557
21311001	125 mm	Storz 125	Light alloy	12 kg	
<b>2.0 m long</b>					
21215001	52 mm	Storz C	Light alloy	3.9 kg	According to EN ISO 14557
21115001	75 mm	Storz B	Light alloy	6 kg	According to EN ISO 14557
21015001	110 mm	Storz A	Light alloy	13 kg	According to EN ISO 14557
21311201	125 mm	Storz 125	Light alloy	14 kg	
21320501	150 mm	Storz 150	Light alloy	19 kg	
<b>2.5 m long</b>					
21225001	52 mm	Storz C	Light alloy	4.7 kg	According to EN ISO 14557
21125001	75 mm	Storz B	Light alloy	7 kg	According to EN ISO 14557
21025001	110 mm	Storz A	Light alloy	14 kg	According to EN ISO 14557
21312301	125 mm	Storz 125	Light alloy	16.5 kg	
<b>3.0 m long</b>					
21235001	52 mm	Storz C	Light alloy	5.8 kg	According to EN ISO 14557
21135001	75 mm	Storz B	Light alloy	8.5 kg	According to EN ISO 14557
21035001	110 mm	Storz A	Light alloy	16.5 kg	According to EN ISO 14557
21314001	125 mm	Storz 125	Light alloy	18.5 kg	

## HIGH PRESSURE DELIVERY HOSES

### High pressure delivery hose SYNTHETIC REKORD

High-pressure hose certified as to ÖNORM F 2105:2007.

Fabric: 100 % polyester yarn, endless-woven in patented special weave with warp threads reinforced; (every fourth warp thread is twisted 12-fold). Inner lining: Reinforced, highly durable EPDM rubberisation. Characteristics: Greatly enhanced flexibility and abrasion-resistance; easy to handle; rot resistant and cold proof; very resistant to ageing; care and maintenance-free; easy to repair. Testing pressure: 60 bar; bursting pressure: 90 bar. Comes with Storz 38 coupling, made of gunmetal.

**206610 SYNTHETIC REKORD H 38, 15 m**

Weight: 7.05 kg

**206615 SYNTHETIC REKORD H 38, 20 m**

Weight: 9 kg

### High pressure hose SYNTHETIC MAMMUT H 38

Made of high tenacity Polyester filament yarn, and provided with a high quality EPDM rubber lining. For additional protection, the exterior of the hose is covered with black ribbed EPDM rubber, giving extra abrasion resistance. According to Austrian Standard F 2105:2007. Working pressure: 40 bar. Test pressure 60 bar, burst pressure 90 bar. Comes with Storz 38 coupling, made of gunmetal.

**206710 SYNTHETIC MAMMUT H 38, 15 m, 38 mm diameter**

Weight: 7.05 kg

**206715 SYNTHETIC MAMMUT H 38, 20 m, 38 mm diameter**

Weight: 9.6 kg

**206720 SYNTHETIC MAMMUT H 32, 15 m, 32 mm diameter**

Weight: 6.50 kg

Powder hose SYNTHETIK ANTISTAT upon request.

## SUCTION HOSES

Made of synthetic rubber. Steel wire reinforced.

## Suction hoses – coupling system:

## British Standard round thread (BSRT)

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>1.6 m long</b>					
21137001	75 mm	BSRT 3"	Light alloy	6 kg	
21107501	75 mm	BSRT 3"	Gunmetal	10.5 kg	
21281001	100 mm	BSRT 4"	Light alloy	9 kg	
21291101	100 mm	BSRT 4"	Gunmetal	14.5 kg	
21316502	140 mm	BSRT 5 ½"	Light alloy	15.5 kg	
<b>2.0 m long</b>					
21137101	75 mm	BSRT 3"	Light alloy	6.5 kg	
21116601	75 mm	BSRT 3"	Gunmetal	11.5 kg	
21282001	100 mm	BSRT 4"	Light alloy	10.5 kg	
21282101	100 mm	BSRT 4"	Gunmetal	16 kg	
21316301	140 mm	BSRT 5 ½"	Light alloy	18.5 kg	
21316401	140 mm	BSRT 5 ½"	Gunmetal	28.5 kg	
<b>2.5 m long</b>					
21283101	100 mm	BSRT 4"	Light alloy	12.5 kg	
21292501	100 mm	BSRT 4"	Gunmetal	18.5 kg	
21316201	140 mm	BSRT 5 ½"	Light alloy	22 kg	
21316701	140 mm	BSRT 5 ½"	Gunmetal	32 kg	
<b>3.0 m long</b>					
21284001	100 mm	BSRT 4"	Light alloy	14.5 kg	
21284501	100 mm	BSRT 4"	Gunmetal	21 kg	
21316602	140 mm	BSRT 5 ½"	Light alloy	25 kg	
21316603	140 mm	BSRT 5 ½"	Gunmetal	36 kg	

## Suction Hoses – coupling system:

## American NH Standard

Order no.	Diameter	Size of coupling	Coupling material	Weight approx.	Remarks
<b>1.6 m long</b>					
21291301	100 mm	NH 4"	Light alloy	8.5 kg	
21311901	125 mm	NH 5"	Light alloy	11.5 kg	
<b>2.0 m long</b>					
21291601	100 mm	NH 4"	Light alloy	9 kg	
21311801	125 mm	NH 5"	Light alloy	13.5 kg	
<b>2.5 m long</b>					
21283201	100 mm	NH 4"	Light alloy	12 kg	
21312601	125 mm	NH 5"	Light alloy	15.5 kg	
<b>3.0 m long</b>					
21285401	100 mm	NH 4"	Light alloy	14.5 kg	
21314301	125 mm	NH 5"	Light alloy	17.5 kg	



149010



291900 (comes without hose)



292400

295400 + 295200 +  
295300  
(comes without hose)

292420

## HOSE ACCESSORIES

**149010 Suction hose rope with bag**  
Suitable for handling the suction hoses and strainers. Made of polypropylene plastics, rot-proof. Comes in a length of 15 m and a diameter of 8 mm. Delivered complete with rope bag. Weight: 0.75 kg

**291900 Hose carrier**  
For easy transport of delivery hoses, either normally rolled or "Dutch" rolled. The carrier consists of a perlon strap 750 mm long and a galvanised grip with clamp. Weight: 0.22 kg

**292200 Hose holder**  
Certified as to DIN 14828:2004. Suitable for fastening fire hoses to ladders, structures etc. Consists of a Polyester rope 1.6 m long, 10 mm diameter. One end with wooden twist, the other end with loop. Weight: 0.2 kg

**292400 Hose holder**  
Suitable for fastening fire hoses to ladders, structures etc. Consists of a perlon strap 300 mm long and a galvanised hook with buckle. Weight: 0.3 kg

### Hose jackets

Seals punctured fire hose on the spot and allows fire fighting operations to be carried on. The hose jacket is made of light alloy, with soft rubber lining for positive sealing.

**295312 Size C, 42 mm. Weight: 0.1 kg**  
**295200 Size C, 52 mm (2"). Weight: 0.11 kg**  
**295300 Size B, 75 mm (3"). Weight: 0.13 kg**  
**295310 Size 38 (1 1/2"). Weight: 0.11 kg**  
**295315 Size 65 (2 1/2"). Weight: 0.14 kg**  
**295350 Size 110 mm (4"). Weight: 0.18 kg**

### RECOMMENDED ACCESSORY FOR HOSE JACKETS:

**295400 Carrying bag**  
Suitable for storing a maximum of 18 hose jackets, size C. Weight: 0.4 kg

### Hose carrying basket

Certified as to DIN 14827. Side part foldable.

**292420 Type C**  
Suitable for storing of 3 delivery hoses type C, 15 m each. 870 x 520 x 115 mm. Weight: 3 kg

**292430 Type B**  
Suitable for storing of 2 delivery hoses type B, 20 m each. 870 x 520 x 145 mm. Weight: 3.5 kg



## HOSE BRIDGES

### 292600 Collapsible wooden hose bridges

Certified as to DIN 14820:2000. Solid wooden hose bridges for fire hoses, with under-strapping made of synthetic yarns. Each hose bridge accommodates 2 fire hoses up to 3" diameter. Supplied in sets, each set consists of 2 hose bridges.  
Weight per set: 19.9 kg



292600

### 292700 Folding heavy-duty rubber hose bridge "Crocodile"

Extremely robust and resilient, can be carried in one hand. Folding principle saves storage space. Reflective strips increase visibility by day and night. Each hose bridge accommodates 2 x 1½" or 2 x 2½" hoses. Compatible with other conventional rubber hose bridges. Supplied in sets, each set consists of 2 hose bridges. Weight per set: 23 kg



292700

### Heavy-duty rubber hose bridges

Solid rubber hose bridges for fire hoses with slip-proof finish. The links, which also act as handles, are used to increase the track width as required. Supplied in sets, each set consists of 2 hose bridges.

### 292701 For accommodation of 2 x 1½" or 2 x 2½" hoses.

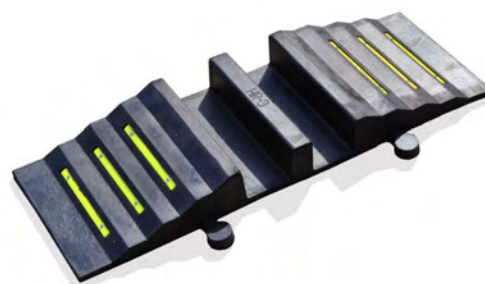
Weight per set: 28 kg

### 292701005 For accommodation of 2 x 4" or 2 x 5" hoses.

Weight per set: 44 kg

### 292702 Aluminium hose bridges

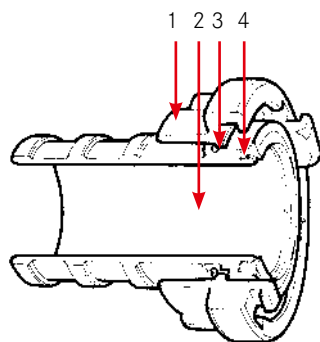
Heavy duty hose bridges for fire hoses, as per DIN 14820:2000. The bridges are slip resistant by means of profile inserts. Each hose bridge accommodates 2 x 1½" or 2 x 2½" hoses. Carrying capacity per hose bridge: 14 tons. Supplied in sets, each set consists of 2 hose bridges.  
Weight per set: 45 kg



292701 / 292701005



292702



Storz coupling system



Delivery hose couplings



Suction hose couplings



Blank caps with chain

## STORZ COUPLING SYSTEM

A symmetrical, hermaphrodite coupling, no female and male part such as a screw connection, enables trouble-free matching of hose ends and connections. Quickly coupled by a 120° rotation (click!) and also quickly disconnected.

The coupling consists of:

- 1) Clamp fitting
- 2) Tail piece, mounted inside the clamp fitting. During coupling the clamp fitting is turned, the tail piece remains stationary, no rotation of seal on seal, no twisting of the hose.
- 3) Circlip – prevents the clamp fitting from sliding back on the hose
- 4) Washer

### Coupling system STORZ – light alloy

Made of aluminium alloy, certified as to EN 1706:1998 and EN 586:2002. Threads according to ISO 228. Working pressure 16 bar. Washers made of nitrile rubber.

### Delivery hose couplings

Order no.	Coupling	Specification	Size	Weight
220000	Storz D	DIN 14 301	25 x 50 mm	0.10 kg
220010	Storz D		25 x 60 mm	0.1 kg
220100	Storz D		19 x 50 mm	0.1 kg
221100	Storz C	DIN 14 332	42 x 55 mm	0.3 kg
221000	Storz C	DIN 14 302	52 x 55 mm	0.3 kg
221300	Storz C	DIN 14 321	52 x 90 mm	0.4 kg
221400	Storz C		38 x 68 mm	0.34 kg
221600	Storz C		25 x 68 mm	0.38 kg
222000	Storz B	DIN 14 303	75 x 60 mm	0.54 kg
222200	Storz B	DIN 14 322	75 x 125 mm	0.67 kg
223000	Storz A		110 x 115 mm	1.4 kg
223100	Storz A		101 x 130 mm	1.2 kg
225212	Storz 38		38 x 90 mm	0.2 kg
225217	Storz 45		45 x 72 mm	0.22 kg
225230	Storz 65	NEN 3374	65 x 59 mm	0.42 kg
233500	Storz 125		125 x 220 mm	2.3 kg

### Suction hose couplings

Order no.	Coupling	Specification	Size	Weight
231000	Storz C	DIN 14 321	52 x 90 mm	0.42 kg
231010	Storz C		38 x 90 mm	0.38 kg
232000	Storz B	DIN 14 322	75 x 125 mm	0.67 kg
233000	Storz A	DIN 14 323	110 x 170 mm	1.65 kg
233200	Storz A		100 x 170 mm	1.68 kg
233400	Storz 65		65 x 100 mm	0.48 kg
233500	Storz 125		125 x 220 mm	2.3 kg
224000	Storz 150		150 x 180 mm	2.6 kg
233800	Storz 165		150 x 275 mm	3.9 kg

### Blank caps with chain

Order no.	Coupling	Specification	Size	Weight
250000	Storz D	DIN 14 310	25 mm	0.09 kg
251000	Storz C	DIN 14 311	52 mm	0.35 kg
252000	Storz B	DIN 14 312	75 mm	0.52 kg
253000	Storz A	DIN 14 313	110 mm	1.3 kg
250500	Storz 38		38 mm	0.2 kg
255200	Storz 45		45 mm	0.22 kg
253480	Storz 65	NEN 3374	65 mm	0.4 kg
253500	Storz 125		125 mm	1.55 kg
254000	Storz 150		150 mm	2.35 kg
254100	Storz 165		165 mm	2.85 kg

Adapters

Order no.	Coupling		Specification	Weight
240000	Storz D 1"	f. thread	DIN 14 306	0.08 kg
240400	Storz D 1"	m. thread		0.08 kg
240300	Storz D 1 ¼"	f. thread		0.09 kg
241100	Storz C 1"	f. thread		0.26 kg
241200	Storz C 1 ¼"	f. thread		0.24 kg
241300	Storz C 1 ½"	f. thread		0.21 kg
241499	Storz C 1 ½"	m. thread		0.2 kg
241000	Storz C 2"	f. thread	DIN 14 307	0.27 kg
241500	Storz C 2"	m. thread		0.22 kg
241400	Storz C 2 ½"	f. thread		0.28 kg
241600	Storz C 2 ½"	m. thread		0.28 kg
242100	Storz B 2"	f. thread		0.4 kg
242000	Storz B 2 ½"	f. thread	DIN 14 308	0.41 kg
242300	Storz B 2 ½"	m. thread		0.36 kg
242200	Storz B 3"	f. thread		0.4 kg
242400	Storz B 3"	m. thread		0.37 kg
243200	Storz A 4"	m. thread		0.91 kg
243100	Storz A 4"	f. thread		1.05 kg
243000	Storz A 4 ½"	f. thread	DIN 14 309	1.06 kg
244311	Storz 38 1 ½"	f. thread		0.15 kg
244312	Storz 38 1 ½"	m. thread		0.13 kg
244315	Storz 38 2"	f. thread		0.18 kg
244320	Storz 45 1 ½"	f. thread		0.2 kg
244325	Storz 45 2"	f. thread		0.30 kg
244350	Storz 65 2"	f. thread		0.36 kg
244360	Storz 65 2 ½"	f. thread	NEN 3374	0.35 kg
244361	Storz 65 2 ½"	m. thread		0.3 kg
243500	Storz 125 5"	f. thread		1.23 kg
244000	Storz 150 6"	f. thread		2.6 kg

Adapters (Reducers)

- 255900 Adapter Storz 38 – D**  
From Storz 38 to Storz D. Made of light-alloy.  
Weight: 0.4 kg
- 256000 Adapter C – D**  
From Storz C to Storz D. Made of light-alloy.  
Certified as to DIN 14341.  
Weight: 0.4 kg
- 256100 Adapter B – C**  
From Storz B to Storz C. Made of light-alloy.  
Certified as to DIN 14342.  
Weight: 0.6 kg
- 256200 Adapters A – B**  
From Storz A to Storz B. Made of light-alloy.  
Certified as to DIN 14343.  
Weight: 1.5 kg

Order no.	Coupling	Weight
256300	Storz 52 – 38	0.4 kg
256303	Storz 52 – 65	0.65 kg
256306	Storz 65 – 38	0.48 kg
256330	Storz 110 – 65	1.4 kg
256400	Storz 125 – 110	2.75 kg
256500	Storz 150 – 110	3.5 kg



Adapter female thread



Adapter male thread



Reducers



268715



268750



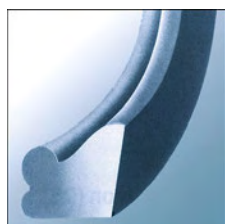
268870



268820



268825



Washers for delivery operation

### STORZ coupling system - gunmetal

Made of gunmetal, certified as to EN 1982:2007-11 and EN 12420:1999. Thread according to ISO 228. Working pressure 16 bar. Washers made of nitrile rubber.

#### Delivery hose couplings

Order no.	Coupling	Specification	Size	Weight
268700	Storz D		25 x 53 mm	0.26 kg
221610	Storz C		25 x 90 mm	0.9 kg
268712	Storz C		38 x 68 mm	0.87 kg
268710	Storz C	DIN 86 202	52 x 75 mm	0.88 kg
268720	Storz B	DIN 86 203	75 x 80 mm	1.41 kg
225205	Storz 32		32 x 80 mm	0.54 kg
225000	Storz 38		38 x 85 mm	0.6 kg
268715	Storz 65		65 x 60 mm	1.27 kg

#### Suction hose couplings

Order no.	Coupling	Specification	Size	Weight
268751	Storz C		38 x 68 mm	0.95 kg
268750	Storz C		52 x 90 mm	0.86 kg
268760	Storz B		75 x 125 mm	1.87 kg
268770	Storz A		110 x 170 mm	5 kg

#### Blank caps with chain

Order no.	Coupling	Specification	Size	Weight
268850	Storz D		25 mm	0.26 kg
268860	Storz C	DIN 86 206	52 mm	0.8 kg
268870	Storz B	DIN 86 207	75 mm	1.23 kg
268880	Storz A		110 mm	3.6 kg
021140-001	Storz 38		38 mm	0.46 kg
268865	Storz 65		65 mm	1.15 kg

#### Adapters male/female thread

Order no.	Coupling	Specification	Weight
268800	Storz D 1"	f. thread	0.23 kg
268808	Storz C 1 1/2"	f. thread	0.56 kg
268810	Storz C 2"	f. thread	0.63 kg
268812	Storz C 2"	m. thread	0.56 kg
268813	Storz C 2 1/2"	f. thread	0.8 kg
268811	Storz C 2 1/2"	m. thread	0.85 kg
268820	Storz B 2 1/2"	f. thread	1.09 kg
268825	Storz B 3"	m. thread	1.11 kg
268830	Storz A 4"	f. thread	2.2 kg
088129-001	Storz 38 1 1/2"	f. thread	0.44 kg
244310	Storz 38 1 1/2"	m. thread	0.54 kg
268815	Storz 65 2 1/2"	f. thread	1.05 kg

#### SPARE PARTS FOR STORZ COUPLINGS:

##### Washers for delivery operation

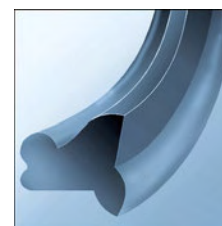
Made of nitrile rubber, for Storz couplings.

Order no.	Coupling	Weight
020354	Storz 38 1 1/2"	0.004 kg
276560	Storz D 1"	0.003 kg
276570	Storz C 2"	0.01 kg
276580	Storz B 3"	0.016 kg
276594	Storz 45 1 1/2"	0.008 kg
276595	Storz 65 2 1/2"	0.015 kg

**Washers for delivery and suction hose couplings**

Made of nitrile rubber, for Storz couplings.

Order no.	Coupling		Weight
276670	Storz C	2"	0.01 kg
276680	Storz B	3"	0.016 kg
276690	Storz A	4"	0.05 kg
276700	Storz 125	5"	0.05 kg
276710	Storz 150	6"	0.054 kg



Washers for delivery and suction hose couplings

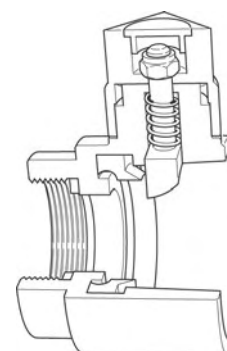
**Circlips for delivery and suction hose couplings**

Made of steel, for Storz couplings.

Order no.	Coupling		Weight
276780	Storz 38	1 1/2"	0.005 kg
276740	Storz D	1"	0.002 kg
276750	Storz C	2"	0.007 kg
276760	Storz B	3"	0.009 kg
276770	Storz A	4"	0.018 kg
276790	Storz 65	2 1/2"	0.009 kg
276795	Storz 125	5"	0.02 kg
276798	Storz 150	6"	0.025 kg



276780



Exploded drawing of a BS coupling

**BRITISH INSTANTANEOUS AND BRITISH STANDARD COUPLING SYSTEM**

Certified as to British Standard 336:1989. The British Standard 336:1989 is using the non-symmetrical instantaneous coupling on the delivery side, consisting of a male and female part, which are simply pushed together. Spring-loaded plungers in the female part grip in the gap of the male part. The couplings will be disconnected by pulling or twisting release lugs. Suction hose couplings always have a BSRT round thread.

**British couplings system - light alloy**

Made of aluminium alloy, certified as to BS 1490:2002. Coupling certified as to BS 336:1989 and non-standardised 1 1/2" British Instantaneous. Working pressure 15 bar. Washers made of nitrile rubber.

**Adapters made of light alloy**

Order no.	Coupling			Weight
244383	B. Inst.	1 1/2" f.	- 1 1/4"	f. thread 0.25 kg
244381	B. Inst.	1 1/2" f.	- 1 1/2"	f. thread 0.3 kg
277225	B. Inst.	1 1/2" f.	- 2"	f. thread 0.29 kg
277205	B. Inst.	1 1/2" m.	- 1 1/2"	m. thread 0.25 kg
244380	B. Inst.	1 1/2" m.	- 2"	f. thread 0.19 kg
277228	BS 336	2 1/2" f.	- 1 1/2"	f. thread 0.17 kg
277230	BS 336	2 1/2" f.	- 2"	f. thread 0.65 kg
244389	BS 336	2 1/2" f.	- 2 1/2"	f. thread 0.6 kg
277229	BS 336	2 1/2" m.	- 1 1/2"	m. thread 0.3 kg
244384	BS 336	2 1/2" m.	- 2"	f. thread 0.18 kg
244390	BS 336	2 1/2" m.	- 2"	m. thread 0.22 kg
244387	BS 336	2 1/2" m.	- 2 1/2"	f. thread 0.22 kg
244385	BS 336	2 1/2" m.	- 2 1/2"	m. thread 0.8 kg
256908	BSRT	3" f.	- 2 1/2"	f. thread 0.6 kg
256909	BSRT	3" m.	- 2 1/2"	f. thread 0.68 kg
256910	BSRT	3" m.	- 2 1/2"	m. thread 0.3 kg
2443901	BSRT	4" f. swivel	4"	f. thread 1.8 kg
244394	BSRT	5 1/2" m.	4 1/2"	f. thread 1.8 kg
244396	BSRT	5 1/2" m.	5"	f. thread 1.18 kg

**PLEASE NOTE:**

m .....male  
 f .....female  
 B. Inst .....British Instantaneous  
 BS .....British Standard 336:1989  
 BSRT .....British Standard Round Thread (certified as to BS 336:1989)



244389



244390



244387



244456



244450



268885



268891



256969



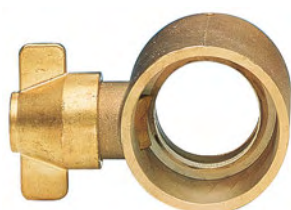
277270



256978



244392



244388

#### Delivery hose couplings, per pair

Order no.	Coupling	Size	Weight
244454	B. Inst. 1 1/2"	38 x 85 mm, serrated	0.41 kg
244458	BS 336 2 1/2"	38 x 85 mm	0.95 kg
244456	BS 336 2 1/2"	63 x 60 mm	0.98 kg

#### Suction hose couplings, per pair

Order no.	Coupling	Size	Weight
244449	BSRT 3"	75 mm	2.1 kg
244450	BSRT 4"	100 mm	2.8 kg
234510	BSRT 5 1/2"	140 mm	4.75 kg

#### Blank caps with chain, per unit

Order no.	Coupling	Size	Weight
268888	B. Inst. 1 1/2" f.	38 mm	0.22 kg
268886	B. Inst. 1 1/2" m.	38 mm	0.11 kg
268885	BS 336 2 1/2" f.	63 mm	0.51 kg
268891	BS 336 2 1/2" m.	63 mm	0.25 kg
256911	BSRT 3" f.	75 mm	0.65 kg
277270	BSRT 4" f.	102 mm	0.69 kg
277272	BSRT 5 1/2" f.	140 mm	1.7 kg

**Adapters**, Instantaneous to Instantaneous and BSRT, made of light alloy, per unit. Other sizes upon request.

Order no.	Coupling	Size	Weight
256972	B. Inst. 1 1/2" f.	2 1/2" m.	0.6 kg
256970	B. Inst. 1 1/2" m.	2 1/2" f.	0.7 kg
256966	B. Inst. 1 1/2" m.	2 1/2" m.	0.4 kg
256967	B. Inst. 1 1/2" m.	1 1/2" m.	0.3 kg
256965	B. Inst. 1 1/2" f.	2 1/2" f.	0.35 kg
256969	BS 336 2 1/2" f.	2 1/2" female	1.2 kg
256976	BS 336 2 1/2" m.	2 1/2" m.	0.5 kg
256978	BS 336 2 1/2" f.	2 1/2" m.	0.85 kg
256986	BSRT 4" m.	4" m.	1.6 kg
256980	BSRT 4" f.	2 1/2" m.	1.1 kg
256983	BSRT 4" f.	4" f.	1.1 kg
256984	BSRT 5" f.	4" m.	1.5 kg
256988	BSRT 4" f.	5 1/2" m.	1.9 kg
256987	BSRT 5" f.	4" m.	1.5 kg

#### British coupling system - gunmetal

Made of gunmetal, certified as to EN 1982, EN 12420 or EN 12449, BS 336:1989 and non-standardised 1.5" Instantaneous couplings. Working pressure 15 bar. Washers made of nitrile rubber.

#### Adapters, per unit

Order no.	Coupling	Weight
277223	B. Inst. 1 1/2" f. - 1 1/4" f. thread	0.85 kg
277224	B. Inst. 1 1/2" f. - 1 1/2" f. thread	0.95 kg
244382	B. Inst. 1 1/2" f. - 2" f. thread	0.89 kg
277209	B. Inst. 1 1/2" m. - 2" f. thread	0.49 kg
27722801	BS 336 2 1/2" f. - 1 1/2" f. thread	0.55 kg
244386	BS 336 2 1/2" f. - 2" f. thread	1.95 kg
24439005	BS 336 2 1/2" f. - 2" m. thread	0.55 kg
244388	BS 336 2 1/2" f. - 2 1/2" f. thread	1.6 kg
244391	BS 336 2 1/2" f. - 2 1/2" m. thread	1.6 kg
277217	BS 336 2 1/2" m. - 1 1/2" f. thread	0.18 kg
277216	BS 336 2 1/2" m. - 2" f. thread	0.8 kg
277215	BS 336 2 1/2" m. - 2 1/2" f. thread	0.8 kg
244392	BS 336 2 1/2" m. - 2 1/2" m. thread	0.8 kg
244398	BSRT 3" m. - 2 1/2" f. thread	0.68 kg
244399	BSRT 4" m. - 2 1/2" f. thread	0.65 kg
256981	BSRT 4" f. - 2 1/2" m. thread	0.65 kg
244395	BSRT 5 1/2" m. - 5" f. thread	3.1 kg

Delivery hose couplings, per pair

Order no.	Coupling	Size	Weight
277110	B. Inst. 1 1/2"	38 x 85 mm, serrated	1.38 kg
277116	BS 336 2 1/2"	38 x 85 mm	2.75 kg
277117	BS 336 2 1/2"	63 x 60 mm	2.8 kg

Suction hose couplings, per pair

Order no.	Coupling	Size	Weight
244448	BSRT 3"	75 mm	6.8 kg
244451	BSRT 4"	100 mm	8.5 kg
234512	BSRT 5 1/2"	140 mm	15.3 kg

Blank caps with chain, per unit

Order no.	Coupling	Size	Weight
277257	B. Inst. 1 1/2" f.	38 mm	0.8 kg
277256	B. Inst. 1 1/2" m.	38 mm	0.3 kg
277265	BS 336 2 1/2" f.	63 mm	1.5 kg
277261	BS 336 2 1/2" m.	63 mm	0.7 kg
277269	BSRT 3" f.	75 mm	2.1 kg
277271	BSRT 4" f.	102 mm	3.3 kg
277273	BSRT 5 1/2" f.	140 mm	5.9 kg

Coupling adapters, per unit

Order no.	Coupling	Weight
256979	BS 336 2 1/2" f. - 2 1/2" f.	2.1 kg
256977	BS 336 2 1/2" m. - 2 1/2" m.	0.9 kg

Washers for delivery and suction hose couplings, per unit

Order no.	Coupling	Size	Weight
244480	B. Inst. 1 1/2"	38 mm	0.01 kg
244482	BS 336 2 1/2"	63 mm	0.03 kg
244485	BSRT 3"	75 mm	0.05 kg
244486	BSRT 4"	102 mm	0.05 kg
244488	BSRT 5"	125 mm	0.06 kg
244489	BSRT 5 1/2"	140 mm	0.07 kg

Adapters Instantaneous or BSRT to Storz system

Made of light-alloy, per unit.

Order no.	Coupling	Weight
	BS 336 - Storz	
25697804	B. Inst. 2 1/2" m. - 52=C	0.42 kg
25697806	B. Inst. 2 1/2" f. - 65	0.85 kg
25697807	B. Inst. 2 1/2" m. - 75=B	0.67 kg
25697805	B. Inst. 2 1/2" f. - 75=B	1.10 kg
25697808	BSRT 4" f. swivel - 110=A	2.30 kg
25697809	BSRT 4" m. - 110=A	1.8 kg



277117



244451



277261



256979



244482



25697805



278720



278861



278883

## AMERICAN STANDARD NH COUPLINGS SYSTEM

### American Standard NH couplings system – light alloy

Made of aluminium alloy. Couplings certified as to NH (NFPA 1963).  
Working pressure: 16 bar. Washers made of nitrile rubber.

#### Delivery hose couplings

Order no.	Coupling	Size	Weight
278710	NH 1 1/2"	52 x 50 mm	0.35 kg
278712	NH 1 1/2"	38 x 85 mm	0.4 kg
278720	NH 2 1/2"	75 x 60 mm	1 kg
278721	NH 2 1/2"	75 x 100 mm	1.2 kg
278722	NH 2 1/2"	63 x 80 mm	1 kg

#### Suction hose couplings

Order no.	Coupling	Size	Weight
278771	NH 4"	100 x 170 mm	2.6 kg
278772	NH 4 1/2"	110 x 170 mm	3.1 kg
278773	NH 5"	125 x 220 mm	4.1 kg

#### Blank caps and plugs with chain

Order no.	Coupling	Size	Weight
278863	NH 1 1/2" f.	38 mm	0.1 kg
278861	NH 2 1/2" f.	63 mm	0.3 kg
278862	NH 2 1/2" m.	63 mm	0.5 kg
278881	NH 4" f.	102 mm	0.8 kg
278883	NH 4" m.	102 mm	1 kg
278882	NH 4 1/2" f.	114 mm	1 kg
278884	NH 5" f.	127 mm	1.2 kg
278885	NH 6" f.	152 mm	2 kg



**Adapters NH thread to pipe thread DIN ISO 228**

Made of light-alloy.

Order no.	Coupling			Weight
278806	NH 1 1/2" m.	- 2"	m. thread	0.13 kg
278811	NH 2 1/2" f. swivel	- 2 1/2"	f. thread	0.5 kg
278809	NH 2 1/2" m.	- 2 1/2"	f. thread	0.3 kg
278837	NH 4" f.	- 4 1/2"	f. thread	0.8 kg
278835	NH 4" m.	- 4 1/2"	f. thread	0.8 kg
278838	NH 5" m.	- 5"	f. thread	0.9 kg
278840	NH 6" m.	- 6"	f. thread	1 kg



278806



278809

**Swivel adapters NH thread to pipe thread DIN ISO 228**

Made of light-alloy.

Order no.	Coupling			Weight
279320	NH 1 1/2" f.	- 1 1/2"	f. thread	0.6 kg
279321	NH 1 1/2" f.	- 2"	f. thread	0.75 kg
278805	NH 1 1/2" m.	- 2"	f. thread	0.6 kg
278812	NH 2 1/2" f.	- 2"	f. thread	0.25 kg
278811	NH 2 1/2" f.	- 2 1/2"	f. thread	0.33 kg
278810	NH 2 1/2" m.	- 2 1/2"	f. thread	0.3 kg
278830	NH 4" m.	- 4"	f. thread	0.7 kg



279320

Other sizes upon request.

**Adapters STORZ - NH swivel**

Special adapters made of light alloy.

Order no.	Coupling			Weight
278950	Storz 65	- NH 2 1/2" f.		0.7 kg
278951	Storz B	- NH 2 1/2" f.		0.9 kg
278952	Storz A	- NH 2 1/2" f.		1.5 kg
278953	Storz A	- NH 4" f. with handle		2.2 kg
278954	Storz A	- NH 4 1/2" f.		2.3 kg
278955	Storz A	- NH 5" f.		2.8 kg
278956	Storz 125	- NH 5" f. with handle		3.2 kg
278957	Storz 125	- NH 6" f.		3.5 kg
25697803	BS 336 2 1/2" f.	- NH 2 1/2" f.		1.2 kg



278950



278956

**Swivel coupling adapters NH thread - NH thread**

Made of light alloy

Order no.	Coupling			Weight
278922	NH 2 1/2" f.	- NH 2 1/2" f.		0.35 kg
278925	NH 2 1/2" f.	- NH 2 1/2" m.		0.32 kg
278926	NH 2 1/2" m.	- NH 1 1/2" f.		0.25 kg
278924	NH 2 1/2" m.	- NH 2 1/2" m.		0.3 kg



278922



(symbolic pictures)

Other sizes and materials upon request.

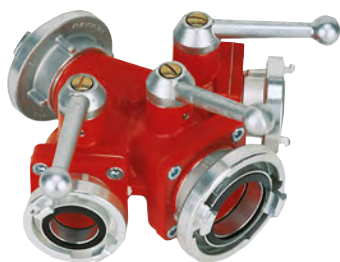
All couplings American Standard are also available in brass, chrome plated upon request.



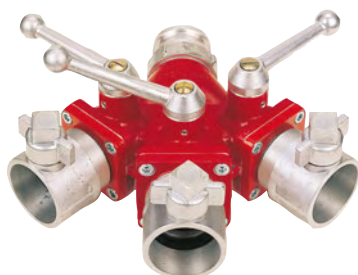
257000



256958



258000



25695804



279455

## DIVIDING BREECHINGS

Used to split up a single line into two or three lines.

### Dividing breeching screw down type

Made of light-alloy.

#### Storz system

257000	Storz B – CBC	5.2 kg
257500	Storz B – CC	3.2 kg
257600	Storz A – BB	4.4 kg
257700	Storz 65 – 38/38	3.2 kg
257705	Storz 65 – 38/65/38	5.1 kg

#### British Standard system

256961	BS 2 ½" m. – 3 x 2 ½" f.	5.3 kg
256956	BS 2 ½" m. – 2 x 1 ½" f.	3.15 kg
256957	BS 2 ½" m. – 1 ½" f., 2 ½" f., 1 ½" f.	4.7 kg
256958	BS 2 ½" m. – 2 x 2 ½" f.	3.6 kg
256961	BS 2 ½" m. – 3 x 2 ½" f.	5.4 kg

#### American NH Standard system (leader line wye)

278970	NH 2 ½" f. – 2 x 1 ½" m.	3 kg
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### Dividing breeching, ball type valves

#### Storz system

Made of light-alloy.

258000	Storz B – CBC	6.9 kg
258300	Storz A – BBB	9 kg
258600	Storz A – BB	6 kg
258500	Storz B – CC	3.1 kg
258001	Storz 65 – 38/65/38	6.3 kg
258710	Storz 65 – 38/38	2.8 kg

#### British Standard system

25695801	BS 2 ½" m. – 2 x 2 ½" f.	4 kg
25695803	BS 2 ½" m. – 1 ½" f., 2 ½" f., 1 ½" f.	4.7 kg
25695804	BI 2 ½" m – 3 x 2 ½" f.	5.4 kg

#### American NH Standard system: wye valves

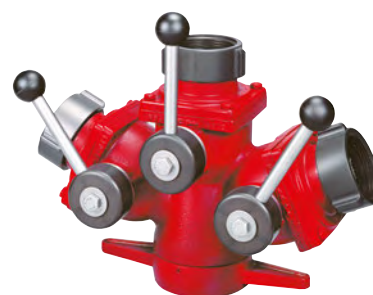
Strong lightweight aluminium construction. Self-locking handle for positive positioning. Male adapters are easily removed for adjustment of seats. Used for laying lines from hydrant to the pumper or branching off a 2 ½" or larger line to three 2 ½" lines. Body painted red.

279450	Inlet 2 ½" female, outlet 3 x 2 ½" male couplings.	Weight: 11.5 kg
279451	Inlet 3" female, outlet 3 x 2 ½" male couplings.	Weight: 12 kg
279452	Inlet 3 ½" female, outlet 3 x 2 ½" male couplings.	Weight: 12.4 kg
279453	Inlet 4" female, outlet 3 x 2 ½" male couplings.	Weight: 12.9 kg
279454	Inlet 4 ½" female, outlet 3 x 2 ½" male couplings.	Weight: 13.3 kg
279455	Inlet 5" female, outlet 3 x 2 ½" male couplings.	Weight: 13.9 kg

**3-way suction SIAMESE**

Strong lightweight aluminium construction, body painted red. Self-locking handle for positive positioning. 2 1/2" swivel inlets for positive positioning. Used for pumper suction or aerial platform inlets.

- 279600**    **Inlet 3 x 2 1/2" female, outlet 3" female.**  
Weight: 5.90 kg
- 279610**    **Inlet 3 x 2 1/2" female, outlet 4" female.**  
Weight: 6.10 kg
- 279620**    **Inlet 3 x 2 1/2" female, outlet 4 1/2" female.**  
Weight: 6.40 kg
- 279630**    **Inlet 3 x 2 1/2" female, outlet 5" female.**  
Weight: 6.60 kg



**279600**

**Leader line wye valves**

- 279304**    **Inlet 2 1/2" female, outlet 2 x 1 1/2" male couplings.**  
Weight: 2 kg
- 279305**    **Inlet 2 1/2" female, outlet 2 x 2 1/2" male couplings.**  
Weight: 4.3 kg



**279304**

**COLLECTING BREECHINGS**

Used to combine two, three or four water feeds into one feed. All inlets clappered.

**Storz system, as per DIN 14355.**

Made of light alloy.

- |               |                                     |         |
|---------------|-------------------------------------|---------|
| <b>259000</b> | <b>Storz B – CC</b>                 | 2 kg    |
| <b>259100</b> | <b>Storz A – BB</b>                 | 3.4 kg  |
| <b>259400</b> | <b>Storz A – BBB</b>                | 7.1 kg  |
| <b>259515</b> | <b>Storz A – 65/65</b>              | 3.2 kg  |
| <b>259200</b> | <b>Storz 150 – AA</b>               | 11.6 kg |
| <b>259500</b> | <b>Storz 125 – BBBB</b>             | 10 kg   |
| <b>259525</b> | <b>Storz 125 – 2 x A</b>            | 9.5 kg  |
| <b>259001</b> | <b>Storz 65 – 38/38</b>             | 2 kg    |
| <b>259452</b> | <b>Storz 125 – 3 x BS 2 1/2" m.</b> | 10 kg   |
| <b>259450</b> | <b>Storz 125 - BBB</b>              | 8.9 kg  |



**279305**

**British Standard System.**

Made of light alloy.

- 259553**    **BS 2 1/2" female swivel – 2 x 2 1/2" male Inst.**  
Weight: 2.3 kg
- 259551**    **BSRT 4" female swivel – 2 x 2 1/2" male Inst.**  
Weight: 3 kg
- 259594**    **BSRT 4" female swivel – 3 x 2 1/2" male Inst.**  
Weight: 6.7 kg
- 277493**    **BSRT 5 1/2" female swivel – 2 x 2 1/2" male Inst.**  
Weight: 7.3 kg
- 277494**    **BSRT 5 1/2" female swivel – 3 x 2 1/2" male Inst.**  
Weight: 8.8 kg
- 277490**    **BSRT 5 1/2" female swivel – 4 x 2 1/2" male Inst.**  
Weight: 10.2 kg



**259100**



**259551**

Collecting breechings made of gunmetal upon request.  
Radial types and further in-line types upon request.



279079



279307



260200



260900

### American NH Standard system

Made of light alloy.

**279079**    **NH 4" f. – 2 x 2 ½" f.**  
Weight: 1.4 kg

**279307**    **Valved wye: clapper siamese**  
Strong lightweight aluminium construction, double clappers, optional drain valve. Used for joining two liners into one. Body painted red.  
2 ½" male, 2 x 2 ½" female, NH.  
Weight: 3.5 kg

Collecting breechings made of gunmetal upon request.

### STRAINERS / BASKETS

#### Suction strainer with non-return valve

Strainers prevent obstructions in the suction line caused by entry of stones, small pieces of wood and other debris. Suction strainers with drain arrangement and non-return valve. Made of gunmetal or light alloy.

#### Storz system

<b>260000</b>	<b>Storz C</b>	Light alloy (DIN 14362)	1.0 kg
<b>260100</b>	<b>Storz B</b>	Light alloy (DIN 14362)	2.3 kg
<b>260200</b>	<b>Storz A</b>	Light alloy (DIN 14362)	5.0 kg
<b>260300</b>	<b>Storz A</b>	With handles light alloy	5.2 kg
<b>260350</b>	<b>Storz 65</b>	Light alloy	2.2 kg
<b>260400</b>	<b>Storz 125</b>	Light alloy	8.0 kg
<b>260500</b>	<b>Storz 150</b>	Light alloy	12.50 kg

#### Low level strainer with non-return clapper

This design allows draw-off almost down to the ground and provides good stability. Oblique outlet permits better guiding of hoses through cellar windows.

<b>260900</b>	<b>Storz A</b>	Light alloy	5.50 kg
<b>260910</b>	<b>BSRT 4" f.</b>	Light alloy	5.50 kg

**Cylindrical suction strainer without non-return valve**

**British Standard system**

260549	BSRT 3" f.	Gunmetal	4.4 kg
260550	BSRT 4" f.	Gunmetal	6.3 kg
260565	BSRT 4" f.	Light alloy	4.5 kg
260555	BSRT 5 1/2" f.	Gunmetal	6.8 kg
260566	BSRT 5 1/2" f.	Light alloy	9.9 kg

**American NH Standard system**

279120	NH 4" f.	Gunmetal	7.1 kg
27912501	NH 6" f.	Gunmetal	9.8 kg

**Wicker basket**

Offers maximum protection, prevents even very small objects from entering suction line.

275560	3" Wicker basket	0.9 kg
275562	4" Wicker basket	1.1 kg
275564	5 1/2" Wicker basket	1.4 kg

**21150409 Swimmer for suction strainer**

Weight: 2.5 kg

**Wire mesh basket**

Offers maximum protection combined with suction strainer, prevents even very small object from entering suction line.

275600	2" Wire mesh basket	0.7 kg
275620	3" Wire mesh basket	1 kg
275640	4" Wire mesh basket	1.3 kg
275660	5" Wire mesh basket	1.5 kg
275680	6" Wire mesh basket	1.8 kg



260550

260555



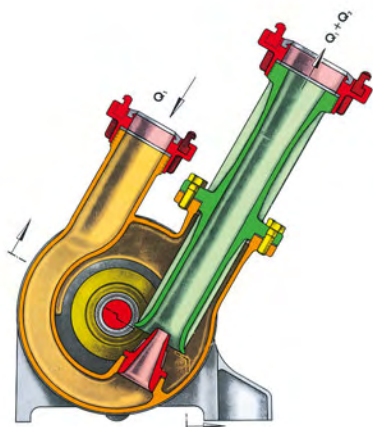
275562



21150409



275640



#### Rosenbauer ejector pump

Safety type ejector pump, for pumping out of liquids in basements, pits, shafts, bilges etc. Output up to 800 l/min, depending on the hydrant pressure available. Comes with check valve.

**267100 Inlet with Storz C coupling – outlet with Storz B coupling**

Weight: 7.9 kg

**267212 Inlet with BS 2 ½" male – outlet with BS 2 ½" female coupling**

Weight: 8 kg

**267311 Inlet with NH 1 ½" female - outlet with NH 2 ½" male coupling**

Weight: 8 kg



267100

#### 268300 Reverse flow preventer

To prevent the contamination of the drinking water supply the line feeding the ejector pump may not be connected to the hydrant standpipe directly. The reverse flow preventer with non-return valve mounted between can avoid this. The incorporated breather aerates the pressure line in case the pressure drops at the main.



268300

#### Bilge turbo pump

Suitable for emptying bilges, basements, ducts and pits. Thanks to its small dimensions, it can also easily be put into tanker vehicles through manholes, by means of 2 lifting eyes. The unit is made of corrosion resistant light alloy. A closed circuit water turbine acts as driving engine. Decanting capacity approx. 1,200 l/min, with a working pressure of 10 bar at the turbine pump. Working head of the bilge pump: 8 metres water column (0.8 bar).

**934000 With Storz B couplings (3")**

Weight: 14.3 kg

**934010 With Storz 65 couplings (2 ½")**

Weight: 14.1 kg

**934020 With BS 2 ½" couplings male and female**

Weight: 14.5 kg

**934030 With NH 2 ½" couplings male and female**

Weight: 14.4 kg



934000

## SPANNERS

- 275400 Coupling spanner ABC**  
Made of steel, according to DIN 14822. Comes with cold resisting handgrip.  
Weight: 0.66 kg
- 275505 Coupling spanner ABC**  
Made of light alloy. Suitable for Storz A, B, C and Storz-65 couplings.  
Weight: 0.7 kg
- 275510 Coupling spanner BC**  
Made of steel, painted black.  
Weight: 0.28 kg
- 
- 275511 Coupling spanner Storz 65 - 38**  
Made of malleable cast iron.  
Weight: 0.26 kg
- 
- 275525 Coupling spanner H (Storz 32 and Storz 38)**  
Made of steel, galvanised.  
Weight: 0.3 kg
- 
- 275530 Coupling spanner Storz 125/135/150**  
Made of malleable cast iron, painted black.  
Weight: 1.2 kg
- 
- 019061-001 Coupling spanner BSRT 3" - 5 1/2"**  
Made of steel, hot dip galvanised.  
Weight: 0.57 kg
- 
- 279210 Coupling spanner 3/4" - 6"**  
Weight: 0.24 kg
- 
- 269600 Spanner for pillar type hydrant**  
Made of forged steel, painted black.  
According to DIN 3223.  
Weight: 2.3 kg
- 
- 269590 Pillar hydrant wrench with ratchet**  
Made of light alloy. One end serves to open and close hydrant valves, the other end acts as a spanner for Storz A, B, C and 65 mm couplings.  
Weight: 3.5 kg



275400



275510



275525



275530



019061-001



279210



269600



269590



262020



262100



263000

## MULTI-PURPOSE BRANCH PIPES

### 262020 Euro nozzle

Flow rate and throw distance according to EN 671. Provided with Storz 25 coupling, made of light alloy. Infinitely variable by turning the head clockwise from shut-off to spray to 90° to full jet. Weight: 0.5 kg

### 262000 Multi-purpose branch pipe size DM

According to DIN 14365 and ÖNORM F-2190. Provided with Storz-D (1") coupling, made of light alloy. The branch pipe valve allows for 3 positions: stop, full jet and spray. Comes with 4 mm nozzle tip. Length: 300 mm. Weight: 0.6 kg

### Multi-purpose branch pipe CM

According to DIN 14365 and ÖNORM F 2190, made of light alloy. The branch pipe valve allows for 3 positions: stop, full jet and spray. Comes with 9 mm nozzle tip.

<b>262100</b>	<b>With Storz C</b>	Weight: 1.3 kg
<b>262105</b>	<b>With Storz 38</b>	Weight: 1.3 kg
<b>262112</b>	<b>With Storz 65</b>	Weight: 1.3 kg
<b>262110</b>	<b>With Inst. 1 1/2" male</b>	Weight: 1.4 kg
<b>262107</b>	<b>With BS 2 1/2" male</b>	Weight: 1.4 kg

### Multi-purpose branch pipe size BM

According to DIN 14365 and ÖNORM F-2190. Made of light alloy. The branch pipe valve allows for 3 positions: stop, full jet and spray. Comes with 16 mm nozzle tip. Weight: 2.20 kg

<b>262200</b>	<b>With Storz B</b>	Weight: 2.2 kg
<b>262202</b>	<b>With Storz 65</b>	Weight: 2.6 kg
<b>262206</b>	<b>With BS 2 1/2" male</b>	Weight: 1.6 kg

### Multi-purpose branch pipe size CMM

Comes with nozzle tip 9 mm. The branch pipe valve allows for 3 positions: shut-off, full jet and spray. Special control for water curtain for maximum protection of the fireman. Weight: 1.9 kg

<b>263000</b>	<b>With Storz C</b>	Weight: 1.9 kg
<b>263017</b>	<b>With Storz 65</b>	Weight: 2 kg
<b>263010</b>	<b>With Inst. 1 1/2" male</b>	Weight: 1.85 kg
<b>263012</b>	<b>With BS 2 1/2" male</b>	Weight: 1.85 kg
<b>279172</b>	<b>With NH 1 1/2" female</b>	Weight: 2 kg



**Multi-purpose water curtain branch pipe BMM**

Comes with nozzle tip 16 mm. The branch pipe valve allows for 3 positions: stop, full jet and spray. Special control for water curtain for maximum protection of the fireman.

<b>263100</b>	<b>With Storz B</b>	Weight: 2.7 kg
<b>262204</b>	<b>With Storz 65</b>	Weight: 3.0 kg
<b>263110</b>	<b>With BS 2 1/2" male</b>	Weight: 2.4 kg
<b>279160</b>	<b>With NH 2 1/2" female</b>	Weight: 1.9 kg

**Nozzle tips**

<b>261700</b>	<b>DM nozzle tip</b> 1/4" thread, 4 mm. Weight: 0.05 kg
<b>261800</b>	<b>CM nozzle tip</b> 1" thread, 4 mm. Weight: 0.09 kg
<b>261900</b>	<b>BM nozzle tip</b> 1 1/2" thread, 16 mm. Weight: 0.04 kg
<b>261912</b>	<b>BM nozzle tip</b> 1 1/2" thread, 20 mm. Weight: 0.05 kg



**263100**

Multipurpose branchpipe size	Tip inner diameter		Waterflow at 5 bar		Fog stream		
	w/nozzle mm	w/o nozzle mm	Fog stream l/min.	Straight stream throw distance m	Average throw distance m	Average throw width m	
DM	4	-	24	24	14	7.6	1
	-	6	53	53	16	8.4	1.1
CM	9	-	120	120	24	10	1.5
	-	12	215	215	26	11	1.7
CMM*	9	-	270	270	24	10	1.5
	-	12	365	365	26	11	1.7
BM	16	-	380	380	29	12.7	2.3
	-	22	715	715	34	14	2.5
BMM*	16	-	620	620	29	12.7	2.3
	-	22	955	955	34	14	2.5

\* if watercurtain is opened



**Straight stream**



**Fog pattern**



**Water curtain**

## NOZZLES

### Selectable gallonage nozzles

- High performance, maximum protection
- Durable, light-weight construction
- Ergonomic design

### Stream patterns:

#### Straight stream

- Working from a safe distance with extensive throw range
- High kinetic energy to eliminate ember and fire pockets

#### Variable fog patterns

- Fine water droplets for rapid heat reduction
- Minimisation of water damage due to smaller volumes of water
- Ideal for cooling, fume abatement and combating solvent fires

#### Water curtain

- Finest water droplets and wide spray angle to create a large area water shield
- Maximum protection against radiant heat

### Nozzles

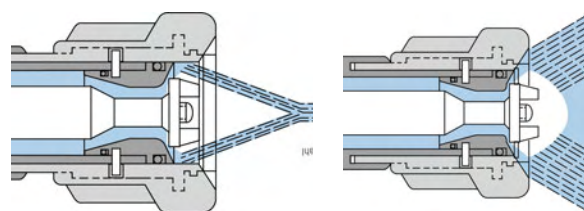
In this kind of nozzles the water is fed through a ring-shaped nozzle, whereby a hollow stream of water is produced. In contrast to combination spray nozzles, the water flow is not interrupted when changing from solid to spray jet. A further advantage is that the solid jet is more stable because it does not rain out easily. This results in a high throw range. Usually stream patterns and flow rates are continuously adjustable. The stream of water is carved up by rotating spinning teeth. This results in very small droplets, which maximises the extinguishing success.

All nozzles can be supplied either without couplings (female thread BSP) or individually fitted with Storz, British Standard or NH-couplings. Other coupling systems are available upon request.

### SELECT FLOW EN NOZZLES

The Rosenbauer SELECT FLOW nozzle type "EN" is certified as to DIN 14367:2002 and in accordance with EN 15182:2007 for an operating pressure of 6 bar.

1. **Spinning teeth made of stainless steel:** For superb fog pattern when using "water curtain"-setting.
2. **Stream adjustment:** Within 100° rotation adjustment from straight stream to fog pattern.
3. **Ergonomic pistol grip:** For better handling and reduced fatigue.
4. **Shock-resistant pattern adjustment bumper:** With integrated pointer. The Flash-over position at 45° (Pointer at 12 o'clock position) is easy to detect, even wearing fire-fighting gloves.
5. **Rugged, ergonomic on/off handle:** Glass-fibre reinforced and additionally light alloy reinforcement on both sides.
6. **High-quality materials:** Body hard anodised light alloy, water carrying components corrosion-resistant materials (brass, stainless steel and man-made materials).



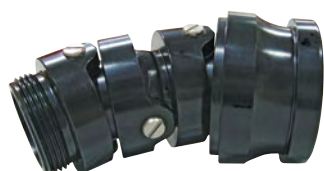
Straight stream

Fog pattern





279400 / 279535



279410



279400 / 279410 / 279420

**Technical data:**

Type	RB 99 EN SELECT FLOW	RB 100 EN SELECT FLOW	RB 101 EN SELECT FLOW
Adjustable flow settings in l / min *	17	45	130
	30	85	230
	80	130	300
	130	200	400
Max. throwing range approx.*	32 m	36 m	44 m
Length **	30 cm	30 cm	31 cm
Weight **	2 kg	2 kg	2.2 kg

\* The flow settings and the throwing range the types SELECT FLOW RB 99 EN, RB 100 EN and RB 101 EN are measured with reference to an operation pressure of 6 bar.

\*\* With Storz C coupling

**Universal joint 45°**

In connection with RB nozzles with BSP female thread 1 1/2" the joints ensure an operation of 45° in all directions without moving the hose.

**279400** One end BSP 1 1/2" male, other end Storz C coupling

**279410** One end BSP 1 1/2" male, other end BS 336 2 1/2" male

**279420** One end BSP 1 1/2" male, other end BS 336 1 1/2" male

**SELECT FLOW model RB 99 EN**

279500	Without coupling / BSP 1" female
279505	Without coupling / BSP 1 1/2" female
279510	With coupling Storz C
279520	With coupling Instantaneous 1 1/2" male
279522	With coupling BS 2 1/2" male
279525	With coupling NH 1 1/2" female

**SELECT FLOW model RB 100 EN**

279530	Without coupling / BSP 1" female
279535	Without coupling / BSP 1 1/2" female
279540	With coupling Storz C
279550	With coupling Instantaneous 1 1/2" male
279555	With coupling BS 2 1/2" male
279557	With coupling NH 1 1/2" female

**SELECT FLOW model RB 101 EN**

279560	Without coupling / BSP 1" female
279565	Without coupling / BSP 1 1/2" female
279570	With coupling Storz C
279580	With coupling Instantaneous 1 1/2" male
279585	With coupling BS 2 1/2" male
279590	With coupling NH 1 1/2" female

All nozzles are available without couplings (female thread BSP) or individually fitted with Storz, British Standard or NH-couplings. Other coupling systems are available upon request.

**Storz C****B. inst. 1 1/2" or BS 2 1/2" male****NH 1 1/2" female**



### SELECT FLOW nozzles according to NFPA

The Rosenbauer SELECT FLOW nozzle type NFPA conforms to all aspects of NFPA 1964:2008. It permits multiple flow setting using a selection control ring with detents.

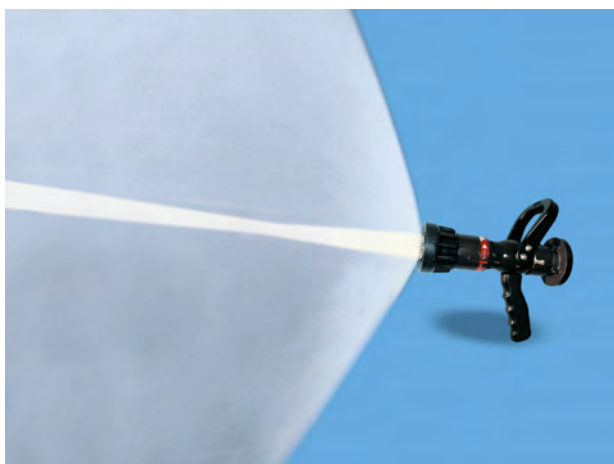
### PRO JET nozzles according to NFPA

The PRO JET nozzle provides a combination stream: straight stream and fog together. This combination stream allows attack by the fire fighting teams and an extremely effective extinguishing capacity.

- Moulded bumper ring in front of the nozzle for various jet patterns
- Special formed pistol grip
- Horseshoe type valve control handle
- Swivel inlet
- Flow selection control ring with detents
- Spinning teeth for very fine fog pattern made of stainless steel

### Technical data:

Type	RB 99 NFPA SELECT FLOW	RB 100 NFPA SELECT FLOW	RB 101 NFPA SELECT FLOW	RB 102 NFPA SELECT FLOW	PRO JET I	PRO JET II
Adjustable flow settings in l / min *	19	50	115	360	180**	420**
	37	100	230	475	370***	680***
	90	150	360	550		
	150	230	475	750		
Max. throwing range *	39 m	40 m	47 m	52 m	34 m	40 m



PRO JET: combination stream

\* The flow settings and the throwing range for the types SELECT FLOW RB 99 NFPA, RB 100 NFPA, RB 101 NFPA and RB 102 NFPA are shown with reference to an operation pressure of 7 bar, PRO JET I and PRO JET II with reference to an operation pressure of 3.5 bar.

\*\* With full jet

\*\*\* With combined jet

Length and weight depending on the type of the nozzle and the used coupling. From 1.7 kg for the RB 99 NFPA (with 1" BSP female) up to 3.2 kg for the RB 102 NFPA with a Storz B coupling.

### SELECT FLOW model RB 99 NFPA

279239	Without coupling / BSP 1" female
279240	Without coupling / BSP 1 1/2" female
279245	With coupling Storz C
279246	With coupling Storz 65
279247	With coupling Instantaneous 1 1/2" male
27924705	With coupling BS 2 1/2" male
279248	With coupling NH 1 1/2" female

**SELECT FLOW model RB 100 NFPA**

27922802	Without coupling / BSP 1" female
27922803	Without coupling / BSP 1 1/2" female
27922804	With coupling Storz C
27922805	With coupling Storz 65
27922806	With coupling Instantaneous 1 1/2" male
27922807	With coupling BS 2 1/2" male
27922808	With coupling NH 1 1/2" female

**SELECT FLOW model RB 101 NFPA**

27923008	Without coupling / BSP 1" female
27923009	Without coupling / BSP 1 1/2" female
27923010	With coupling Storz C
27923011	With coupling Storz 65
27923012	With coupling Instantaneous 1 1/2" male
27923013	With coupling BS 2 1/2" male
27923014	With coupling NH 1 1/2" female

**SELECT FLOW model RB 102 NFPA**

27923301	Without coupling / BSP 1 1/2" female
27923302	Without coupling / BSP 2 1/2" female
27923303	With coupling Storz B
27923304	With coupling Storz 65
27923305	With coupling BS 2 1/2" male
27923306	With coupling NH 2 1/2" female

**PRO JET model I**

279215	Without coupling / BSP 1 1/2" female
279216	Without coupling / BSP 2 1/2" female
279217	With coupling Storz C
279218	With coupling BS 2 1/2" male
279219	With coupling NH 2 1/2" female

**PRO JET model II**

279220	Without coupling / BSP 1 1/2" female
279221	Without coupling / BSP 2 1/2" female
279222	With coupling Storz B
279223	With coupling BS 2 1/2" male
279224	With coupling NH 2 1/2" female

All nozzles are available without couplings (female thread BSP) or individually fitted with Storz, British Standard or NH-couplings. Other coupling systems are available upon request.

**Storz C****B. Inst. 1 1/2" or BS 2 1/2" male****NH 1 1/2" female**



Quick clamp on foam tube  
(symbolic picture)



Spare part set  
(symbolic picture)

#### RECOMMENDED ACCESSORIES FOR NOZZLES SELECT FLOW AND PRO JET

##### Quick clamp on foam tube

Expansion rate up to 14:1.

**279236** For SELECT FLOW models RB 99 EN, RB 99 NFPA, RB 100 EN and RB 100 NFPA

**279231** For SELECT FLOW RB 101 NFPA and PRO JET I

**27923101** For SELECT FLOW RB 101 EN

**279237** For SELECT FLOW RB 102 NFPA and PRO JET II

##### Spare part set

**2792304** For SELECT FLOW models RB 99 EN and RB 99 NFPA

**2792301** For SELECT FLOW models RB 100 EN and RB 100 NFPA

**2792302** For SELECT FLOW models RB 101 EN and RB 101 NFPA

**2792303** For SELECT FLOW RB 102 NFPA

**279225** For PRO JET I

**2792306** For PRO JET II



**Automatic nozzles**

- Strong lightweight anodised aluminium construction
- Automatically adjust to changes in flow and pressure
- Adjustable from straight stream to fog pattern
- Volume controlled by 6 positions of handle including the shutoff
- The slide-type valve allows the operator to control the flow without effecting the stream quality
- Nozzle flushes easily without shutting down

**Flow rate 40-475 l/min at 7 bar**

Weight: 1.4 kg (BSP 1 1/2" female)

<b>279260</b>	<b>BSP 1 1/2" female</b>
<b>279261</b>	<b>Storz C</b>
<b>279262</b>	<b>BS 336 2 1/2" male</b>
<b>279263</b>	<b>NH 1 1/2" female</b>

**Flow rate 265-750 l/min at 7 bar**

Weight: 2.5 kg (BSP 2 1/2" female)

<b>279270</b>	<b>BSP 2 1 1/2" female</b>
<b>279271</b>	<b>Storz B</b>
<b>279272</b>	<b>BS 336 2 1/2" male</b>
<b>279273</b>	<b>NH 2 1/2" female</b>

**SELECT FLOW nozzle with play pipe**

- Strong lightweight aluminium construction
- Play pipe with solid compact design for better balance
- Constant selectable gallonage - flow remains constant in all patterns
- Change flow without changing pattern and flush without shutting down
- Tight straight stream and 110° wide dense fog pattern
- Quality stream performance even at low pressure
- Replaceable spinning teeth made of stainless steel
- Excellent for use with inline inductor and foam making branch pipes

**Flow rate 360-475-550-750-950 l/min at 7 bar**

Weight: 4.3 kg (BSP 2 1/2" female)

<b>279296</b>	<b>BSP 2 1/2" female</b>
<b>279297</b>	<b>Storz B</b>
<b>279298</b>	<b>BS 336 2 1/2" male</b>
<b>279299</b>	<b>NH 2 1/2" female</b>



279260



279296



279280



279286



279255

### Industrial nozzles

- Brass construction, chrome-plated
- Tough, corrosion-resistant design for harsh industrial and marine environment
- Heavy-duty spinning teeth made of stainless steel for powerful fog pattern
- Multiple pattern detents for positive pattern positioning combination fog and straight stream
- Suitable for refineries, offshore platforms, chemical plants, storage facilities and more
- Ideal for use with foam inductors and foam making branch pipes

### Flow rate 115-230-360-475 l/min

Weight: 4 kg (BSP 1 1/2" female)

279280	BSP 1 1/2" female
279281	Storz C
279282	BS 336 2 1/2" male
279283	NH 1 1/2" female

### Flow rate 360-475-550-750 l/min

Weight: 5.55 kg (BSP 2 1/2" female)

279286	BSP 2 1/2" female
279287	Storz B
279288	BS 336 2 1/2" male
279289	NH 2 1/2" female

### 279255 Dual agent handline nozzle

Made of hard anodised light alloy. Comes with 2 female 1.5" BSP connections. It is designed to discharge water / AFFF solution and dry chemical powder. Side by side horseshoe type valve handles allow water / AFFF or dry chemical powder to be discharged either separately or simultaneously. For water / AFFF operation, a flow selection control ring with detents can be set for a flow of 50, 90, 150 and 230 l/min or flush (all flow figures refer to a nozzle pressure of 7 bar). Change of flow or flush is possible without shutting down. A moulded bumper ring in front of the nozzle can easily be turned to produce straight stream, narrow or wide angle fog - allowing for man protection water curtain. Heavy duty and replaceable spinning teeth for very fine fog pattern. Dry chemical powder operation: output between 1.5 and 2.5 kg per second. Weight approx. 2.5 kg

**Dual flow foam attack nozzle**

With twist ring 230-475 l/min. trigger shutoff. Stream dispersion jaws.

- 279302 **BS 336 2 1/2" male**
- 279303 **NST 2 1/2"**



279302

**Forest fire fighting equipment: please refer to page 218.**

- 263450 **CAFS nozzle C-D25**  
Coupling Storz C.

**Elbow support ergonomic**

For all SELECT FLOW and PRO JET nozzles. Facilitates operating with nozzles by deflecting the recoil and increasing the mobility of the firefighter.

- 267920 **Storz C**
- 267925 **Storz 65**
- 267930 **BSP 2 1/2" male and female**

**Elbow support 45°**

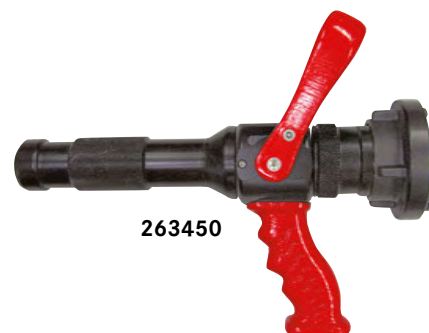
Facilitates operating with nozzles by deflecting the recoil and increasing the mobility of the firefighter.

- 267900 **Inlet: Storz B coupling**  
Outlet: Swivel Storz B.

- 267850 **Inlet: Storz C coupling**  
Outlet: Swivel Storz C.

- 26790001 **Inlet: BS 336 2 1/2" male coupling**  
Outlet: BS 336 2 1/2" female coupling.

- 26790002 **Inlet: Storz 65 coupling**  
Outlet: Swivel Storz 65.



263450



267920



267900



1



2



3



4



## NEPIRO ERGO HIGH PRESSURE FOG GUN

For greater effectiveness, safety and ergonomics in confined space fire fighting. Certified according to EN 15182-4.

**Optimum extinguishing:** The combination of high-pressure technology and O-stream nozzle facilitates the especially fine atomisation of the water. The small droplets evaporate completely and thus extract a maximum amount of energy from the fire. In practical terms, this results in the optimum extinguishing effect of the agents employed.

The shape of the jet can be adjusted to the operational conditions in a flash by simply rotating the nozzle. There is just a quarter turn between full jet and firefighter protection water shield, which means that the complete range of adjustments can be used without a change of grip.

1. Full jet
2. 30° narrow spray
3. 60° wide spray
4. Self protection water shield

**Operational safety:** Anodised cast aluminium for the body of the gun, hard-coated aluminium for the nozzle and special stainless steel valve pistons make the NEPIRO wear-resistant, but nonetheless very light. A special plastic coating (PUR) provides protection for the nozzle and the body against mechanical loads.

The flush setting of the nozzle and the special design of the valve allow the washing out of impurities of up to 5 mm during operations. The gun is thus safe against clogging.

The oil damped valve ensures gentle closing and prevents pressure shocks (water hammer) on the hose, reel and pump.

**Ergonomic design:** As a result of the special design of the gun, recoil is conducted directly into the rear hand and the pistol lies in a completely neutral grip. The front hand is free to guide or adjust the spray. Water can be applied in short shots or in finely gauged volumes using the self-locking trigger. In the case of lengthy operations, the large support area allows the NEPIRO to be comfortably rested on the body.

**Technical data**

Flow rate:	High-pressure version 0 -200 l/min at 40 bar Normal pressure version 0-180 l/min at 10 bar
Spray types:	O-stream nozzle with infinite adjustment
Throw range:	Up to 30 m with full jet
Valve:	Self-locking valve with oil damping and wear-resistant, stainless steel piston
Housing:	Cast aluminium with plastic coating (PUR)
Feeding:	Ball bearing mounted rotary feedthrough with a G3/4" outer thread, various coupling systems available on request
Dimensions:	Incl. brass coupling STORZ 38 LxBxH approx. 540 x 80 x 350 mm
Weight:	Incl. brass coupling STORZ 38 approx. 3.1 kg

**High-pressure fog nozzle NEPIRO ERGO****063783-001 With STORZ 38 brass coupling HD****063783-002 With G 1" female thread HD****063783-008 With OETIKER SV coupling HD****063783-016 With STORZ 32 brass coupling HD****063783-101 With STORZ C coupling ND****RECOMMENDED ACCESSORIES:****522890-001 Foam tube for NEPIRO ERGO****521504-001 Bracket for NEPIRO ERGO****052516-003 Velcro belt for bracket for NEPIRO ERGO****525863-001 Bracket for foam barrel****578341-001 Cleaning lance for NEPIRO Ergo**

The cleaning lance for the fog gun NEPIRO is the perfect attachment for improved cleaning. Due to the special cleaning nozzle, a flat jet is produced to easily remove particles of dirt with an water flow of max. 65 l/min at 40 bar (14.3 gal/min at 580 psi).

**576100-001 Extinguishing lance for NEPIRO Ergo**

The extinguishing lance for the fog gun NEPIRO is the ideal tool to extinguish fire in hardly accessible places. In this way light doors, sheet walls, bodywork parts on trucks or cars or also suspended roof parts in houses can be penetrated or broken through and then the fire extinguished.

**063783-001****522890-001****578341-001****576100-001**



265440



265493



265485

## PORTABLE MONITORS

### 265440 Stationary monitor

Made of corrosion resistant brass. The monitor has specially been designed to control fires or to provide sufficient water cooling capacity in tank farms, Petrochemical installations etc. Will rotate with a 360° sweep. The monitor has direct manual control from plus 90° to minus 60°. Complete with rotation and elevation locking devices.

Fitted with an infinitely adjustable monitor nozzle tip with flow settings of 1,200-1,600-2,000-2,400 LPM / 300-400-500-600 GPM. Large pattern ring allows for production of full stream, wide and narrow angle fog.

### Portable monitor RB 6

**360-475-550-750-950 LPM / 95-125-150-200-250 GPM**

- Simple and quick operation
- Highly manoeuvrable
- Unmanned operation saves manpower
- Compact size and lightweight
- Elevation is adjustable between 30° to 60° unmanned
- Down to 20° when manned
- Horizontal rotation is adjustable 20° either side of center
- Ball shutoff with locking handle
- Compact folding legs for easy storage
- Carbide tipped spikes for extended wear and stability
- Large handle makes moving easy
- Throwing range up to approx. 50 m

<b>265497</b>	<b>With 1 x BS 336 2 1/2" male</b>	Weight: 8 kg
<b>265493</b>	<b>With 1 x Storz B</b>	Weight: 8 kg
<b>26549305</b>	<b>With 1 x Storz 65</b>	Weight: 8 kg

<b>265500</b>	<b>With 1 x BSP 2 1/2" female</b>	
	<b>With tip 950-1,325-1,900 LPM /</b>	
	<b>250-350-500 GPM</b>	Weight: 8 kg

### Portable monitor POWER STREAM

**1,200-1,600-2,000-2,400 LPM / 300-400-500-600 GPM**

Made of corrosion resistant light alloy. The monitor has specially been designed to control fires or to provide sufficient water cooling capacity in tank farms, petrochemical installations etc. Will rotate with a 180° sweep. The monitor has hand wheel elevation control from 90° to 30° above horizontal. Fitted with an infinitely adjustable monitor nozzle tip with flow settings of 1,200-1,600-2,000-2,400 LPM / 300-400-500-600 GPM. Large pattern ring allows for production of full stream wide and narrow angle fog. Comes with two water inlets, provided with

various couplings. The monitor comes complete with a foldaway ground base and thanks to it's small dimensions, it can easily be stored in fire fighting trucks, pick-ups and so on. The ground base includes hardened steel ground pikes, that help maintain stability even on uneven ground surfaces. Throwing range at 2,400 LPM and 7 bar: up to approx. 55 m. Weight complete: approx. 23 kg

<b>265485</b>	<b>Inlet 2 x Storz B</b>
<b>265492</b>	<b>Inlet 2 x Storz 65</b>
<b>265487</b>	<b>Inlet 2 x 2 ½" BS male</b>
<b>26548705</b>	<b>Inlet 2 x NH 2 ½" female</b>
<b>265491</b>	<b>Single inlet Storz 125, with adjustable master stream for 1,325-1,900-2,900-3,800 LPM / 350-500-750-1,000 GPM</b>

#### RECOMMENDED ACCESSORIES FOR MONITOR RB 6 AND POWER STREAM

<b>265484</b>	<b>Quad stacked tips</b> Four separate stacked tips for full stream action, provide 4 orifice options and maximum throw range. Weight: 2.5 kg
<b>26548410</b>	<b>Stream shaper</b> Weight: 0.4 kg
<b>265486</b>	<b>Foam nozzle</b> With integrated foam admixing system for 1 or 3 %. Comes complete with foam compound pick-up tube 2.5 long. Maximum throughput 1,900 LPM / 500 GPM at 7 bar. Weight: 6 kg

#### Oscillating monitor

**950-1,420-1,900 LPM / 250-375-500 GPM**

- Monitor has sweeping water streams for attack, cooling, protection and HAZMAT-situations
- Turbine sweeps the outlet back and forth in a smooth and powerful motion while unmanned
- Water driven turbine make the nozzles oscillating at 10°, 15° or 20° either side of the centre
- Oscillating mechanism can be disengaged
- Horizontal rotation moves manually
- Elevation is adjustable between 30° and 60° unmanned - down to 20° when manned
- Built-in pressure gauge
- Large handle makes moving easy
- Carbide tips spikes for extended wear and stability
- Powder coating gives corrosion resistant finish
- Oscillating speed (with straight bore tip)

Minimum flow to start oscillating: 660 LPM / 175 GPM  
Weight: approx. 13 kg

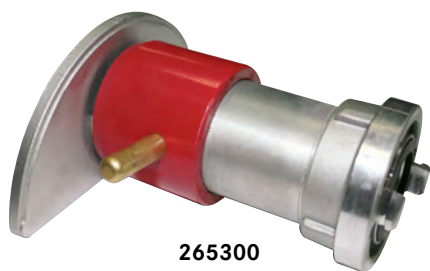
<b>265515</b>	<b>BS 2 ½" male</b>
<b>265512</b>	<b>BSP 2 ½" female thread</b>
<b>265513</b>	<b>Storz B</b>
<b>265516</b>	<b>NH 2 ½" female</b>



265484



265512



## HYDRO-SHIELD

To build up a large water wall, to protect against flames, gases, smoke to cool objects. In use the unit is firmly pressed to the ground by the water pressure, therefore working without manpower possible. Several units can be chained up for wide water blockings.

### Hydro-shield

Flow rate at 5 bar: 800 l/min, at 8 bar: 1,100 l/min.

Water height of 6 m at 5 bar, 8 m at 8 bar.

Width of water wall that can be produced with this shield of 24 m at 5 bar, 27 m at 8 bar.

<b>265400</b>	<b>With Storz C</b>	Weight: 2.5 kg
<b>265401</b>	<b>With Instantaneous 1 ½" male</b>	Weight: 2.5 kg
<b>265402</b>	<b>With BS 336 2 ½" male</b>	Weight: 2.5 kg

### Hydro-shield

Body cast, shield and adapter forged in aluminium alloy. Comes complete with coupling.

Throw height at 5 bar 7 m; at 8 bar 10 m.

Throw width at 5 bar 27 m; at 8 bar 31 m.

Flow rate at 5 bar 1,400 l/min; at 8 bar 1,800 l/min.

<b>265410</b>	<b>With Storz B</b>	Weight: 4.5 kg
<b>265411</b>	<b>With BS 2 ½" male</b>	Weight: 4.5 kg
<b>265413</b>	<b>With Storz 65</b>	Weight: 4.5 kg

### Hydro-shield - adjustable water flow

Body cast, shield and adapter forged in aluminium alloy. Comes complete with coupling.

Throw height at 5 bar 9 m; at 8 bar 9 m.

Throw width at 5 bar 28 m; at 8 bar 32 m.

Flow rate at 5 bar: 200-700 l/min; at 8 bar 300-1,000 l/min.

<b>265300</b>	<b>With Storz C</b>
<b>265302</b>	<b>With BS 336 2 ½" male</b>



**Extinguishing lance**

Special branch pipe for fire fighting in coal dumps, hay stacks, chip bunkers etc. The lance is pierced into the stack, and the water will reach the fire smouldering deep down. Provided with ball type valve and coupling.

Output: 400 l/min at 8 bar.

<b>265200</b>	<b>With Storz C</b>	Weight: 7 kg
<b>265202</b>	<b>With Instantaneous 1 1/2" male</b>	Weight: 7 kg
<b>265204</b>	<b>With BS 336 2 1/2" male</b>	Weight: 7 kg

**26521001 Piercing applicator**

Special branchpipe for fighting fires inside buildings, containers and other locations that cannot otherwise be reached. The applicator can be hammered through a wall or panel, and the water or foam will reach the fire inside the location. Output: 475 l/min at 6 bar. Provided with a Storz 38 light alloy coupling. Length: 1,800 mm. Weight: 5.5 kg

**265211 Piercing applicator**

With 1 1/2" female thread. Length: 90 cm. Weight: 4.6 kg (without coupling)

Piercing applicator with other couplings upon request.

**FOG NOZZLES**

Good extinguishing efficiency and strong cooling effect through intensive water atomisation. Particularly suitable for extinguishing burning liquids such as oils and paints. Suitable for use in low- and high-voltage installations.

**Fog nozzle MONSOON 410 mm**

Special branch pipe for normal pressure (5-8 bar) fog. High cooling effect through special arrangement of the individual nozzle tips. Length: 410 mm. Provided with ball type valve and coupling. Output: 350 l/min at 8 bar.

<b>265000</b>	<b>With Storz C</b>	Weight: 3.1 kg
<b>265010</b>	<b>With Storz 65</b>	Weight: 3.2 kg
<b>265011</b>	<b>With Instantaneous 1 1/2" male</b>	Weight: 3.15 kg
<b>265012</b>	<b>With NH 1 1/2" female</b>	Weight: 3 kg
<b>265013</b>	<b>With BS 336 2 1/2" male</b>	Weight: 3.2 kg

**Fog nozzle MONSOON 1180 mm**

Special branch pipe for normal pressure (5-8 bar) fog. High cooling effect through special arrangement of the individual nozzle tips. Length: 1,180 mm. Comes with 45 degrees elbow piece for easy handling. Provided with ball type valve and coupling. Output: 350 l/min at 8 bar.

<b>265100</b>	<b>With Storz C</b>	Weight: 5.5 kg
<b>265110</b>	<b>With Storz 65</b>	Weight: 5.5 kg
<b>265114</b>	<b>With BS 336 2 1/2" male</b>	Weight: 5.5 kg
<b>265112</b>	<b>With NH 1 1/2" female</b>	Weight: 5.6 kg



265200



265211



265000



265100



701750



700075



700050



703500



703480

## FOAM MAKING BRANCH PIPES

### Medium foam-making branch pipes

Medium foam-making branch pipes using multi-purpose foam compounds produce foam with an expansion ratio between 40–75. They are light, convenient, compact, and permit very manoeuvrable and effective operations. Their compact foam jet achieves a good throw range. The operating pressure at the branch is 5 bar.

Specification: The branch pipe is made of stainless steel. The medium foam making branch pipe consists of the following parts: foam screen, foam barrel, handle, nozzle body, pressure gauge and ball valve shut off.

### Adjustable foam-making branch pipe

Like medium foam making branch pipes but with adjustable from medium foam to heavy foam. Tube made of stainless steel.

### Heavy foam-making branch pipes

Heavy foam-making branch pipes are characterised by a capacity for long throwing distances. They can be employed for many fire fighting purposes, fires of solid material and also for burning liquids (e.g. petrol, oils, greases). On account of the high density of the foam it is possible to attain considerable throwing distances, enabling fire from a fought from a safe distance. When using special foam compounds, heavy foam will prove to be most effective in extinguishing fires of hydrophilic liquids such as methyl-alcohol, and isopropyl alcohol.

The water/foam compound solution emerges under pressure from the nozzle inserts which are fitted in a nozzle disc in an annular arrangement. This causes a formation of fine spray jets which draw air through their injection effect. The entering air stream mixes with the jets of the water/foam compound solution. Foam is produced. The guide tube inside the branch pipe turns the foam into a solid foam jet.

The pipe is made of stainless steel. Protection ring and handle in rubber. Complete with ball valve shut off.

### Inline inductor

Useable in hose lines for the proportioning of constant foam liquid quantities on protein and synthetic multipurpose base. The design of the proportioning part enables an exact liquid admixing rate between 1 and 6 % of the passing water quantity. The inline inductors can be used with heavy and medium foam nozzles.

Specification: Water inlet and mixture outlet complete.  
Foam compound inlet with adapter Storz D (1").

Body: Copper alloy cast  
Filter and drive nozzle: Stainless steel  
Pipe and adapters: Aluminium alloy forged  
Collector nozzle: Ultramid  
Diaphragm: Viton  
Comes with integrated handle.

### 703480 Z-SELECT admixing adapter

Couplings Storz D on both sides. The admixing adapter for wetting agents as accessory for all standard Z2 and Z4 DIN 14 384 inductors. Connect the Z-Select on the suction inlet of the foam inductor. Adjustable admixing ratios of 0.1 %, 0.5 % and 1 %. Non-return valve integrated. Weight: 0.6 kg

Foam making branch pipes

	Order no.	Type	Flow rate (t/min)	Pressure (bar)	Admixture rate		Expansions rate		Foam quantity (m <sup>3</sup> /min)		Coupling	Throw range (m)	Length (mm)	Diameter (mm)	Weight (kg)
					Protein (%)	Multi purpose foam (%)	Protein	Multi purpose foam (%)	Protein	Multi purpose foam (%)					
Medium foam making branchpipes with ball valve shut off. Pipe in stainless steel, plastic protection ring	701730	M2	200	5	-	3	-	1:50	-	10	Storz C	8	545	205	4.3
	701734	M2	200	5	-	3	-	1:50	-	10	NH 1.5" f.	8	545	205	4.3
	701732	M2	200	5	-	3	-	1:50	-	10	BS 2.5" m	8	545	205	4.3
	701740	M4	400	5	-	3	-	1:60	-	24	Storz C	10	630	270	5.5
	701741	M4	400	5	-	3	-	1:60	-	24	BS 2.5" m	10	630	270	5.5
	701742	M4	400	5	-	3	-	1:60	-	24	NH 2.5" f.	10	630	270	5.5
701750	M8	800	5	-	3	-	1:40	-	32	Storz B	12	680	285	6.5	
Adjustable foam making branchpipes	700075	S2-M2	200	5	-	3	1:6	1:50	1.2	10	Storz C	8/20	630	205	6
	700080	S4-M4	400	5	-	3	1:6	1:50	1.2	24	Storz C	8/20	680	270	7.8
	700083	S4-M4	400	5	-	3	1:6	1:50	1.2	24	BS 2.5" m	8/20	680	270	7.8
Heavy foam making branchpipes complete with ball valve shut off. Pipe in stainless steel, plastic protection ring	700050	S2	200	5	5	3	1:6	1:15	1.2	3	Storz C	20	870	98	2.7
	700056	S2	200	5	5	3	1:6	1:15	1.2	3	BS 1.5" m	20	870	98	2.6
	700055	S2	200	5	5	3	1:6	1:15	1.2	3	BS 2.5" m	20	870	98	2.7
	700054	S2	200	5	5	3	1:6	1:15	1.2	3	NH 1.5" f.	20	870	98	2.7
	700060	S4	400	5	5	3	1:6	1:15	2.4	3	Storz C	20	1090	126	4.5
	700063	S4	400	5	5	3	1:6	1:15	2.4	3	BS 1.5" m	20	1090	126	4.4
	70006504	S4	400	5	5	3	1:6	1:15	2.4	3	BS 2.5" m	20	1090	126	4.5
	700064	S4	400	5	5	3	1:6	1:15	2.4	3	NH 1.5" /f.	20	1090	126	4.5
	700070	S8	800	5	5	3	1:6	1:15	4.8	3	Storz B	20	975	126	4.5
Inline inductor	703500	Z2	200	-	-	-	-	-	-	-	Storz C	-	375	-	7
	703510	Z2	200	-	-	-	-	-	-	-	BS 1.5" m/f.	-	375	-	7
	703512	Z2	200	-	-	-	-	-	-	-	BS 2.5" m/f.	-	375	-	7
	703520	Z2	200	-	-	-	-	-	-	-	NH 1.5" /f.	-	375	-	7
	703600	Z4	400	-	-	-	-	-	-	-	Storz C	-	375	-	7
	703611	Z4	400	-	-	-	-	-	-	-	NH 2 1/2"	-	375	-	7
	703610	Z4	400	-	-	-	-	-	-	-	BS 1.5"	-	375	-	7
	703609	Z4	400	-	-	-	-	-	-	-	BS 2.5"	-	375	-	7
	703700	Z8	800	-	-	-	-	-	-	-	Storz B	-	518	-	11
	703710	Z8	800	-	-	-	-	-	-	-	BS 2.5" m/f.	-	518	-	11
703715	Z8	800	-	-	-	-	-	-	-	NH 2.5" /f.	-	518	-	11	

Suction hoses PVC

For inline inductor Z 2, Z 4 and Z 8.

**703810** Diameter 25 mm, one end with Storz D coupling

Made of light alloy. Length: 1.5 m. Weight: 1.6 kg

**703820** Diameter 25 mm, one end with Storz D coupling

Made of light alloy. Length: 2 m. Weight: 1.8 kg

Suction hoses for vehicle operation

**703830** Diameter 38 mm, one end with coupling Storz 38

Made of gunmetal. Length: 2 m. Weight: 2.1 kg

**703840** Diameter 38 mm, one end with coupling Storz 38

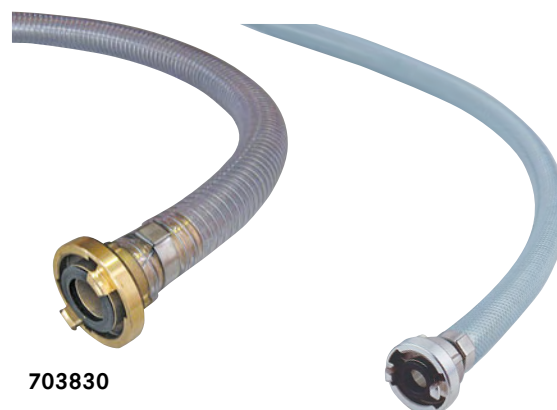
Made of gunmetal. Length: 3 m. Weight: 2.5 kg

**703850** Diameter 52 mm, with coupling Storz C

Made of gunmetal. Length: 2 m. Weight: 2.6 kg

**703854** Diameter 38 mm, with coupling Storz C

Made of gunmetal. Length: 2 m. Weight: 2.6 kg



703830

703810



706490

## PORTABLE FOAM GENERATORS

### Portable foam generator set FOMAX 7

Portable high expansion foam generator, powered by a maintenance-free water turbine, therefore fully ex-proof. The unit is of the dual use type, and can also be used as a smoke extractor. After flooding a basement, hangar or building with high expansion foam, the extractor can be used to dispose of the foam. Maximum foam expansion: 1,200 times. Maximum foam output: 200 m<sup>3</sup>/min. It is ideally suited for all total flood applications such as in warehouses, ship holds, engine rooms, machinery spaces, electric cable ducting, etc.

Smoke Extraction: FOMAX 7 is available as a dual-purpose model. It can be used to extract smoke at the rate of 285 m<sup>3</sup>/min. at 7 bars. 7.6 m of special smoke trunking is supplied which can easily be attached.

#### Smoke extraction:

Water pressure (bar)	Approx. air flow (m <sup>3</sup> /min)
4.2	185
7.1	240
9.8	285

#### Typical performance figures:

By-pass control	Water pressure (bar)	Total water flow (l/min)	By-pass flow (l/min)	Flow to nozzle (l/min)	Foam production	Foam expansion
Open	4	170	50	120	96	800
	7	225	80	145	159	1,000
	10	270	100	170	204	1,200
By-pass Closed	4	150	nil	150	82	550
	7	200	nil	200	140	700
	10	240	nil	240	192	800



**Scope of delivery:** The FOMAX 7 comes complete with couplings, nylon foam net, 7.5 m collapsible smoke suction ducting and 30 m polyethylene exhaust ducting.

<b>706485</b>	<b>With Storz C couplings</b>	Weight: 50.3 kg
<b>70648501</b>	<b>With Storz 65</b>	Weight: 50.3 kg
<b>706490</b>	<b>With BS 2 ½" couplings</b>	Weight: 50.3 kg

#### Spare Parts for Fomax 7:

<b>706700</b>	<b>Nylon foam net for standard and combi type</b>	Weight: 0.75 kg
<b>706810</b>	<b>Polyethylene exhaust ducting</b>	30 m long, for both types. Weight: 8.45 kg
<b>706820</b>	<b>Polyethylene collapsible smoke suction ducting for combi version</b>	Weight: 21 kg

707020

**Mobile foam unit RB 140**

Designed for rapid one-man deployment, ideal for protection of oil storage and loading terminals, paints and solvents stores, or similar high-risk areas. Only requires connection to a suitable pressurised water supply. Chemical resistant glass fibre reinforced tank, 140 litres capacity, suitable for use with all foam compounds. Two solid rubber tyres 400 mm diameter. Variable in-line foam inductor, with a throughput of 225 l/min. Complete with foam compound pick-up tube. One "Viking" fire hose 1,5" diameter, 15 m long, for connection to a hydrant or any other suitable pressure source. One "Viking" hose 15 m long fitted with a foam making branch pipe (225 l/min through-put couplings 2.5" as per BS 336) will be used for throughout. Weight (empty): 72 kg



symbolic picture

**MISCELLANEOUS**

266100

**Hose line pressure limiting valve**

Certified as to DIN 14380. The valve consists of a light alloy body, with pressure gauge and a control ring for setting the required pressure at a range of 2-16 bar. A fluorescent scale allows reading also at night time. In- and outlet provided with a 3" Storz B Coupling. Separate outlet for overflow water, also provided with a Storz B coupling. Weight: 5 kg



266100

266101

**Hose line pressure limiting valve**

In- and outlet provided with a Storz 65 coupling. Separate outlet for overflow water, also provided with a Storz-65 coupling. Weight: 5.05 kg



268020

266102

**Hose line pressure limiting valve**

In- and outlet provided with a BS 2 1/2" coupling. Separate outlet for overflow water, also provided with a BS 2 1/2" female coupling. Weight: 5.7 kg

Rosenbauer elbow support models SK 45° and ergonomic, please refer to page 187.

**90° Elbow**

Made of aluminium. Inlet comes with Storz swivel and outlet solid Storz coupling.

268010	<b>With Storz C</b>	Weight: 0.9 kg
268020	<b>With Storz B</b>	Weight: 2.9 kg
268030	<b>With Storz A</b>	Weight: 7.7 kg

**In-line ball type valves**

Made of light-alloy. Inlet and outlet with Storz C coupling. Comes complete with washers.

268110	<b>With Storz C</b>	Weight: 1.3 kg
268120	<b>With Storz B</b>	Weight: 2.6 kg
268122	<b>With BS 336 2 1/2" male/female</b>	Weight: 2.6 kg



268110



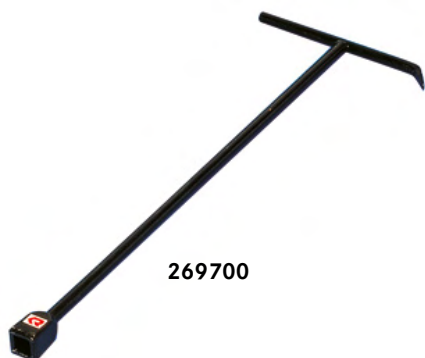
268122



268210



266600



269700



269800



271500

### Hose pressure gauge

Measuring range 0-25 bar, inlet and outlet provided couplings, made of light alloy.

<b>268210</b>	<b>With Storz C</b>	Weight: 1.25 kg
<b>268220</b>	<b>With Storz B</b>	Weight: 1.5 kg
<b>268221</b>	<b>With BS 336 2 1/2"</b>	Weight: 1.5 kg

### Flow meter

This metering device is a light and compact self powered measuring gauge for dry risers and hydrants. Simply connect and tune on for instant measurement of static pressure, dynamic pressure, instantaneous flow and total flow. Flow rate range: up to 3,000 l/min, pressure range from 0 to 25 bar. In- and outlet provided with a 3" Storz-B coupling.

Weight: 12 kg

<b>266600</b>	<b>With Storz B</b>
<b>266610</b>	<b>With BS 336 2 1/2"</b>

### 269700 Wrench

For underground hydrant. Made of forged steel, painted black. Certified as to DIN 3223. Length: 1,100 mm, width 400 mm. Comes with square nut 32 mm.  
Weight: 5.3 kg

### 269701 Hydrant key british standard

Suitable for opening and closing of underground hydrant valves. Made of light alloy. The bar or poker is carried inside the barrel of the key. Length: 1,050 mm.  
Weight: 2 kg

### 269800 Set of manhole cover lifting hooks

Consists of 2 hooks with grip, connected by a chain.  
Weight: 0.6 kg

### 271500 Hydrant standpipe model 2B

Certified as to DIN 14375. Made of light-alloy, inlet with claw type coupling for the connection to an underground hydrant as per DIN 3221. Two outlets with screw-down type valves and Storz B couplings.  
Length: 1,04 mm.  
Weight: 7.5 kg

- 272500 Hydrant standpipe model 1C**  
Without screw down valve. Length: 890 mm.  
Weight: 6 kg
- 
- 272650 Hydrant standpipe BS 750**  
Complete with 1 x BS 2 1/2" female coupling, without  
screw down valve.  
Weight: 4.2 kg
- 
- 272710 Hydrant standpipe BS 750**  
Made of light-alloy, inlet with 2.5", female BSRT  
according to BS 750.  
Comes with two outlets with screw-down valves and  
2.5" female couplings as per BS 336.  
Weight: 6.9 kg
- 
- 272655 Hydrant standpipe BS 750**  
With 2 x 2 1/2" female BS couplings, without  
screw-down valves.  
Weight: 5.2 kg
- 



272500



271549



272710







**FIRE SUPPRESSION  
UHPS  
PORTABLE FIREPUMPS**

**6**



162310



162300



162450



162115



281530

## BASIC EQUIPMENT

**162310 Salvage cover 4.2 x 5.5 m**  
Permanently fire resistant. Fire only chars it when held in flame. Will not be ruined by spot burns no matter how many embers drop on it. It is waterproof and mildew-proof. Colour: green. Weight: 3.3 kg

**162300 Fire blanket made of ARAMIDE**  
Used for extinguishing small fires on persons or on objects. Two hand holding triangles for ease of handling and automatic gravity deployment. Comes complete with plastic carrying bag.  
Dimensions: 160 x 200 cm.  
Weight: 1.3 kg

**162450 Fire blanket made of polycotton blend**  
According to DIN 14155. Flame resistant blanket, edges reinforced. Suitable for extinguishing small fires on persons or objects. The fabric consists of 100 % cotton. Two hand holding triangles for ease of handling and automatic deployment. Dimensions 160 x 200 cm. Colour: natural white.  
Weight: 1.5 kg

## RECOMMENDED ACCESSORIES FOR FIRE BLANKETS:

**162210 Carrying bag for fire blanket**  
Colour: red, material: polyamide.  
Weight: 0.3 kg

**162115 Steel cabinet for fire blanket**  
For wall mounting and with lettering "FIRE BLANKET". The blanket is placed inside the cabinet in such a way, that the user can apply the blanket immediately, by slipping his hands into the holding triangles of the blanket. Dimensions: 315 x 155 x 305 mm.  
Weight: 2.6 kg

## Hand-operated bucket type pump






According to ÖNORM (Austrian industrial standard) F 1060. Galvanised steel sheet bucket, with collapsible lid, carrying-handle and footrest with hose holder. Double acting pump made of brass with wood handle and 3 m of trevira hose 1", with D-coupling and fuljet branchpipe Storz D. Colour: red.

**281530 15 litres. Weight: 9 kg**

**281522 10 litres. Weight: 7.5 kg**

## FIRE EXTINGUISHER

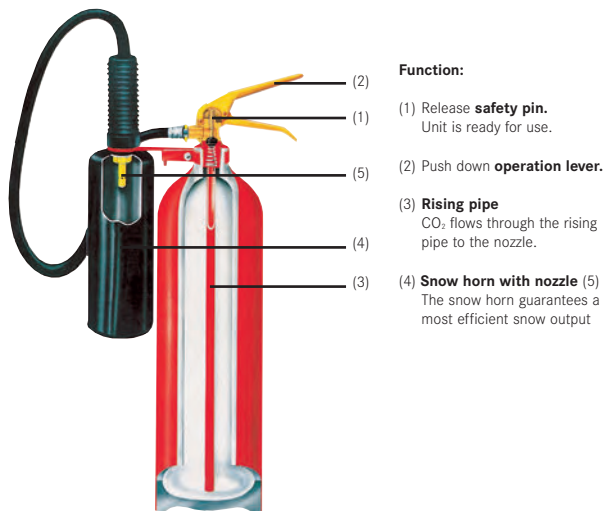
Fire classification according to European Standard EN 2

	<b>Fire Class</b>	 <b>A</b> Fires caused by combustion of solid material, mainly of organic origin, which normally burn under production of embers, e.g. car tyres, straw, wood, paper, coal, textiles	 <b>B</b> Fires caused by combustion of liquids or materials that liquify, e.g. ether, alcohol, petrol, benzene oils, fats, paints, tar, stearin, paraffin	 <b>C</b> Fires caused by combustion of gases, e.g. acetylene, natural gas, methane, propane, city gas, hydrogen	 <b>D</b> Fires caused by combustion of metals, e.g. aluminium, potassium and their alloys, lithium, magnesium, sodium	 <b>F</b> Fires caused by combustion of cooking oils and cooking fat (see DIN V 14406-5)
Powder fire extinguisher with ember extinguishing powder	<b>PG</b>	●	●	●		
Powder fire extinguisher with metal extinguishing powder	<b>PM</b>				●	
Powder fire extinguisher with special powder	<b>P</b>		●	●		
CO <sub>2</sub> fire extinguisher	<b>K</b>		●			
Water fire extinguisher	<b>W</b>	●				
Fat fire extinguisher with special liquid extinguishing agent	<b>F</b>	●	●			●
Foam fire extinguisher	<b>S</b>	●	●			

### Fire classes according to EN 2

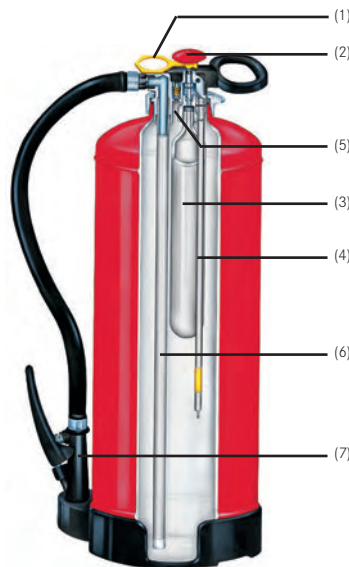
After use or accidental operation, latest after two years, fire extinguishers must be serviced by the authorised service agency and made ready for use again.

### Sectional drawing of a CO<sub>2</sub> Extinguisher



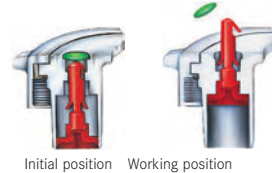
- Function:**
- (1) Release **safety pin**. Unit is ready for use.
  - (2) Push down **operation lever**.
  - (3) **Rising pipe**  
CO<sub>2</sub> flows through the rising pipe to the nozzle.
  - (4) **Snow horn with nozzle** (5)  
The snow horn guarantees a most efficient snow output

### Sectional drawing of Dry Chemical Powder Extinguisher

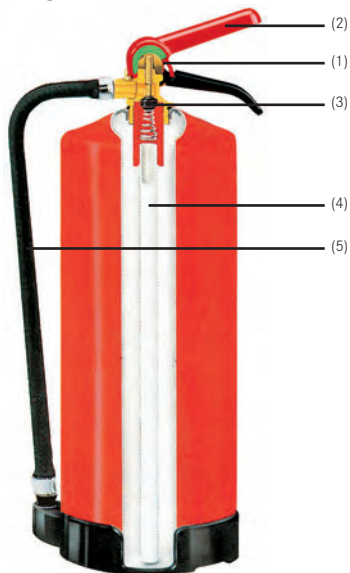


- Function:**
- (1) Remove **safety clip**. Extinguisher is ready.
  - (2) **Strike-knob**  
The strike-knob activates the **CO<sub>2</sub> cartridge** (3). The CO<sub>2</sub> is released through the **siphon tube** (4) into the extinguisher container.
  - (5) **Automatic indicator**  
After pressure build-up the red signal indicator appears (type PS 6 G, PS 9 G and PS 12 G).
  - (6) **Siphon tube**  
The powder flows through the siphon tube into the hose.
  - (7) **Extinguishing pistol**  
Controlled discharge.

**Automatic indicator function**

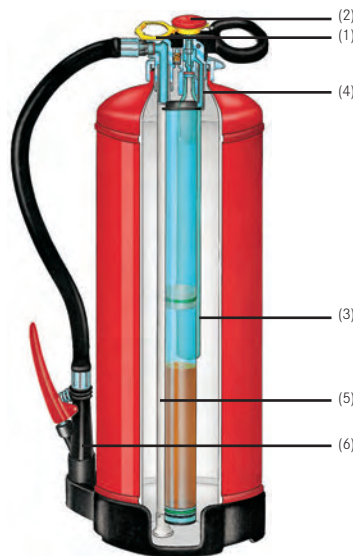


### Sectional drawing of Stored Pressure Dry Powder Extinguisher



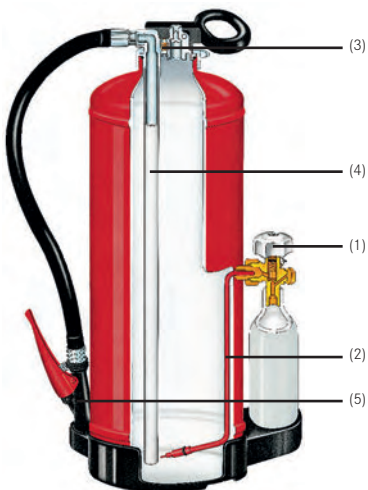
- Function:**
- (1) Remove **safety pin** and take the hose with one hand.
  - (2) Press **operating lever** down. The **valve cone**
  - (3) opens the valve.
  - (4) **Siphon tube**  
The powder flows through the siphon tube into the hose (5).

### Sectional drawing of Foam Extinguisher with Pistol-Cartridge



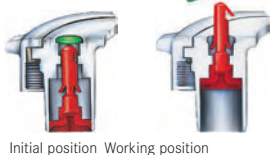
- Function:**
- (1) Remove **safety clip**. Extinguisher is ready.
  - (2) **Strike-knob**  
The Strike-knob activates the **extinguishant** (3).
  - (4) The CO<sub>2</sub> is released through the **siphon tube** into the piston cartridge and releases the foam concentrate ensuring complete mixture of foam and water (100%) and pressure build-up.
  - (5) **Siphon tube**  
The foam water mixture flows through the siphon tube into the hose.
  - (6) **Extinguisher pistol**  
Controlled discharge.

### Sectional drawing of Dry Chemical Powder Extinguisher

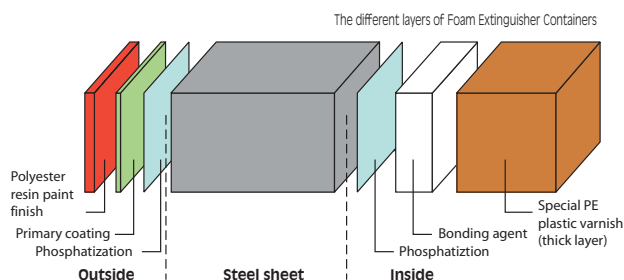


- Function:**
- (1) Open **valve**, the CO<sub>2</sub> is released through the **siphon tube** (2) into the extinguisher container.
  - (3) **Automatic indicator**  
After pressure build-up the red signal pin appears.
  - (4) **Siphon tube**  
The powder flows through the siphon tube into the hose.
  - (5) **Extinguishing pistol**  
Controlled discharge.

**Automatic indicator function**



### Quality coating of foam extinguishing containers



## POWDER EXTINGUISHERS

### Powder extinguisher model F 2 G

- Stored pressure powder fire extinguisher
- High extinguishing performance and excellent discharge time
- Discharge can be stopped at any time
- Ergonomic design, smooth edges
- Checkable and refillable
- Small size due to special valve and container construction
- F 2 GM with pressure gauge
- Car bracket and patented safety straps as standard
- Weather-resistant paint finish
- Valve body out of brass

### Powder extinguisher model PD

- Stored pressure powder fire extinguisher
- With hose and nozzle that fits into base as standard
- With wall bracket
- Brass valve unit with integrated check valve
- Container made of high-quality sheet steel; weather-resistant polyester resin paint finish
- Especially suitable for the storage of liquid gases and heating oil as well as for industry, garages and workshops
- With pressure gauge



283320E



283370E

Type	F 2 G	PD 6 GA	PD 9 GA	PD 12 GA
Model	Stored pressure	Stored pressure	Stored pressure	Stored pressure
Extinguishing agent	Glutex	ABC Powder	ABC Powder	ABC Powder
Capacity	2 kg	6 kg	9 kg	12 kg
Rating	13 A, 89 B, C	34 A, 183 B, C	43 A, 233 B, C	55 A, 233 B, C
Propellant	Nitrogen	Nitrogen	Nitrogen	Nitrogen
Discharge time	10 sec.	16 sec.	16 sec.	22 sec.
Range of jet	4 m	7 m	7 m	6 m
Temperature range	-30/+60 °C	-30/+60 °C	-30/+60 °C	-30/+60 °C
Dimensions (mm)	316 x 115 x 160	500 x 270 x 162	610 x 265 x 182	590 x 265 x 202
Weight (kg)	3.4	9.1	13.7	17.3
Order no.	283320E	283370E	283375E	283380E



282670E

#### Powder extinguisher model PRO

- With internal cartridge
- Hose with extinguishing pistol
- With wall bracket as standard
- Strike-knob operation
- Container made of high quality-sheet steel
- Weather-resistant polyester resin powder coating
- Multi-purpose extinguisher
- Especially suitable for outdoor areas, chemist's laboratories

#### Powder extinguisher model P

- With external cartridge
- Controlled discharge
- With wall bracket as standard
- Operational when CO<sub>2</sub> cartridge activated
- Easy to maintain
- Container made of high-quality sheet steel; weather-resistant polyester resin paint finish, weather resistant
- Integrated pressure indicator with automatic indication
- This extinguisher is mainly used for industrial application

Type	P 6 PRO	P 9 PRO	P 12 PRO	P 12 M
Model	Internal cartridge	Internal cartridge	Internal cartridge	External cartridge
Extinguishing agent	ABC Powder	ABC Powder	ABC powder	Allinex M
Capacity	6 kg	9 kg	12 kg	12 kg
Rating	34 A, 183 B, C	43 A, 233B, C	55 A, 233 B, C	D
Propellant	CO <sub>2</sub>	CO <sub>2</sub>	CO <sub>2</sub>	CO <sub>2</sub>
Discharge time	22 sec.	20 sec.	26 sec.	35 sec.
Range of jet	6 m	7 m	7 m	Float-down effect
Temperature range	-30/60 °C	-30/60 °C	-30/60 °C	-20/60 °C
Dimensions (mm)	510 x 300 x 165	560 x 295 x 182	610 x 290 x 205	860 x 285 x 215
Weight (kg)	9.8	15.5	18.6	21
<b>Order no.</b>	<b>282670E</b>	<b>282675E</b>	<b>282690E</b>	<b>282740</b>



282840E

## WATER AND FOAM EXTINGUISHERS

#### Water and foam fire extinguisher

- Stored pressure fire extinguisher
- With hose and extinguishing nozzle
- With wall bracket as standard
- Squeeze-grip operation
- Controlled discharge
- Operating levers galvanised
- Solid base
- Integrated check valve as standard
- Extinguisher made of high-quality sheet steel; weather-resistant polyester paint finish

Type	WD 9	SD 6	SD 9
Model	Stored pressure	Stored pressure	Stored pressure
Extinguishing agent	water	0.12 l AFFF + 5.8 l water	0.18 l AFFF + 8.2 l water
Capacity	9 l	6 l	9 l
Rating	13 A	13 A, 144 B	27 A, 233 B
Propellant	Nitrogen	Nitrogen	Nitrogen
Discharge time	53 sec.	30 sec.	40 sec.
Range of jet	4 m	4 m	4 m
Temperature range	0/+60 °C	0/+60 °C	0/+60 °C
Dimensions (mm)	605 x 255 x 200	455 x 255 x 200	575 x 270 x 200
Weight (kg)	14.9	10.6	14.9
<b>Order no.</b>	<b>282840E</b>	<b>282910E</b>	<b>282915E</b>

## CO<sub>2</sub> EXTINGUISHERS

### CO<sub>2</sub> fire extinguisher model KS 2 SBS

- With wall bracket as standard
- Extinguisher made of high-quality light alloy
- Ideal for IT-centres, laboratories, industrial plants and marine industry
- Burst pressure at 400 bar
- Snow horn for rapid fire fighting

### CO<sub>2</sub> fire extinguisher model KS 5 SE

- With wall bracket as standard
- Extinguisher made of high-quality light alloy
- Valve made of brass
- Snow horn with hose for rapid fire fighting
- Ideal for fire brigades, industry, motor-car garages, petrol stations or refineries etc.



283048E 283070E

Type	KS 2 SBS	KS 5 SE
Extinguishing agent	CO2	CO2
Capacity	2 kg	5 kg
Rating	34 B	89 B
Propellant	CO2	CO2
Discharge time	8.5 sec.	13.5 sec.
Range of jet	3 m	4-5 m
Temperature range	-30/+60 °C	-30/+60 °C
Dimensions (mm)	513 x 265 x 130	690 x 400 x 170
Weight (kg)	5.4	12.5
<b>Order no.</b>	<b>283048E</b>	<b>283070</b>

## BRACKETS FOR EXTINGUISHER

### Car brackets

With safety straps

**283331** With safety straps for 6 kg extinguishers like PD 6 GA and P 6 PRO

**283334** With safety straps for 12 kg extinguishers

**282601** With additional safety device for 6 kg extinguishers like P 6 PRO and PD 6 GA



283331/283334



282601



## MOBILE EXTINGUISHERS

### Mobile CO<sub>2</sub> Fire Extinguisher model CF

- With hose and snow horn
- Rubber-typed wheels
- Container equipped with safety burst disc
- Test pressure 250 bar
- Rapid deployment
- Container made of high-quality sheet steel; weather-resistant polyester paint finish
- Excellent chassis design

Type	CF 10	CF 20	CF 30	CF 50
Model	Steel	Steel	Steel	Steel
Extinguishing agent	CO <sub>2</sub>	CO <sub>2</sub>	CO <sub>2</sub>	CO <sub>2</sub>
Capacity	10 kg	20 kg	30 kg	50 kg
Rating	144 B	2 x 144 B	3 x 144 B	5 x 144 B
Propellant	CO <sub>2</sub>	CO <sub>2</sub>	CO <sub>2</sub>	CO <sub>2</sub>
Length of hose	6 m	6 m	10 m	10 m
Discharge time	17 sec.	27 sec.	30 sec.	52 sec.
Range of jet	approx. 4 m	approx. 5 m	approx. 5 m	approx. 6 m
Temperature range	-30/60 °C	-30/60 °C	-30/60 °C	-30/60 °C
Dimensions (mm)	920 x 330 x 1,000	920 x 490 x 1,050	1,050 x 510 x 1,200	1,420 x 600 x 1,200
Weight (kg)	45	72.4	110	150
<b>Order no.</b>	<b>710710E</b>	<b>710800</b>	<b>710900</b>	<b>711000</b>



**Mobile Powder Extinguisher model P**

- Rapid deployment
- Available with 5 m or 10 m hose
- Hose with controlled discharge pistol
- External nitrogen bottle
- One-man operation
- High performance
- Easy to maintain
- Container made of high-quality sheet steel; weather-resistant polyester resin paint finish
- Integrated safety valve



**710110E**

Model	P 50 SV	P 50 G	P 50 M
Extinguishing agent	BC powder	ABC powder	Metal powder
Capacity	50 kg	50 kg	50 kg
Rating	4 B, C	A, 4 B, C	D
Propellant	Nitrogen	Nitrogen	Nitrogen
Discharge time	90 sec.	90 sec.	90 sec.
Range of jet	10 - 12 m	10 - 12 m	float-down effect
Temperature range	-30/60 °C	-30/60 °C	-30/60 °C
Dimensions (mm)	1,070 x 475 x 560	1,070 x 475 x 560	1,070 x 475 x 560
Weight (kg)	82	82	82
<b>Order no. (5 m hose)</b>	<b>710010E</b>	<b>710110E</b>	-
<b>Order no. (10 m hose)</b>	<b>710020E</b>	<b>710120E</b>	<b>710125E</b>

**Powder extinguisher model PEF**

- Available with 5 m or 10 m hoses
- For use on larger fire objects in industries, warehouses, car parks and heating systems
- Safety valve integrated in cover
- Container made of high quality sheet steel; weather-resistant polyester pant finish
- Large wheels (30 cm), ideal to balance distance in altitude

Model	PEF 50/10	PEF 110
Extinguishing agent	ABC powder	ABC powder
Capacity	50 kg	100 kg
Rating	A, 4 B, C	A, 4 B, C
Propellant	Nitrogen	Nitrogen
Discharge time	40 sec.	75 sec.
Range of jet	10 - 12 m	10 - 12 m
Temperature range	-30/60 °C	-30/60 °C
Dimensions (mm)	1,050 x 465 x 550	1,290 x 550 x 770
Weight (kg)	84	120
<b>Order no. (10 m hose)</b>	<b>283390</b>	<b>283388</b>



**283388/283390**



CC719-QU10

## POLY PORTEX SL10

The portable CAFS extinguisher is ideally suited for first attacks on incipient and the smallest class A and B fires. Thanks to the integrated CAFS (Compressed Air Foam System) technology, the extinguishing performance - in comparison with conventional systems - is increased many times over. Up to 80 litres of CAFS foam are available.

### CAFS

With CAFS technology, foam expansion is actively carried out by the use of compressed air in a specially developed mixing chamber. The result is a very stable foam (also adheres to vertical or sloping surfaces!) with high energy content which leads, among other things, to extraordinarily large throw ranges and heights. The flammable material is rapidly and sustainably cooled through the optimum foam structure and re-ignition is prevented.

### Admix

Usually premixed water-foam compound mixtures are found ("Premix") in conventional portable fire extinguishers. Thanks to the "Admix" innovation, non-Premix-resistant foam compounds can now be used for the first time. With this revolutionary technology, water and foam compounds are stored separately from each other in containers and mixed on demand in operation. Subsequently the water-foam compound mixture is turned into foam in the CAFS mixing chamber. This opens up a wide spectrum of foam compounds that can be used.

The extremely low weight and the combination of Admix and CAFS ensures the user the highest efficiency and mobility during firefighting. This offers a significant increase in efficiency in comparison with conventional stirrup pumps.

The benefits apply above all when used with Class A foam compound (for fighting Class A solid material fires).

#### Easy operation

The POLY PORTEX SL10 impresses with its ease of operation: remove the protective cap of the compressed air cylinder, open cylinder valve, take the hose from its holder and activate the nozzle!

This can all be done in a flash – perfect, when every seconds counts.

#### Easy maintenance

The POLY PORTEX SL10 is characterised by its cost-effective restoration of the operational readiness: Fill containers with water and foam compound and replace compressed air cylinder – ready!

This can all be carried out easily by the operator.

#### Versatile applications

- Rescue / operational and small firefighting vehicles
- For trade, industry, petrol stations, waste recycling, public buildings (hospitals, rail stations, airports etc.)
- For fire protection at events, due to official requirements

#### Technical data:

Fill volumes: max. 10 l

Weight: < 20 kg at 9 litres nominal fill quantity

Flow: approx. 10 l/min

Working pressure: 7 bar

Throw range / height: approx. 8 m / approx. 4 m

Continuous duty: approx. 50 sec

Hose length / bending radius: DN 10 x 1.5 m / 45 mm

Compressed air cylinder: 1 l/200 bar

Dimensions (LxWxH): approx. 370 x 250 x 570 mm

#### CC719-QU10

#### POLY PORTEX SL10

Tank contents: max. 10 litres

Weight (filled): < 20 kg at 9 litres nominal fill quantity

#### Back carrier

Ergonomically shaped back carriage plate with quickly adjustable shoulder and lap straps. With just a few adjustments the back carrier adapts to the back of the crew member. The soft padding provides an especially high degree of wear comfort. Using it as a regular portable fire extinguisher is of course still possible.

#### CC719-QU20

#### Back carrier

Consisting of back carrier and a set of screws.

Dimensions (LxWxH): approx. 480 x 240 x 550 mm

Weight: approx. 1.3 kg

#### Attachable wheels

Thanks to the optionally attachable wheels, the POLY PORTEX SL10 can also be pulled to the scene with just one hand. The ball-bearing elastic full rubber wheels provide a high degree of ride comfort thanks to minimal rolling resistance.

#### CC719-QU30

#### Attachable wheels

Consisting of attachable wheels and a set of screws.

Dimensions (LxWxH): approx. 360 x 180 x 230 mm

Weight: approx. 1.1 kg



CC719-QU20



CC719-QU30



CE  
DIN EN 1866-1



## CAFS - HIGHEST EXTINGUISHING POWER

The combination of CAFS (Compressed Air Foam System) and high-quality AFFF (Aqueous Film Forming Foam) results in an unrivalled specific extinguishing power and burn-back safety.

POLY CAFS - the most efficient extinguishing system for the extended initial operation.

### Largest active radius

At least 16 m throw range and an extremely low weight of 76 kg (SL35) or 94 kg (SL50) in filled state promise, along with the 20 m special textile hose (230 g/m, kink-free, hoses turn off automatically), an unbeaten active radius of more than 4,000 m<sup>2</sup>. Additionally the ergonomic construction allows safer carriage (over obstacles and steps) by two people and is thus the guarantee for safe usage in all conceivable situations.

### Highest comfort

Open cylinder, open hose stack and let it fall, open pistol - the device is ready for operation - and all within the shortest amount of time. The lightness of the hose makes changing position child's play, the enormous throw range offers a safe distance to the source of the fire.

### Lowest operating costs

If the tank is empty, POLY CAFS systems can also be refilled by the operator. This can also take place during operation.

### POLY TROLLEY SL35/SL50 CAFS

- Output quantity: approx. 33 l/min
- Throw range / height: approx. 16 m / approx. 10 m
- Hose lengths: DN 19 x 20 m
- Dimensions (LxWxH): approx. 66 x 50 x 118 mm
- Working pressure: 7 bar
- Compressed air cylinder: 5 l/200 bar or 6 l/300 bar
- Operating temperature Formtec AFFF 1% F: +5 to +50°C

**CC711-QU10 SL35 CAFS**  
Tank contents: 35 litres. Weight (filled): approx. 76 kg

**CC711-QU20 SL50 CAFS**  
Certified according to EN1866-1.  
Tank contents: 50 litres.  
Weight (filled): approx. 94 kg

**CC711-QU25 SL50 CAFS**  
For the first time, non-Premix-resistant foam compound can be used, because water and foam compound are stored separately from each other and mixed on demand in operation.  
Tank contents: 50 litres.  
Weight (filled): approx. 94 kg incl. Admix

Further versions and options (e.g. weather protection hood, platform holder, frost-protected version with Fomtec AB-30 NE for temperatures from -20 °C to +50 °C etc.) on request.

#### POLY SKID MODULE

With the different variants of the POLY SKID MODULE SL45-100 CAFS, you have an ideal extinguishing system, in terms of efficiency and flexibility. Any combination of container size and hose length is possible due to the modular construction of the system and is therefore well suited for mounting in/on a wide range of vehicles. In comparison with conventional devices, the extinguishing capacity can be increased many times over through the use of CAFS. In the SL100 model you have 800 litres of CAFS foam at your disposal, whereby already medium-sized fires can be safely extinguished.

Individual POLY SKID MODULES available upon special request.

#### POLY SL50 CAFS MOBILE

The POLY SL50 CAFS MOBILE can be driven by one person and carried by two, thereby offering maximum mobility. Storage is usually on a generator slide tray. The system closes the gap between, for example, command vehicles (only equipped with fire extinguishers which are often expensive to refill), as well as tank firefighting vehicles (extinguishing systems with max. efficiency).

**CC715-QU10 POLY SL50 CAFS MOBILE**  
Tank contents: 50 litres. Weight (filled): approx. 102 kg. RS14 frame incl. folding wheels, Formtex DN19 / 20 m, CAFS nozzle RD9.

#### POLY SL75 CAFS MOBILE

The POLY SL75/100 CAFS MOBILE is portable and can also be driven thanks to the removable wheels, thus offering excellent mobility. The extinguishing system is built on a TS frame, thus making it especially suitable for advance and command vehicles. Empty POLY containers can be externally fed, or the extinguishing agent tank can be refilled, via the PEK valve.

**CC715-QU20 POLY SL75 CAFS MOBILE**  
Tank contents: 75 litres. Weight (filled): approx. 163 kg. FOX III frame, Formtex DN19 / 40 m incl. hose reel, PRO JET I nozzle, external feed / tank filling / pressure relief.





283950



283700



284050/284060



284070

## PROTECTIVE COVERS AND BOXES

### 283950 Transparent protective case TKG 6

Made of plastics and fitted with see-through type removable cover. Accommodates all known brands of fire extinguishers up to 6 kg capacity, with internal CO<sub>2</sub> cartridge. Dimensions: 640 x 280 x 210 mm. Weight: 1.4 kg

### 283960 Transparent protective case TKG 12

The box is made of man made material, and can be opened very easily from the bottom. The base of the box is grey, and the top is transparent. Suitable for accommodating foam or dry powder extinguishers with 9 or 12 kg capacity, with internal or external cartridge. The case comes with 2 sealable hook type fasteners. Complete with mounting screws and wall plugs. Dimensions: 760 x 300 x 240 mm. Weight: 2.1 kg

### 283700 Glass-fibre plastic protective case

Protective case for 6 kg fire extinguishers. The case is made of glass-fibre reinforced plastic, smooth-surfaces inside and out. The front of the case is fixed to the base with two quick-acting toggle-type fasteners, which are sealable. The base is bolted to the wall or other construction with the fire-extinguisher holder. Colour: red (RAL 3000). Dimensions: 650 x 348 mm x 230 mm. Weight: 2.5 kg

### 284050 Protection cover

Manufactured of man-made material. Colour: bright orange. Fitted with a rubber pull string. White fire extinguisher pictogram imprint as per EN standard. Will accommodate all brands of fire extinguishers up to 6 kg capacity, with internal or external CO<sub>2</sub> cartridge, or constant pressure type. Weight: 0.18 kg

### 284060 Protection cover

Manufactured of man-made material. Colour: bright orange. Fitted with a rubber pull string. White fire extinguisher pictogram imprint as per EN standard. Will accommodate all brands of fire extinguishers 9 to 12 kg capacity, with internal or external CO<sub>2</sub> cartridge, or constant pressure type. Weight: 0.3 kg

### 284070 Protection cover

Manufactured of transparent plastic material, fitted with a rubber pull string. White fire extinguisher pictogram imprint as per EN standard. Will accommodate all brands of fire extinguishers up to 6 kg capacity, with internal or external CO<sub>2</sub> cartridge, or constant pressure type. Weight: 0.2 kg

### 284080 Protection cover

For mobile powder extinguisher P 50. Weight: 0.2 kg

## FIRE EXTINGUISHING CABINETS

### Fire extinguisher cabinets

Heavy duty type cabinet, designed for outdoor use and suitable for wall mounting. Made of sheet metal, painted fire red as per RAL 3000. The cabinet comes with a sloped roof overhanging at the sides and the front. The door has rounded corners and edges and fits flush in frame. Comes with extinguisher pictogram in white colour.

#### 284000 Model FS 6/12

Accommodates extinguishers up to 12 kg. Comes with turn-lock fastener. Dimensions: 300 x 700 x 200 mm. Weight: 10.5 kg

#### 284001 Model FS-K

Accommodates one 5 or 6 kg CO<sup>2</sup> fire extinguisher. Comes with turn-lock fastener. Dimensions: 370 x 930 x 250 mm. Weight: 11 kg

#### 284002 Model FS-D 6/12

Accommodates two 6, 9 or 12 kg fire extinguishers. Comes with turn-lock fastener. Dimensions: 660 x 750 x 250 mm. Weight: 18 kg

#### 284003 Model FS-MS 6/12

Accommodates one 6 kg or 12 kg fire extinguisher. Comes with cylinder lock. Dimensions: 300 x 700 mm x 220 mm. Weight: 10 kg

#### 280153 Fire hose cabinet

Non-recessed type. Suitable for mounting onto a wall. The housing is made of 1.5 mm steel sheet, painted fire red as per RAL 3000. Pictogram "Fire Hose" on the door. Other letterings upon request. The swing-out type hose reel is connected to the water mains by a 2" screw down type valve with Storz C coupling. The hose reel is provided with a 30 metre long fire hose, 2" diameter, with Storz C coupling. The hose is accommodated on the reel in the so-called "Dutch Roll" way. Coupled to the hose is a shut-off type branch pipe with Storz C coupling and 9 mm nozzle tip. Dimensions: 650 x 750 x 140 mm. Weight: 42.2 kg

#### 280163 Fire hose cabinet

Recessed type. Suitable for mounting into a wall. The housing is made of 1.5 mm steel sheet, painted fire red as per RAL 3000. Pictogram "Fire Hose" marked in white paint on the door. Other letterings upon request. The swing-out type hose reel is connected to the water mains by a 2" screw down type valve with Storz C coupling. The hose reel is provided with a 30 metre long fire hose, 2" diameter, with 2" Storz C couplings. Dimensions: 650 x 750 x 140 mm. Weight: 42.6 kg



284000



284003



280153



280402

**280402 Hose reel cabinet**

Non-recessed type. Suitable for mounting into a wall. The housing is made of steel sheet, painted fire red as per RAL 3000. Pictogram "Fire Hose" on the door. Other letterings upon request. The swing-out type hose-reel is connected to the water mains by a Storz C 2" coupling, and provided with a 2" screw down type valve. The hose reel is provided with a 30 m non-collapsible rubber hose, which comes with a shut-off full stream and spray facility certified as to EN 671. Dimensions: 750 x 850 x 250 mm. Weight: 59 kg

**280411 Fire Hose cabinet**

Recessed type. Suitable for mounting into a wall. The housing is made of steel sheet, painted fire red as per RAL 3000. Pictogram "Fire Hose" on the door. Other letterings upon request. The swing-out type hose reel is connected to the water mains by a Storz C 2" coupling, and provided with a 2" screw down type valve. The hose reel is provided with a 30 metre non-collapsible rubber hose, which comes with a shut-off type branch pipe with Euro nozzle certified as to EN 671. Dimensions: 840 x 740 x 200 mm. Weight: 58.8 kg

**28041502 Hose reel cabinet**

Non-recessed type. Suitable for mounting onto a wall. The cabinehousing is made of steel sheet, painted fire red as per RAL 3000. Pictogram "Fire Hose" marked in white paint on the door. Other letterings upon request. The swing-out type hose reel is connected to the water mains by a Storz C coupling, and provided with a 2" screw down type valve. The hose reel is provided with a 30 metres, 1" diameter non-collapsible rubber hose. Comes with a shut-off, full stream and spray facility certified as to EN 671. A separate compartment in the cabinet houses a cartridge type extinguisher, filled with 6 kg ABC type powder. The hose with the powder pistol permits an interruptible powder jet. Dimensions: 1,100 x 930 x 250 mm. Weight: 86 kg



28041502



## Hydrant landing valves

**280500 Foam/water hydrant, special wall cabinet**

Application: Factories and warehouses of chemical, petrochemical as well as wood-working industry, paper mills, textile plants, automobile workshops, multi-storey car parks, administration buildings, hotels, etc.

Description: Cabinet made of sheet steel, opening angle of doors up to 180°, inside and outside red varnish (RAL 3000), for water supply 2" pipe connection, screw-down valve with swivelling Storz C coupling and locking device, inline inductor Z 2 with attached pipe elbow and Storz C coupling, suction hose with Storz D coupling, holding device for 2 delivery hoses C 52, support for multipurpose branch pipe CM. Connection for water supply either on right or left side of cabinet possible.

Equipment:

- 1 Medium foam making branch pipe M2
- 1 Inline inductor Z2
- 1 Multipurpose branch pipe CM
- 20 m Synthetic delivery hose C 52, certified as to DIN 14811
- 1 Container holding 60 kg multi-purpose foam compound F 15

Dimensions: 1,000 x 1,030 x 380 mm

Weight: 128 kg

**280500****281000****HYDRANT LANDING VALVES****Screwed horizontal hydrant landing valves**

Right angle landing valve, body made of copper alloy as per BS 1400 LG 2 or LG 4. Inlet: screw thread BSP male. Test pressure 22 bar.

**281000 Inlet 2 1/2" – outlet with Storz B**

Weight: 3.1 kg

**281100 Inlet 2" – outlet with Storz C**

Weight: 1.5 kg

**821200 Inlet 1" – outlet with Storz D**

Weight: 0.52 kg

**Landing valve**

Brass with 30° outlet.

**281101 Inlet thread BSP 2" male - BS 336 2 1/2" female****281110 Inlet thread BS 2 1/2" male - BS 336 2 1/2" female****Joint**

Brass with gland nut. Suitable for connecting the valve of a hydrant cabinet to the water mains. One side with male thread, the other side with female thread.

**281250 Size 2 1/2". Weight 0.9 kg****281260 Size 2". Weight: 0.45 kg****281110****281260**



140651 / 140652



142760

## WILDLAND FIRE EQUIPMENT

### 140651 Wildland fire fighting turnout jacket

According to EN15614. Blended fabric consisting of 35 % aramide fibre and 65 % viscose FR (flame retardant) approx. 310 g/m<sup>2</sup> mass per unit area.

Sizes: 40-42 to 60-64 in 3 lengths

B (164-172), C (172-180) and D (180-188)

Weight: 0.9 kg (size 48-50C)

### 140652 Wildland fire fighting turnout trousers

According to EN15614. Blended fabric consisting of 35 % aramide fibre and 65 % viscose FR (flame retardant) approx. 310 g/m<sup>2</sup> mass per unit area. Lining:

35 % aramide fibre and 65 % viscose. Sizes: 44-64 in 3 lengths B (164-172), C (172-180) and D (180-188).

Weight: 1.1 kg (size 48-50C)

### 142760 Fire fighting gloves SAFE GRIP 3 with cuff

Certified as to EN 659:2008. Due to the Gore-Tex® X-TRAFIT technology the gloves are water- and wind-proof and breathable. Palm side is made of new excellent silicon-carbon-mineral-coated NOMEX KEVLAR® doubleface fabric for high abrasion, puncture and cut resistance and anti-slip also on wet and smooth surfaces. Length: approx. 350 mm. Colour: yellow.

Sizes: 6, 7, 8, 9, 10, 11 and 12

Weight: 0.32 kg

**157208 Fire helmet HEROS-matrix**

Tested and certified as to prEN 16471:2012, prEN 16473:2012 Type 3 and ISO16073. Helmet size easily adjustable from outside even when wearing gloves - the required setting can be changed quickly depending on the operation. Ergonomic, optimised 3-point chin and neck strap made of heat and flame resistant material. New inner lining, provides maximum safety and excellent wearing comfort. Comfortable padding inside for excellent wearing comfort during long lasting operations. The helmet allows for installation of integrated communication systems and accepts all common types of SCBA facemasks.

Options: eye protector, helmet lamp, chin guard, communication set, helmet trims, edge protection for helmet shell

Weight: approx. 1.0 kg



157208, 156869

**156869 Neck protector****281610 Glasses for wildland fire**

Glasses with lower and upper ventilation and open pore foam that traps all dust.

- Soft foam band closely adhesive to your face to protect you from coarse powder and molten metals
- Antiallergenic foam band adhesive to your face
- Double polycarbonate lens, anti-fog treatment inside and anti-scratch coating outside
- Elastic band with rapid lateral unlocking mechanisms
- All the materials of these glasses are fire retardant (elastic band, frame, lens, etc.)
- Lens of double ballistic protection
- Certification: CE Standards - ANSI Clause 3.5.10 Z87.1-2003/MIL-V-43511C STANAG 2920/429 6

Weight: 0.1 kg



281610

**281612 Fire fighting mask wildfire, material NOMEX®**

This mask protects the face from radiation burns and helps to reduce smoke and ash particles inhalation. It incorporates a filter 9914 3M inserted into a filter pocket. This filter is of activated carbon and is equipped with exhalation valve and high-visibility reflective strips throughout the garment. It can be adapted to your head or neck. According to UNE340, UNE 531, ISO13301, ISO 15001 standards.

Weight: 0.15 kg



281612

**144960xx\* TWISTER-cross with Sympatex® certified as to EN 15090:2012**

Unique. Revolutionary. First class.

- Innovative BOA® lacing system
- Can be put on and taken off in a flash
- More safety thanks to numerous protection functions e.g. ankle protection, 3M reflective materials, penetration resistance
- Improved wearing experience thanks to comfort features
- Highly waterproof and breathable Sympatex® climatic membrane
- Robust and easy to care for

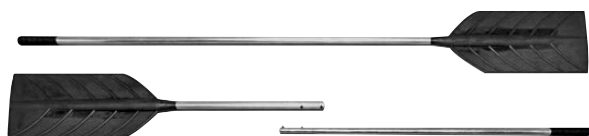
Sizes: EU 36 to 50 / UK 3.5 to 14

Weight: approx. 2.2 kg (1 pair, size 42)

Detailed information please refer to page 42.



144960xx



281616



281618



281619



281660

## FIRELINE ACCESSORIES

### 281616 Fire swatter removable

Strong hardened aluminum tube. No rust, smooth finish. Blade made of synthetic rubber 6 mm thick. The entire beater is reinforced with a fabric for a greater resistance to tearing. The critical areas have double reinforcements. Ergonomic rubber grip for comfortable handling. The handle is removable in the middle, for easy transport by planes, helicopters, cars, etc. The coupling is made by insertion of the end of one handle section into another with a coning-reduced diameter into the length of 75mm which ensures the rigidity of the assembly. The coupling is fastened by way of 2 nozzles moved under pressure by a steel strip.

- Tube: 1,500 mm
- Frame: width 250 mm, height: 500 mm
- Complete set: 1,995 mm

Weight: 1.8 kg

### 281618 Gorgui V2 multifunctional wildfire tool

The multifunctional tool Gorgui used against forest fires is a tool designed exclusively for forest fire fighting.

- Four cutting edges in one tool: Pulaski hoe, Super pulaski, McLeod straight edge, Fire Rake
- Titanium alloy head for strength and durability is well balanced for all 4 edges
- Cutting edges are angled to maximise cutting action
- Cutting edges are replaceable
- Handle varies in diameter for better ergonomics
- Longer handle length (48" wood handle) reduces fatigue and back strain

Weight: 2.1 kg

### 281619 Compact drip torch, 1 l

Designed to carry out fast maneuvers with technical fire during forest fire extinction. Ideal for the brigades transported by helicopter, as they can carry the torch in the lateral pockets of their fire packs due to its reduced size. It is also perfect for fire controlling and analysing vehicles. This is an essential tool for carrying out indirect attack maneuvers: backfire, escape fire, self-protection fire, fire to create safety zones for parking the trucks. Its deposit is approved for fuel transportation. It presents different safety systems, such as a non-return valve inside the stopper and a flow control valve. The asymmetrical double-coiled stopper is the element that provides the compactness. This is definitely a great tool from the point of view of its operating capacity, transportation and potential of performances, different from such systems as lighters or bengal fires.

Weight: 1.5 kg

### 281660 Pulaski axe

The Pulaski Axe is a special forest fighting tool, that may also be used for landscaping. Along with the standard single bit edge, there also is a special Mattock blade for dirt grubbing and trenching. This axe comes with polished red finish and 36" hickory handle. Weight: 2.5 kg

**281635 Back-pack type collapsible pump**

The new backpack is a step forward to the professional and ergonomic equipment, which combines higher performance results and greater operational capacity of the crews, carrying hand tools in their backpack. Cordura backpack equipped with flexible inner tank with interchangeable canvas. Dual-piston manual pump. Ergonomic padded fixing harnesses and belts. The pocket and the belt for accessories feature the Alice-clip system. Upper handles to make load carrying easier. Fixing straps for the chest and also fixing straps for the pump and hand tools in the back. This backpack's capacity is 19 litres. Inner tank made of PVC. Thermo-welded canvas. Plug protected against deformation and reinforced filter. Output metal valve with 360 degrees system. In red and black colour. Output approx. 8 l / min  
Weight: 2.63 kg

**281635****BACKBAGS AND ACCESSORIES****281621 Radio chest harness**

Our radio harness sits comfortably on your chest, without sagging or swinging, due to unique suspension system. Elastic straps keep radios in place when bending over. Can also be mounted directly to your web gear shoulder harness with optional radio chest integration straps.

- Designed to carry Bendix King, Motorola, Icom, Thales, M/A-COM and Kenwood radios
- Adjustable pocket holds a mobile phone or GPS unit
- Pocket for writing tools, penlight etc.
- Large map / notebook pocket with velcro closure
- Pocket for spare battery or small mobile phone

Weight: 0.28 kg

**281621****281623 Wildfire backpack spider gear, 4 l**

Perfect for the search and rescue worker when working from a vehicle and you only need the essentials. Everything quickly attaches with ALICE clips for easy re-positioning or removal. This is the same system as "Spyder Gear" for wildland firefighters only the unneeded fire shelter case is substituted with an additional accessory pocket to carry, tools or water. Removable gear bag with 250 cu in capacity. Two removable accessory pockets holds 1 l / 32 oz water bottle. Substitution of unneeded fire shelter case for an accessory pocket. Dimensions: 20.4 x 20.4 x 7.7 cm. Weight: 0.86 kg

**281623**



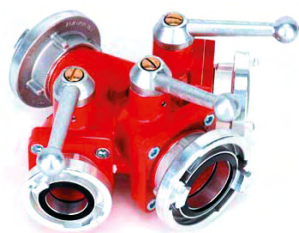
281622



281624



281626



258100



279460



279470

**281622 Wildfire backpack FIREFLY, 40 l**

Our load swallowing 2,200 cu in gear bag, combined with the trap pocket and lash down loops, means you can take it all with you when you're working the line. With two quick zips you can drop the gear bag and carry just the essentials - 100oz. hydration bladder, fire shelter, fusee pocket, and all the gear you can stuff in the 300 cu in stash pocket.

- SCS™ patented load-trapping suspension
- Quick-zip removable gear bag
- 100oz (3 l) hydration pocket (reservoir not included)
- Side pockets hold two 1 l bottles
- 18 Fuse carrying capacity
- Flaps covering all zippers
- Cut-out side pockets
- Dimensions: 40.7 x 25.4 x 16.5 cm

Weight: 2.5 kg

**281624 Wildfire backpack donut roll hose pack**

Colour coded rip-cord tabs match the colour coded hose holders so you always know which hose you're deploying. Carries two levels of 1" or 1-1/2" single jacket hose in any configuration. Mesh fabric construction allows maximum air circulation around hose rolls. Loads in less than one minute. Perfect to use with Spyder Gear. Just load up with hose and away you go. Dimensions: 45.8 x 45.8 x 10.2 cm. Weight: 1 kg

**281626 Hydration system LYNX**

Attach a hands-free hydration system to your pack. Snap-tite straps attach easily to our Spyder Gear, FSS web gear, and other web gear brands

- D-Rings attach easily to Spyder Gear
- Snap-tite straps easily attach to FSS web gear and others
- Closed cell insulation keeps water cooler
- Covered fill port keeps dirt out
- Click-It strap allows you to hang your pack anywhere
- Neoprene tube cover keeps liquid the right temperature
- Bite valve cover keeps bite valve clean/protected
- Capacity: 100oz (3 liters)

Empty weight: 0.15 kg

**258601 Dividers with ball valves Storz D-DD (25 mm)****258100 Dividing breeching with ball valves**  
Storz C-DCD (52 mm-25/52/25), light alloy**279460 Wildfire forestry nozzle with coupling Storz D,**  
30-60-115 l/min. Quarter turn operation gives a fast pattern change. Allows for efficient use of water when "blacking out". Twist action control flow setting and shutoff. Comes complete with coupling Storz D. Length: 13 cm. Weight: 0.5 kg**279470 Wildfire forestry nozzle with coupling Storz D**  
37-115 l/min. Simple easy to use design and tough rugged construction. Operation of the nozzle is via the flow setting off, low flow / straight stream, low flow / narrow fog, high flow/straight stream and high flow / narrow fog. Comes complete with coupling Storz D. Length: 12 cm. Weight: 0.3 kg

**204020 Delivery hose synthetic universal**  
20 m, 25 mm, Storz D, light alloy

**204030 Delivery hose synthetic universal**  
30 m, 25 mm, Storz D, light alloy

**41135106 Wind velocity meter device**

With wind indicator, temperature and LED lightning. Comes complete with bag.

- Accuracy for wind speed: +/- 5%
- Operating range: 0.2 m/s to 30 m/s (108 kms/hour)
- Operation temperature: -30 °C to 60 °C
- Accuracy for temperature: ±1%
- Resolution for temperature: 1 °C (33.8 °F)
- Casing: water-resistant
- Battery type: CR 2032 3V coin cell (included)
- Battery life: approx. 1 year
- Dimensions: 90 x 40 x 18 mm

Weight: 0.14 kg

**139140 Firefighters multi bag**

Multiple pockets to hold and separate turnout gear, helmet, gloves etc. Main hold delivers full cargo capacity. One zippered pocket 400 x 200 x 350 mm. Separate dirty laundry bag, 650 x 650 mm. Two lateral pockets for manuals, syllabuses etc., zippered outside front pocket 250 x 250 mm. Industrial grade size 10 double-pull zippers, made of metal. Bearing skate wheels and end strap.

- Made of nylon, double coated. Repels water and resists abrasion tears, scuffs and punctures
- Total capacity: 115 litres
- Colour: black/grey with red trimming
- Dimensions: 780 x 400 x 380 mm

Weight: approx. 2 kg

**933095 Floating pump**

Engine specifications: Honda 11hp at 3,600 RPM, air cooled engine; Single cylinder gasoline engine; Manual recoil start; 2 litres integrated fuel tank.

This high volume Honda powered floating pump is the most efficient on the market. Maximum output: 1,700 l/min at free discharge (0.7 bar), or 700 l/min at 3.5 bar.

Pump unit specifications:

- Direct drive C.E.T. single stage centrifugal pump
- Pump body made from resistant aluminium alloy
- Bronze impeller
- Mechanical shaft seal
- Self priming system
- One delivery outlet with BSP 2 1/2" male thread
- One 3" suction inlet floater
- Light weight heavy duty floater
- Low oil alert
- Dimensions: 819 mm x 620 mm x 561 mm

Weight: 54 kg



204020



41135106



139140



933095



## PORTABLE FIRE PUMPS

### Portable pump fox

The FOX certified as to EN 14466 for PFPN 10-1000, PFPN 10-1500 and PFPN 15-1000.

Premium portable pump with excellent performance, low weight, and unique ease of operation.

### Excellent performance at minimal weight

The FOX is one of the most powerful portable pumps in its class with an output of 1,600 l/min at 10 bar or 1,000 l/min at 15 bar. The amazingly light weight of only 167 kg (tanks full) for a pump with this power really helps facilitate fire fighting operations. Additionally, the four fold-out handles, and the low point of gravity, make for unrivalled handling even on the most difficult terrain.

### Simple operations:

Press START – engage the pump – deliver water. Using a portable pump could not be easier.

Optionally the pump can be controlled via a pump pressure governor, which keeps the preset pump pressure constant independently of the volume flow of water. Also optional is a mechanical thermal protection and a cavitation alarm, that ensure trouble-free operations.

### Maximum operating safety:

The latest generation FOX is powered by a BMW 2 cylinder flat piston engine that ensures safe operation in any scenario. Fan-driven air cooling prevents the engine from overheating. The technology which has proved itself in BMW's state-of-the-art motorcycles now guarantees maximum reliability in tough fire fighting scenarios.

The fully automatic piston priming pump not only gives you convincing performance but also shines thanks to its robust design. In free discharge operations, such as pumping flooded cellars dry, the priming pump can be disengaged manually.

The location of the fuel tank underneath the engine, and the safety cap on the filler neck, allow trouble-free filling of the FOX while the engine is running.



**Technical data:**

Engine: BMW 2 cylinder four-stroke flat piston engine, 1,170 ccm capacity, power output 50 kW at 4,500 min<sup>-1</sup>. Air cooling by engine mounted cooling fan. Electronically controlled fuel injection. 20 l fuel tank, four star petrol 95 ROZ, electric starter.

Pump: Single-stage light metal centrifugal pump, three dimensional cambered impeller and cambered diffuser in spiral casing with manometer on suction and pressure sides. Pump can be disengaged manually.

Maximum performance with 3 m suction height:

- 1,000 l/min at 15 bar
- 1,600 l/min at 10 bar
- 2,000 l/min at 3 bar

Priming pump: Automatically controlled double action piston pump with manual cut-off. Priming time for suction height of 3 m approx. 5 sec, for 7.5 m approx. 20 sec.

Casing: Casing with floodlight, operating panel with revmeter, operation hour counter, and control LEDs for battery charge status, oil pressure, fuel reserves, engine malfunction Including low current socket MAGCODE.

Carrying frame: Aluminium frame with four pivoted handles.

Dimensions: LxBxH approx. 945 x 735 x 840 mm

Weight: dry 150 kg, ready for operation approx. 167 kg (tanks full)

**KR115-0001 FOX with BS couplings**

Suction inlet with 4" BS coupling and blind coupling.  
Two pressure outlets with screw-down valves and female 2 1/2" BS 336 light-alloy couplings including male blind couplings.

**KR115-0002 FOX with Storz B couplings**

Suction inlet with Storz A coupling and blind coupling.  
Two pressure outlets with screw-down valves and Storz B light-alloy couplings including male blind couplings.

**KR115-0003 FOX with Storz 65 couplings**

Suction inlet with Storz A coupling and blind coupling.  
Two pressure outlets with screw-down valves and Storz 65 light-alloy couplings including male blind couplings.

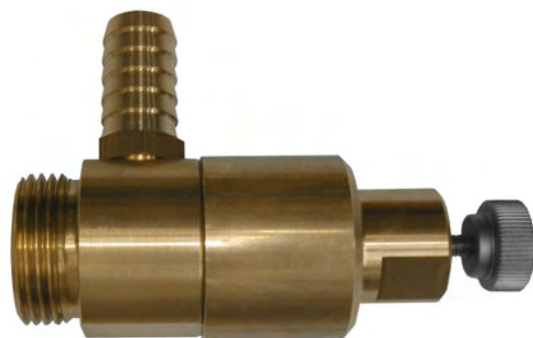
**RECOMMENDED ACCESSORIES:****KR115-PP31 Pressure governor****KR115-PX10 Set of conveying wheels**

**072823 Battery charging unit for MAGCODE socket**  
Type ACCTIVA easy 1204, please refer to page 279.

**RECOMMENDED ACCESSORIES FOR FOX WITH BS COUPLINGS:**

**21281001 Suction hoses**  
1.5 m long each with 4" BSRT couplings, as per BS 336.  
Weight: 8.2 kg

**260550 Suction strainer**  
4" BS.  
Weight: 5.1 kg



**275562 Wicker basket**  
4" wicker basket.  
Weight: 1.1 kg

**019061-001 Coupling spanner BSRT 3" – 5½"**  
Made of steel, hot dip galvanised.  
Weight: 0.57 kg

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**RECOMMENDED ACCESSORIES FOR FOX WITH STORZ COUPLINGS:**

**21005001 Suction hoses**  
1.5 m long. Made of rubber, 110 mm internal diameter. Approved as per DIN 14810 standard. Steel wire reinforced. Maximum pressure load 6 bar. With Storz A (110 mm) couplings, made of light alloy, at both ends.  
Weight: 10 kg

**260200 Suction strainer**  
With Storz A coupling. Made of light alloy. Comes with non-return type foot valve.  
Weight: 5 kg

**275640 Wire mesh basket**  
For Storz A strainer. Prevents dirt and other obstacles from entering the suction line.  
Weight: 1.3 kg

**275505 Coupling spanners**  
Suitable for Storz A, B, C and Storz 65 couplings. Made of light alloy.  
Weight: 0.7 kg

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**PORTABLE FIRE PUMP MODEL BEAVER**

The portable pump BEAVER is certified as to EN 14466 for PFPN 10-750. It features a low weight and small dimensions and is equipped with an innovative priming pump.

**High power combined with small dimensions**

The BEAVER portable pump combines the high power of 750 l/min at 10 bar with small dimensions and an weight of just 112 kg (empty). So, the transport of the BEAVER can be done by just two firemen.

**Technical data:**

Engine: Briggs and Stratton "Vanguard" 2-cylinder engine in V-form, 4-stroke OHV. Cubic capacity: 993 ccm, output 26 kW (35 HP) at 3,600 RPM. Suitable for use with leaded or unleaded petrol. Air-cooling with radial fan. Electric starter and 30 A/h battery included. Detachable fuel can 20 l capacity.

Pump: Single stage centrifugal pump, made of corrosion resistant light-alloy. The pump shaft is made of stainless steel.

Attainable pump output: 750 l/min at 10 bar, or 1,200 l/min at 6 bar, at a suction height of 3 m.

Priming pump: Priming is effected by a semi-automatic sliding vane pump.

Dimensions (LxWxH): approx. 697 x 545 x 645 mm

Weight: dry 112 kg, ready for operation approx. 130 kg (tanks full)

**KR113-001 BEAVER with BS couplings**

Suction inlet with 4" BSRT male coupling and female blind coupling, two pressure outlets with screw-down valves and female 2 ½" BS 336 light-alloy couplings including male blind couplings.

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**RECOMMENDED ACCESSORIES:****KR1XX-PE60 Battery charging unit for magcode socket**

Type ACCTIVA easy 1204.

**21281001 Suction hoses**

1.5 m long each with 4" BSRT couplings, as per BS 336.

Weight: 8.2 kg

**260550 Suction strainer**

4" BS.

Weight: 5.1 kg

**275562 Wicker basket**

Offers maximum protection, prevents even very small objects from entering suction line.

4" wicker basket.

Weight 1.1 kg

**019061-001 Coupling spanner BSRT 3" – 5½"**

Made of steel, hot dip galvanised.

Weight: 0.57 kg

**PORTABLE FIRE PUMP MODEL OTTER**

Certified as to EN 14466 for PFPN 6-500. OTTER, the light portable pump combines high pumping capacity with compact dimensions and a weight of only 66 kg. The spherical impeller is attached direct to the shaft end and together with the control device, integrated in the housing, it ensures extreme high efficiency of the pump. Priming is done by a manual piston pump.

**Technical data**

Engine: Briggs and Stratton "Vanguard" 4-stroke 2-cylinder OHV petrol engine with manual rope recoil starter (electric starter and battery optional at extra charge). Fuel used can be either leaded or unleaded petrol. Output 13 kW (18 HP) at 3,600 RPM. Air-cooled with fan. Fuel tank 8.5 litres.

Pump: One-stage ROSENBAUER centrifugal fire pump made of light alloy, with manual piston priming pump for a maximum suction lift of 7.5 m.

Attainable pump performance at 3 m suction lift: 500 l/min at 6 bar, 800 l/min at 5 bar or 1,000 l/min at 4 bar.

Comes with one pressure outlet with 2.5" screw down type valve.

Tubular carrying frame with four swing-out type handles. Manometer -1/0/25 bar, pressure gauge 0/25 bar. Standard tool kit for engine and pump.

Weight: dry 58 kg, ready for operation approx. 66 kg (tanks full)

**KR112-0001 Otter with BS couplings**

Suction inlet with 3" BS coupling and blind coupling.

One pressure outlets with screw-down valves and female 2.5" BS 336 light-alloy couplings including male blind couplings.

**KR112-0002 Otter with Storz B couplings**

Suction inlet with Storz B coupling and blind coupling.

One pressure outlet with screw-down valve and Storz B light-alloy coupling including male blind couplings.



#### KR112-0003 Otter with Storz 65 couplings

Suction inlet with Storz B coupling and blind coupling.  
One pressure outlets with screw-down valves and Storz 65 light-alloy coupling including male blind couplings.

#### RECOMMENDED ACCESSORY:

#### KR112-PM30 Electric starter and 12 V battery

Fully installed, increases the weight of the portable pump approx. 5 kg

### PORTABLE FIRE PUMP OTTER DIESEL

Certified as to EN 14466. The light portable pump with a robust, reliable diesel engine.

Engine: Hatz Diesel engine, model 1 D 81 Z. One cylinder fan cooled OHV diesel engine with electric starter and battery. Piston displacement 670 ccm. Manual non-recoil starting crank.

Output 10.5 kW (14 HP) at 3,600 RPM. Air-cooled with fan.

Fuel tank 7 litres.

Pump: One-stage ROSENBAUER centrifugal fire pump made of light alloy, with manual piston priming pump.

Attainable pump output at 3 m suction lift: 700 l/min at 4 bar,

500l /min at 5 bar or 1,000 l/min at free discharge.

Comes with one pressure outlet with 2.5" screw down type valve.

Tubular carrying frame with four swing-out type handles. Manovacuumeter -1/0/15 bar, pressure gauge 0/25 bar. Standard tool kit for engine and pump.

Weight of complete pump unit, filled and ready for operation: approx. 160 kg

#### KR131-0001 Otto Diesel with BS couplings

Suction inlet with 3" BS coupling and blind coupling.  
One pressure outlet with screw-down valves and female 2.5" BS 336 light-alloy coupling including male blind couplings.

#### KR131-002 Otto Diesel with B couplings

Suction inlet with Storz B coupling and blind coupling.  
One pressure outlet with screw-down valve and Storz B light-alloy coupling male blind couplings.

#### KR131-003 Otto Diesel with Storz 65 couplings

Suction inlet with Storz B coupling and blind coupling.  
One pressure outlets with screw-down valves and Storz 65 light-alloy couplings including male blind couplings.

#### RECOMMENDED ACCESSORIES FOR OTTER AND OTTER DIESEL WITH BS COUPLINGS:

#### 21137001 Suction hoses

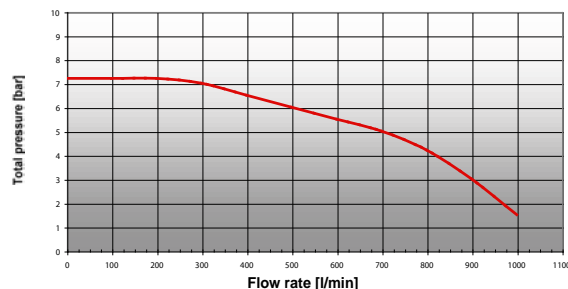
1.6 m long. Made of rubber, 75 mm internal diameter, steel wire reinforced. With 3" BS 336 round thread male and female couplings made of light alloy.  
Weight: 6.5 kg

#### 260549 Suction strainer 3"

Cylindrical type, made of brass, without check valve.  
Comes with 3" female BSRT as per BS 336.  
Weight: 4.4 kg



Portable Pump OTTER Diesel  
suction height 3 m, suction hose 4"



**019061-001 Coupling spanner BSRT 3"- 5½"**

Made of steel, hot dip galvanised.  
Weight: 0.57 kg

**RECOMMENDED ACCESSOIRES FOR OTTER AND OTTER DIESEL WITH STORZ COUPLINGS:****21105001 Suction hoses**

1.6 m long. Made of rubber, 75 mm internal diameter, steel wire reinforced. With Storz B couplings made of light alloy.  
Weight: 5.3 kg

**260100 Suction strainer**

Made of light alloy, with check valve. Comes with Storz B type couplings of light alloy, as per DIN 14362 standard.  
Weight: 2.3 kg

**275505 Coupling spanners**

Suitable for Storz A,B,C and Storz 65 couplings. Made of light alloy.  
Weight: 0.7 kg

**RPS – ROSENBAUER POSITIONING SYSTEM**

RPS is an assisting device which helps in establishing a location independent relay route, anytime and without prearrangements.

Rosenbauer is the first manufacturer in the fire fighting equipment field to provide such a device for fire brigades faced with the problem of lengthy water supply routes. In such situations, water is conveyed via several portable pumps, which are connected in series. In order to achieve optimum water transport over long stretches, the entire distance, the elevations to be overcome and the hoses used, must all be taken into account.

The Rosenbauer Positioning System (RPS) renders obsolete the complex calculations and manual measurements previously required for water transport. Using a GPS (Global Positioning System) and an altimeter, the Rosenbauer Positioning System calculates the ideal position for all the pumps, from the water intake to the water output point.

**Simple and flexible deployment**

The RPS was developed in teamwork with fire services and is simple to use. The device is switched on, the start button is pressed, the required route followed and the hose laid. The RPS automatically calculates the respective ideal positions of the portable pumps, signalling them in both optical and acoustic form.

**Multiple benefits for the fire services**

Fire services benefit from the development of the RPS in a number of ways, as extremely straightforward and quick handling support the fire fighters during operations. Moreover, the RPS constitutes another element in the creation of a practical overall solution for fighting fires.

**KR821-RB10 Rosenbauer positioning system**

With bracket.





## THE ULTRA-HIGH-PRESSURE SYSTEM UHPS

### Optimal combination

Rosenbauer has tested for the optimum combination of pressure and flow rate of water for compact ultrahigh pressure systems. Certain minimum volumes of water for fire fighting are necessary to be able to drop the fire temperature in an effective way. It has been proved in the testing that 38 l per minute is a very effective amount. High pressure facilitates a very fine spraying of water for fire fighting. Due to this, the value of 100 bar is an appropriate upper limit. Pressures higher than that do not contribute to further improvement of the fire fighting effect.

### High level of kinetic energy

The efficient combination of volume and pressure results in a high kinetic energy with full jet stream. The water can thus enter deeply into ember pockets. Thanks to the effective throw range of 10 metres, the first attack can be carried out from a safe distance.

### Multi-purpose nozzle

The jet pattern can be switched any time from full to fog stream infinitely. The fire extinguishing agent can be applied continuously as well as in fits and starts.

### Finest atomisation

Water for fire fighting is atomised with spray jet by the nozzle, which is exactly adjusted with pressure and flow rates. Consequently the effective cooling surface is increased. Due to complete transformation of water into fog, water damages are being avoided.

### Light fire hose

The thin and light fire hose can be drawn easily through staircases, over corners, edges and around edges. The hose is also kink-free and this adds to the manoeuvrability of the nozzle so that the source of the fire can be reached quickly. Due to the fire hose length of 60 meters, also remote areas can be reached.

### High level of safety

The fog and continuous water supply guarantee reliable self-protection for the fire fighting team in every situation.



**Compact dimensions**

The compact unit fits also to pick-ups and in compact vans. This guarantees that narrow streets and otherwise inaccessible sites can be reached easily and quickly.

**Excellent foam quality**

The integrated foam proportioning system provides together with the foam attachment foam with high foam quality.

**Easy to use**

Due to the presetting of the pressure and flow rate by Rosenbauer the unit is easy to use and needs no attention after having been started.

**Technical data:****Drive unit:**

- Engine: Briggs&Stratton Vanguard 16 HP, displacement 480 ccm, maximum output 11.8 kW (16 hp) at 3600 min<sup>-1</sup>.
- Petrol tank: 8.5 l, with petrol valve.
- Fuel need: At least 86 ROZ, leaded or unleaded petrol can be used.
- Starting device: Electric starter, battery 12 V/17Ah.  
Rope recoil starter for emergency starting.
- Exhaust: Low noise muffler with contact protection.
- Pump:** High pressure plunger pump, made of brass, with oil bath lubrication.
- Output: 38 l/min at 100 bar, with pressure relief valve.  
Manometer gauge 0 – 250 bar.  
Filter element.
- Quick attack:** 60 m high pressure hose, diameter 13 mm hose reel with window and brake as well as locking device.
- Nozzle:** Ergonomic formed nozzle with pistol grip.  
Infinite adjustment switch from full to fog stream.  
Removable foam attachment.
- Foam admixing:** Admix rate 0 – 6 % infinite adjustable, foam concentrate, suction hose diameter 8 mm.  
20 l foam compound canister, made of synthetic material (PE).



**Mixed fire – wood and car tires**



**Ultra High Pressure System "UHPS" – basic unit**



UHPS SKID



UHPS ATV 200 RANGER 4 x 4 HD ONETON



UHPS HELI 500



UHPS TS100



## UHPS AVAILABLE IN FOLLOWING VERSIONS

Following models correspond with the specifications and designs as mentioned above.

### UHPS SKID

The Ultra High Pressure Extinguishing System model UHPS model SKID is especially designed for fast initial attack with small amounts of water. The unit is designed to be mounted into Fire Trucks and vans as well as Pick-Ups. Tank size from 200 l up to 500 l.

#### KR16A-0001 UHPS SKID with ground frame and pull out tray

#### KR16A-0002 UHPS SKID 200 with ground frame

200 l tank and pull out tray

#### KR16A-0003 UHPS SKID 300 with ground frame

300 l tank and pull out tray

#### KR16A-0004 UHPS SKID 500 with ground frame

500 l tank and pull out tray

### UHPS ATV 200 RANGER 4 x 4 HD ONETON

Rapid Intervention Vehicle for heavy duty off-road conditions or fire-fighting in confined-spaced conditions (e.g. bush-fires, narrow lanes, shopping centres). POLARIS 4-valve, 4 stroke single cylinder petrol engine, 760 ccm, 46 HP, 3 seats side by side, automatic PVT transmission, switch engaged on demand true all wheel drive 4x4. Comes complete with high pressure plunger pump, 60 m high pressure hose, ergonomically formed fog gun and tanks (200 l water tank and 20 l foam tank). Comes with 2 1/2" male coupling as per BS 336:1989. Dimensions: 3,000 x 1,600 x 1,900 mm.

#### KR16B-0010 UHPS ATV 200

### UHPS HELI 500

The UHPS is properly mounted in a heavy duty aluminium frame with 4 eyelets, and comes with 4 each 3 m long helicopter hoisting cables. The frame is totally encasing the UHPS, for maximum protection during the airlift. The footed frame allows for safe road transport on pick-ups etc. Four pegs allow for fixing the UHPS in sandy, uneven areas. Dimensions: approx. 1,540 x 1,110 x 1,460 mm

#### KR16C-0001 UHPS Heli 500

### UHPS TS100

Frame with integrated 100 l water tank made of light alloy, mounting points like a portable pump according to EN 14466. In order to be operated the pump set is pulled out on a telescopic extension, the tank remains in the vehicle. By means of 4 carrying handles the unit can be easily lifted from the vehicle. Dimensions: 1,100 x 750 x 900 mm. Weight: 220 kg (empty tanks)

#### KR16E-0001 UHPS TS 100

## OPTIONS

### Sewer rinsing apparatus with feed- and cleaning nozzle

Working principle: The water jet is redirected in the nozzle head backward. Through that, the rat with the hose is shifted forward and simultaneously, the sludge on the ground is rinsed. Through the cleaning outlet in the front, a forward directed water jet is created, which eliminates clogging.

Output: 38 l/min (10 gal/min) at 100 bar (1,450 psi), Connection: direct to the hose via thread.



## DRY CHEMICAL POWDERS

Extinguishing powder	FUREX ABC 40	FUREX BCE 80	FUREX MAGNA D
		Foam compatible	
Main component	Ammonium phosphate Ammonium sulphate	Sodium bicarbonate	Alkali chlorides and alkali borate
Percentage of ammonium phosphate	approx. 40 %		
Standard colour	cream	white	white
Apparent density (acc. DIN)	87 ± 5 g/100 ml	> 95 g/100 ml	> 85 g/100 ml
Particle size	< 0.04 mm approx. 52 – 60 %	< 63 µ approx. 85 – 95 %	< 63 µ approx. 65 – 95 %
Fluidity	70 – 90 g/sec	> 70 g/sec	70 – 90 g/sec
Temperature stability	from -60 °C up to +85 °C	from -60 °C up to +55 °C	from -60 °C up to +120 °C
Hydrophobic treatment		Silicone	Silicone
Corrosion	Silicone	Corrosive to steels, metals, and alloys that are not resistant to chlorides	Corrosive to steels, metals, and alloys that are not resistant to chlorides
Field of application			Suitable for extinguishing fires of class D, including sodium, potassium, uranium in shreds and pellets, and in addition to this, sodium hydride, aluminiumtriethyl, potassium methylate, and other metalloorganic compounds
Order no. for 20 kg PE drum			<b>283234</b>
Order no. for 25 kg paper pack	<b>283226</b>	<b>283231</b>	
Order no. for 1,000 kg non-return container	<b>283227</b>	<b>283233</b>	





## FOAM CONCENTRATES

### Multipurpose foam concentrate

Multipurpose foam concentrates are used for the preparation of low-, medium and high-expansion foams. They are based on synthetic surface-active substances (tensides) and contain in addition foam stabilizers, solubilizers and antifreezing agents. They are not suitable for extinguishing polar solvent fires. They can be foamed with drinking water, water from rivers or the sea, or with treated industrial water. The differences between these types of product and the protein types are a higher yield from the proportioning of less material, and a wide range of different foams by selecting the appropriate foam tube or generator.

### AFFF (Aqueous Film Forming Foam) concentrate

AFFF (Aqueous Film Forming Foam) concentrate consisting of fluorocarbon and hydrocarbon surfactants blended with various solvents, preservatives and stabilisers. The foam forms an aqueous film that rapidly cuts off the oxygen supply and thus knocks down the fire. The expanded foam from which the film is drained forms a stable blanket that suppresses the release of flammable vapours and cools down the fuel surface extinguishing the fire and preventing re-ignition.

### Alcohol Resistant Foam (ARC)

Alcohol resistant foams, ARC are often found in different forms and are also known as "alcohol foam", "alcohol resistant foam" or "polar solvent foam". ARC 1x3 means, it is used at 1% induction ratio on hydrocarbon fuel and at 3% on polar solvents.

### Film Forming Fluoroprotein Foam (FFFP) concentrate

The film forming fluoroprotein foam concentrate containing hydrolysed protein and preservatives, together with a blend of fluorinated surfactants to achieve the maximum synergistic effect. The blend of fluorochemicals selected is effective in reducing the surface tension of water as well as the interfacial tension between water and oil sufficiently low to give stable film on the surface of the fuel and as a result it gives fire extinguishing rates superior to those obtained with synthetic based compounds.

### CLASS A

Class A provides excellent extinguishments of class A fires by providing deep penetration of the water into the burning material. At low concentrations it is also highly effective as a wetting agent. Enviro Class A is also effective on smaller class B fires.

### Aviation foams

The airport fire services are trained to deal with possible fire scenario that can involve hundreds of passengers and large volumes of highly flammable jet fuel. Because of this, national and international authorities have implemented strict regulations to ensure ultra rapid response and high capacity fire fighting capability. Foams certified according to the International Civil Aviation Organization (ICAO) Standard Level B ensures the rapid extinguishment required. For decades Rosenbauer has provided airports around the world with first class airport crash tenders, giving the fire services the ultimate tool to protect lives in the devastating incident of a plane crash. Therefore Rosenbauer strongly recommend the use of ICAO approved high efficiency foams for all airports. The below foams has been selected by Rosenbauer for its quality and ICAO certification and will be the correct choice for all airports.

**Aqueous film forming foam:**

- 705426**     **AFFF 3% ICAO Level B**  
200 l, in plastic drum
- 705427**     **AFFF 3% ICAO Level B**  
1,000 l, in container
- 705546**     **AFFF 6% ICAO Level B**  
200 l, in plastic drum
- 705547**     **AFFF 6% ICAO Level B**  
1,000 l, in container

**Industry**

Industrial fire services may encounter a variety of fire hazards depending upon type of industry, location and other local factors. The responsibility for protection of life, property as well as surrounding areas demands the right equipment, and the right foam. Selection of correct foam must be based on the type of flammable liquids that represent the fire hazard. In cases where the possibility of fires in flammable liquids that are mixable with water can be ruled out, the fire service may use either AFFF or regular synthetic foams. If however fires in polar solvent is part of the hazard the fire service should standardize on a ARC foam that can handle all possible fires. Today new Alcohol resistant foams are available with low viscosity and low proportioning ratio.

Rosenbauer, a significant supplier of industrial fire trucks, has made a selection of high quality industrial grade foams that will give optimal fire performance.

**Film forming foams for hydrocarbon fires:**

- 705412**     **AFFF 1% F**  
For use at 1% on hydrocarbon fires. Freeze protected to -19 °C. 25 l, in plastic can.
- 705414**     **AFFF 1% F**  
For use at 1% on hydrocarbon fires. Freeze protected to -19 °C. 200 l, in plastic drum.
- 705415**     **AFFF 3%**  
For use at 3% on hydrocarbon fires. Freeze protected to -5 °C. 25 l, in plastic can.
- 705416**     **AFFF 3%**  
For use at 3% on hydrocarbon fires. Freeze protected to -5 °C. 200 l, in plastic drum.





#### Alcohol resistant film forming foams:

- 705513 ARC 1x3**  
For use at 1% on hydrocarbon and 3% on polar solvent fires. 25 l, in plastic can.
- 705514 ARC 1x3**  
For use at 1% on hydrocarbon and 3% on polar solvent fires. 200 l, in plastic drum.
- 705529 ARC 3x3**  
For use at 3% on hydrocarbon and 3% on polar solvent fires. 25 l, in plastic can.
- 705531 ARC 3x3**  
For use at 3% on hydrocarbon and 3% on polar solvent fires. 200 l, in plastic drum.

#### Municipal fire brigades

Municipal fire brigades may be confronted with any fire hazard involving flammable or hazardous liquids. The selection of foam concentrates should be based on local fire hazards as well as those that may occur due to spills, leakages due to road or rail accidents within their area. In most cases this will call for the use of a foam concentrate that can handle hydrocarbon as well as polar solvent fires. Fire brigades are increasingly taking advantage of the improvement of extinguishing capability by use of Class A foams when fighting fires in fibrous materials or when ever engaged in fighting forest fires.

- 705110 Multipurpose foam compound F-15**  
Pour point -15 °C. 20 l, in plastic can.
- 705120 Multipurpose foam compound F-15**  
Pour point -15 °C. 60 l, in plastic can.
- 705130 Multipurpose foam compound F-15**  
Pour point -15 °C. 200 l, in plastic drum.

#### Film forming foams for use on hydrocarbon fires:

- 705415 AFFF 3%**  
For use at 3% on hydrocarbon fires. 25 l, in plastic can.
- 705416 AFFF 3%**  
For use at 3% on hydrocarbon fires. 200 l, in plastic drum.
- 705537 ARC 1x1 NV**  
Low viscous, low proportioning even on polar solvents. 25 l, in plastic can.
- 705538 ARC 1x1 NV**  
Low viscous, low proportioning even on polar solvents. 200 l, in plastic drum.
- 705525 ARC 3x3 NV**  
Low viscous. 25 l, in plastic can.
- 705535 ARC 3x3 NV**  
Low viscous. 200 l, in plastic drum.



**Class A foam:****705251 Foam concentrate Class A**

20 l, in plastic can.  
Weight: 22 kg

**705253 Foam concentrate Class A**

200 l, in plastic drum.  
Weight: 210 kg

**Barrel type foam compound decanting pump**

Electric barrel pump, not explosion proof. Suitable for decanting many thin liquids, especially foam compound. With on/off switch. Comes complete with pump tube unit, 1,000 mm long. Delivery head max. 17 metres resp. 1.7 bar - when pumping water. The pump is provided with a light alloy Storz-25 coupling on the pressure outlet. Complete with a 5 m long non-collapsible PVC delivery hose, 1" diameter, with Storz-25 couplings on both sides.

**912628 Driven by a DC electric motor 24 V, 575 Watt**

Splash-proof, protection class IP 54. Comes with 5 m cable and Bosch screw type plug as per DIN 14690, for connection to a Fire Truck. Pump output up to 80 l/min at free discharge.  
Weight: 6.9 kg

**912629 Driven by a 1-Phase, 230 V, 50 Hz electric motor**

500 Watt, splash-proof, protection class IP 54. Comes with 5 m cable and Schuko type plug. Pump output up to 85 l/min at free discharge.  
Weight: 8.78 kg

**RECOMMENDED ACCESSORIES:****912634 Threaded barrel closure**

Made of stainless steel. For fastening the barrel pump securely in the bunghole of a foam compound barrel.  
Weight: 0.5 kg

**255900 Adapter Storz 25 / Storz 38**

Made of light-alloy.  
Weight: 0.2 kg

**706003 Foam test kit**

For measuring the density, expansion rate, water drainage time and proportioning rate of the foam.

This is useful to check the foam similar to test procedure of EN or ICAO.

Consisting of:

- 1 Foam sample container
- 1 Sample stand
- 1 Adaptor
- 1 Balance, max. 2 kg
- 1 Stop watch
- 2 Cylinders: 100 ml, 250 ml
- 2 Densimeters: 1.00 - 1.10 and 1.10 - 1.20
- 2 Pipettes, 10 ml
- 1 Digital thermometer
- 4 Beakers: 250 ml, 500 ml, 600 ml, 1,000 ml
- 3 Screw cap bottles
- 1 Refractometer
- 1 User manual
- 1 Transport case

Weight: 15 kg

**706004 Foam collecting board**

For collecting foam to fill up foam sample container.  
Weight: 30 kg.

**912628****(symbolic picture)****706003****706004**  
**(comes without foam sample container)**



## NAUTILUS SUBMERSIBLE PUMPS

Rosenbauer have been developing and manufacturing a wide range of pumps for fire brigade use for 100 years. NAUTILUS submersible pumps with their proven Rosenbauer pump technology now supplement the comprehensive manufacturing program.

The NAUTILUS submersible pumps with electric motor are tested and certified according to DIN 14425 "Portable submersible pumps with electric motor" as well as to the EN 60335-2-41 "Household and similar electrical appliances".

### Easy to carry

With a total weight of just 30 kg (including cable), the NAUTILUS 8/1 is one of the lightest submersible pumps in its class. And at only approximately 20 kg, the NAUTILUS 4/1 is extremely lightweight too.

The two handles of both NAUTILUS 8/1 and NAUTILUS 4/1 are shaped facing outwards to ensure optimum ergonomics when carried.

The pumps benefit from a very narrow construction. On one hand, this makes it easy to store in a space-saving way on the fire fighting vehicle, and on the other hand, it allows for efficient operation in narrow ducts or wells.

A practical cable holder lets you store the cable directly on the pump to save space. Strain relief is included to avoid damage in the cable feed-through area.

## NAUTILUS submersible pumps

**Integrated flat suction**

The NAUTILUS pumps are ideally suited to flat suction and following pumping out at full power, a minimal water volume remains:

The flat suction is fully integrated into the pump, which makes the removal of the suction grill or the mounting of an additional device unnecessary.

NAUTILUS 8/1: approx. 8 mm down to floor level

NAUTILUS 4/1: approx. 4 mm down to floor level

**Simple operation**

The pump can be operated in vertical, horizontal, or fully immersed position. The NAUTILUS can also transport dirty water (containing sand, mud or grit) with a grain size up to 10 mm (NAUTILUS 8/1) or up to 8 mm (NAUTILUS 4/1).

**Quick attachment of working line**

An eye in the pump cover is specifically provided to attach the carabiner on the working line. This feature allows you to use the working line to securely lower or retrieve the NAUTILUS.

**Connection cable**

Cut-proof, heat and cold resistant, special PUR-cable (length: 20 m).

NAUTILUS 8/1: H07RN-F 4G1.5

NAUTILUS 4/1: H07RN-F 3G1.5

Cable holder: to store the cable directly on the pump to save space.

Cable strain relief to avoid damage in the cable feed-through area.

**Operational test sliding seal**

An inspection hatch is included to check mechanical seal function: the user of the pump can perform a functional inspection of the mechanical seal at any time.



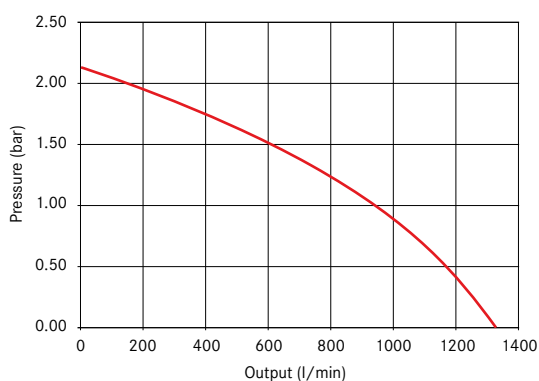
**Inspection hatch to check mechanical seal function**





543049-001

Performance data NAUTILUS 8/1



933007



268020

### NAUTILUS 8/1

Certified to DIN 14425 type 8/1 and standard sheet "submersible pumps" of the ÖBFV. The pump deliberately operates without error-prone electronics such as an automatic direction of rotation device. With direction of rotation indicator on the CEE plug / motor protection on/off switch. You can easily change the direction of rotation by using a phase changer on the plug. The output of the NAUTILUS 8/1 is 17 % higher than the minimum requirement according to DIN 14425 at 1 bar. Therefore, the NAUTILUS 8/1 sits amongst the most powerful pumps in its class.

### Performance data

Output (l/min)	1,330	1,170	935	600	120	0
Pressure (bar)	0.00	0.50	1.00	1.50	2.00	2.10

### Technical data

Power rating	400 V / 3 phase
Power consumption	4.2 kVA, cos $\phi$ 0.8
Power output	2.8 kW
Nominal current	6 A
Connecting cable	H07RN-F 4G1.5
Length:	20 m, with CEE plug 16 A and motor protection / on/off switch with direction of rotation indicator
Discharge connection	G 2 1/2" (Storz B DIN 14308)
Particle screen ( $\emptyset$ )	10 mm
Temperature pumped medium	35° C, up to max. 60° C for short periods
Dimensions ( $\emptyset$ x H)	259 x 485 mm
Weight (incl. cable)	30 kg

### 543049-001 NAUTILUS 8/1 with coupling Storz B

### RECOMMENDED ACCESSORIES TO NAUTILUS 8/1

#### 933007 PRCD-S safety switch for NAUTILUS 8/1

If you do not power the fire fighting submersible pump 400 V (NAUTILUS 8/1) by means of a standard compatible (DIN 14685) generator, but attach it to a main power supply, you should install the mobile safety switch between the consumer and the socket, just like an extension cable, to provide effective and reliable protection against electric shock. Please observe national regulations. PRCD-S 5 pin, 400 V, IP 44, in robust CEE rubber distributor with handle.

#### 933070 Floating switch

#### 268020 90° elbow

#### 970334-002 Vehicle holder



NAUTILUS submersible pumps

**NAUTILUS 4/1**

Certified to DIN 14425 type 4/1 and standard sheet "submersible pumps" of the ÖBFV.

**Performance data**

Durchfluss (l/min)	710	640	510	260	0
Druck (bar)	0	0.5	1	1.5	1.6

**Technical data**

Power rating: 230 V / 1 Phase  
 Power consumption: 2.07 kVA, cos  $\phi$  0.95  
 Power output: 1.49 kW  
 Nominal current: 6 A  
 Connecting cable: H07RN-F 3G1.5  
 Length: 20 m, with water resistant plug (IP68)  
 Discharge connection: G 2 1/2" (Storz B DIN 14308)  
 Particle screen ( $\emptyset$ ): 8 mm  
 Temperature pumped medium: 35° C, up to max. 60° C for short periods  
 Dimensions ( $\emptyset$  x H): 250 x 456 mm  
 Weight (incl. cable): 21.3 kg

- 578160-001 NAUTILUS 4/1 with coupling Storz B**
- 578160-002 NAUTILUS 4/1 with coupling BS 336 2 1/2" female**
- 578160-003 NAUTILUS 4/1 with thread BSP 2 1/2" male**

**NAUTILUS 4/1, 115 V**

According to DIN 14425 "Portable submersible pumps with electric motor" and to EN 60335-2-41 "Household and similar electrical appliances".

**Performance data**

Output (l/min)	690	600	405	265	0
Pressure (bar)	0.00	0.50	1.00	1.25	1.50

**Technical data**

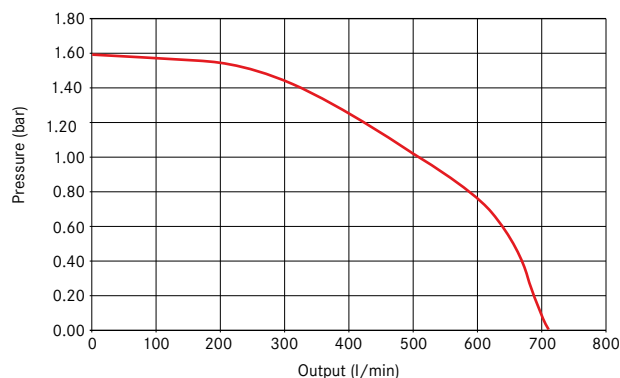
Power rating: 115 V / 1 Phase / 50 Hz  
 Power consumption: 1.65 kVA, cos  $\phi$  0.95  
 Power output: 1.18 kW  
 Nominal current: 15 A  
 Connecting cable: H07RN-F 3G2.5  
 Length: 20 m, with plug 16 A / 4h 110-130 V IP 44  
 Discharge connection: BS 336 2 1/2" female  
 Particle screen ( $\emptyset$ ): 8 mm  
 Temperature pumped medium: 35° C, up to max. 60° C for short periods  
 Dimensions ( $\emptyset$  x H): 260 x 458 mm  
 Weight (incl. cable): 23.8 kg

- 574664-001 NAUTILUS 4/1 115 V with coupling BS 336 2 1/2" female**



578160-001

Performance data NAUTILUS 4/1



574664-001



932000



932100



970334-001

#### RECOMMENDED ACCESSORIES TO NAUTILUS 4/1:

##### 932000 Submersible pump set NAUTILUS 4/1

The NAUTILUS 4/1 is also available as a practical submersible pump set.

The set consists of:

- NAUTILUS 4/1 with coupling Storz B
- Coupling spanner ABC
- Fire hose B, length: 20 m
- Discharge pipe B
- Hose buckling protection
- Hose strap
- Work rope with karabiner, length: 20 m
- PRCD-S safety switch
- 90° elbow B
- Wire basket, dimensions: 615 x 455 x 405 mm

##### 932100 Submersible pump set NAUTILUS 4/1 230 V

British standard edition.

The set consists of:

- NAUTILUS 4/1 230 V Coupling BS 2 1/2" female
- Delivery hose Synthetik Special 20 m BS couplings 2 1/2"
- Hose carrier
- Outlet tube with coupling BS 2 1/2" male
- Hose buckling protection
- Hose holder
- Working line Polyester 20 m with karabiner in bag
- Wire protection cage 615 x 455 x 410 mm

##### PRCD safety switch for NAUTILUS 4/1

For safety reasons, submersible pumps should always be operated with a safety switch (PRCD). Please observe national regulations. Mobile safety switch IP 68 in die-cast aluminium housing with 1.5 m connecting cable 3G 1.5 mm<sup>2</sup> and isolated ground plug and/or isolated ground coupling IP 68 (to match NAUTILUS 4/1). Water pressure protected. 230 V, 16 A, 30 mA, IP 68.

##### 933009 PRCD-K

For use of the pump on a standard-compliant generator (DIN 14685).

##### 933008 PRCD-S

For use of the pump with main power supply.

##### 933060 Floating switch

##### 268020 90° elbow

##### 970334-001 Vehicle holder

## WASTE WATER PUMPS

### 933076 Waste water pump ATP 20

Application area: The pump is adapted for pumping clean water, waste water and sewage water with solid material of large grain passage ( $\varnothing$  80 mm) and long fibrous suspended water without protective screen. The pump can be used in standing or lying direction.

Single channel impeller pump, made of seawater-resistant aluminium alloy in conformity with DIN EN 1706, impeller made of high quality cast iron, screws of stainless steel. A-Storz coupling on input- and output-side, well dimensioned motor dehydration, resistant mechanical shaft seals, pump and motor without oil chamber, dry-running safe, electrical cable 20 m long HO 7RN-F 4G1.5 and plug type CEE 5-polar.

Motor: 3-phase a.c. motor 400 V/50 Hz, 3~, 4.9A P1 = 2.9 kW, P2 = 2.3 kW 1,450 min<sup>-1</sup>

Flow: 2,300 l/min at 3 m, height (max.): 14 m  
Automatic rotating direction facility.

Grain passage ( $\varnothing$  80 mm, coupling Storz A)

Dimensions: L x W x H 510 x 360 x 580 mm (ATP 20 R Frame-version)

Weight: 49 kg (frame version incl. plug and 20 m cable)



933076

### 933200 Waste water pump ATP 10 RL 230 V

Application area: The pump is adapted for pumping clean water, waste water and sewage water with solid material of large grain passage ( $\varnothing$  65 mm) and long fibrous suspended mater without protective screen. The pump can be used in standing or lying direction

Single channel impeller pump, made of seawater-resistant aluminium alloy in conformity with DIN EN 1706, impeller made of high quality cast iron in conformity with DIN EN 1561, screws of stainless steel.

B-Storz coupling on input- and output-side, well dimensioned motor (shedded with artificial resin), wearout resistant mechanical shaft seals, pump and motor without oilchamber, dry-running safe, electrical cable 20 m long HO 7RN-F 4G1.5 and Schuko type plug IP 44.

Motor: 1-phase a.c. motor 230 V/50 Hz, 1~, 8.4 A, P1 = 1.3 kW, P2 = 1.8 kW 2,900 min<sup>-1</sup>.

Flow: 1,000 l/min, height (max.): 11 m.

Dimensions: H x  $\varnothing$  x W 525 x 385 x 510 mm

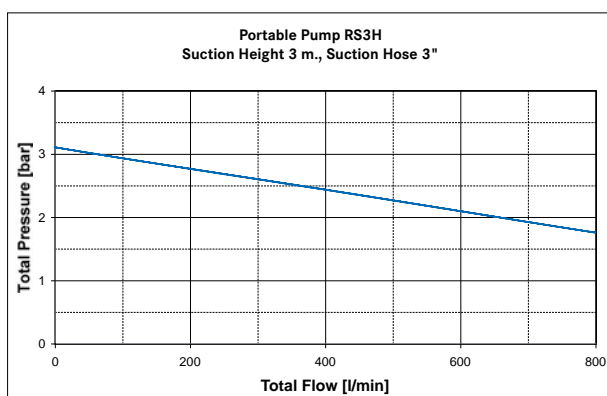
Weight: 27 kg



933200



082870-005



### Portable sewage p model RS 3 H

Driven by a single cylinder, 4-stroke air-cooled Honda petrol engine, model GX 270, output 8 HP (5.9 kW). Single stage, self-priming centrifugal pump, housing made of corrosion proof light alloy. Diffuser and impeller made of cast iron. Output: 960 l/ min at free discharge, or 600 l/ min at 2 bar, with a 3 m suction lift.

Suitable for pumping raw sewage with impurities of up to 35 mm diameter. Operational weight: 62 kg.

#### 082870-005 RS3H with BS couplings

Suction side provided with a 3" BSRT suction coupling, delivery outlet with a BS 336 2.5" female coupling.

#### 082870-002 RS3H with Storz B couplings

Suction side provided with a Storz B suction coupling, delivery outlet with a Storz B pressure coupling.

#### 082870-11 RS3H with Storz 65 couplings

Suction side provided with a Storz B suction coupling (TS 528), delivery outlet with a Storz 65 pressure coupling.

### RECOMMENDED ACCESSORIES:

#### 098451 Set of fast moving wear parts

For an operation time of 2 years. Weight: 1.06 kg

#### 651100 Petrol can

Jerry can type 20 l, with safety cap. Made of steel sheet, painted green. Empty weight: 4.2 kg

#### 651300 Filler neck

Comes with flexible hose, 300 mm long. Weight: 0.4 kg

### RECOMMENDED ACCESSORIES FOR RS3H WITH BS COUPLINGS:

#### 21137101 Suction hose

2 m long. Made of rubber, 75 mm internal diameter, steel wire reinforced. With 3" BSRT couplings made of light alloy at both ends. Weight: 8 kg

#### 260612 Special sewage type suction strainer

With enlarged inlet holes, without check valve, with 3" BSRT coupling. Weight: 2.2 kg

#### 019061-001 Coupling spanner

Suitable for 3, 4 and 5.5" BSRT couplings, made of steel. Weight: 0.57 kg

## Waste water pumps, multi purpose pumps

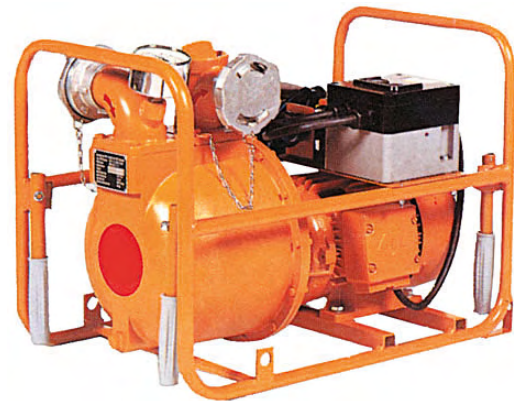
**RECOMMENDED ACCESSORIES FOR RS3H WITH STORZ COUPLINGS:**

- 21115001 Suction hoses**  
2 m long. Made of rubber, 75 mm internal diameter, steel wire reinforced. With 3" Storz B couplings made of light alloy at both ends.  
Weight: 6.8 kg
- 260610 Special sewage type suction strainer**  
With enlarged inlet holes, without check valve, with 3" Storz B coupling.  
Weight: 1.1 kg
- 275505 Coupling spanners**  
Suitable for Storz A, Storz B, Storz C and Storz 65 couplings, made of light alloy.  
Weight: 0.7 kg

**MULTI PURPOSE PUMPS**

The TUP portable multi-purpose pumps are self priming and designed for decanting petroleum products and other non-aggressive fluids. They can be used in hazardous areas (Zone 1) for pumping combustible liquids of explosion category 1 and 2 ignition category G1 and G3 (special versions available for up to G5) with a viscosity of up to 1.5 m<sup>3</sup>/s (approx. 30 degrees Engler).

- 912500 Multi purpose sludge pump TUP 2-1**  
Output at 1.5 m suction lift: 400 l/min at free discharge (decanted media: water). Pump inlet and outlet: Storz-C. Driven by a 3-phase 50 Hz, 400 V electric motor 1.85 kW.  
Weight: 36 kg
- 912600 Multi purpose sludge pump TUP 3-1,5B**  
Output at 1.5 m suction lift: 830 l/min at free discharge (decanted media: water). Pump inlet and outlet: Storz-B. Driven by a 3-phase 50 Hz, 400 V electric motor 2.5 kW. Complete with explosion proof motor switch, cable and explosion proof plug EEx de II C TG.  
Weight: 52 kg

**912500****912600**





**POWER GENERATORS  
ELECTRICAL EQUIPMENT**

**7**



## POWER GENERATOR RS 14

The power generators RS 14 and RS 14 SUPER SILENT set new standards with regard to functionality, performance and above all safety standards.

Specification: ÖBFV-RL ET 01, according to DIN 14685-1

### Increased safety:

- Low-mounted tank
- Ergonomically positioned, large filling opening (separated, low risk during filling and refilling)
- Safety tank lock
- Protected tank in a high-strength aluminium frame
- Greatly reduced thermal impact
- Optical and acoustical warnings

The RS 14 and RS 14 SUPER SILENT generators are fitted with a 3-way fuel tap as a standard equipment. This allows for continuous operation with fuel cans - another contribution towards improving safety and functionality during operations. (The fuel-filling attachment and cans are not included in the scope of delivery.)

### Electronic speed reduction (optional):

The electronic speed reduction ensures quieter idle running. If consumers are switched off, the power generator runs quietly at approximately half speed. If equipment is switched on, the motor automatically switches to the rated speed and full capacity is immediately available. This means less noise, lower fuel consumption and a cut in exhaust gas emissions.



**Innovative, multi functional operating surface**

- Optical and acoustical warning and safety indicators, e.g. engine temperature, fuel temperature, etc.
- Operational hour counter with integrated error code display
- Power display and phase load indicator of every individual phase
- Phase and voltage control of every individual phase
- Tank gauge with reserve indicator
- Earth conductor testing device
- Main switch
- Start button
- Low noise speed reduction (optional)
- Emergency switch off

**Quality, safety und functionality in every detail**

- Reliable engine (Briggs & Stratton, Vanguard, Cooler Cleaner) with stainless steel exhaust for low-noise, life-long operation
- Extremely powerful synchronous generator
- High performance materials
- Powerful and service-friendly battery
- Easily accessible circuit-breakers
- Tried and trusted manual start device: this means that you can start the generator in an emergency without a battery, or if the battery is defective
- Ergonomic, heat and cold insulated carrying handles

All RS 14 and RS 14 SUPER SILENT generators have an interface for keeping the generator battery charged as standard equipment. Of course, a CAN BUS connection is supported for vehicles with a CAN BUS. This means that you can remotely monitor, start and stop the generator at any time. Remote monitoring and remote start/stop is offered as an option.

**POWER GENERATOR RS 14 SUPER SILENT**

Innovative technology ensures an extremely low noise emission level – especially with the optional speed reducer – and without impacting its performance, functionality or safety:

- Noise emission optimised exhaust system
- New air intake system developed from scratch
- LED illumination of the sockets and tank filling area provides additional safety in operating the generator
- Premium quality finish coupled with technological excellence
- Complete fibreglass reinforced plastic encapsulation of the RS 14 SUPER SILENT is one of the details that guarantees an extremely low operating noise level

**576903-001 Power generator RS 14**

Colour: red / anthracite

**576903-002 Power generator RS 14**

Colour: yellow / anthracite

**571579-001 Power generator RS 14 SUPER SILENT**

Colour: red / anthracite

**571579-002 Power generator RS 14 SUPER SILENT**

Colour: yellow / anthracite



576903-001



571579-002



## EASY TO OPERATE IN EVERY SITUATION

- **Innovative**
- **Multifunctional**
- **Clear**

### **Innovative, multifunctional operating surface**

- Optical and acoustical warning and safety indicators, e.g. engine temperature, fuel temperature, etc.
- Operational hour counter with integrated error code display
- Power display and phase load indicator of every individual phase
- Phase and voltage control of every individual phase
- Tank gauge with reserve indicator
- Earth conductor testing device
- Main switch
- Start button
- Low noise speed reduction (optional)
- Emergency switch off

## Power generators

	RS 14	RS 14 SUPER SILENT
<b>General information</b>		
Application	For fire brigades or users requiring high grade protection	
Specification	ÖBFV-RL ET-01, DIN 14685-1	
<b>Unit</b>		
Dimensions	820 x 440 x 580 mm (DIN - 8- frame)	
Weight	150 kg (including tank filling for 1.5 h of operation)	156 kg (including tank filling for 1.5 h of operation)
Output	Pel, 3~ = 13.6 kVA / $\cos \varphi = 0.8$ / 10.88 kW Pel, 1~ = 4.5 kVA / $\cos \varphi = 0.8$ / 3.6 kW $\sum$ Pel, 1~ = 3 x 4.5 kVA = 13.6 kVA	
Rated current	19.7 A 3~ / 29.6 A 1~	
Circuit breaker	16 A 3~ / 16 A 1~	
Noise Level $L_{WA}$	92 dB(A) (speed reduction on)	88 dB(A) (speed reduction on)
Acoustic pressure (10 m, idle)	62 dB(A) (speed reduction on)	58 dB(A) (speed reduction on)
Protection class	IP 54	
Tank capacity	12.5 l	
Operational period at full load	Approx. 2 h	
Colour	RAL 3000 (red) or RAL 1012 (yellow)	
External power supply	12 V socket for connection to a vehicle	
<b>Generator</b>		
Type	Synchronous generator with electronic controller	
Voltage	230 / 400 V	
Voltage constancy	+/- 5 %	
Frequency	50 Hz	
Power factor	$\cos \varphi = 0.8$	
Rated current	20.3 A 3~ / 30.4 A 1~	
<b>Engine</b>		
Manufacturer	Briggs & Stratton Corporation USA	
Model	22 PS Vanguard	
Type	2-cylinder OHV 4-stroke petrol engine, cool cleaner	
Type of control	+/- 5 %	
Ignition	Electronic	
Fuel	Lead-free, min. 91 ROZ petrol	
Exhaust gases	Fulfils the 2002/88 EC exhaust gas standard	
Consumption	Approx. 6 l/h at full load	
Features	Recoil starter, 12 V electro starter, with battery (available as an option), oil pressure warning (does not stop the engine)	
<b>Control box</b>		
Features	2 x Watertight sockets 400 V	
	3 x Watertight sockets 230 V	
	1 x Circuit breaker 16 A 3-pole with neutral wire and monitoring	
	3 x Circuit breakers 16 A 1-pole with neutral wire and monitoring	
	1 x CAN BUS-socket FIRECAN 7-pole (battery charging and remote monitoring)	
<b>Accessories</b>		
Tool kit	2 Spark plugs, 1 spark plug spanner, 1 screw driver, 1 test lead with test probes	
User information	With CE conformity declaration, spare part list and circuit plan	



**Heat and cold insulated handles**



**848355-001**

**847640-001**

## PERFECT HANDLING SYSTEM

The handles of the RS 14 and RS 14 SUPER SILENT are perfectly coordinated to make carrying very easy. Ergonomic design and heat and cold insulated handles guarantee optimal carrying properties. The handles can be retracted again in a space saving way when they are not needed anymore. With this well developed system the RS 14 and RS 14 SUPER SILENT can be carried with only two persons – however, four persons should help ideally.

## INTEGRATED SOLUTIONS

The communication between vehicle and components is state of the art in a modern fire truck.

As a vehicle manufacturer, Rosenbauer power generators are developed for optimal integration into the vehicle concept. For controlling and monitoring of the power generator the optional remote monitoring is needed.

### OPTIONS FOR RS 14 and RS 14 SUPER SILENT

#### 848355-001 Remote monitoring FIRECAN

For controlling and monitoring the generator from a central control panel on the fire truck. The generator is connected via the standardised FIRECAN interface and includes an automatic choke. Communication between generator and vehicle functions via CAN BUS. The FIRECAN compatibility ensures operation with various vehicle manufacturers. Functions: remote start/stop (incl. automatic choke), warnings (oil pressure, temperatures, ...), load and fuel indicator and failure code indication.

**847640-001 Remote monitoring**

For controlling and monitoring the generator from a central control panel on the fire truck. The generator is connected via Rosenbauer interface and includes an automatic choke. The generator is driven by individual analog electrical signals.

Functions: remote start/stop (incl. automatic choke), warnings (oil pressure, temperatures, ...), load and fuel indicator and failure code indicator.

**538350-001 Automatic speed reduction**

Provides for quieter operation at no load. Without load the generator runs quietly at lower speed. When consumers are switched on or plugged in, the motor runs automatically at the rated speed and full power is supplied immediately. This means less noise, less fuel consumption and therefore longer duration.

**541952-001 Pole changing switch for one socket, 400 V CEE**

Pole changing for one CEE-socket, 400 V, 16 A, 3-ph.

**Insulation monitoring**

Optical and acoustical warning on the display, the power outlets are still powered. To monitor all consumers for insulation faults and dangerous currents and contact currents. Measures the resistance between earth, neutral and phase of the attached consumer. (Requirement of DIN 14685-1 and IEC 60364-7-717 in power generators in vehicles within the EU.)

**541953-001 Insulation monitoring type 1**

No engine stop, the acoustic warning can be switched off.

**541954-001 Insulation monitoring type 2**

If there is an insulation failure, the engine stops immediately.

**541953-002 Insulation monitoring type 3**

No engine stop, the acoustic warning can be switched off. Additional button for testing the acoustic warning device.

**538346-001 Automatic choke**

Provides increased comfort. (In RS 14 SUPER SILENT included as standard)

**842312-001 Battery temperature monitoring**

For optimised battery charging, some chargers require transfer of the battery temperature to the vehicle. This is transmitted via the built-in FIRECAN interface. For non-Rosenbauer vehicles this option is mandatory.

**847972-001 Socket CITY, 400V CEE**

Additional 3rd AC socket, placed on the front side.



**Easily accessible battery**



**All operating elements at the front side**



**3-way fuel tap**



**541952-001 Pole changing switch**



84059101

## POWER GENERATOR RS 9 9 KVA WITH DIN-5-FRAME

Specially designed for fire fighting operations, adapted for your requirements. RS 9 combines maximum performance within smallest dimensions. Experience shows that the most important features are a long operating time and simple handling of all operating components. Rosenbauer power generators meet this requirements perfectly.

**840591**     **Power generator 9 kVA**  
Colour: red

**84059101**   **Power generator 9 kVA**  
Colour: yellow

All models are equipped with a maintenance-free, short-circuit-proof synchronous generator, 3-way fuel tap and an electric starter. Scope of delivery:

- 1 Tool kit (with: 1 spark plug spanner, 1 test cable with testing tips, 2 spark plugs)
- 1 User information with circuit plan, spare part list and CE conformity declaration

### Perfect equipment for simply handling

- Electric starter with rotary switch
- Front control panel - all operating elements at the front side -perfect for vehicle mounted units
- Emergency stop button - stops the engine when pushing the button for your safety
- Ergonomic, cold- and heat insulating handles
- Constant voltage - at 400 V and at 230 V only +/- 1% accuracy
- Control lamp for phase control
- Sound-reduced exhaust

## OPTIONS FOR RS 9

- 840612 Pole changing switch for one socket, 400 V CEE**  
Pole changing for one CEE-socket, 400 V, 16 A, 3-ph.
- 840613 Insulation monitoring**  
Optical and acoustical "warning" on the display, the power outlets are still powered. To monitor all consumers for insulation faults and dangerous currents and contact currents. Measures the resistance between earth, neutral and phase of the attached consumer. Requirement of DIN 14685-1 and IEC 60364-7-717 in power generators in vehicles within the EU.
- 840614 Nato plug**  
Remote start over Nato plug (2- pole), Nato standard
- 840615 Remote start/stop (incl. automatic choke)**  
For controlling the generator from a central control panel on Rosenbauer vehicles.
- 84061501 Remote monitoring (incl. automatic choke)**  
For controlling and monitoring the generator from a central control panel on Rosenbauer vehicles. The generator is connected via Rosenbauer interface and includes an automatic choke. The generator is driven by individual analog electrical signals. Functions: remote start/stop (incl. automatic choke), warnings (oil pressure, temperatures,...), load and fuel indicator and failure code indication.



840591



840612



840615/84061501



840614



840613



## DOUBLE VENTED TANK FOR MORE SAFETY

Rosenbauer power generators are equipped with double vented tanks as standard which ensures that the content of the tank does not come under pressure. This increases safety during the whole refilling process.

## EASY HANDLING OF ALL OPERATING ELEMENTS FOR MORE SAFETY

- Indication for voltage and load
- Acoustical insulation warning, can be switched off
- Additional button for testing the acoustic warning device
- Error lamp insulation failure
- Fuse failure indication lamp
- Pole changing switch (as an option)
- Operational hour counter
- Emergency switch off
- Earth conductor testing device





		<b>RS 9</b> <b>840591</b> <b>84059101</b>
Order no. red (RAL 3000)		
Order no. yellow (RAL 1012)		
<b>General Information</b>		
Application	For fire brigades or users requiring high grade protection	
Specification	According to DIN 14685-1	
<b>Unit</b>		
Dimensions (LxWxH)	700 x 440 x 580 mm (DIN-5-frame)	
Weight	130 kg incl. tank content	
Output	Pel, 3~ = 9 kVA / $\cos \varphi = 0.8$ / 7 kW $\sum$ Pel, 1~ = 5 kVA	
Noise level $L_{WA}$	95.3 dB(A)	
Protection class	IP 44	
Tank capacity	10.5 litres	
Operational period at full load	Approx. 1.5 h	
Colour	RAL 3000 (red) or RAL 1012 (yellow)	
<b>Generator</b>		
Type	Synchronous generator with electronic controller	
Voltage	3 x 230 V / 2 x 400 V	
Voltage constancy	$\pm 1$ %	
Frequency	50 Hz	
Power factor	$\cos \varphi = 0.8$	
Rated current	11.6 A 3~	
Protection class	IP 54	
<b>Engine</b>		
Manufacturer	Briggs & Stratton Corporation USA	
Model	16 PS Vanguard	
Type	2-cylinder OHV 4-stroke petrol engine	
Output	10.6 kW at 3,000 rpm/min (DIN 6271 B)	
Type of control	$\pm 5$ %	
Ignition	Electronic	
Fuel	Unleaded, min. ROZ 91 petrol	
Exhaust gases	Fulfils the CARB 94 USA exhaust gas standard	
Consumption	Approx. 4.2 l/h	
Features	Recoil starter, 12 V electric starter	
<b>Control box</b>		
Features	2 Watertight, CEE 16 A, 400 V sockets	
	3 Watertight, CEE 16 A, 230 V sockets	
	1 x Automatic circuit breaker 16 A, 3-pole with neutral wire	
	3 x Automatic circuit breakers 16 A, 1-pole with neutral wire	
	1 Voltmeter 0-400 V	
	1 Load gauge with max. value marking	
	1 Operational hour meter	
	1 Protective conductor test device	
	1 Emergency switch-off	
	1 Phase control lamp	
	1 Start-/stop button	
<b>Accessories</b>		
Tool kit	1 Spark plug spanner, 1 test cable with testing tips, 2 spark plugs	
User information	With circuit plan, spare part list and CE conformity declaration	



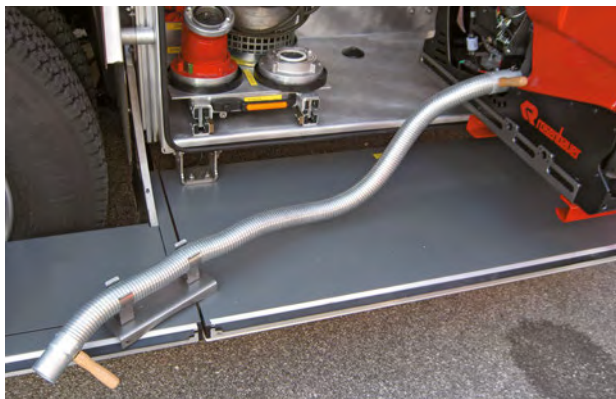
567978-001



847521-001



651300



654400 / 544561-001



315890



319500

## ACCESSORIES FOR POWER GENERATORS

### 842545-001 Exhaust deflector for power generator RS 14

To lead hot exhaust gases upwards when the generator is mounted on aerials.

### 847521-001 Exhaust deflector for gases generator RS 9

To lead hot exhaust gases upwards when the generator is mounted on aerials.

### 570030-001 Exhaust adaptor

For the lateral redirection (45 °) of the exhaust gases.

### 567978-001 Jerry can operation hose

1.5 m suction hose with instantaneous coupling for jerry can operations. Allows for continuous operations.

### 651103 Petrol can 20 l

### 651300 Filler neck for petrol can

Comes with flexible hose, 300 mm long for fuel can.

### 654400 Exhaust hose as per DIN 14572

Total length 1.5 m, 50 mm diameter. With insulating type wooden handles. Can be connected to the exhaust pipe of generators or pump engines.

### 544561-001 Distance control for exhaust hose

Keeps the hot exhaust hose away from the ground or from flammable surfaces.

### 315890 Mobile connection box

2 x 400 V, IP 44, with 3 m cable HO7RN-F 5G1 5 mm<sup>2</sup>. Input connector 16 A, 5p, 400 V. Lamps 2 CEE sockets 16 A, 400 V.

### 538272 Starter battery

Maintenance free for all Rosenbauer power generators.

## FURTHER POWER GENERATORS

### 319500 HONDA Super Silent generator EU20i

Max. power (230 V): 2.0 kVA

Permanent power (230 V): 1.6 kVA

Voltage control: Inverter

Current (Overload): 8.7 A

Protection: IP 23

DC outlet: 12 V / 8 A charge rate

Sockets: 2 x Schuko

Specials: Eco control, parallel using possible

Motor type: 4-stroke GX 100

Max. motor power: 2.1 kW / 2.8 PS

Tank capacity: 3.6 l

Operating time: 4 - 10 h with eco control

Sound power level: LWA 81 - 90 db (A)

Dimensions (LxWxH): 512 x 290 x 425 mm

Comes with oil pressure warning, overload display

Weight: 21 kg

<b>319501</b>	<b>HONDA Super Silent generator EU30I</b>
Max. power (230 V):	3.0 kVA
Permanent power (230 V):	2.6 kVA
Voltage control:	Inverter
Current (Overload):	13 A
Protection:	IP 23
DC outlet:	12 V / 8.3 A charge rate
Sockets:	2 x Schuko
Specials:	Eco control, parallel using possible
Motor type:	4-stroke GX 100
Nominal power:	2.1 kW / 2.8 HP
Tank capacity:	5.8 l
Operating time at full load:	3.5 h
Sound power level LWA:	91 db (A)
Dimensions (LxWxH):	622 x 379 x 489 mm
	Comes with oil pressure warning, overload display
	Weight: 35 kg



319501

### 843698 Flood light system Giraffe

Heavy duty trailer with generator and light mast. Additionally to the lighting function, the generating set can be used for the supply of electric machines, pumps, tools, etc. Connected to the sockets at the control panel.

- Floodlights: 4 single, with halogen quartz lamps, 1,500 W (123,000 lm) each.
- Telescopic mast: five parted, extendible up to 9 metres above ground level.
- Generator: Marelli model M8B 160 SA4, 3-phase AC generator, 2-bearing version, brushless, voltage exactitude  $\pm 2.5\%$ , in accordance with VDE standards.
- Continuous output: 17 kVA / 9.6 kW at Cos phi 0.8 at an engine speed of 1,500 RPM.
- Protection class: IP 23 coarse dust protected and splash water protected, suitable for tropical zones. Isolation class "H".
- Protection hood: Both the engine and the generator are protected by a hood, protection class IP 44.
- Diesel engine: three cylinder, 4-stroke air-cooled Deutz diesel engine model F3L1011F, 16 kW at 1,500 RPM. Electric starter 12 Volt and battery. Clutch between diesel engine and generator for direct power transmission. Diesel tank suitable for 24 hours continuous operation. Single axle trailer, suitable for highway operation, for max. speed of up to 80 km/h. Torsion bar suspension axle, adjustable draw bar with DIN-eye 40 mm, jockey wheel, 4 adjustable stabilising jacks, parking brake and over-running type brake, electrical traffic signal lights and 15 pole trailer socket. Mudguards, painted glossy white as per RAL 9001. Trailer and hood painted fire engine red as per RAL 3000. Total length including draw bar: 3.90 m

#### Technical data:

Total luminous flux:	132,000 lm
Power consumption:	6 kW
Voltage:	400 / 230 V - 50 Hz
Total width:	2 m
Total transport height:	2.7 m
Total weight:	1,750 kg





319450

**319450 MASE power generator FM 5.4 H**

Compact power generator with recoil starter, overload circuit breaker, earth leakage circuit breaker with ground spike and voltmeter.

AC output- 230 V max.:	3,500 W
AC output- 230 V cont.:	3,000 W
AC output - 400 V max.:	5,000 VA
AC output- 400 V cont.:	4,100 VA
Noise level:	99 LWA
Full tank capacity:	6 l
Running time (at 3/4 load):	3 h
Engine:	Honda petrol GX 270, 270 ccm, 8.2 PS recoil starter
Sockets 230 V:	2
Sockets 400 V:	1
Dimensions (LxBxH):	725 x 515 x 585 mm
Weight:	86 kg



319455

**319455 MASE power generator FM 7.5 H**

Compact power generator with recoil starter, overload circuit breaker, earth leakage circuit breaker with ground spike and voltmeter.

AC output- 230 V max.:	4,600 W
AC output- 230 V cont.:	3,300 W
AC output - 400 V max.:	7,000 VA
AC output- 400 V cont.:	6,500 VA
Noise level:	100 LWA
Full tank capacity:	6.5 l
Running time (at 3/4 load):	2.5 h
Engine:	Honda petrol GX 390, 389 ccm, 11.5 PS recoil starter
Sockets 230 V:	2
Sockets 400 V:	1
Dimensions (LxBxH):	725 x 515 x 585 mm
Weight:	92 kg



319460

**319460 MASE power generator PD 7.4 Y Diesel**

Compact power generator with electric starter and battery, overload circuit breaker, earth leakage circuit breaker, voltmeter, operation hour counter, and engine start/stop switch.

AC output- 230 V max.:	3,500 W
AC output- 230 V cont.:	3,000 W
AC output - 400 V max.:	6,000 VA
AC output- 400 V cont.:	6,000 VA
Noise level:	106 WA
Full tank capacity:	5.5 l
Running time (at 3/4 load):	3 h
Engine:	Yanmar Diesel L 100 E, 406 cm, 8.8 PS, electric starter
Protection class:	IP 23
Sockets 230 V:	1
Sockets 400 V:	1
Dimensions (LxBxH):	820 x 580 x 610 mm
Weight:	110 kg

**RECOMMENDED ACCESSORIES:****319470 Electric starter**

For MASE power generator FM 5.4 H and FM 7.5 H

**319475 Starter battery**

For MASE power generator FM 5.4 H, FM 7.5 H and PD 7.4 Y

## ATEX ATMOSPHERES EXPLOSIBLES

### 94/9/EC Directive

Harmonises legal provisions of EU member states for devices and protection systems for designated use in potentially explosive areas.

### ATEX 95

### 99/92/EC Directive

Minimum requirements for improving the health and safety protection of the worker at risk from explosive atmospheres.

### ATEX 137

Designation examples:

Use in gaseous atmospheres: II 1 G EEx ia IIC T4

Use in dusty atmospheres: II 2 D T90;C IP64

Use for mining applications: I M2 EEx ia I

#### Maximum surface temperature

(Data only for devices used in areas rendered potentially explosive by dust also possible through temperature classes)

¥ Max. temperature of a surface that dust can penetrate in the event of device failure

#### Evaluation by the user:

- a.) Limit temperature 1=2/3 of minimum ignition temperature of dust present
- b.) Limit temperature 2=minimum glow temperature of dust present minus 75k (applies for layer thicknesses of up to 5mm)

The smaller value for the limit temperature must be above the indicated maximum surface temperature of the device.

#### IP Code

(Data only for devices used in areas rendered potentially explosive by dust)

#### Figure 1 Contact and foreign body protection

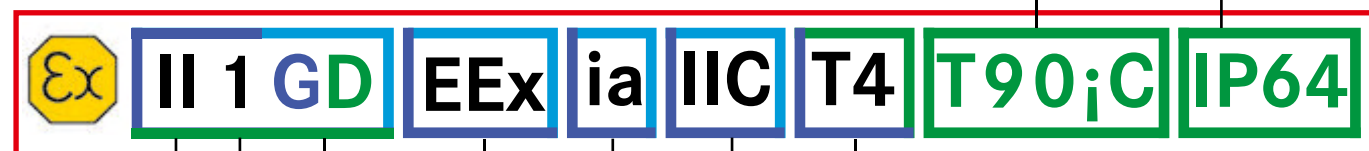
Protection against:

- 5 = dust deposits
- 6 = dust penetration

#### Figure 2 Water protection

Protection against:

- 0 = no protection
- 1 = vertically falling drip water
- 2 = drip water on operating device inclined to 15 °
- 3 = spray water
- 4 = spray water
- 5 = jet water
- 6 = strong jet water
- 7 = temporary immersion
- 8 = continuous immersion



**Device group**  
**I** = Mining  
**II** = all other areas

**Category**  
 1 = can be used in Zones 0 or 20  
 2 = can be used in Zones 1 or 21  
 3 = can be used in Zones 2 or 22  
**M1** = Mining (comparable with Zones 0 and 1)  
**M2** = Mining (comparable with Zones 2)

**Atmosphere**  
**G** = Gas  
**D** = Dust  
 (Mining – no details)

conforms to European Ex-Standards

**Types of ignition protection:**

- o = Oil immersion
- p = Pressurisation
- q = Powder filling
- d = Pressure-proof housing
- e = Increased safety
- ia = Intrinsic safety (required for Zone 0)
- ib = Intrinsic safety (adequate for Zone 1 (+2))
- m = Encapsulation
- s = Special protection
- n = Normal operation under normal conditions (for Zone 2 only)
- nA = non-sparking
- nC = protected contacts
- nR = vapour-proof housing
- nL = limited energy
- nP = simplified pressurisation

**Temperature classes:**  
 (Max. temperature of a surface that gas / dust can penetrate in the event of device failure)

- T1 = 450°C**
- T2 = 300°C**
- T3 = 200°C**
- T4 = 135°C**
- T5 = 100°C**
- T6 = 85°C**

**Explosion group**  
 (Data only for devices used in areas rendered potentially explosive by gas)

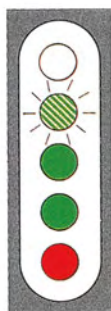
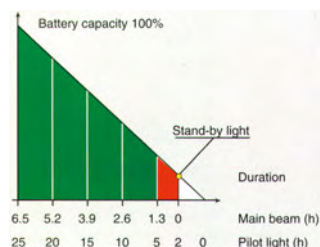
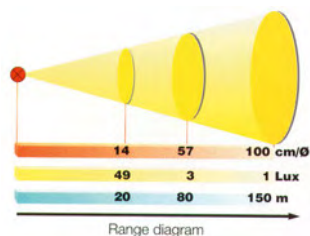
- I** = Methane (mining)
- IIA** e.g. Propane
- IIB** e.g. Ethylene
- IIC** most dangerous group, e.g. Hydrogen



302930



302927



Battery charging state with a glimpse

## SEARCHLIGHTS AND TORCHES

### 302930 Electronic explosion proof searchlight CEAG SEB 9 L

Certified as to DIN 14642 and BVS 09 ATEX E 005 / Ex II 2 G Ex e ib IIC T4 / Ex II 2 D Ex tD A21 IP66 T 85° C, for zones 1 and 2. It is fitted with a set of NiMH sealed rechargeable batteries, which are leak-proof. Capacity: 9.5 A/h (4.8 Volt). Comes with a 5 Watt halogen head lamp, and a 0.3 Watt secondary lamp. Working time of head lamp: 7 hours.

The searchlight is provided with an emergency flashing device. A battery charger for 230 Volt 1-phase current 50/60 Hz with 0.5 m cable is incorporated. The searchlight comes complete with a set of filters (clear diffuser, red and orange).

Dimensions (LxWxH): 119 x 146.5 x 325 mm.

Weight: 2.5 kg

### RECOMMENDED ACCESSORIES:

#### 302931 Spare NiMH battery

Rechargeable, 4.8 V / 9.5 Ah. Weight: 1 kg

#### 302961 Spare halogen bulb

5.5 V / 5.5 W. Weight: 0.02 kg

#### 302962 Spare economy bulb

4.8 V / 1.5 W. Weight: 0.01 kg

#### 302922 Orange warning light cap

Radial type. Weight: 0.1 kg

#### 302925 Mounting bracket for 230 V charging

To ensure proper mounting of the searchlight on the wall in a fire station. Weight: 0.2 kg

#### 302927 Mounting bracket for 12/24 V charging

To ensure proper mounting of the searchlight in a fire truck. Weight: 0.2 kg

### 306202 Working and emergency torch ACCULUX EX SLE 16 LED with charger for 12/24 V and 230 V

Certified according to ATEX, EX II 2 G Ex ib II C T4 Gb, EX II 2D Ex ib III C T 135°C Db.

Working and emergency torch for use in potentially explosive gas or dust areas, zones 1, 2, 21 and 22. Powerful beam-focus with a long distance range. The built-in lead gel battery does not show a memory effect and is protected against total discharge by the intelligent charger circuit. The 110° swivelling lamp head and the turning lamp handle allow most flexible use of the lamp. The handlight may be continuously on, blink or be operated with the pilot lamp; it can also be used as a warning light.

- 4 Stage charge level indicator
- Microprocessor-controlled
- Maintenance-free lead gel battery (is replaceable by the customer)

#### Technical Data:

Casing material:	polyamide, impact resistant
Enclosure type of lamp:	IP 64
Bulb, main lamp:	Power LED
Lighting time, main lamp:	approx. 5 h
Beam range:	approx. 170 m

## Searchlights and torches

Pilot lamp:	Nichia LED 5 mm
Operating time, pilot lamp:	approx. 85 h
Rechargeable battery:	lead gel battery, 4 V / 3.5 Ah, maintenance-free
Charging time:	approx. 15 h
Charging voltage:	230 V AC 50 / 60 Hz, 12 / 24 V DC
Dimensions in mm (Set):	104 x 245 x 120
Weight:	1.1 kg

**302976 Electronic hand searchlight HE 9 BASIC**

This searchlight is explosion proof as per ATEX II 2 G, Ex eib II C T4 Gb. It is fitted with a sealed Li-ION rechargeable battery, which is fully leak-proof. Capacity: 4.8 Ah (3.75 Volt). Comes with a 0.82 A halogen light bulb. Working time of the searchlight: approx. 5 hours. Light beam 71 mm diameter. Charging system for 230 Volt 1-phase AC current, complete with cables. Luminous flux: 52 Lumen. Protection class: IP 65. Weight: 0.75 kg

**RECOMMENDED ACCESSORY:****302973 Spare halogen bulb 3.6 V / 0.82 A**

Weight: 0.04 kg

**306391 Adalit L-3000 LED**

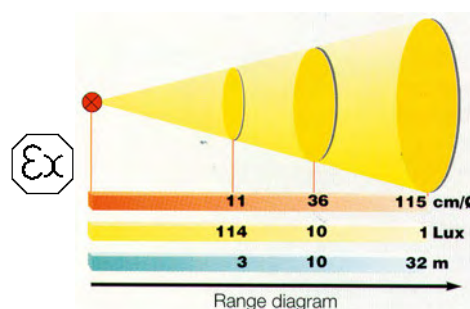
Professional rechargeable torch, explosion proof. High intensity LED's. Rechargeable ultra light Li-ion battery. Indication of the remaining time of light duration. Low level battery warning. ATEX explosion proofed zone 0 (category G1 and D1) for all explosion areas. Swivelling head at 3 positions for hands free or hands held as a conventional torch. Made of thermoplastic resin of high resistance to shocks, extreme temperatures, liquids and corrosive substances. Safety certification for use in potentially explosive atmospheres zones 1 and 2

**Technical Data:**

- Light duration: 4 h with 100 % power, 8 h with low power
- Battery level indication: Real hours/minutes by means of a display
- Low battery warning: Flashes at the end of the discharge, 15 minutes before disconnection
- Operating hours and charging status indication: Real hours on charge

The battery is protected against deep discharge by electronic cut. The chargers are available for single or three torches 220/240 V (order no.: 306410/306411) and 12/24 V (order no.: 306420/30642001/306421).

Light sources:	High power intensity LED's
Luminous flux:	200 Lumen
Battery:	Li-Ion 3.6 V
Dimensions (L x D):	195 x 70 mm
Weight:	0.5 kg

**306202****302976****306391**



306391



307859



30785401

#### RECOMMENDED ACCESSORIES:

- 306410**    **Charger for 1 searchlight 220 / 240 V**  
Weight: 0.3 kg
- 306411**    **Charger for 3 searchlights 220 / 240 V**  
Weight: 1 kg
- 30642001**    **Charger for 1 searchlight 12 / 24 V**  
Weight: 0.3 kg
- 306421**    **Charger for 3 searchlights 12 / 24 V**  
Weight: 1 kg
- 306430**    **Signalling cone red**  
Weight: 0.12 kg
- 306440**    **Shoulder strap holster**  
Optimal shoulder strap holster fixing for the Adalit 2000 hand searchlight on shoulder strap for breathing apparatus.  
Weight: 0.09 kg

#### 307859    **LED-explosion-proof-torch model T5**

The unique LED lasts for thousands of hours and will not break when dropped. A special lens system assures maximum light efficiency.

##### Features:

- Thermal Recovery System transfers heat from LED to warm batteries for better cold weather performance
- Proprietary Compound Path Optics (CPO) permits high efficiency and compact size
- Push-button tail switch switches light between ON/OFF with continuous or momentary action
- Waterproof design for all weather use IP 68
- Beam produces a bright spot with almost no peripheral light so nearby personnel are not affected
- Powered by 3AA / LR6 Alkaline cells
- Certified with Rosenbauer HEROS-xtreme and HEROS-smart helmets
- Can be mounted to any helmet or hard hat using Rosenbauer helmet clips or similar
- High impact PC/ABS/graphite, LEXAN® and polyurethane rubber construction for durability

##### Technical Data:

Dimensions:	135 x 41 x 36 mm
Colour:	graphite black
Burn time:	> 8 hours
Batteries:	3 Alkaline AA/LR6
Luminous flux:	110 Lumen
Lamp:	white LED
ATEX standards:	Zone 2 Certifications for Zone 1 include Zone 2 Zone 1 SEV 09 ATEX 0154 II 2G Ex e ib IIC T6 II 2D Ex ibD 21 T61 °C
Weight:	0.15 kg (batteries included)



## Searchlights and torches

**RECOMMENDED ACCESSORIES:**

- 30785401 Multipurpose safety wand**  
Attaches to the bezel. Perfect for signalling purposes.  
Length: 19 cm. Weight: 0.02 kg
- 308720 Battery alkaline R6**  
1.5 V. Weight: 0.03 kg
- 1566202 Torch-holding device**  
Comes complete with a high temperature resistant hook-and-pile pad for easy mounting onto a fire helmet. The set includes 2 hook-and-pile straps for holding the searchlight in the right position. Weight: 0.03 kg

**307854002 Explosion-proof-torch T4 model MINI UK 4AA-EEN 1**

Like order no. 307859, but: Xenon light comes without adjustable beam.

- Zone 1: SNCH 01 ATEX 3296 II 2G EEx ia e IIB T4
- Zone 2: SNCH 01 ATEX 3297 II 3G EEx nL IIC T5

**Technical data:**

Power:	2.0 W
Burn time:	4-5 hours
Batteries:	4 Alkaline R6/Mignon 1.5 V
Lamp:	Xenon
Colour:	yellow
Dimensions (LxWxD):	155 x 37 x 28 mm
Weight:	0.15 kg

**RECOMMENDED ACCESSORY:**

- 30785402 Spare Xenon torch module**  
Lamp permanently mounted in reflector 2.1 Watt.  
Weight: 0.01 kg

**30784701 Rechargeable torch model MAG-LITE**

Including 230 Volt battery charger and connection to cigarette lighter 12 V. Brilliant light by low energy consumption. Water proof, at least 1,000 chargings and rustproof.

Colour: black  
Weight: 0.86 kg

**RECOMMENDED ACCESSORIES:**

- 307847001 Belt holder GRIP N CLIP.**  
Weight. 0.1 kg
- 307848 Mounting bracket**  
For trucks, cars and vans.  
Weight: 0.07 kg
- 307849001 Traffic wand**  
Colour: red. Weight: 0.05 kg
- 307850 Spare bulb for MAG-LITE.**  
Weight: 0.01 kg



1566202



307854002



30784701



307847001



307848



307849001



306815

**306815 Flashlight LED lenser M17R, 230 V rechargeable**

LED:	Xtreme Power LED
Luminous flux:	850 lm
Battery:	Safety ytrion cell
Energy tank:	25.6 Wh
Burning life:	5 h (down to 85 lumen), 36 h (low power)
Beam distance:	450 m
Lense/lense system:	Advanced focus system
Smart light technology:	SLT Pro (8 light-functions)
Material:	Aluminium / stainless steel
Length:	300 mm
Weight:	0.740 kg

**LED signal torch**

Powerfull and compact LED signal torch with on/off Button

Selection button for:

- Flare light
- Spotlight
- Full light (both LED's together)
- Blinking light red
- Continuous light red
- Continuous light green

With dim function for all functions, morse lamp, display for charging and empty battery, retaining clamp, lanyard and rubberised housing.

Light on time:	approx. 6 hours
Luminous flux total:	113 Lumen
Protection class:	IP 54
Dimensions (WxHxD):	68 x 116 x 34 mm
Weight:	0.2 kg incl. batteries



307723

307847001

307725

**307723 Comes with 4 pcs. AA niMH batteries and charger 12 V**

**307724 Comes with 4 pcs. AA niMH batteries and charger 230 V**

**307725 Comes with 4 pcs. AA batteries**

**BATTERIES**

Order no.	Dry batteries	IEC Standard	ANSI	
308600	Block cell battery 6 V	4 R 25	-	
308521	Block cell battery 9 V		E	
308112	Round cell 1.5 V	R 20	D	
308212	Round cell 1.5 V	R14	C	
308720	Round cell 1.5 V	R 6	AA	
308721	Round cell 1.5 V	R3	AAA	
308421	Flat cell battery 4.5 V	3 R 12	-	
308804	Round cell 1.5 V	R 6	AA	Rechargeable



308810

**308810 Universal battery charging unit**

230 V + 12 V. Suitable for AAA, AA, C and D rechargeable batteries.

Dimensions: 174 x 142 x 54 mm

Weight: 0.32 kg

**313013 Light system Powermoon EVO 1000 W**

Lighting for rescue and salvage or illumination of major events. Ready to use within one minute, glare free and shadow reduced. Very robust. Illuminates an area of approximately 5,000 m<sup>3</sup>.

Light quantity 99,000 Lumen, in a portable aluminium case, ballast in aluminium case can get unplugged / separated from balloon.

Takes about 2 min. until the Powermoon has reached full light quantity.

Plug Version B, shockproof plug with bayonett nut connector, protection class IP 68.

Consisting of:

- 1 Powermoon
- 1 Turnable head according to DIN 14640
- 1 Ballast incl. cable
- 1 Fixing set for tripod use
- 1 PVC transport box
- 1 Telescopic tripod 4.7 m

Power: 1,000 W

Voltage: 230 V, 50 Hz

Current: 4.5 A

Bulb: Socket E40, metal halide lamp HQI (current 5.5-8 A)

Protection class: IP 54

Cable length: to Powermoon: 7 m, from ballast to socket: 3 m

Dimensions of balloon: diameter 900 mm, height 600 mm

Packing dimensions of case: diameter 200 mm, height 1,470 mm

Dimensions of ballast (LxWxH): 210 x 170 x 240 mm

Weight of balloon: 8 kg

Weight of magnetic ballast: 13.5 kg

Weight of complete set: 29 kg

**31301301 Light system Powermoon EVO 1000 W without tripod****RECOMMENDED ACCESSORY:****313011 Spare bulb for Powermoon 1000 W**

Weight: 0.2 kg



**Symbolic Picture**



**313013**



**312307**



**312307 Rechargeable high performance LED lighting system RLS1000**

High performance LED portable worklight - small - compact - powerful. Rechargeable, with coloured flashing lights and extension poles for increasing the working height up to 1.8 m. Comes with integrated vehicle charging system 12/24 V DC. The intelligent monitoring system prevents over- and discharge and protects own and vehicle battery. Coloured flashing lights can be changed from white, red, green, amber to blue for different use, such as for road accidents, sign for operation chief, SCBA collecting place, etc.

- Turnable light head allows movement in all directions
  - 2 Integral tripod stabiliser legs give a sturdy stable base for mast at full extension
  - 4 Pcs. quick-lock extension poles for adjustable height of lighthouse up to 18 m
  - 30 High performance LED's with specially designed lens system and 12 multicolour LED's
  - Colour temperature: 6,500 K (similar daylight)
  - Battery: 12 V, 22 Ah, SLA Gel
  - Fully focusable optic from spot to full flood beam with integrated diffusor
  - Operating modes: work light, flash light in colours white, blue, red, green and amber
  - 6 Levels brightness settings from 8 % to 150 %, 150 % light boost for 10 minutes
  - Operation time: 8 h with 100 % light power, 33 h with 25 % light power
  - Brightness with 100 % power: 4,500 Lumen
  - Brightness with 150 % power: 6,000 Lumen
  - Protection class: IP 54
  - Dimensions: 390 x 195 x 255 mm
- Weight: 11.8 kg

**RECOMMENDED ACCESSORIES:**

**31230801 Charger 100-240 V, 50 / 60 Hz**

**31230804 Tripod adaptor to fix the lighthouse on every DIN-tripod**

## FLOODLIGHTS

**312550 Floodlight 500 W portable**

With 500 W halogen, 1.8 m cable, 230 V, 1-phase. Comes with an isolated carrying handle, that also serves as pedestal. Complete with 2 m of rubber cable, including Schuko type plug.  
Weight: 2 kg



312550

**Halogen floodlight**

Economic version. Offers an equal light distribution. Reflector made of aluminium. Protection class IP 54. Colour: black. Housing made of aluminium. Comes with 10 m of 1-phase electric rubber cable, complete with Schuko type plug.

**312290 Type 500 W, Including Halogen lamp 230 V / 500 W**

Dimensions (WxLxH): 215 x 135 x 340 mm  
Weight: 3.2 kg



312290

**312293 Type 1000 W, Including Halogen lamp 230 V / 1000 W**

Dimensions (WxLxH): 340 x 175 x 465 mm  
Weight: 4.8 kg

## RECOMMENDED ACCESSORIES:

**Spare halogen bulb**

**312500 230 V / 500 W. Weight: 0.02 kg**

**312520 230 V / 1,000 W. Weight: 0.05 kg**

**312309 LED Floodlight 50 W**

With less energy consumption, long lifetime and similar to daylight.

Resistant against vibrations.

Comes with DIN-bush for tripod, connection cable in signal colour 10 m, plug Schuko/belgian-france IP 68

Luminous flux: 3,400 Lumen

Colour temperature: approx. 5,500 K

Dimensions: 290 x 236 x 260 mm

Weight: 4.5 kg



312309

**312314 LED Floodlight 130 W**

Aluminium housing, black powdercoated.

Protection class: IP 65

High Power LED

Colour temperature: 4,000 Kelvin

Luminous flux: 12,000 Lumen

100 - 277 V AC, 50/60 Hz

Input: approx. 130 W

Connecting cable: 10 m, with Schuko plug

230 V, 16A

Comes with: Connection bush Ø 30 mm (DIN 14 640) for tripods

Dimensions: 350 x 360 x 135 mm

Weight: approx. 8.0 kg



312314

**314210 Searchlight adapter bridge**

Suitable for mounting 2 searchlights. Length: 490 mm. Weight: approx. 2 kg

**314001 Telescopic tripod**

Made of steel tube. Extendible from 1.05 to 1.70 m.

Comes with a lug for mounting one searchlight.

Weight: 5 kg



314001



314100



312250



309706

**314100 Telescopic tripod**

Made of steel tube, painted orange. Extendible from 1.12 to 4.7 m. Comes with mounting lug for a searchlight adapter bridge. Complete with 3 fixing lopes and 3 pegs. Weight: approx. 15 kg

**Dual halogen floodlight set**

Protection Level: IP 55. Consisting of:

- 2 Halogen floodlights
- Searchlight adapter bridge (order no. 314210)
- Tripod (order no. 314001)
- Cable reel (order no. 315786)

**31225001 Set 1,000 W**

Comes with 2 halogen floodlights 1,000 W (order no. 312322)

Weight: approx. 32 kg

**312250 Set 1,500 W**

Comes with 2 halogen floodlights 1,500 W (order no. 312352)

Weight: approx. 34 kg

**309706 Low-voltage lighting system 24 V**

This low-voltage lighting system consists of:

- 2 floodlights: 250 mm diameter, with electric rubber cable, 2.3 m, with low voltage plug, and 2 handles  
Weight: 3.30 kg (order no.014024)
- 2 halogen bulbs 24 V / 70 W H1 (order no. 022084)
- Searchlight adapter bridge (order no. 314210)
- 2 fixing handles (order no. 080323).
- Tripod extendable from 1.05 to 1.7 m (order no. 314001)
- Cable Reel (order no. 315821)
- Weight: 18.5 kg

**RECOMMENDED ACCESSORIES:****014024 Working searchlight**

Diameter 250 mm. Colour black

Weight: 3.6 kg

**022084 Spare bulb**

24V, 70 W. Weight: 0.01 kg

**HAND HELD SEARCH LIGHTS****310653 12 Volt**

1 x 12 V / 55 W lamp and 1 x 12 V / 100 W lamp, H3.  
Weight: 1.14 kg

**520114 24 Volt**

2 x 24 V / 70 W lamp.  
Weight: 1.4

## CABLE REELS

GIFAS cable reels are made of high quality rubber. That means:

- Almost indestructible
- Shock proof – even at low temperatures (down to  $-45\text{ }^{\circ}\text{C}$ )
- Resistant against oils, many acids and lyes
- Maximum protection against electrical accidents
- Halogen free

All rubber – simply the best solution for many “special occasions”.

Rubber is perfect material for high performance applications!

Cold and oil resistant Gifaplast wires are very well resistant to oil and fuels, many acids and lyes. The wire is fitted with a reinforced outer jacket that means that there is a very good resistance against the mechanical loads. The highly abrasion strength and the good flexibility are further reasons for use in the industry and the fire brigades.

**All rubber cable reel 518 with auxiliary reel** certified as to DIN 14680. Burn-out protection, main-reel and auxiliary reel are composed of one homogeneous piece of all-rubber, connection “earth” double fixed, foldable handle works as reel fixing, insulated handle, solid steel rack. Dimensions (LxWxH): 400 x 310 x 380 mm

Fitted with GIFAS-Proflex cable **3 x 2.5 mm<sup>2</sup>**, all rubber 3 earthing plug 16 A, 230 V and all rubber coupler 16 A, 230 V.

### **31495001 Main reel 45 m and auxiliary reel 5 m**

Weight: 20 kg

Fitted with GIFAS-Proflex cable **5 x 2.5 mm<sup>2</sup>**, all rubber CEE plug 5 x 16 A, 400 V and all rubber CEE coupler 5 x 16 A, 400 V.

### **31495501 Main reel 45 m and auxiliary reel 5 m**

Weight: 25 kg

### **All rubber cable reel 518 EX suitable for work in hazardous areas**

Used for work in areas with explosion hazardous zone 1 and 2. This material is resistant against oil and greases and guarantees a high mechanical resistance, operational reliability and long life.

- Test standard number according to 94/9EG: EEx II 2 G / CE0102
- Ex-protection: EEX de IIA T6
- European-test-certificate of construction: PTB 03 ATEX 1186
- Rated voltage: 230 / 400 V, 50 / 60 Hz
- Rated current: max. 16 A
- System of protection: IP 65
- Protection category 2, protective insulation

Cold and oil resistant GIFAS-Proflex wires are characterised by high flexibility, resistance against oil, greases, acids and caustic solutions, high mechanical and thermic stability. It is highly resistant against welding beads and sparks. Best resistance against initial and continued tear. The wire can be kept permanently under water. Fine threaded flexible copper threads, blank, outside covering of Polychloroprene, good resistance against ozone and weather conditions, without silicone.

The high quality and the special outer jacket allows you to use this wire in the hazardous Ex areas.



**31495001**



**31495501**



315495



315485

315568 / 315569 /  
315572 / 315573

315580 / 315581



315591

Fitted with GIFAS-Proflex cable **3 x 2.5 mm<sup>2</sup>**, with exproven plug and coupler 230 V.

**315495 Main reel 45 m and auxiliary reel 5 m.**  
Weight: 20.5 kg

Fitted with GIFAS-Proflex cable **5 x 2.5 mm<sup>2</sup>**, with exproven plug and coupler 5 x 16 A, 400 V.

**315485 Main reel 45 m and auxiliary reel 5 m.**  
Weight: 30 kg

#### All rubber Cable Reel Model 502

Standard with burn-out protection to EN 61242:1997 and EN 61316 with all phase disconnection, roller part composed of one homogenous piece of all-rubber, with retracted tip brake not rubbing on the roller part, all plug connections with spring-actuated hinged cover, solid steel tube rack corrosion resistant, absolutely waterproof, resistant to oils and acids.

Dimensions (LxWxH): 252 x 310 x 410 mm

Fitted with 3 Schuko type sockets 16 A, 230 V. With GIFAS-Proflex cable and all-rubber Schuko type plug 16 A, 230 V.

**315568 With 30 m GIFAS-Proflex cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 6 kg

**315569 With 50 m GIFAS-Proflex cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 9.5 kg

**315572 With 30 m GIFAS-Proflex cable 3 x 2.5 mm<sup>2</sup>**  
Weight: 9 kg

**315573 With 50 m GIFAS-Proflex cable 3 x 2.5 mm<sup>2</sup>**  
Weight: 12.5 kg

Fitted with 3 Schuko type sockets 16 A, 230 V, pressurised waterproof. With GIFAS-Proflex cable and all-rubber Schuko type plug 16 A, 230 V, pressurised waterproof.

**315580 With 30 m GIFAS-Proflex cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 6.5 kg

**315581 With 50 m GIFAS-Proflex cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 10 kg

**315591 Fitted with 1 CEE socket 5 x 16 A**  
400 V and 3 Schuko type sockets 16 A, 230 V, with 30 m GIFAS-Proflex cable 5 x 2.5 mm<sup>2</sup>, and CEE plug 5 x 16 A, 400 V.  
Weight: 14.5 kg

Other models upon request.



**Special rubber cable reels**

The roller part is composed of one homogenous piece of indestructible rubber material. It is extremely resistant and very light weight. Standard with burn out protection to EN 61242 and EN 61316 with all phase disconnection. Fitted with special orange coloured Polyurethan cable, resistant against oils, many acid and lyes, temperature range: -40°C - +90°C. With 4 schuko type sockets 16 A, 230 V and schuko type plug 16 A, 230 V.

**31556801 With 30 m special PUR rubber cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 5.8 kg

**31556901 With 50 m special PUR rubber cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 8.3 kg

**31557201 With 30 m special PUR rubber cable 3 x 2.5 mm<sup>2</sup>**  
Weight: 7.6 kg

**31557301 With 40 m special PUR rubber cable 3 x 2.5 mm<sup>2</sup>**  
Weight: 9.2 kg

**Special rubber cable reels with pressurised water proof sockets**

Fitted with 3 Schuko type sockets 16 A, 230 V, pressurised water proof, with special rubber cable PUR and schuko type plug 16 A, 230 V.

**31558001 With 30 m special PUR rubber cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 6.1 kg

**31558101 With 50 m special PUR rubber cable 3 x 1.5 mm<sup>2</sup>**  
Weight: 8.3 kg

**31557401 With 30 m special PUR rubber cable 3 x 2.5 mm<sup>2</sup>**  
Weight: 7.8 kg

**31557701 With 40 m special PUR rubber cable 3 x 2.5 mm<sup>2</sup>**  
Weight: 9.4 kg

**31559101 Fitted with 1 CEE socket 5 x 16 A, 400 V**  
and 3 Schuko type sockets 16 A, 230 V, with 30 m  
PUR cable 5 x 2.5 mm<sup>2</sup>, and CEE plug 5 x 16 A, 400 V.  
Weight: 10.6 kg

**31556602 Special rubber cable reel with 400 V sockets,  
5 x 2.5 mm<sup>2</sup>**  
Fitted with burn out protection, 2 CEE sockets 16 A,  
400 V, with 30 m special rubber cable PUR and CEE  
plug 16 A, 400 V.  
Dimensions (LxWxH): 310 x 360 x 230 mm  
Weight: 10.7 kg



31556801 / 31556901 / 31557201 / 31557301



31558001 / 31558101 / 31557401 / 31557701



31559101



315792



315762 / 315766



315776 / 315777



315841

### Steel sheet cable reels

The well proven steel cable reels represent the classic product line. Their plastic coating in orange serves as an insulator and makes them highly visual wherever they are used. All surfaces are highly resistant against shock and abrasion. For safety reasons, the carrying handle is not connected to the ground lead. These reels are available in a wide variety of models and comply with all safety and quality standards.

#### Steel sheet cable reel HT 380 C 516 S3

Fitted with 1 CEE socket, 5 x 16 A, 400 V and 3 Schuko type sockets 16 A, 230 V.

**315792** With 30 m rubber cable 5 x 2.5 mm<sup>2</sup>  
CEE plug 5 x 16 A, 380 V

**31579301** With 30 m special PUR rubber cable 5 x 2.5 mm<sup>2</sup>  
CEE plug 5 x 16 A, 230 V

#### Steel sheet cable reel HT 300 / TS3

With 3 Schuko type sockets 16 A, 230 V.

**315762** With 30 m rubber cable HO7RNF 3 x 1.5 mm<sup>2</sup>  
Schuko type plug 16 A, 230 V

**31576302** With 30 m special PUR rubber cable 3 x 1.5 mm<sup>2</sup>  
Schuko type plug 16 A, 230 V

**315766** With 30 m rubber cable HO7RNF 3 x 2.5 mm<sup>2</sup>  
Schuko type plug 16 A, 230 V

**31576801** With 30 m special PUR rubber cable 3 x 2.5 mm<sup>2</sup>  
Schuko type plug 16 A, 230 V

#### Steel sheet cable reel HT 300 / WS3

With 3 pressurised water proof Schuko type sockets, 16 A, 230 V.

**315776** With 30 m rubber cable HO7RNF 3 x 1.5 mm<sup>2</sup>  
Waterproof Schuko type plug 16 A, 230 V

**31577501** With 30 m special PUR rubber cable 3 x 1.5 mm<sup>2</sup>  
Waterproof Schuko type plug 16 A, 230 V

**315777** With 30 m rubber cable HO7RNF 3 x 2.5 mm<sup>2</sup>  
Waterproof Schuko type plug 16 A, 230 V

**31577901** With 30 m special PUR rubber cable 3 x 2.5 mm<sup>2</sup>  
Waterproof Schuko type plug 16 A, 230 V

#### Steel sheet cable reel HT 260/0

**315841** Fitted with 50 m earthing conductor  
Cable lugs both-sided, made of copper, 1 x 16 mm<sup>2</sup>.  
Weight: 12 kg

**Rugged sheet-steel cable reels**

Economic line. Tested in accordance with ÖVE (Austrian Standard), corrosion-resistant. Extremely durable. Solid tube rack. Ergonomic carrying handle for safe transport.

**315784 Fitted with 4 schuko type sockets**

With protecting caps 16 A / 230 V. With 25 m of rubber cable HO5RRF 3 x 1.5 mm<sup>2</sup> and rubber Schuko type plug 16 A / 230 V.

Dimensions (LxBxH): 290 x 240 x 360 mm

Weight: 5.6 kg

**315785 Fitted with 4 schuko type sockets**

With protecting caps 16 A / 230 V. With 50 m of rubber cable HO5RRF 3 x 1.5 mm<sup>2</sup> and rubber Schuko type plug 16 A / 230 V.

Dimensions (LxBxH): 290 x 240 x 360 mm.

Weight: 8.5 kg

**315786 Fitted with 3 schuko type sockets**

With protecting caps 16 A / 230 V. With 40 m of rubber cable HO5RRF 3 x 1.5 mm<sup>2</sup> and rubber Schuko type plug

16 A / 230 V.

Dimensions (LxBxH): 290 x 240 x 360 mm.

Weight: 7.5 kg

**315788 Splash-proof sheet-steel cable reel CEE IP 44**

For outdoor use, fitted with 1 CEE-socket, 5-pole, 16 A / 400 V, 2 Schuko type sockets 16 A / 230 V. With 33 m of rubber cable HO7RNF 5 x 15 mm<sup>2</sup> and CEE-plug 16 A / 400 V.

Dimensions (LxBxH): 330 x 425 x 245 mm

Weight: 11 kg

**315784 / 315785****315786****315788**



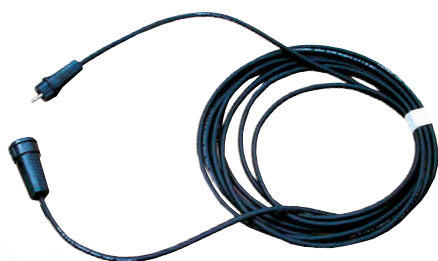
315900



315902



315904



315940



31593001



315946 / 31594601



31594701



31727801



317278

## DISTRIBUTOR BOXES

**315900 All rubber distributor box TYPE 6200**  
 1 CEE 400 V, 16 A and 3 sockets 230 V, 16 A  
 Feed: 3 m cable 5G 2.5 mm<sup>2</sup> yellow with CEE-plug 16 A 5p 400 V. Fitting: 1 x CEE-socket 16 A 5p 400 V, 3 x Schuko type sockets (DIN 49440) 16 A 250 V, 1 x residual current protective device (RCD) 40 A / 4p. / 0.03 A, is connected ahead all sockets.  
 Dimensions (HxWxD): 320 x 320 x 320 mm.  
 Weight: 8.5 kg

**315902 All rubber distributor box TYPE 6200**  
 2 CEE 400 V, 16 A and 4 sockets 230 V, 16 A  
 Feed: 3 m cable 5G 2.5 mm<sup>2</sup> yellow with CEE-plug 16 A 5p 400 V. Fitting: 2 x CEE-sockets 16 A 5p 400 V, 4 x Schuko type sockets (DIN 49440) 16 A 250 V, 1 x residual current protective device (RCD) 40 A / 4p. / 0.03 A, is connected ahead all sockets.  
 Dimensions (HxWxD): 320 x 320 x 320 mm.  
 Weight: 8.7 kg

**315904 All rubber distributor box TYPE 6700**  
 2 CEE 400 V, 16 A and 3 sockets 230 V, 16 A  
 Feed: 3 m cable 5G4 mm<sup>2</sup> yellow with CEE-plug 32 A 5p 400 V. Fitting: 1 x CEE-socket 32 A 5p 400 V, 2 x CEE-socket 16 A 5p 400 V, 3 x Schuko type sockets (DIN 49440) 16 A 250 V, 1 x miniature circuit breaker (MCB) 16 A 3-phase, 3 x miniature circuit breakers (MCB) 16 A 1-phase, 1 x residual current protective device (RCD) 40 A/4p./ 0.03 A, is connected ahead all sockets.  
 Dimensions (HxWxD): 320 x 320 x 320 mm.  
 Weight: 9.1 kg

## EXTENSION CABLES, PLUGS AND SOCKETS

### Extension cables

- 315940 10 m GMSUÖ, 3 x 1.5 mm<sup>2</sup>**  
 With rubber connectors, 16 A, 230 V. Weight: 1.4 kg
- 31593001 10 m H07RN-F, 5 x 2.5 mm<sup>2</sup>, black**  
 With CEE connectors, 16 A, 400 V. Weight: 3.1 kg
- 315946 10 m Gifaplast, 3 x 1.5 mm<sup>2</sup>**  
 With rubber connectors, 16 A, 230 V. Weight: 1.4 kg
- 31594601 10 m Gifaplast, 3 x 2.5 mm<sup>2</sup>**  
 With rubber connectors, 16 A, 230 V. Weight: 1.8 kg
- 31594701 10 m Gifaplast (N07V3V3-F5 x 2.5 yellow K35), 5 x 2.5 mm<sup>2</sup>**  
 With CEE connectors, 16 A, 400 V. Weight: 3.5 kg

### Changeover boxes

IP 44, Dimensions (LxBxH): 300 x 80 x 100 mm

- 317278 16 A to 32 A**  
 Input: 1 x CEE plug 16 A, 5 p, 400 V.  
 Output: 1 x CEE socket 32 A, 5 p, 400 V.  
 Weight: 0.7 kg
- 31727801 32 A to 16 A**  
 Input: 1 x CEE plug 32 A, 5 p, 400 V.  
 Output: 1 x CEE socket 16 A, 5 p, 400 V.  
 Weight: 0.95 kg

## Distributor boxes, plugs and sockets

**840483 Plug Nato style**  
2-phase up to 42 V. Weight: 0.3 kg

**021956 Socket Nato style**  
2-phase up to 42 V. Weight: 0.38 kg

**316820 Plug for low voltage current**  
2-phase up to 42 V. Weight: 0.12 kg

**316830 Plug for low voltage current**  
2-phase up to 42 V. Weight: 0.14 kg

**063508 Plug MAGCODE**  
2-phase, 12 V, 16 A. Weight: 0.145 kg

**063507 Socket MAGCODE**  
2-phase, 12 V, 16 A. Weight: 0.145 kg

**316910 Schuko type plug, pressurised water proof**  
2-phase + EC, IP 68, 16 A. Weight: 0.2 kg

**316920 Schuko type socket, pressurised water proof**  
2-phase + SL, IP 68, 16 A. Weight: 0.4 kg

**All rubber plugs and sockets, Schuko type**

2-phase + SL, 230 V, 16 A.

**317010 Plug**  
Weight: 0.1 kg

**317020 Socket**  
Weight: 0.2 kg

**CEE 3-phase plugs and sockets**

Certified as to DIN 49462. 5-phase, 400 V, splash water protected

**317110 Plug 16 A**  
Weight: 0.6 kg

**317120 Socket, 16 A**  
Weight: 1.8 kg

**317140 Plug with phase inverter, 16 A**  
Weight: 1.7 kg

**317210 Plug, 32 A**  
Weight: 0.8 kg

**317220 Socket, 32 A**  
Weight: 1.9 kg



840483



021956



316820



316830



063508



063507



316910



316920



317010



317020



317110 / 317140 / 317210



317120 / 317220



320764



072823



320765

## BATTERY CHARGING UNITS

The ACCTIVA-series units are specially designed to the needs of emergency services.

ACCTIVA battery charger units are primary clocked and electronically regulated. They are suitable to charge maintenance-free batteries. The battery can be connected permanently to the charger without damage. In case of repair of the vehicle, the charger could substitute the battery and electronic data cannot get lost (radio, phone,...).

External chargers are mounted at the desired location (in the fire station, operational centre etc.). The external charger is connected to the vehicle by a special charging plug and cables, carrying low voltage (normally 12 V or 24 V). On-board chargers are kept supplied with 230 V mains voltage from the exterior via a plug on the vehicle.

Only fully charged batteries can be relied on to start your engine and get you quickly to where you are needed. Professional battery charging equipment is thus an absolute "must" if you are serious about being ready to provide swift and effective assistance at all times. Problems like this are only made worse by the tendency of batteries to "self-discharge": After only 4 months, for example, vehicle starter batteries that are not recharged will already have lost up to 50 % of their capacity. Make sure that your vehicles are always "ready to roll".

### 320764 Battery recharging unit ACCTIVA Easy 12-04

Suitable for testing and charging batteries of 12 volt, with a capacity of 2 - 135 Ah. Operating current: 110 or 230 V, single phase, 50-60 Hz. Charging rate: 3 A. The battery charger is provided with a fully automatic buffering device, and the charging process is supervised electronically. Thus, the battery charger can be connected to the battery for weeks. Digital display of the battery capacity. Comes complete with 2 charging cables with isolated grip connectors. Dimensions: 119 x 72 x 52 mm  
Weight: 0.58 kg

### 072823 Battery testing and recharging unit ACCTIVA Easy 12-04

With plug for MAGCODE-socket.

### 320765 Battery charger ACCTIVA 12-10

Suitable for use in emergency vehicles (cars and trucks) with battery 12 V.

#### Technical data:

Voltage:	230 V / 50 Hz
Charging voltage:	12 V
Charging voltage range:	13.5 - 14,4 V
Charging current arith.:	10 A
Charging characteristic:	IUoU
Battery capacity:	36 to 180 Ah
Level of protection:	P 31
Dimensions:	188 x 70 x 142 mm
Weight:	1 kg

**32077601 Battery charging ACCTIVA PROFESSIONAL**

Suitable for charging standard and gel type batteries. Complete with charging cable 2.5 m, and connecting cable 2 m long, with plug. The battery charger is provided with a fully automatic buffering device, and the charging process is supervised electronically. Thus, the battery charger can always stay connected without damaging the battery (switch "maintenance-free").

**Technical data:**

Operating current:	230 V, single phase, 50/60 cycles.
Charging voltage:	6, 12 and 24 Volt
Charging current:	35 A
Battery capacities:	3 – 350 Ah
Charging characteristics:	IUoU / IU
Protection class:	IP 40 (horizontal), IP44 (vertical)
Dimensions:	247 x 162 x 88 mm
Weight:	2 kg

**32077601****32077602 Wall bracket for battery charger****569498 Battery charger ACCTIVA INVERTER-TWIN**

On-board charger. Suitable for simultaneous charging of 2 batteries 12 V or 1 battery 24 V. Charging differences are adjusted automatically.

The battery charger is provided with a fully automatic buffering device, and the charging process is supervised electronically. Loads two batteries separately and adjusts their charge differences. Used to build-in in emergency vehicles with batteries 12 V. Comes with connecting cable 2 m, 2 charger cable 6 mm isolated 5 m.

**Technical data:**

Voltage:	230 V / 50 Hz
Charging voltage:	2 x 12 V
Charging voltage range:	2 x 13.5 - 14.4 V
Charging characteristics:	IUoU
Battery capacity:	50 Ah – 300 Ah
Dimensions:	247 x 162 x 88 mm
Level of protection horizontal/vertical:	IP 40/44
Weight:	2.1 kg

**569498**

For very small battery charging units please refer to page 266.





A close-up photograph of emergency equipment against a clear blue sky. On the left is a large, cylindrical blue emergency light with a ribbed texture. On the right is a red siren horn with a grey rim. A small white circular sticker on the siren features a black lightning bolt logo and the word 'MONTGOMERY'.

**ALARM AND WARNING  
EQUIPMENT**

**8**



325100



012399-001



324520

## MANUALLY OPERATED SIRENS

### 325100 Hand operated siren with shoulder strap

Basic sound frequency: 640 Hz  
 Sound pressure level (1 m): 108 dB(A)  
 Range of audibility: 200 m  
 Colour: red  
 Dimensions: 145 mm (diameter) x 80 mm  
 Weight: 1.2 kg

## ELECTRIC ALARM SIRENS

### 012399-001 Alarm siren FS8

Ideal and economical siren warning system for small communities, factories and harbour installations. Comes with dual roof, made of glass-fibre reinforced polyester, for protection against rain, dust, snow, sand and sun. Body and impeller made of painted light alloy. The impeller is dynamically counterbalanced. The sound transmission roof guarantees a maximum range of audibility. The siren is attached at the motor cover with a four-hole flange.

Technical data:	
Type of current:	230/400 V with 50 Hz 277/480 V with 60 Hz
Nominal current 230/400 V 50 Hz:	11.9/6.8 A
Nominal current 277/480 V 60 Hz:	9.9/5.7 A
Power consumption:	4 kW
Number of revolutions 50 Hz:	2840 rpm
Number of revolutions 60 Hz:	3480 rpm
Audio frequency 50 Hz:	420 Hz
Audio frequency 60 Hz:	500 Hz
Range of audibility:	3-5 km; 128 dB(A) in 1.5 m
Weight siren:	33 kg
Weight fibreglass roof:	6 kg
Degree of protection engine:	IP 54
Degree of protection siren:	IP 22
Diameter/height:	910/400 mm

Special voltages upon request.

## RECOMMENDED ACCESSORIES:

### 324202 Thermal overload relay for alarm siren FS8

With protection and ambient temperature compensation.  
 Weight: 1 kg

### Control unit for alarm siren FS8

For 5 different warning programs:

- Fire alarm (signal 3 x 15 sec., 2 intervals each of 7 sec.)
- Siren checking (signal 15 sec., no frequency change)
- Air-raid pre-warning (signal 3 min., no frequency change)
- Air-raid alarm (signal 1 min., frequency going up and down)
- End of air-raid (signal 1 min., no frequency change)

Incl. control box for weekly check and (1+6) sections.

Weight: 9.5 kg

### 324520 Control unit 230 V, 50 – 60 Hz

### 324522 Control unit 277 V, 50 – 60 Hz 1-phase current

## Alarm sirens, light bars and flash lights

**Steel tube for alarm siren FS8**

Complete with flanges, bolts and nuts.

**030298-002 2 m**

**030298-004 3 m**

**030298-006 4 m**

**324321 Remote control alarm switch**

Light alloy housing lockable, with window panel and hammer. Dimensions: 88 x 88 x 57 mm. Colour: red as per RAL 3000. Push button switch: 2-pole; 400V/10A. Protection: IP 55. Weight: 0.11 kg

**324315 Spare window panel for alarm switch**

80 x 80 mm.



**324321**

**LIGHT BARS AND FLASHLIGHTS****328343 Light bar PHOENIX LED SOLARIS**

24 V, 52" red/blue

The LED light bar comes complete with:

- 2 x 15 LED Solaris - 1 Level
- Speaker 100 W mounted in the centre part of the light bar, serves for transmission of the siren signal and is also part of the public address system and radio transmission
- Permanent mounting kit
- Roof connector
- Dimensions: (LxWxH): 1,300 x 314 x 130 mm

Weight: 16 kg



**328343**  
(symbolic picture)

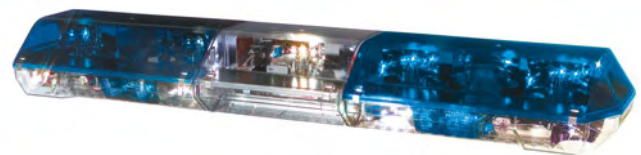
Other versions upon special request.

**547501 Light bar MX 7000**

**24 V, 69" red/blue**

- 4 x 70 W halogen bulbs
- Alley lights
- Speaker 100 W
- 2 x 6 yellow strobes
- Length: 1,750 mm

Weight: 19 kg



**547501**  
(symbolic pictures)



522192 / 522191



328295001 / 328296001



332180



332183

## ELECTRONIC SIRENS AND PUBLIC ADDRESS SYSTEMS

### Electronic siren PA 300

Economical version. The Federal Signal PA 300 siren delivers exceptional value, time tested durability, unmatched reliability, and is recognised world-wide as the industry standard. The siren is protected against most failure modes, including reversed polarity. The siren can provide either 100 W or 200 W output and meets SAEJ 1849 and Class A requirements. Included are 5 basic siren tones, TAP II (horn-ing transfer), PA, radio broadcast, and air horn sound with siren override. Weight: 2.9 kg

<b>522192</b>	<b>12 V</b>
<b>522191</b>	<b>24 V</b>

### Electronic siren AS422

High-end version. Full-featured electronic siren control centre and amplifier model. Features: remote control module with built-in microphone, priority light and auxiliary equipment control, illuminated silicon keyboard, failure detection in priority lights, high quality siren tones, public address functions and radiotelephone functions. Weight: 2.85 kg

<b>328295001</b>	<b>12 V (WAIL, YELP, HI-LO)</b>
<b>328296001</b>	<b>24 V (WAIL, YELP, HI-LO)</b>

WAIL: continuous "wailing" up and down in frequency

YELP: continuous rapid "warbled" tone

HI-LO: distinctive two-tone sound

## BEACONS / FLASHLIGHTS

This electronic beacon impresses by high retaining force, low weight and easy handling! It features a strong triple magnetic base, ensuring that the device stays in place, even at driving speeds up to 250 km/h. Certified by TÜV. It is possible to mount the beacon whilst the vehicle is being driven. Comes complete with cable and snap-in plug for connecting to the cigarette lighter of a vehicle.

### Further features:

- Integrated power electronics
- High warning effect by double flashing technology
- Very well recognisable, also from the air, by special optics and light emission
- Light emission according ECE-R 65 and TA no. 13
- Flexible and rubber-encased magnetic system protects automotive-paint
- Splash water protected as per IP54K standard
- Power input: 2 A / 24 W, 12 V or 24 V
- Simple plug-in system for the lighting tube
- Certified to EMV 95/54 EG
- Flashing sequence: more than 120 double flashes per minute
- Dimensions: height 140 mm, diameter lower part: 125 mm, diameter upper part: 96 mm

Weight: 0.85 kg

<b>332180</b>	<b>12 V, blue</b>
<b>332183</b>	<b>12 V, red</b>
<b>332181</b>	<b>24 V, blue</b>
<b>332182</b>	<b>24 V, red</b>

## Rotating beacons, flashlights, megaphones

## MEGAPHONES

High impact plastic horns deliver a smooth, ring-free sound. For maximum communication efficiency, these easy-to-use megaphones offer extended battery life and sound coverage of 315 to 1000 metres – depends on model. Distinctive whistle or siren signalling is available on certain models. To complete the line, both hand- and shoulder-held megaphones are available.

User Benefits:

- Compact, lightweight constructions for easy handling
- Long battery life operation prevents downtime
- Antibacterial treatment kills germs, protecting multiple users
- Simple push-to-talk operation for trouble-free use
- High-impact plastic horns deliver smooth, ring-free sound
- Applications: Fire and other emergency use; law enforcement and evacuation; outdoor gatherings. Comes with batteries!

**33301002 Megaphone ER-1215**

Hand-held megaphone with built-in microphone, without siren signal. Colour: grey. Comes with 6 batteries 1.5 V (order no.: 308212)  
Weight: 1.5 kg (with batteries)

**33302002 Megaphone ER-1215 S**

Hand-held megaphone with built-in microphone, with siren signal. Colour: red. Comes with 6 batteries 1.5 V (order no.: 308212)  
Weight: 1.6 kg (with batteries)

**33322002 Megaphone ER-2215 W**

Shoulder-held megaphone with external microphone, without siren signal. Colour: grey. Comes with 6 batteries 1.5 V (order no.: 308212).  
Weight: 1.7 kg (with batteries)

**33301502 Megaphone ER-2230 W**

Shoulder-held megaphone with external microphone, volume control, on/off switch and whistle signal. Includes auxiliary input jack (-10 dB) and jack for 12 V DC external power. Battery meter monitors consumption. Comes with 10 batteries 1.5 V (order no.: 308212).  
Weight: 4 kg (with batteries)



33301002



33302002



33322002



33301502

	<b>ER1215 33301002</b>	<b>ER1215 S 33302002</b>	<b>ER2215 33321002</b>	<b>ER2215 W 33322002</b>	<b>ER2230 W 33301502</b>
Microphone	internal	internal	external	external	external
Warning signal	no	siren	no	whistle	whistle
Power output	23 W	23 W	23 W	23 W	45 W
Power supply	6x "C"	6x "C"	6x "C"	6x "C"	10x "D" or external
Battery life	14 h	20 min	9 h	9 h	17 h
Range	315 m	315/500 m	315 m	400/500 m	1000 m
Colour	grey	red	grey	grey	grey
Dimensions	210 x 291 x 346 mm		210 x 210 x 338 mm		351 x 512 mm
Antibacterial treatment	grip and microphone	grip and microphone	microphone	microphone	microphone
Weight without batteries	1.1 kg	1.2 kg	1.3 kg	1.4 kg	3.8 kg
Weight with batteries	1.5 kg	1.6 kg	1.7 kg	1.8 kg	4 kg



307452



307322



307325



332098

## TRAFFIC CONTROL EQUIPMENT

### 307452 Traffic warning lamp

Gives either an amber coloured or white light. Switch for continuous or flashing light. Can either be used for repair jobs, or as a warning flasher in traffic accidents (non-safety type). Comes with 5 batteries R20, 1.5 Volt.

Weight (incl. batteries): 2.6 kg

### RECOMMENDED ACCESSORY:

#### 308212 Spare batteries R 14, 1.5 V

Weight: 0.1 kg

### Warning flash lamp

Warning flash lamps are used for far distance warning of traffic and endangered sites. This flashing light is fitted with a sealed and maintenance-free battery, which is fully leak-proof. Not explosion proof. Capacity: 6.5 A/h – 6 Volt. Flash: approx. 60 flashes per minute. Dimensions (LxWxH): 190 x 160 x 390 mm.

#### 307318 Flash light EURO, yellow

With 4 batteries 6 V.

Operating time: approx. 75 hours. Weight: 2.7 kg

#### 307322 Flash light 230 V

With charging unit 230 V (dry-fit accu 6 V / 6 Ah).

Operation time: approx. 13 hours. Weight: 4.4 kg

#### 307325 Flash light EURO, double face, yellow

With battery (6 V / 6,5 Ah), including vehicle-charger 12/24 V. Operation time: approx. 13 hours.

Weight: 3.5 kg

### RECOMMENDED ACCESSORIES:

#### 308600 Block cell battery 6V 4 R 25

Suitable for Flash Light EURO (order no. 307318).

Weight: 0.55 kg

#### 307321 Spare dry-fit rechargeable battery 6V/ 6.5 Ah

Suitable for flash light (order no. 307322) and flash light EURO double face (order no. 307325).

Weight: 3.3 kg

#### 332098 Safety light POWERFLARE

The rechargeable POWERFLARE 6-pack system comes with 6 of the PF-200R beacons in a rugged recharging case. The recharger is plugged into a vehicle hot point (12-30VDC). This system is designed to be used on a regular or daily basis. The RCR-123 Li-Ion rechargeable batteries are replaceable at the end of their useful life (usually 3 - 5 years). The buoyancy is positive (floats) and water depth rating is 25 m. User-selectable in 10 different flash pattern, the max. run time in flash pattern "quad-blink" is approx. 10 hours.

## Traffic control equipment

Colour of housing PowerFlare: yellow  
 Colour of LED: red  
 Colour of housing PowerFlare: yellow  
 Colour of LED: red  
 Operation and storage temperature: -40° to +100°C  
 Battery: RCR-123 lithium battery  
 Dimensions PowerFlare (Ø x H): 120 x 35 mm  
 Dimensions complete unit (LxWxD): 375 x 270 x 50 mm  
 Weight per PowerFlare: 0.2 kg  
 Weight complete unit: 2.63 kg

- 33209801** Charger adapter A/C to D/C, 100-240 V AC  
**33209802** Colour of housing: yellow; colour of LED: orange  
**33209803** Colour of housing: yellow; colour of LED: green  
**33209804** Colour of housing: yellow; colour of LED: blue

**Single POWERFLARE with battery**

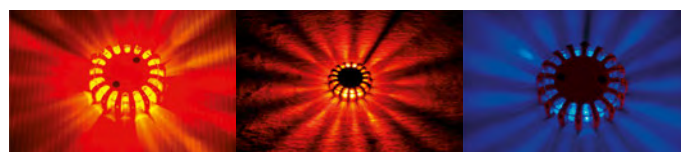
- 33209805** Colour of housing: yellow; colour of LED: orange  
**33209806** Colour of housing: black; colour of LED: red  
**33209807** Colour of housing: black; colour of LED: blue  
**33209808** Colour of housing: olive; colour of LED: green

**307722 Signal electric torch**

Flat type flashlight with 2 leather fasteners, to affix the flashlight to the fireman's jacket. Comes with a lens switching device for producing a red or green light beam. Switch for constant beam or flashing mode. Complete with a flat type battery 3R12, 4.5 Volt. Weight: 0.4 kg

**RECOMMENDED ACCESSORIES:**

- 307730** Spare bulb  
3.5 V. Weight: 0.01 kg
- 308421** Flat cell battery  
4.5 V. 3R12. Weight: 0.12 kg
- 307723** LED signal lamp with 4 pcs. NIMH batteries (AA), and charger 12 V
- 307724** LED signal lamp with 4 pcs. NIMH batteries (AA), and charger 230 V
- 307725** LED signal lamp with 4 pcs. mignon batteries (AA)



33209805

33209806

33209807



307722



307724

307723

307725



1405692



674500



674900



675600

**677501 Traffic controller warning jacket**

Reflective stripes, orange-white, without lettering.  
Weight: 0.3 kg

**1405692 Traffic controller warning jacket "FIRE BRIGADE"**

Certified as to EN 471:2008 class 2. High-Visibility garment. Backing fabric: Knitted polyester, luminescent orange, edge-trimmed all round in reflective material. Luminescent red substrate, two 5 cm wide reflective silver stripes and a 15 cm wide luminescent silver stripe with the black coloured legend "FIRE BRIGADE" on both front and back. Closure with Velcro fastening at left and right side. One size fits all.  
Weight: 0.3 kg

**1405662 Reflective safety vest**

Material: Knitted polyester colour blue (not flame retardant) with silver reflective stripes 3M.  
Design: Jacket consists of front part and back part. Front closure of jacket is made of Velcro fastener. At lower end of jacket on front side as well as on back side with two 5 cm wide silver reflective stripes. At upper end with 120 mm wide silver reflective stripes (for lettering). Comes in a bag and without lettering! One size fits all. Weight: 0.3 kg

**1405661 Lettering on reflective safety vest**

In black letters.

**674500 Traffic warning triangle**

European standard design, collapsible. Complete with transport bag.  
Weight: 1.3 kg

**Warning pyramids**

Foldable traffic signs with or without lettering. With covering.  
Weight: 1.85 kg

**674900 With danger symbol, 60 cm****675050 "Fire Brigade", 60 cm****675100 "Accident", 60 cm****674901 Without lettering, 90 cm**

Other letterings upon request.

**Traffic control cones**

Soft plastic traffic cone, red / white / red.

**675600** Height: 320 mm.

Weight: 0.85 kg

**675601** Height: 320 mm. With Scotchlite reflective coating.

Weight: 0.85 kg

**675700** Height: 500 mm.

Weight: 1.56 kg

**675701** Height: 500 mm. With Scotchlite reflective coating.

Weight: 1.56 kg



## Traffic control equipment

- 675710 Flashing foldable traffic control cone**  
Ideal in case of car breakdowns to mark barriers and hazardous areas. Visible from all directions (360°) from over 900 feet. With integrated, powerful flashing light for even better visibility in the dark or under twilight conditions. Easy handling. Requires very small storage space, fits in any trunk or under drivers seat. Single packing in PVC carry bag with clear top and zipper. Height: 60 cm, Dimensions folded: 30 x 30 x 5 cm. Weight: 1.6 kg



675710

- 675905 LED-signal stick red-green, without lettering and without batteries**  
Hand-held signal light for efficient traffic control. Two sides (red and green) in LED-technology. Comes without batteries. 3 round cell dry batteries R 14 - 1.5 Volt, Alkali-Mangan are necessary. Weight: 0.5 kg



675905

**RECOMMENDED ACCESSORIES:**

- 308212 Spare dry cell Alkali-Mangan batteries model R 14 (3 pcs.)**

- 676245 Barrier rope**  
For traffic and crowd control. Rope made of polyethylene, 5 m long. Each rope comes complete with 6 each white and red markers. Weight: 0.2 kg

**RECOMMENDED ACCESSORIES:**

- 676250 Barrier support**  
Suitable for barrier rope. Made of steel. Weight: 1.6 kg

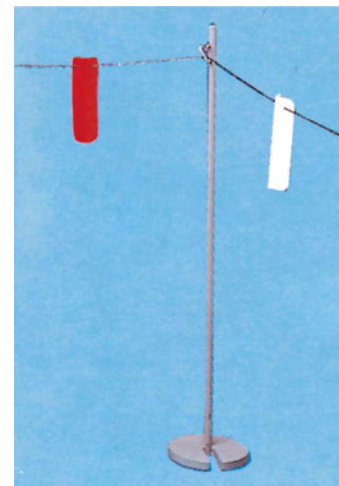
- 676255 Base plate for barrier support**  
Weight: 3.95 kg

- 676310 Europe barrier tape**  
The non-adhesive tape is made of Polyethylene. Each roll is 500 m long and 80 mm wide. Red/white printed stripes on both sides. Weight: 1.5 kg

**RECOMMENDED ACCESSORY:**

- 676320 Uncoiling box**  
Facilitates application of Europe barrier tape. With integrated cutter. Colour: red. Dimensions: 300 x 105 x 220 mm. Weight: 1.5 kg

- 676400 Warning flag for traffic control**  
White red/white, size 500 x 500 mm. Comes with pole 800 mm long. Weight: 1.5 kg



676245/676250/676255



676310



676320



676400





**HIGH PERFORMANCE  
FANS  
TECHNICAL  
EQUIPMENT**

**9**



## FANERGY HIGH PERFORMANCE FANS

Ventilation of burning structures with high performance fans is among the most critical practices in modern fire fighting. High performance fans of the FANERGY series quickly provide clear visibility for emergency personnel, remove smoke from escape routes, and lower temperatures. As a result, less time is needed for searching and extinguishing, victims are rescued faster and risks for emergency personnel are minimised. Whether used as positive pressure fan or for other tactical applications, Rosenbauer FANERGY high performance fans are ideal in all respects. Depending on the application and employed tactics, they may also be used with water or as a light foam generator.

### Powerful, compact and reliable

- Fast smoke evacuation thanks to targeted and powerful airflow
- Rapid improvement of visibility for crew
- Rapid reduction of ambient temperature
- Reduces search times in human rescue operations
- Excellent airflow performance
- Aluminum frame
- Integrated water spray device (optional)

### Safe ventilation even in difficult conditions

Thanks to the high performance airflow and the extremely large adjustment range safe ventilation is possible even with higher level doors, external entrance steps etc.

### Low noise fan wheel with direct drive

- Less wear parts
- Improved airflow
- Less noise

## High performance fans

**Robust and reliable**

- Large, smooth-operating wheels
- Robust adjustment mechanism
- Stable vibration dampers
- Integrated water spray device (optional)
- Space-saving and rapid deployment
- Can be also used as a dry foam generator when fitted with foam net and foam proportioner

**FANERGY – designed for extreme operations**

- Rapid deployment
- Maximum inclination adjustment
- Optimum ventilation even in difficult conditions

**Extremely compact design**

Minimal footprint in vehicle, also suitable for retrofitting

**Automatically ready for operation**

When the transport handle is lifted, the wheels automatically fold out to ensure stability (V21, V24).

Exhaust adapter for DIN exhaust hose and wedges as a standard.

**FANERGY V24**

Air outlet diameter approx:	24" / 600 mm
Airflow:	36,100 m <sup>3</sup> / h
Effective airflow:	> 65,000 m <sup>3</sup> / h (injection principle)
Fuel:	lead free gasoline > 91 octane
Tank capacity:	approx. 3 l
Running time with 1 tank filling:	approx. 110 min at full load
Dimensions:	735 x 780 x 495 mm (WxHxD)
Weight:	51 kg B&S / 48.5 kg Honda

**512000 FANERGY V24 with B&S engine**

1-cylinder Vanguard

**512007 FANERGY V24 with B&S engine, with water spray device****512004 FANERGY V24 with Honda engine**

1-cylinder GX200

**512008 FANERGY V24 with Honda engine, with water spray device****FANERGY V21**

Air outlet diameter approx:	21" / 530 mm
Airflow:	35,000 m <sup>3</sup> / h
Effective airflow:	> 63,500 m <sup>3</sup> / h (injection principle)
Fuel:	lead free gasoline > 91 octane
Tank capacity:	approx. 3 l
Running time with 1 tank filling:	approx. 110 min at full load
Dimensions:	695 x 705 x 480 mm (WxHxD)
Weight:	48 kg B&S / 45.5 kg Honda

**512010 FANERGY V21 with B&S engine**

1-cylinder Vanguard

**512012 FANERGY V21 with B&S engine, with water spray device****512014 FANERGY V21 with Honda engine**

1-cylinder GX200

**512017 FANERGY V21 with Honda engine, with water spray device**

512007





512023



Fanergy E21 control panel



Fanergy with electric motor



51195001

**FANERGY V16**

Air outlet diameter approx:	16" / 400 mm
Airflow:	23,900 m <sup>3</sup> / h
Effective airflow:	> 50,000 m <sup>3</sup> / h (injection principle)
Fuel:	lead free gasoline > 91 octane
Tank capacity:	approx. 3 l
Running time with 1 tank filling:	approx. 110 min at full load
Dimensions:	575 x 635 x 491 mm (WxHxD)
Weight:	39.5 kg B&S / 37 kg Honda

**512020 FANERGY V16 with B&S engine**  
1-cylinder Vanguard

**512023 FANERGY V16 with B&S engine, with water spray device**

**512024 FANERGY V16 with Honda engine**  
1-cylinder GX200

**512027 FANERGY V16 with Honda engine, with water spray device**

As a standard, the E-type fans with an electric motor come with an electric start-up current limiter. 230 V / 2.2 kW, continuously variable, infinitely controllable (with inrush current limiter). Can easily be operated with generators as of 5 kVA or 13 A mains power supply. Digital output display.

**FANERGY E21**

Air outlet diameter approx:	21" / 530 mm
Airflow:	31,000 m <sup>3</sup> / h
Effective airflow:	> 61,000 m <sup>3</sup> / h (injection principle)
Dimensions:	695 x 705 x 480 mm (WxHxD)
Weight:	53.5 kg

**512050 FANERGY E21 with electric motor**

**512055 FANERGY E21 with electric motor, with water spray device**

**FANERGY E16**

Air outlet diameter approx:	16" / 400 mm
Airflow:	14,900 m <sup>3</sup> / h
Effective airflow:	> 30,000 m <sup>3</sup> / h (injection principle)
Dimensions:	575 x 635 x 491 mm (WxHxD)
Weight:	45 kg

**512045 FANERGY E16 with electric motor**

**512046 FANERGY E16 with electric motor, with water spray device**

**FANERGY E16 Ex with motor protection**

Air outlet diameter approx:	16" / 400 mm
Airflow:	14,900 m <sup>3</sup> / h
Effective airflow:	> 30,000 m <sup>3</sup> / h (injection principle)
Dimensions:	569 x 630 x 460 mm (WxHxD)
Weight:	47 kg

**51195001 FANERGY E16 Ex with electric motor**  
400 V / 1.85 kW, EX II 3G C T3  
Rubber cable 2 m with EEx-plug CEAG

**OPTIONS AND ACCESSORIES:**

**Water spray device for retrofitting**

- 512005 For FANERGY 24"
- 512015 For FANERGY 21"
- 512025 For FANERGY 16"

**Foamnet**

For dry foam generation.

- 512006 For FANERGY 24"  
Water spray device (order no. 512005 or FANERGY 512007/512008) required.
- 512016 For FANERGY 21"  
Water spray device (order no. 512015 or FANERGY 512012/512017/512055) required.
- 512026 For FANERGY 16"  
Water spray device (order no. 512025 or FANERGY 512023/512027/512046) required.

- 703500 **Foam proportioner Z 2**  
With Storz C couplings for dry foam generation.

- 703810 **Suction hose**  
25 mm / 1.5 m for foam inductor.

- 201105 **Discharge hose synthetic special**  
5 m with Storz C couplings.

**Polyethylen-airtube**

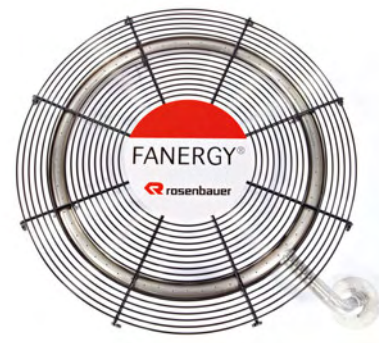
For dry foam generation with strap, per roll, (roll 20m).

- 51191001 **PE airtube for FANERGY 24" with strap**  
(600 mm), per meter, for dry foam generation.
- 51181501 **PE airtube for FANERGY 21" and 16" with strap**  
(540 mm), per meter, for dry foam generation.
- 512060 **Airtube non collapsable**  
3 m, for FANERGY 24" and 21".
- 512061 **Airtube non collapsable**  
3 m, for FANERGY 16".

- 512062 **Deflector device**  
For all FANERGY sizes for guiding the airflow with spanners. Weight: 4.8 kg

- 075715 **Operation hours counter and tachometer**
  - Retrofitable for all FANERGY's with combustion engine (B&S und Honda)
  - Recommended accessory e.g. for maintenance intervals
  - Two functions in one product

- 654400 **Exhaust hose for all V-type FANERGY's**



Foam production with FANERGY



FANERGY with foamnet



512062

**FANERGY foam production**

Working pressure (bar)	Flow rate (l/min)	Foam expansion	Foam rate (l/min)
3	140	300	42,000
		800	112,000
5	170	300	51,000
		800	136,000
7	200	300	60,000
		800	160,000



51166555

**51166555 FANERGY EFI 120 XX, explosion proof**

Positive and negative pressure ventilation fan, explosion proof as per EN standard EEx d IIB T4, as per ATEX directive 94/9/EC. Provided with a conductive housing for extreme hazards. Portable, light weight blower, easily fitting in the locker of a fire truck. The unit has an effective airflow of 6,375 m<sup>3</sup>/h under free air conditions. Blower outlet 400 mm diameter. Aluminium fan and reversible duct adapter switches for suction or discharge. Fan speed 2,890 RPM. Built-in stack mechanism for stacking 2 or 3 units. Dual application type, that can be used for extraction of smoke and/or toxic fumes (NVP), but also provides positive pressure ventilation (PPV). Applications:

- Extraction method - smoke clearance in basements and aboard ships, extraction and collection of chemical vapours in accidents involving transport of dangerous goods.
- Positive pressure ventilation - forcing the evacuation of smoke from commercial and industrial buildings, car parks, etc. Ventilation in petrochemical installations, refineries, petroleum depots, offshore rigs, tankers and tank farms.
- Other applications - gas freeing of reservoirs or tanks, accelerated cooling and dilution of explosive atmospheres.

The unit is driven by a low noise electric motor 1.25 HP (0.9 kW), 1-Phase current 230 V, 50 Hz (special voltage and cycle upon request, at extra cost). Mounted in a conductive polymer housing for static dissipation, constructed of carbon reinforced ABS, rated UL94HB. Resistivity: 100 k Ohm or less. Metal motor carrier and IP 65 switch enclosure. Comes complete with cable and explosion proof plug. Dimensions: 483 x 457 x 420 mm. Weight: 27 kg



**RECOMMENDED ACCESSORIES:**

- 51166556 Lay flat duct**  
Antistatic, 7.6 m, Ø 400 mm.
- 51166557 Conductive inlet and outlet**  
Duct 7.6 m, Ø 400 mm.
- 51166559 Carrying bag**  
For air ducts Ø 400 mm.
- 5116651401 Duct adapter 16"**  
400 mm with air inlet guard
- 5116651402 Duct adapter 16"**  
400 mm with air outlet guard
- 51166515 Door bar hanger kit**  
Weight: 2.7 kg
- 





600350

## TOOLS

### 600350 Air crash and rescue tool kit

This kit is an all-purpose set of implements that have proven their effectiveness in crash and fire emergencies. Contains everything needed to quickly and efficiently cut through metal, webbing, wood, rope, and other obstructions. Rubber coated nylon, weather proof, mildew resistant, yellow carrying case. Tools are held firmly in place, yet each tool is easily accessible. Comes complete with the following tools:

- Metal cutting saw: 40.6 cm (16") blade
- Aircraft cable cutter: cuts 1/8" to 1/4" capacity and is 35.6 cm (14") long, cuts cable without deforming ends
- Lineman's pliers: 20.3 cm (8") long
- Hack saw frame: adjustable from 20.3 cm (8") to 30.5 cm (12") and faces 4 ways
- 3 Hack saw blades: hard toothed, silver steel for fast cutting
- Grappling hook and rope: 101.6 cm (40") sling
- 2 Phillips head screwdrivers: 15.2 cm (6") and 20.3 cm (8")
- 2 Slotted head screwdrivers: 15.2 cm (6") and 20.3 cm (8")
- 3 Plugs: to plug fuel and control lines
- Vise grip wrench: 25.4 cm (10") long
- Serrated edge hand axe: 38.1 cm (15") long w/ handle, insulated for 20,000 V
- Safety V blade rescue knife

Dimensions (LxWxH): 508 x 305 x 178 mm

Weight: approx. 10 kg



600450

### 600450 Road accident rescue kit

FireBox®, size 3, including tools and equipment to get fastest access to damaged cars after road accidents. You can loose or cut battery cables, extract the windshield, loose car interior linings and secure the airbags shortly. All contents are clearly arranged and safely stored in foam, so every tool is always at the same position and quickly available. All tools stay on their place safely during transportation.

Contents:

- 3 Pairs medical gloves, size medium
- 2 Pcs. protective sheet, 1,000 x 2,000 mm, transparent
- 1 A.S.S.-Airbag-safety-system, for steering wheels 35 - 39 cm diameter
- 1 Original "Glasmaster" extrication tool
- 1 Window punch
- 1 UK 4AA-ES2 torch, ATEX-proved
- 1 Double open-ended spanner 10 x 11 mm
- 1 Double open-ended spanner 12 x 13 mm
- 1 Cable cutter, up to 20 mm diameter
- 1 Water pump plier 250 mm
- 1 Rescue knife
- 1 Crow bar, 500 mm
- 1 Clamp removing tool
- 1 Roll adhesive textile tape, 50 mm x 30 m, with dispenser
- 1 Permanent marker

Dimensions (LxWxH): 600 x 400 x 150 mm

Weight: 14.25 kg

**600410 Toolbox with contents**

Comes complete with

- 1 Foldable tool case, 5 trays, sheet metal, painted
- 11 Open end spanners, chrome plated, Super-Vanadium (models: 6 x 7 mm, 8 x 9 mm, 10 x 11 mm, 12 x 14 mm, 13 x 15 mm, 16 x 17 mm, 18 x 19 mm, 19 x 22 mm, 21 x 23 mm, 24 x 27 mm, 30 x 36 mm)
- 10 Ring wrenches 15°, DIN 837, chrome plated, Super-Vanadium (models: sorted from 6 mm to 32 mm)
- 1 Folding rule 2 m, glass fibre, spring joint
- 1 Measuring tape 5 m/19 mm, magnetic hook, break resistant
- 2 Hammers, Hickory handle, DIN 1041 (1x 500 g and 1 x 1,000 g)
- 1 Swedish pipe wrench 425 mm/1.5", CrV
- 1 Wood chisel 26 mm, hardened
- 1 Stone chisel pointed 400 mm, CrV-Mo
- 1 Stone chisel flat 300 mm, CrV-Mo
- 1 4-row wire brush, straight bristles
- 1 Hacksaw frame including saw blade
- 5 Hacksaw blade 300 x 13 x 0.65 mm/24 t., HSS, flex.
- 8 Pcs. hex key wrench set 2-10 mm on ring
- 3 Pin punch, CrV (1 x 3 mm, 1 x 5 mm, 1 x 8 mm)
- 5 PVC insulation tapes 15 x 0.2 mm x 10 m, different colours (yellow, blue, red, green and black)
- 3 Slotted screwdrivers, CrV-Mo, handle shock-resistant (1 x 3.0 x 0.5 x 75 mm, 1 x 6.5 x 1.2 x 125 mm, 1 x 10 x 1.6 x 200 mm)
- 3 Phillips tip screwdrivers, CrV-Mo, handle shock resistant (1 x 1/5 x 80 mm, 1 x 2/6 x 100 mm, 1 x 3/8 x 150 mm)
- 1 Carpenter's pencil 180 mm
- 1 Side cutting plier 160 mm, EN 60900/1000 V, CV, chrome plated
- 1 Combination plier 180 mm, EN 60900/1000 V, CV, chrome plated
- 1 Pump plier 250 mm, PVC handles, chrome plated
- 1 Pincers, 250 mm, PVC dipped handles, polished
- 1 Set of nails 14 x 60/10 x 80/10 x 100 mm
- 1 Special wrench for chimney locks

Dimensions (LxWxH): 430 x 200 x 200 mm

Weight: approx. 17 kg

**600410****600406 Universal toolbox, 45-pieces**

Consisting of following 1/2" tools:

- 13 Sockets 8-24 mm
- 2 Special spark plug sockets for 16 and 21 mm
- 1 Ratchet
- 1 Universal joint, 2 extensions, made of chrome vanadium
- 1 Hickory hammer
- 1 Combination pliers 175 mm
- 1 Water pump pliers
- 2 Screwdrivers for recessed-head screws, PH 2 x 100, PH 2 x 38 mm
- 4 Screwdrivers 4 x 75.5 x 100, 6 x 38. 8 x 150 mm
- 4 Allen keys of 5, 6, 8 and 10 mm
- 12 ring/ flat spanners, 6-19 mm

Dimensions (LxWxH): 450 x 290 x 111 mm

Weight: 6.3 kg

**600406**



600505

600605  
(symbolic picture)**600505 Firefighter's toolbox**

Certified as to DIN 14881:2005. Light alloy box, with compartments. Comes complete with the following tools:

- 4 Screwdrivers (2.5 mm, 4 mm, 6.5 mm and 8 mm)
- 3 Phillips-Screwdrivers (no. 1, no. 2 and no. 3)
- 1 Cranked wrench key A1x5.5
- 1 Cranked wrench PH 1x2
- 9 Allen wrenches DIN 911 (SW1.5, SW2, SW2.5, SW3, SW4, SW5, SW6, SW8 and SW10)
- 8 Hexagon wrench keys (Torx) (T10, T15, T20, T25, T27, T30, T40, T45)
- 17 Combination wrenches SW 8/10/11/12/13/14/15/16/17/18/19/21/22/24/27/30 and 32
- 1 Adjustable end wrench 200 mm
- 1 Set of socket wrenches
- 1 Key for new buildings
- 1 Key for switch cabinets
- 1 Machinists hammer 500 g
- 1 Splint pin driver unit 4 mm
- 1 Cutting plier 250 mm
- 1 Diagonal cutting plier 160 mm
- 1 Combination plier 160 mm VDE
- 1 Long nose plier with cutter 200 mm
- 1 Locking plier 250 mm
- 1 Groove joint plier 250 mm
- 1 Corner work pipe-wrench plier 1-1/2"
- 1 Metal saw bow
- 10 Saw blades 300 x 25 x 32
- 1 Pinch bar 400 mm
- 1 Flat chisel 200 mm
- 1 Cutter
- 1 Measuring stick
- 1 Pair of goggles

Dimensions: 600 x 400 x 150 mm

Weight of the complete box: 23.5 kg

**600605 Electrician's toolbox**

Certified as to DIN 14885:2005. Light alloy box, with compartments. Comes complete with the following tools:

- 1 Voltage checker VDE 0680
- 5 Screwdrivers insulated VDE (0.5 x 3.5, 0.8 x 5.5, 1.0 x 6.5, 1.2 x 8.0, 1.6 x 10)
- 1 Flat round nose plier 200 mm VDE
- 1 Side cutter 200 mm VDE
- 6 Single open end wrench VDE (10 mm, 11 mm, 12 mm, 13 mm, 14 mm, 15 mm)
- 1 Roll of insulating tape
- 1 Piece of chalk
- 1 Set of warning signs
- 100 cable ties
- 3 Phillips-Screwdriver (no. 1, no. 2, no. 3)
- 1 Pair of insulated gloves

Dimensions: 400 x 300 x 150 mm

Weight of the complete box: 10.18 kg

**Pair of electrician's gloves**

According to EN 60903: 2003. Five finger gloves, made of rubber.

**510310 Certified to be isolated up to 7,500 Volt**  
Weight: 0.04 kg

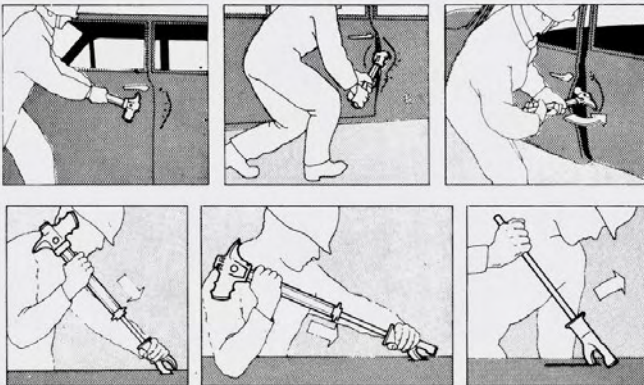
**510302 Certified to be isolated up to 20,000 Volt**  
Weight: 0.05 kg

**510900 Rescue hook type "N"**  
Isolated rescue hook, made of special plastics, length 1 m, 25 mm diameter, tested 1,000 Volt, ETVA certified. Colour: black. Weight: 2.5 kg

**511000 Rescue hook type "H"**  
Designed for rescuing people who got into an electric circuit. Suitable for voltages up to 30,000 Volt. Length: approx. 194 cm. Weight: approx. 2.5 kg

**510410 Electrician carpet 20,000 V**  
Size: 1,250 x 500 mm  
Weight: 2.9 kg

**600800 Universal rescue tool**  
Made of heavy duty forged steel with PVC covering. Comes complete with carrying belt and vehicle mounting bracket. Weight: 5.50 kg

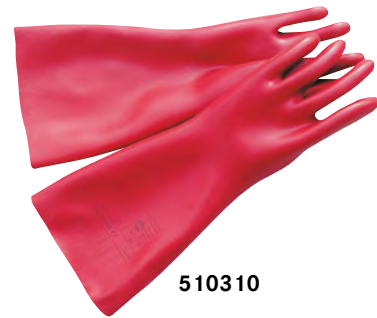


**600805 SOS rescue kit**  
Several tools in one red coloured PVC holster. Consisting of:

- 1 Hammer "S"
- 1 Extension
- 1 Insertion for jimmy provided with nail drawer
- 1 Spade blade
- 1 Axe blade provided with saw blade (4 teeth/cm), that has a scale and an angle
- 1 Cutter suitable for metal sheet, provided with a saw blade (7 teeth/cm) and a knife

Weight in total: 2.7 kg

**508200 Life hammer**  
Designed to assist in rescue work. The double sided hammer comes with a hidden knife for cutting safety seat belts.  
Weight: approx. 0.15 kg



510310



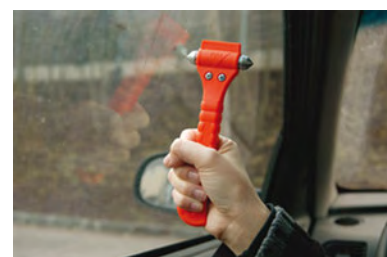
510900



600800



600805



508200



508780

**508780 Safety blade rescue knife**

For cutting seat belts and harness without injuring victims. Precision made of high strength aluminium alloy. Electrostatic finish. Tip fitted with DZUS Key. Finger fitting contour handles are self-positioning for quick, easy use in dark. Will cut 450 kg strength webbing in one easy stroke. Interchangeable, precision ground high carbon steel blades.  
Weight: 0.45 kg

**RECOMMENDED ACCESSORY:****508781 Spare blades for rescue knife**

Weight: 0.05 kg



600850-01

**600850-01 Multi-tool LEATHERMAN WAVE**

The LEATHERMAN WAVE is an evolutionary leap in the multi-tool category by offering four locking blades that can be accessed while the tool is closed. The two knife blades feature one-hand opening. Combined with seven interior blades and the most comfortable handles. The LEATHERMAN WAVE sets a new standard in multi-purpose tools. Its striking new design is impressive, but even more impressive is seeing its advanced engineering put to work.

The LEATHERMAN WAVE offers the following tools:

- Needle nose pliers
- Regular pliers
- Wire cutters
- Hard-wire cutters
- Clip-point knife
- Serrated knife
- Diamond-coated file
- Wood saw
- Scissors
- Extra-small screwdriver
- Small screwdriver
- Medium screwdriver
- Large screwdriver
- Phillips screwdriver
- Can/bottle opener
- Wire stripper
- Lanyard attachment

Weight of the complete tool, including holster: 0.3 kg



600860

**600860 Rescue knife RESCUE-TOOL PRT II incl. holster**

The PRT II pocket-rescue-knives are designed and developed for the users, who wish to carry a handy, non-bulky and light rescue knife. All pocket rescue tools are equipped with a ½ serrated edge, window puncher, seatbelt cutter and extra big thumb-stud and blade release mechanism for easy knife handling when the user wears gloves. Three different shapes of blades are available.

- Integrated seatbelt cutter
- Stainless lockable blade
- Extra sharp ½ serrated edge
- Integrated window puncher
- Big sturdy buckle

Length: 206 mm (Blade: 84 mm. Handle: 122 mm).

Holster: made of Cordura, with loop for fitting to the firemans belt, 160 x 60 x 35 mm.

Weight: 0.14 kg

- 600900 Military knife**  
Blade made of special tempered steel. Holster with belt loop, made of synthetic fibre.  
Weight: 0.3 kg

**Pike**

Designed for tearing down wooden structures during and after fires. Comes with iron hook and pick.

- 601010 Without wooden pole**  
Weight 1.5 kg
- 601020 With wooden pole 3 m long**  
Weight: 2.7 kg

- 601030 Ceiling hook DIN 14851-MV telescopic**  
Length of hook with telescopic handle: 200-230 cm  
Length with extension: max. 480 cm  
Weight of hook with telescopic handle: approx. 5 kg  
Weight of extension: approx. 1.8 kg  
Total weight: approx. 6.8 kg

- 601500 Pick head fire axe model FA**  
With hardwood handle, 900 mm long.  
According to ON F4001.  
Weight: 2.6 kg

- 601550 Crash axe**  
With fibreglass handle, insulated up to 20,000 V.  
Length: 910 mm. Weight: 2.75 kg

**Rescue tool HOOLIGAN**

These heavy duty tools were designed to pound, puncture, pry, twist, and cut most obstacles you may encounter. Features your choice of standard or metal cutting claw, machined grooved non-slip grips, duckbill has long, smooth incline to force windows and interiors doors, pike is long, sharp tapered and gently curved to fit a lock or latch.

- 600827 With metal cutting claw**  
Length: 90 cm. Weight: 5 kg
- 60082701 With standard claw**  
Length: 90 cm. Weight: 5 kg
- 603113 Hooligan tool with nuplaglass handle**  
Weight: 4.3 kg
- 600823 Grab hook with D-handle**  
Ideal for opening halls, closets, crawl spaces or upholstery. Plastic core handle will not crack, splinter, warp, rot or absorb moisture. Malleable iron pike and D-handle are bonded in epoxy. Length: 810 mm. Weight: 1.8 kg
- 600824 Multi-purpose fire tool T-N-T**  
The T-N-T Tool is an axe, a bar, a double jacket and a pike pole all in one. Head and pike ends are made from high-carbon, heat-treated steel and the handle is solid fibre glass. Length: 102 cm. Weight: 6.3 kg

Other tools with fibreglass handle upon request.

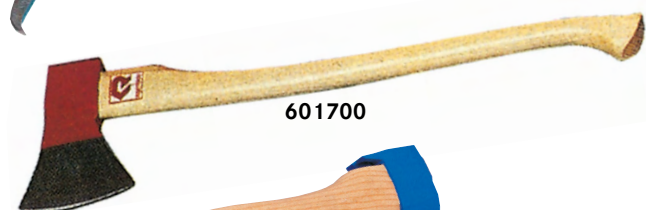




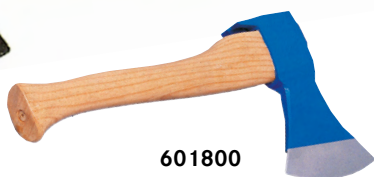
600826



601600



601700



601800



159400

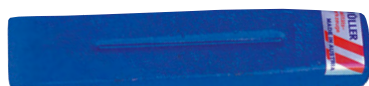


159500



601840

601840



601850

601910  
(symbolic picture)

601920

**600826 Forcible entry and rescue tool PRY-AXE**

With metal cutting claw. It is a lightweight, multi-purpose, slam and ram tool designed to pry, twist, chop, cut metal, twist off locks or latches and much more. This efficient tool allows forcible entry by a single person when time is critical. PRY-AXE head and claw assemblies are separate sections forged from high alloy steel and heat treated for maximum strength. Solid steel shaft extends the axe to 710 mm (28") and rubber sleeve provides a sure grip. Weight: 3.6 kg

**601600 Sappine cutting tool**

With hardwood handle, 900 mm long. Weight: 1.1 kg

**601700 Wood axe**

Comes with hardwood handle, 700 mm long. Weight 1.6 kg

**601800 Hatchet**

With nail puller and hardwood handle. Length: 350 mm. Weight: 1.1 kg

**159400 Fire brigade hatchet**

Blade made of high tensile steel. Grip covered with synthetic rubber for good shock absorption. Weight: 1.15 kg

**159500 Hatchet pouch**

Made of leather. Weight: 0.16 kg

**601830 Axe serrated – insulated for 20,000 V**

Serrated cutting edge, made to US Air Force specifications. Length: 38 cm. The handle is insulated up to 20,000 Volt. Weight: 1.36 kg

**601840 Standard axe – insulated for 20,000 V**

One-piece drop forged axe. Length: 38 cm. The handle is insulated up to 20,000 Volt. Weight: 1.36 kg

**RECOMMENDED ACCESSORY FOR ORDER NO. 601830 AND ORDER NO. 601840:****601842 Leather pouch for axe**

Weight: 0.2 kg

**601850 Wood cleaver**

Weight: 1.5 kg

**601910 Spade**

Forged, with beechwood handle and T-grip 1,400 mm long. Weight: 2 kg

**601920 Folding spade**

Forged, with beechwood handle. The spade can be folded down to a length of 440 mm. Weight: 1.3 kg



- 602110 Digging shovel**  
 Forged steel blade, round point with turned step.  
 Beechwood handle 1,600 mm long.  
 Weight: 2.4 kg

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- 602120 Flat shovel**  
 Forged with round point. Beechwood handle 1,600 mm long. Weight 1.9 kg

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- 602130 Scoop shovel**  
 Steel blade. Beechwood handle 1,500 mm long.  
 Weight 2.5 kg

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- 282300 Metal fire broom**  
 For beating out bush or forest fires. With wooden handle, 2 m long. Weight: 3 kg

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- 602210 Refuse hook**  
 Forged, with 4 tines. Beechwood handle 1,500 mm long. Weight: 1.54 kg

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- 602220 Header fork**  
 Forged, with 4 tines. Beechwood handle 1,500 mm long. Weight 2 kg

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- 602310 Hay fork**  
 Forged, with 3 tines. Beechwood handle 1,900 mm long. Weight 2.5 kg

---

- 602320 Stone fork**  
 Forged, with 9 tines. Beechwood handle 1,500 mm long. Weight: 2.3 kg

---

- 602400 Pick mattock**  
 With hardwood handle 700 mm long.  
 Weight 2.2 kg

---

- 602500 Pick axe**  
 With beechwood handle 700 mm long.  
 Weight: 2.6 kg

**Crowbar**

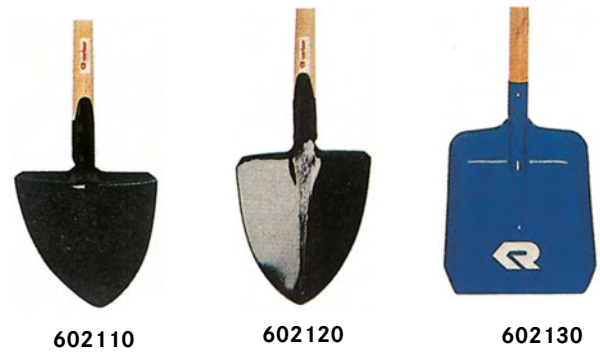
Square bar, made of forged steel, heat treated. Pointed at one end. Standard black finish.

- 602630 Length: 600 mm. Weight: 1.4 kg**
- 602610 Length: 1,300 mm. Weight: 7 kg**
- 602620 Length: 1,500 mm. Weight: 8.8 kg**

- 602800 Buck saw with steel tubular frame handle**  
 With steel tubular frame handle. Length: 900 mm.  
 Weight: 1 kg

**RECOMMENDED ACCESSORY:**

- 602801 Spare blade**  
 914 mm long. Weight: 0.2 kg



602110                      602120                      602130



282300



602210



602220



602310



602320



602400



602500



602630



602800



602900



603500



603600



603800



604000



910110



604300



604500

**602900 Metal sheet hack saw**

Comes with frame and blade, 300 mm long. Complete with wooden handle. Weight: 0.8 kg

**RECOMMENDED ACCESSORY:****602901 Spare blade**

300 mm long. Weight: 0.03 kg

**Sledge hammer**

With hardwood handle.

**603500 500 mm long. Weight: 3.5 kg**

**603600 700 mm long. Weight: 5.5 kg**

**603800 Mallet**

With wooden handle.

Weight: 2 kg

**Fitter's hammer**

With hardwood handle.

**603900 Weight: 0.5 kg**

**604000 Weight: 1 kg**

**Rubber mallet**

With hardwood handle.

**910110 Weight: 0.5 kg**

**910120 Weight: 1 kg**

**604300 Mallet**

Plastic mallet, with hardwood handle, 340 mm long.

Weight: 2 kg

**604500 Door opening tool set**

Consisting of a forcible entry tool for doors, complete with lock opener.

Weight: 3 kg

**Bolt cutter**

Cuts wire, bolts, rivets, bars and nails with a hardness of max. 150 kg/mm<sup>2</sup>. Insulated rubber grips.

**605000** For up to 10 mm diameter.  
Length 620 mm. Weight: 3.5 kg

**605100** For up to 13 mm diameter.  
Length 780 mm. Weight: 3.76 kg

**605200** Bolt cutter, electrician's type  
Length: 910 mm.  
Weight: 6.5 kg

**605300** Wire and cable cutter  
Cuts wire, steel ropes and all sorts of cables up to a diameter of 16 mm. Cutting knives are adjustable and replaceable. Length: 630 mm.  
Weight: 3.3 kg

**605400** Flat nosed pliers  
210 mm long, with hand protection (10,000 V, VDE tested). Weight: 0.31 kg

**605405** Diagonal cutter  
200 mm long, with hand protection (10,000 V, VDE tested). Weight: 0.25 kg

**606010** Iron cramp  
Certified as to DIN 7961, form C. Made of steel, 300 mm long. Rectangular cross-section.  
Weight: 0.7 kg

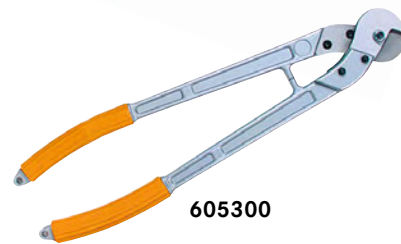
**606011** Iron cramp  
Made of steel, 300 mm long. Circular cross-section.  
Weight: 0.4 kg



605000/605100



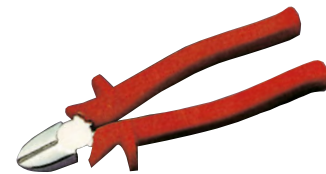
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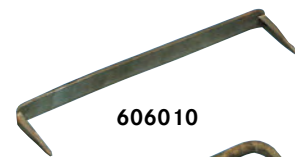
605300



605400



605405



606010



606011



608210



608216



608221



608226



608230



608240

## HUSQVARNA CHAINSAWS

Husqvarna chainsaws are used by professionals around the world because of their reliability, low vibrations and high performance combined with lowest weight and easy handling. Over 50 years Husqvarna is producing chainsaws for both the professional users, as well as for demanding consumers around the world. The unique X-Torq® engine technology provides more power, up to 20 % less fuel consumption and 75 % less exhaust emission.

<b>608210</b>	<b>Electric chainsaw Husqvarna 321 EL</b>
	Ideal handling, strong engine, mechanical safety-switch, automatic chainbrake, chain-chatter, soft-start.
	Voltage: 230 V
	Power rating: 2,000 W
	Bar length: 40 cm
	Weight excl. cutting equipment: 4.4 kg

<b>608216</b>	<b>Petrol-driven chainsaw Husqvarna 440 E</b>
	Smart Start®, fuel pump and auto return stop switch for easier starting, tool-less chain tensioner.
	Cylinder displacement: 40.9 cm <sup>3</sup>
	Power output: 1.8 kW
	Bar length: 38 cm
	Weight excl. cutting equipment: 4.4 kg

<b>608221</b>	<b>Petrol-driven chainsaw Husqvarna 545</b>
	Autotune, air injection, lowvib®.
	Cylinder displacement: 50.1 cm <sup>3</sup>
	Power output: 2.5 kW
	Bar length: 45 cm
	Weight excl. cutting equipment: 4.9 kg

<b>608226</b>	<b>Petrol-driven chainsaw Husqvarna 560 XP</b>
	RevBoost™, autotune, air injection.
	Cylinder displacement: 59.8 cm <sup>3</sup>
	Power output: 3.5 kW
	Bar length: 45 cm
	Weight excl. cutting equipment: 5.6 kg

<b>608230</b>	<b>Petrol-driven chainsaw Husqvarna 372 XP</b>
	Air injection, adjustable oil pump, quick-release air filter.
	Cylinder displacement: 70.7 cm <sup>3</sup>
	Power output: 4.1 kW
	Bar length: 45 cm
	Weight excl. cutting equipment: 6.4 kg

<b>608245</b>	<b>Petrol-driven chainsaw Husqvarna 555</b>
	Autotune, air injection, lowvib®.
	Cylinder displacement: 59.8 cm <sup>3</sup>
	Power output: 3.1 kW
	Bar length: 45 cm
	Weight excl. cutting equipment: 5.6 kg

**RECOMMENDED ACCESSORIES FOR HUSQVARNA CHAINSAWS:****Husqvarna chain**

- 60829001 For model 321 EL**  
Length: 40 cm. Weight: 0.5 kg
- 60829005 For model 440/435**  
Length: 38 cm. Weight: 0.5 kg
- 60829010 For model 353/545**  
Length: 45 cm. Weight: 0.5 kg
- 60829015 For model 560 XP**  
Length: 45 cm. Weight: 0.5 kg
- 60829020 For model 372 XP**  
Length: 45 cm. Weight: 0.5 kg



**60829001**  
(symbolic picture)

**Husqvarna chain-filing kit**

- 60829501 For model 321 EL**  
Weight: 0.5 kg
- 60829502 For model 440/353/560 XP/435/545**  
Weight: 0.5 kg
- 60829503 For model 372 XP/576 XP**  
Weight: 0.5 kg



**608250**



**608255**

- 608250 Husqvarna combi-can**  
For 6 l petrol and 2.5 l chain-oil. The valve closes automatically when fuel tank is full and prevents spilling of petrol. Weight empty: 1.2 kg

- 608255 Husqvarna chain-oil**  
5 litres. Biological rape seed chain-oil, ecologically beneficial, biodegradable, economical in use. High class industrial quality. Weight: 4.95 kg



**608265**

- 608261 Husqvarna 2-stroke-oil**  
1 litre. With normal petrol it makes 50 l of 2-stroke fuel-mix. Weight: 1 kg

- 608265 Husqvarna protection helmet**  
It has a 6-point textile harness for best comfort and low pressure against the head and includes the new UltraVision visor that due to low light reduction gives a clearer view. The hearing protectors have optimal ergonomics for prolonged use.

- 608270XX Husqvarna carpenter trousers**  
Made of cordura Nylon-material which ensures a very light weight and extreme tear-resistance. Extra reinforcements on knees and lower part of the leg. Several pockets for transmitter, tools, etc. According to EN 381 Class 1. Sizes: 46 - 60 (please fill in size in order no.) Weight: 1.2 kg

- 608280XX Husqvarna forest jacket**  
Forest jacket made of water repellent 100% micro polyester at the front upper part and back, ventilation zipper under the arms. Sizes: 46 - 60 (double-size, please fill in size in order no.).

- 608267 Husqvarna chaps**  
With saw protection, one size. Easy to adjust to height and waist size. Made of 100 % polyester, elastic ankle tie. Meets requirements of EN-381, class 1.20 m/s. Weight: 1 kg



**608280XX**



**608270XX**



**608267**



606505



606551/606556



607057/607062/607067



607544/607545



607711

## STIHL CHAINSAW

- Advantageous power-to-weight ratio: i.e. high power combined with low weight, for efficient operation without exhausting the user
- Handles and housing are designed strictly according to ergonomic principles
- All-round safety equipment to protect the chainsaw operator
- Outstanding simple operation and servicing

The models combine enough power for felling and light and easy handling for limbing.

STIHL digital ignition control (CDIC): uses electronic intelligence to adjust the ignition timing in accordance with the momentary operating status. Result: the engine starts more easily, builds up maximum torque at all speeds and requires less fuel.

### 606505 Petrol-driven chainsaw STIHL MS 231

Power output:	2.0 kW
Displacement:	40.6 cm <sup>3</sup>
Bar length:	35 cm
Weight:	4.9 kg

### Petrol-driven chainsaw STIHL MS 291

Power output:	2.8 kW
Displacement:	55.5 cm <sup>3</sup>
Weight:*	5.6 kg

**606551 Bar length: 37 cm.**

**606556 Bar length: 40 cm.**

### Petrol-driven chainsaw STIHL MS 441 C-11

Power output:	4.2 kW
Displacement:	70.7 cm <sup>3</sup>
Weight:*	6.6 kg

**607057 Bar length: 40 cm.**

**607062 Bar length: 45 cm.**

**607067 Bar length: 50 cm.**

### Petrol-driven chainsaw STIHL MS 660

Power output:	5.2 kW
Displacement:	91.6 cm <sup>3</sup>
Weight:*	7.3 kg

**607544 Bar length: 50 cm.**

**607545 Bar length: 63 cm.**

### 607711 Electric saw STIHL MSE 140 C-BQ

Voltage:	230 V
Power input:	1.4 kW
Bar length:	30 cm
	<ul style="list-style-type: none"> <li>• Overload protection</li> <li>• Automatic chain lubrication</li> <li>• Chain quick tensioning</li> </ul>
Weight:*	3.7 kg

\* Weight without bar and chain.

**607715 Electric saw STIHL MSE 180 C-BQ**

Voltage: 230 V

Power input: 1.8 kW

Bar length: 35 cm

- Overload protection
- Automatic chain lubrication
- KSS chain quick tensioning

Weight: \* 4.2 kg



607715

**RECOMMENDED ACCESSORIES FOR STIHL CHAINSAWS:****Spare chain for all fuel and electric saws****607730 Bar length: 30 cm. Weight: 0.17 kg****607732 Bar length: 32 cm. Weight: 0.25 kg****607735 Bar length: 35 cm. Weight: 0.28 kg****607737 Bar length: 37 cm. Weight: 0.3 kg****607740 Bar length: 40 cm. Weight: 0.5 kg****607750 Bar length: 45 cm. Weight: 0.37 kg****607760 Bar length: 50 cm. Weight: 0.35 kg****607780 Bar length: 63 cm. Weight: 0.47 kg**

607800

**Bioplus chain lubricant****607790 1 litre. Weight: 1.3 kg****607795 5 litres. Weight: 5.4 kg**

607820

**607800 Chain filing kit**

Weight: approx. 4.95 kg

**607810 2-stroke engine oil**

0.1 l. Weight: 0.35 kg

**607820 Two section plastic can**

One section containing 5 litres of petrol, the other section containing 3 litres of oil. The can comes empty. Weight: 1.19 kg

**607860XX Jacket microfiber**

Colour: petrol/orange. Plenty of vents to allow accumulated heat and perspiration to escape, permeable mesh lining.

Sizes: 48 - 56 (please fill in size in order no.).

Weight: 1.2 kg



607860XX

**607880XX Trousers microfiber**

Colour: petrol/orange. Elasticised waistband. First cut-resistant trousers. Sizes: 48 - 56 (please fill in size in order no.). Weight: 1.7 kg



607880XX

**607836 Protective helmet**

Colour: orange. Complete with face and ear protection. Weight: 0.63 kg



607836

\* Weight without bar and chain.



608307

## RESCUE SAWS

### Husqvarna

Husqvarna is a world leader in handheld power cutters and diamond tools. Husqvarna power cutters are used by professionals around the world because of their reliability, low weight and high performance.

- 608307 Electric power cutter Husqvarna K 3000 WET 14**  
Powerful, versatile electric cutter, generous distance between the handles improves control and reduces load. Electronic Softstart allows starting with normal, slow-acting fuses. Quick-locking of the spindle and large blade guard opening facilitate changes. Generously dimensioned mitre gear provides high durability, minimal power loss and low noise levels. DEX, Dust Extinguisher System.
- |                         |  |
|-------------------------|--|
| Voltage:                | 230 V                                  |
| Rated input:            | 2700 W                                 |
| Cutting depth:          | 12.5 cm                                |
| Blade diameter:         | 350 mm (14") - blades are not included |
| Weight (without blade): | 7.8 kg                                 |

Accessories upon special request.



608302

- 608302 Petrol power cutter Husqvarna K 760-RESCUE 12**  
Especially for fire fighting and rescue operations. EasyStart cuts the effort needed to start the engine by half. The Active-System is ideal for fire fighting duties, as the filters are protected from water. The drive belt is enclosed and reduces wear and tear, as well as the risk of drive slippage. Through our handle design and positioning, we make work easier and give total operator control. Special blade guard with shiny, chromium-plated surface for highest visibility even in smoke, steam or water spray.
- Technical data:
- |                         |  |
|-------------------------|--|
| Displacement:           | 74 ccm                                 |
| Power:                  | 3.7 kW / 5.0 PS                        |
| Cutting depth:          | 100 mm (4")                            |
| Blade diameter:         | 300 mm (12") - blades are not included |
| Weight (without blade): | 9.8 kg                                 |



608305

- 608305 Petrol power cutter Husqvarna K 970-RESCUE 14**  
X-Torg® engine reduces emission up to 75 % and lower fuel consumption by 20 %. One of the worlds strongest power cutters for fire fighting and rescue operations. EasyStart cuts the effort needed to start the engine by half. The Active-System is ideal for fire fighting duties, as the filters are protected from water. The drive belt is enclosed and reduces wear and tear, as well as the risk of drive slippage. Chromium-plated surface for highest visibility.
- |                         |  |
|-------------------------|--|
| Displacement:           | 94 cm <sup>3</sup>                     |
| Power:                  | 4.8 kW/ 6.4 PS                         |
| Cutting depth:          | 12.5 cm                                |
| Blade diameter:         | 350 mm (14") - blades are not included |
| Weight (without blade): | 11.2 kg                                |



**RECOMMENDED ACCESSORIES:****Power cutter transport box**

Practical protection for tools and equipment. Extra strong wood with metal reinforced edges and corners.

**608310 For K 760 Rescue**  
790 x 285 x 495 mm. Weight: approx. 6 kg

**608311 For K 970 Rescue**  
925 x 295 x 490 mm. Weight: approx. 6.5 kg

**Blades abrasive**

**608320 For stone / concrete / cast-iron**  
300 mm / 12"

**608321 For stone / concrete / cast-iron**  
350 mm / 14"

**608325 For rails / construction-steel / steel**  
300 mm / 12"

**608326 For rails / construction-steel / steel**  
350 mm / 14"

**Rescue blades**

For concrete, cast iron, masonry, stone, steel, brick, rubber, wood, metal, fiber board, PVC-pipe, rebar, iron.

**608333 Diameter 12" / 300 mm**

**608334 Diameter 14" / 350 mm**

**Blades diamond laser-welded**

**608340 For hard-concrete / concrete tubes / paving stone**  
300 mm / 12"

**608341 For hard-concrete / concrete tubes / paving stone**  
350 mm / 14"



**608310 / 608311**  
(symbolic picture, colour may change)



**608320**  
(symbolic picture)



**608333**  
(symbolic picture)



**608334**  
(symbolic picture)



**608340**  
(symbolic picture)



606350



606355



611950

**606350 Fire rescue saw model CE 2172 RS/D6**

Universal cutting saw for a wide range of materials. Titanium guide bar with patented "Rollerblade" roller-nose. Lightweight with incredible strength and wearability. Larger sealed bearings reduces heat, increases chain speed. One piece construction cannot spread during plunge cut like standard chainsaw guide bars. Chain designed for ventilation, forcible entry, and rescue operations. The gauges cover all the cutting chain and allow depth of cut to be set to 15 cm deep. The operator is protected from accidental contact with the cutting chain and the precise depth of cut adjustment eliminates the danger of cutting rafters and supports.

**Technical data:**

Engine:	single-cylinder, 2-cycle petrol engine
Fuel lubrication:	with petroleum base 2-cycle oil: 1:50, with synthetic oil: 1:100
Performance:	4.7 kW (6.24 PS)
Displacement:	71 ccm
Engine speed:	13,500 rpm
Depth of cut:	15 cm
Bar length:	40 cm
Weight:	9.8 kg

**RECOMMENDED ACCESSORY:**

**606355 Spare chain**  
40 cm. Weight: 0.4 kg

**611950 Reciprocating saw HILTI WSR 1400-PE**

With tool case. The WSR 1400-PE is designed with a D-grip for top handling in multiple positions and for maximum safety.

Saw blades are available at extra cost.

Power:	600 – 2,000 W intelligent regulation
Power rating:	1,400 W
Voltage:	230 V 50/60 Hz
Stroke rate (6 settings, fully adjustable):	0 – 2,700 rpm
Stroke:	32 mm
Blade holder:	keyless 1/2" system for standard blades
Dimensions (LxWxH):	574 x 101 x 188 mm
Weight:	4.5 kg

**RECOMMENDED ACCESSORIES:**

- 61196001 Saw blade for wood (5 pcs)**  
For timber, wood with nails, composites, gypsum-fibre panels. Length: 230 mm, blade thickness: 1.6 mm.
- 61196201 Saw blade for metal (5 pcs)**  
For sheet metal, metals, aluminium, (stainless steel). Length: 150 mm, blade thickness: 1.1 mm.
- 61196401 Saw blade for universal applications (5 pcs)**  
For plastic, gypsum-fibre panels, sheet metal, wood. Length: 200 mm, blade thickness: 1.3 mm.

**More accessories upon request.**

- 610105 Angle grinder BOSCH GWS 26-230 LVI**  
Technical data:  
Voltage: 220 - 230 V / 50 - 60 Hz  
Blade-diameter: 230 mm (blades not included)  
No load speed: 6,500 U/ min  
Rated input: 2,600 W  
Engine weight: 5.6 kg (without blade)

**RECOMMENDED ACCESSORIES:**

- 610200 Carrying case**  
For BOSCH angle grinder GWS 18-180 up to GWS 26-230. Dimensions: 720 x 317 x 170 mm. Weight: 3.1 kg
- 610600 Blade for metal cutting**  
230 x 3 mm. Weight: 0.27 kg
- 610700 Blade for stone cutting**  
230 x 3 mm. Weight: 0.25 kg
- 610820 Clear safety goggles HELICO P**  
Certified as to EN 166. One piece soft flexible PVC body with one piece tough impact resistant clear Polycarbonate lens. Frame adapts to any face shape. Adjustable flexible headband. Indirect ventilation. Comfortable to wear in connection with optical glasses. Weight: 0.04 kg
- 610830 Dust mask**  
Disposable particle mask. Covers mouth and nose area against coarse dust. For basic dust protection only. Weight: 0.01 kg



61196001



61196201



61196401



610105



610600/610700



610830



611300

611301  
(symbolic picture)611302  
(symbolic picture)

611655

## DRILLS

### 611300 Two-speed impact drill BOSCH GSB 19-2 RE

#### Technical data:

Voltage:	220 - 230 V / 50 - 60 Hz
Power input:	850 W
Torque:	15.5 / 5.2 Nm
Idle speed:	1,000/ 3,000 rpm
Impact rate at idle speed:	0-17,000/ 0-51,000 rpm
Dimensions (LxH):	336 x 214 mm
Max. drill range (wood, masonry, concrete, steel):	40/20/18/13 mm.

Comes complete with: chuck 13 mm, auxiliary handle, depth stop and carrying case.

Weight: 2.6 kg

#### RECOMMENDED ACCESSORIES:

### 611301 Concrete drill set

Consists of one each drill 4.0 / 5.0 / 6.0 / 8.0 / 10.0 mm diameter. Weight: 0.16 kg

### 611302 Metal drill set

Consists of one each drill 1.0 / 2.0 / 3.0 / 4.0 / 5.0 / 6.0 / 7.0 / 8.0 / 9.0 / 10.0 mm diameter. Weight: 0.3 kg

Other qualities and sizes upon request.

#### Pneumatic impact tools

Are used for forcible entry during fire fighting and rescue operations where conventional breakers are not available. Operates from any air source delivering 2.7 to 14 bar, depending on the material to be cut or penetrated.

### 611655 Airgun 40

Speed: approx. 600 blows/min

Consisting of:

- Airgun 40 with D handle, with inline oiler
- (length without bit: 54 cm)
- Pressure regulator
- Air hose
- 10" Curved metal cutter
- 11" Bullpoint chisel
- 11" Flat chisel
- Oil
- Tool kit
- Goggles
- Carrying case (approx. 585 x 260 x 330 mm)

Weight: approx. 14 kg

#### RECOMMENDED ACCESSORY:

### 408922 Compressed air cylinder 6 l / 300 bar

Made of steel. 45 nominal duration.

Delivered empty.

Weight 11.6 kg

**611490 Rotary hammer drill BOSCH GBH 11 DE****Technical data:**

Voltage:	220 - 230 V / 50 - 60 Hz
Rated input:	1,500 W
Max. impact energy:	14.2 J
Impact rate:	1,100 - 2,250 1/ min
Rated speed:	120 - 250 1/ min
Length:	595 mm
Height:	280 mm
Weight:	11.1 kg

**Drilling Range**

- Max. drill diameter in concrete with twist drill: 12 - 52 mm
  - Max. drill diameter in brickwork with core bit : 40 - 150 mm
  - Max. drill diameter in concrete with break through drill bit: 45 - 80 mm
  - Recommended drilling range: 30 - 52 mm
- Chisels and drills come at extra cost.

**RECOMMENDED ACCESSORIES:****Chisel RTEC**

**611492 Flat chisel. Length: 400 mm. Weight: 0.77 kg**

**611493 Pointed chisel. Length: 400 mm. Weight: 0.72 kg**

**Hammer drill bits SDS-MAX**

	Diameter	Total-/ usable length	Weight
<b>61149305</b>	18 mm	540/ 400 mm	0.65 kg
<b>611494</b>	25 mm	520/ 400 mm	0.98 kg
<b>611495</b>	35 mm	520/ 400 mm	1.68 kg

**611630 Drill-breaker combination hammer PIONJÄR 120**

Powerful, reliable and versatile drill-breaker. Breaking, cutting and drilling capabilities - ideal for tie tamping, drilling, anchoring, asphalt and concrete cutting. Petrol driven, no need for cables, power packs, hoses or compressors. Easy to transport, use, maintain and service - cuts capital, running, transport and storage costs. The Pionjär drill/ breaker is delivered in a special protective wooden case which is easy to transport. The case includes one 34 x 400 mm drill steel, and one 45 x 400 mm concrete chisel.

**Technical data:**

Engine type:	1 cylinder, two-stroke, air cooled
Cylinder displacement:	185 cc
Power:	2 kW
Impact energy:	22 - 25 J
Full speed, crankshaft:	2,500 - 2,700 strokes/min
Tool shank:	22 x 108 mm
Cooling system:	Fan cooled
Starter:	Magnapull
Fuel type:	90-100 octane
Oil type:	two-stroke oil
Fuel mixture:	1:25 (4 %)
Fuel tank capacity:	1.1 litres
Length:	730 mm
Width across handles:	330 mm
Weight:	27 kg

**611490****611630**



613000

Drilling range:

Max. drilling depth: 3 m

Penetration rate with 29 mm drill bit: 250 - 350 mm/min

Penetration rate with 34 mm drill bit: 200 - 300 mm/min

Penetration rate with 40 mm drill bit: 150 - 200 mm/min

#### RECOMMENDED ACCESSORIES:

**611631 Flat head chisel**  
45 mm wide, 340 mm long. Weight: 1.4 kg

**611632 Pointed chisel**  
350 mm long. Weight: 1.5 kg

**611634 Pointed spade**  
120 mm wide, 330 mm long. Weight: 3.2 kg

**613000 Disaster flame cutting equipment**  
Certified as to DIN 14800. The advanced technology, easy handling and safety down to the last detail are the result of more than fifty years experience in the construction of special disaster flame cutting equipment. The disaster flame cutting equipment is extremely easy to transport, safe to use, ready for immediate use for example and suitable for any terrain. Disaster flame cutting equipment comes complete with metal-tube chassis, with:

- 5 l Acetylene cylinder
- 5 l Oxygen cylinder
- Acetylene pressure reducing valve with caps
- Oxygen pressure reducing valve with caps
- Hose assembly complete with check valves
- Torch handle RISTA, shaft diameter 18 mm
- Cutting insert RISTA, for cutting material gauges up to 100 mm
- Pressure reducing valve spanner size SW 30/32
- Sheet-steel box with: spare heating- and cutting nozzles, spanner, gas lighter, 2 nylon safety goggles, orifice cleaning needles

#### Technical data:

Flame temperature 3,100 °C

Dimensions: 670 x 420 x 370 mm

Weight: 37 kg

#### RECOMMENDED ACCESSORIES:

**612710 Oxygen cylinder, 5 l**

**612720 Acetylene cylinder, 5 l**

## LIFTING AND PULLING DEVICES

The device is a hand-operated lifting and pulling device. It is versatile, portable and multi-purpose, not only for pulling and lifting but also for lowering, tensioning and guying. The originality of the device is the principle of operation directly on the wire cable which passes through the mechanism rather than being reeled onto a drum of a hoist or conventional winch. The pull is applied by means of two pairs of self-energised jaws which exert a grip on the wire rope in proportion to the load being lifted or pulled. A telescopic operating lever fitted to either the forward or the reverse lever transmits the effort to the jaw mechanism to give forward or reverse movement of the wire rope. The machine is fitted with an anchor pin so that it can be secured quickly to any suitable anchor point. Each device is supplied with a telescopic operating handle.

### Recommended basic equipment for cable pull 1.6 t:

625500	Cable pull 1.6 t
903100	Supporting tarpaulin PVC 2 x 2 m
625600	Wire cable, galvanised
638800	Corner riddle
631930	3 Pcs. round sling to use for load and e.g. tree protection
636000	2 Pcs. shackle 1.6 t
629800	Rope pulley
625800	Metal carrying case

### RECOMMENDED ACCESSORIES FOR CABLE PULL 1.6 T:

#### Wire cable

Suitable for cable pull 1.6 t only. Galvanised, 11 mm diameter, with hook.

626500	20 m long. Weight: 11 kg
626600	30 m long. Weight: 16.5 kg
626700	40 m long. Weight: 22 kg
626800	50 m long. Weight: 27.5 kg

#### Reel for wire cable

11 mm diameter.

034321-001	Up to 20 m. Weight: 2.5 kg
031203-001	Up to 60 m. Weight 3.4 kg

031204-001	Reel support. Weight: 3.6 kg
------------	------------------------------

#### Steel wire ropes

Galvanised, 14 mm diameter. Comes with eyelets 400 mm long at both ends.

627220	2 m long. Weight: 1.5 kg
627240	3.5 m long. Weight: 2.63 kg



625500



625600



638800



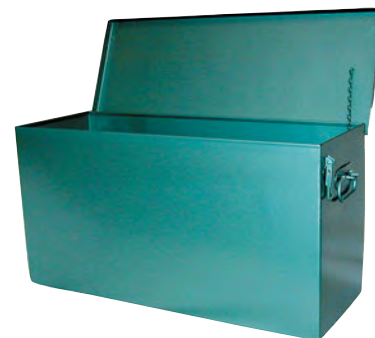
631930



636000



629800



625800



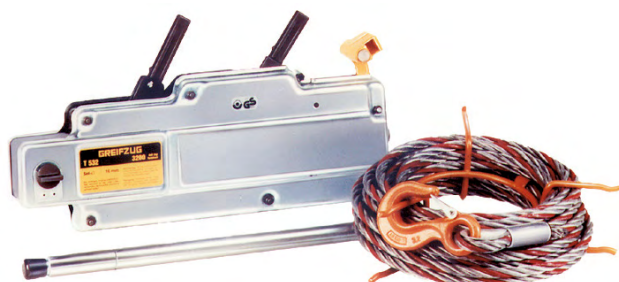
034321-001/031204-001



627500



627300



628000

628100



638800



629800



636800



632140



625800

**627300 Rope pulley, divisible, 100 kN**

Roller made of steel, electro galvanised, with ball bearing. Side plates with eyelets plastic-coated. Rope assembly by twisting the side plates. Pulley diameter: 160 mm. Rope diameter max.: 16 mm. Weight: 7 kg

**627500 Ground anchor size I**

Consists of 2 lashings with 4 holes each, 8 pegs, 750 mm long and one shackle 30 kN. Weight: 28 kg

**Recommended basic equipment for cable pull 3.2 t:**

- 628000 Cable pull 3.2 t**
- 903100 Supporting tarpaulin PVC 2 x 2 m**
- 628100 Wire cable, galvanised**
- 638800 Corner riddle**
- 632140 3 Pcs. round sling to use for load and e.g. tree protection**
- 636800 2 Pcs. shackle 3.2 t**
- 629800 Rope pulley**
- 625800 Metal carrying case**

**RECOMMENDED ACCESSORIES FOR CABLE PULL 3.2 T:****Wire cable**

Suitable for cable pull 3.2 t only. Galvanised, 16 mm diameter, with hook.

- 629000 20 m long. Weight: 21.4 kg**
- 629100 30 m long. Weight: 32.1 kg**
- 629200 40 m long. Weight: 42.8 kg**
- 629300 50 m long. Weight: 53.5 kg**

**Reel for wire cable**

16 mm diameter.

- 034321-001 Up to 20 m. Weight: 2.5 kg**
- 031203-001 Up to 60 m. Weight: 3.4 kg**

- 031204-001 Reel support. Weight: 3.6 kg**

**Steel wire cable**

Galvanised, 18 mm diameter. Comes with pressed in cable eyes 400 mm long at both ends.

- 629420 2 m long. Weight: 4.9 kg**
- 629440 3.5 m long. Weight: 7.2 kg**

**627300 Rope pulley, divisible, 100 kN PERM.**

Roller made of steel, electro galvanised, with ball bearing. Side plates with eyelets plastic-coated. Rope assembly by twisting the side plates. Pulley diameter: 160 mm. Rope diameter max.: 16 mm. Weight: 7 kg



**630012 Universal cable-winch KBF-1000**

Designed to operate in difficult terrain, inaccessible by rescue or emergency vehicles. The winch comes with a safety overload clutch and features exact and automatic cable guidance and coiling. Cable speed: 25 m/min. Pulling force 1 ton in direct operation, or up to 3 tons when using the 2 guide pulleys. The winch is powered by a Jonsered two-stroke petrol engine 3.8 kW, model CS2171. The cable winch comes complete with the following accessories:

- Adapter kit for CS2171
- Special steel wire cable, 80 m long, 6 mm diameter
- Two guide pulleys, 2 tons capacity each
- Attachment chain, for fixing the winch to an anchor point
- Load attachment cable 3.5 m long
- Tree protection belt, 2 m long
- Dimensions (LxWxH): 700 x 360 x 290 mm

Weight of the complete set: 60 kg



630012

**630000 Ground anchor size II**

Consists of 3 lashings with 4 holes each, 12 pegs, 750 mm long and one shackle 50 kN. Weight: 60 kg



630000

**RECOMMENDED ACCESSORIES FOR ORDER NO. 625500 AND ORDER NO. 628000:**

**Steel wire rope**

Certified as to DIN 3059. Galvanised, 16 mm diameter. Breaking strength approx. 178 kN. Comes with pressed in cable eyes 400 mm long at both ends.

- 635210 Length: 2.5 m. Weight: 3.6 kg**
- 635220 Length: 5 m. Weight: 5.5 kg**
- 635230 Length: 10 m. Weight: 10.6 kg**
- 635250 Length: 20 m. Weight: 20.5 kg**



635210/635220/635230/63250

**Towing steel cable, galvanised**

14 mm diameter. Breaking strength approx. 145 kN. Comes with cable eye stiffener at both ends (33 mm).

- 635410 Length: 2.5 m. Weight: 2.8 kg**
- 635420 Length: 5 m. Weight: 4.7 kg**
- 635430 Length: 10 m. Weight: 8.5 kg**

**638800 Corner riddle**

Preserves chains and steel wire cables when pulling over edges. Comes with 3 rotating steel castors and a carrying handle. Weight: 7 kg



635310/635320/635330/635410/635420/635430/



636000



636600



627410



629800

#### Shackle

Certified as to DIN 82101:2005. Suitable for handling chains and steel wire ropes. Made of steel, galvanised, with screw type bolt.

636000	Carrying force: 1,600 kg. Weight: 0.75 kg
636100	Carrying force: 2,500 kg. Weight: 1.32 kg
636200	Carrying force: 3,150 kg. Weight: 1.85 kg
636300	Carrying force: 4,000 kg. Weight: 2.5 kg
636400	Carrying force: 5,000 kg. Weight: 4 kg
636500	Carrying force: 6,300 kg. Weight: 5.4 kg

#### Shackle

Suitable for handling chains and steel wire ropes. Made of steel, galvanised, with screw type bolt.

636600	Carrying force: 1,500 kg. Weight: 0.22 kg
636700	Carrying force: 2,000 kg. Weight: 0.33 kg
636800	Carrying force: 3,250 kg. Weight: 0.65 kg
636900	Carrying force: 4,750 kg. Weight: 0.97 kg
637000	Carrying force: 6,500 kg. Weight: 1.52 kg
637100	Carrying force: 8,500 kg. Weight: 2.33 kg

#### 627410 Universal pulley, 140 kN

Suitable for doubling the pulling capacity of a cable winch. Rope diameter max. 14 mm. Weight: 9.5 kg

#### 629800 Rope pulley with side opening plate

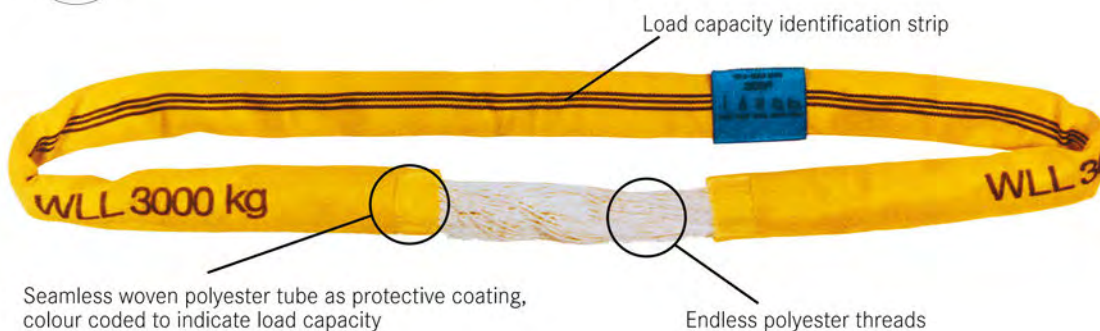
Capacity: 100 kN perm. tensile force. Roller made of steel, electro galvanized, with ball bearing. Side plates plastic-coated. Simple insertion of the rope thanks to opening mechanism. Swivel-type, high-tensile hook. Pulley diameter: 220 mm. Rope diameter max.: 16 mm. Weight: 13 kg

**ROUND SLINGS FOR LIFTING LOADS**

According to EN 1492-2.




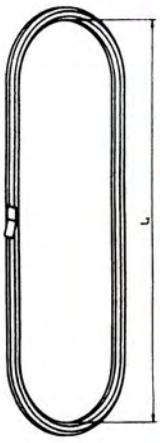
in conformity with DIN 61360, ÖNORM M 9605 part 3 and Machine Safety Ordinance



- Webbing slings made from 100% polyester ensure maximum capacity and yet are light, flexible and soft, which makes them easy to handle and ensures protection of the load to be lifted.
- Colour coding and load capacity identification makes differentiating between the individual slings easy.
- The safety factor (ratio of breaking force to load capacity) is 7.
- The colourful coding of the safety working load which is according to the European Standard enables an easier differentiation for the user.

**Example of order text:**

**Round sling, 1000 kg load capacity, working length 3 m, i.e. circumferential length 6 m = 631830**

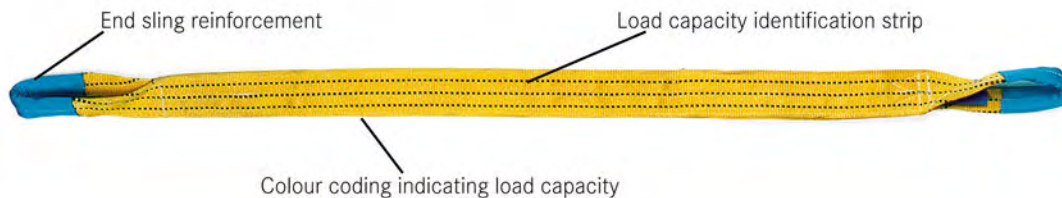
Round sling L1	Type (colour)	Load capacity kg 	working length L1						
			1 m Order No.	1,5 m Order No.	2 m Order No.	2,5 m Order No.	3 m Order No.	4 m Order No.	5 m Order No.
	RS 1 (purple)	1000	631800	631810	631820	631825	631830	631840	631850
	RS 2 (green)	2000	631900	631910	631920	631925	631930	631940	631950
	RS 3 (yellow)	3000	632000	632010	632020	632025	632030	632040	632050
	RS 4 (grey)	4000	632100	632110	632120	632125	632130	632140	632150
	RS 6 (brown)	6000	632200	632210	632220	632225	632230	632240	632250
	RS 8 (blue)	8000	632300	632310	632320	632325	632330	632340	632350

## WEBBING SLINGS FOR LIFTING LOADS

According to EN 1492-2.




with reinforced end slings, in compliance with DIN 61360, ÖNORM M 9605 part 3 and Machine Safety Ordinance



- Hoisting belts two-layered.
- The end slings have approx. half the belt width and are reinforced with PU-coated polyester fabric. Advantage: Low coefficient of friction and no swelling when wet, such as would be the case, for example, with leather.
- The safety factor (ratio of breaking force to load capacity) is 7.

### Example of order text:

**Hoisting belt with reinforced end slings, form B 2, 8000 kg load capacity, working length 4 m = 632684**

Hoisting belt type	Belt width mm (colour)	Load capacity kg	Working length L1					
			1 m Order No.	2 m Order No.	3 m Order No.	4 m Order No.	5 m Order No.	6 m Order No.
Form B2 	30 (purple)	1000	632611	632612	632613	632614	632615	632616
	60 (green)	2000	632621	632622	632623	632624	632625	632626
	90 (yellow)	3000	632631	632632	632633	632634	632635	632636
	120 (grey)	4000	/	632642	632643	632644	632645	632646
	150 (red)	5000	/	632652	632653	632654	632655	632656
	180 (brown)	6000	/	632662	632663	632664	632665	632666
	240 (blue)	8000	/	/	632683	632684	632685	632686

## Webbing slings

**632500 Lashing belt ZG 10 E / 5000**  
One-piece (endless configuration) with ratchet for securing of very lightweight load in passenger cars or luggage. Material: polyester. Width of webbing: 25 mm. Length: 5 m. Breaking force: 10 kN. Weight: 0.7 kg

**632520 Lashing belt ZG 40 Z / 6000 RH**  
Two-piece with ratchet and wire claw hook for securing of lightweight load. e.g. on passenger car trailers. Material: polyester. Width of webbing: 35 mm. Length: 6 m. Breaking force: 40 kN. Weight: 3.8 kg

**632510 Lashing belt ZG 80 E / 7000**  
One-piece (endless configuration) with ratchet for securing of middle-weight load. Material: polyester. Width of webbing: 50 mm. Length: 7 m. Breaking force: 80 kN. Weight: 4.2 kg

**632530 Lashing belt ZG 80 Z / 8000 DHS**  
Two-piece with ratchet and carabines at the ends for securing of middle-weight load. Material: polyester. Width of webbing: 50 mm. Length: 8 m. Breaking force: 80 kN. Weight: 4.2 kg

**Lifting equipment portable mechanical jack**

With safety type crank. Comes with base plate and claw.

**620000 Lifting capacity 25 kN. Weight: 15 kg**  
**620100 Lifting capacity 50 kN. Weight: 22 kg**  
**620300 Lifting capacity 100 kN. Weight: 38 kg**

**Portable hydraulic jack model BUFFALO B5**

Comes with detachable base plate, flat square base and claw.

**621000 50 kN. Total height (non extended): 650 mm.**  
Maximum lift: approx. 280 mm. Weight: 24 kg

**621200 100 kN. Total height (non extended): 800 mm.**  
Maximum lift: approx. 350 mm. Weight: 34 kg

**Winch support QUICK LOCK**

For easy and quick installation, continuously adjustable lowering and lifting, maintenance-free, made of steel. Max. load 5,500 kg.

**624210 Extendable from 0.5 m to 0.85 m. Weight: 7 kg**  
**624220 Extendable from 0.9 m to 1.6 m. Weight: 12 kg**  
**624230 Extendable from 1.7 m to 3.1 m. Weight: 18 kg**

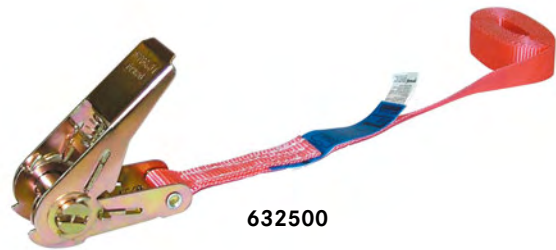
**624700 Wooden supports**

Made of whitewood, each set consists of:

- 2 Beams 400 x 150 x 130 mm
- 3 Beams 600 x 100 x 50 mm
- 2 Stakes 400 x 250 x 50 mm
- 3 Stakes 600 x 80 x 50 mm
- 3 Stakes 600 x 50 x 50 mm
- 2 Wedges 400 x 250 x 50/0

Weight: 20.8 kg

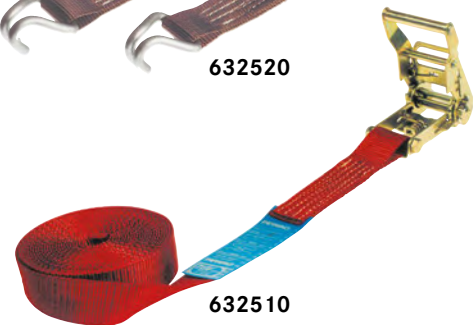
**624600 Hardwood supporting plate**  
300 x 300 x 45 mm. Hard wooden base plate, laminated and bolted for additional strength. Weight: 2.5 kg



632500



632520



632510



632530



620300



621200



624600



923809



651100



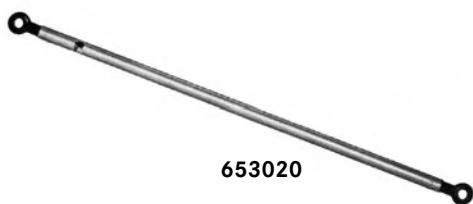
651000



651300



652700/652800



653020

## CLEANER

### 923809 Vacuum cleaner NILFISK ALTO ATTIX 751-71

Protection class I, enclosure type (slash water-protected) IP X4 suppressed to EN 50081

Comes with Storz C coupling.

Voltage:	230 Volt
Main frequency:	50/ 60 Hz
Power consumption:	1,200 W
Connected load for appliance:	plug socket 650 W
Total connected load/ fuse:	1850 W / 16A
Volume flow (air):	216 max. m <sup>3</sup> / h
Vacuum Max.:	23,000 Pa.
Tank volume (gross):	70 l
Liquid filling quantity:	32 l
	(up to switch-off point)
Dimensions:	510 x 480 x 875 mm
Weight:	31 kg

## ACCESSORIES FOR VEHICLES

### Petrol can

**651000 10 l. Weight empty: 2.75 kg. Made of sheet-steel.**

**651100 20 l. Weight empty: 4.2 kg. Made of sheet-steel.**

### 651300 Filler neck for petrol can

Comes with 300 mm flexible hose.

Weight: 0,4 kg.

### Towing rope

Galvanised steel, 5 m, c/ w one eye on each end and cable eye stiffener.

### 652700 Diameter: 12 mm

Breaking strength: 8,450 kg.

Weight: 2.75 kg

### 652800 Diameter: 16.5 mm

Breaking strength: 15,700 kg.

Weight: 4.9 kg

### 653020 Steel tow bar

2,100 mm long. Provided with towing eyes 42 mm diameter on both ends. Pulling force: 8 tons.

Weight: 18 kg

**654220 Hydraulic jack**

Short design. With security overload system, 2 fixed and 2 steerable wheels. Lifting capacity: 2,250 kg, lifting height: up to 500 mm, dimensions incl. handle: 680 x 340 x 1.200 mm. Weight: approx. 40 kg.



654220

**654260 Vehicle roller GOJAK 6200**

Again and again, fire fighters have to move cars out of the way, and this has to be as quick and effortless as possible. This could be just to clear the road or it could be to get better access to injured people. This is where the GOJAK car removal system helps. The patented lifting system is attached to the car in seconds. Once the car has been lifted, it can be effortlessly moved on the GOJAK precision rollers. The GOJAK is unique! It is simply pushed under the tyres and pumped up with just a couple of pedal pushes. The tyres - and thereby the entire car - are thus lifted. If all four wheels are lifted, then the car can be pushed in all directions without strenuous effort. Each set consists of one unit for R/H tyre and one unit for the L/H tyre. Two sets are needed to be able to lift and move a car.

Lifting capacity per unit: 705 kg

Tyre width: max. 330 mm

Dimensions: 650 x 600 x 160 mm

Weight per unit: 17.4 kg



654260

**Flexible exhaust hose**

Made of steel. According to DIN 14572:2002. With isolating type wooden handles. Can be connected to the exhaust pipe of generators or pump engines.

**654400 Total length: 1.5 m**

Diameter: 50 mm. Weight: 2.2 kg

**654410 Total length: 2.5 m**

Diameter: 85 mm. Weight: 5.1 kg

**654415 Total length: 2.5 m**

Diameter: 102 mm. Weight: 6.8 kg



654400

**023221 Wheel chock**

For fire trucks and emergency tenders. In compliance with DIN 14584, especially developed for vehicles with winch. Made of steel sheet, closed design, heavy duty type. Bottom part with teeth for increased ground friction. Weight: 11 kg

**654450 Wheel chock**

Length: 260 mm, height: 150 mm. Galvanised, made of steel sheet - closed design. Wheel load 1,500 kg. Weight: 2.9 kg

**842659 Wheel chock, foldable**

Similar to DIN 14584.

- For fire trucks with winch up to 5t (50 kN) traction
- Made of steel
- Dimensions (folded): 750 x 200 x 100 mm.

Weight: 11.5 kg



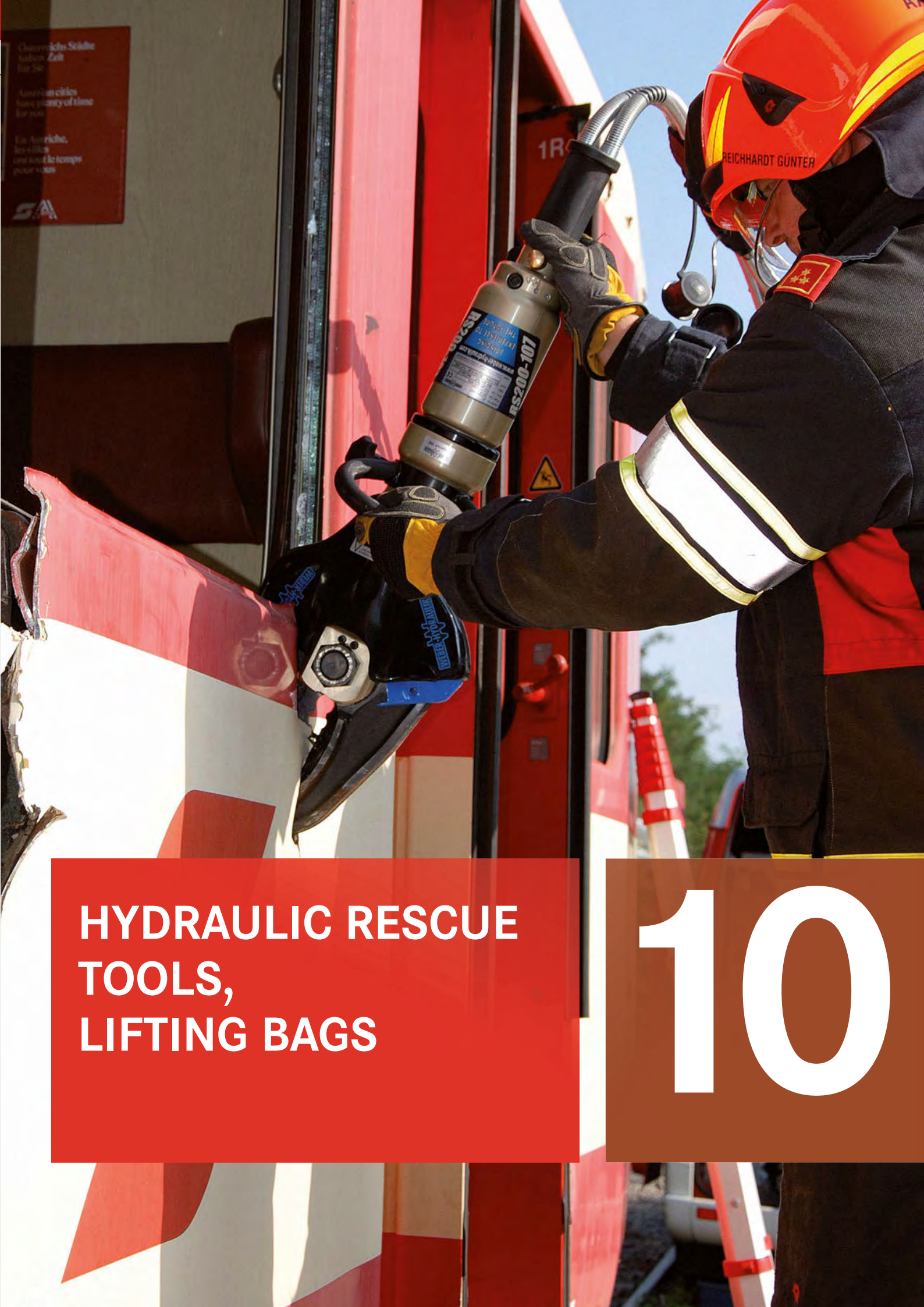
023221



654450







Chancenreiche Städte  
haben Zeit  
für Sie  
American cities  
have plenty of time  
for you  
Für Anträge,  
Anträge,  
and how to help  
your visit  
SA

**HYDRAULIC RESCUE  
TOOLS,  
LIFTING BAGS**

**10**



## LIFTING BAGS – VETTER

Vetter lifting bags do a superb job in emergencies. Usable in critical situations, when speed is of the essence. They are highly adaptable and ideal for raising loads with gentle power quickly to great heights. For more than 30 years these robust, cushion-like lifting bags have stood the toughest of tests in rescue work with fire brigades and rescue services.

### Lifting bags 1 bar

Certified as to EN 13731:2008

#### Applications:

- Lifting overturned vehicles
- Lifting cars, buses, vans, trams, railcars without damaging thin walled bodywork
- Up righting overturned vehicles
- Emergency bracing in work pits
- Lifting small aircraft
- Floating sunken loads
- Lifting loads on soft, marshy or snow-covered ground
- Rescuing trapped people

#### Advantages:

- Large lifting height up to 110 cm
- Same lifting force over the entire lifting range
- Even distribution of load over the lifting surface and ground; no single point loaded more than 1000 g/cm<sup>2</sup>
- Bags adapt to the contours of uneven ground – even rocks, rubble and rails
- Highly flexible – gripping loads at the edge to lift and push simultaneously
- Continuous, noiseless and jolt-free lift
- Usable on slopes
- Bag's cylindrical shape gives optimum pressure distribution and allround stability
- Special internal distance holders prevent top and bottom plates from bulging and protect the bags against damage from sharp edges
- Dimpled surface on both top and bottom plates give the bags a better grip on soft ground
- Low insertion height of only 3 cm
- Light weight 7 kg
- Robust claw couplings
- Variable operating pressure from 0.1 through 0.5 bar to 1 bar
- Eight loops for bag adjustment
- No wear parts, maintenance-free
- Easily repaired

#### Safety:

- Tested by TÜV-Rheinland
- Type certification
- Ongoing production control by TÜV-Rheinland inspector
- Lowering rate (deflation) 1.85 cm/sec. (0.73 in/sec)
- Bursting pressures 3 to 4 times the maximum allowable working pressure

#### Standard equipment for lifting bag consists of:

- 2 Lifting bags in very tear, fine-meshed, neoprene nylon fabric, with 8 loops
- 1 Portable valise in coated fabric, washable, with 2 loops
- 2 Inflation hoses 5 m long, oil resistant
- 1 Dual safety controller fitting, for separate control of 2 lifting bags, 2 safety valves

- 1 Pressure reducer 200/ 300 bar, adjustment up to 10 bar
- 2 Manometers with protective caps, locking valve, 2 m compressed air hose
- 1 Repair kit

**RECOMMENDED ACCESSORIES ON PAGE 334.**

**647025 Set of lifting bags, type 1/23**

Rated capacity: 22.6 metric tons. Lifting height: 110 cm.

Consisting of:

- 2 Power bags 1/23
- 1 Transport bag 1/23
- 2 Air supply hoses, 5 m long
- 1 Dual deadman controller 1 bar
- 1 Pressure reducer 200/300 bar
- 1 Repair kit

Weight of the complete set: 59 kg

**647125 Set of lifting bags, type 1/13**

Rated capacity: 13 metric tons. Lifting height: 62 cm.

Consisting of:

- 2 Power bags 1/13
- 1 Transport bag 1/13
- 2 Air supply hoses, 5 m long
- 1 Dual deadman controller 1 bar
- 1 Pressure reducer 200/300 bar
- 1 Repair kit

Weight of the complete set: 40 kg

**647225 Set of lifting bags, type 1/9**

Rated capacity: 9 metric tons. Lifting height: 60 cm.

Consisting of:

- 2 Power bags 1/9
- 1 Transport bag 1/9
- 2 Air supply hoses, 5 m long
- 1 Dual deadman controller 1 bar
- 1 Pressure reducer 200/300 bar
- 1 Repair kit

Weight of the complete set: 35 kg

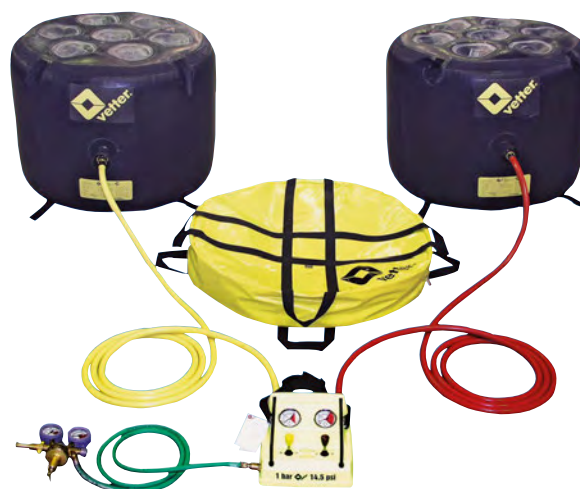
**647325 Set of lifting bags, type 1/6**

Rated capacity: 5.8 metric tons. Lifting height: 45 cm.

Consisting of:

- 2 Power bags 1/6
- 1 Transport bag 1/6
- 2 Air supply hoses, 5 m long
- 1 Dual deadman controller 1 bar
- 1 Pressure reducer 200/300 bar
- 1 Repair kit

Weight of the complete set: 29 kg



647025/647125/647225/647325

Type	1/ 23	1/ 13	1/ 9	1/ 6
Order no.	647014	647114	647214	647314
Lifting power (2 bags = 1 set)	226 kN	130 kN	90 kN	58 kN
Lifting height	110 cm	62 cm	60 cm	45 cm
Insertion height (uninflated)	3 cm	3 cm	3 cm	3 cm
Working pressure	1.0 bar	0	1.0 bar	1.0 bar
Test pressure	1.5 bar	1.5 bar	1.5 bar	1.5 bar
Air requirement for 2 bags	4972 l	1612 l	1088 l	524 l
Nominal content 1 bag	1243 l	403 l	272 l	131 l
Diameter	120 cm	91 cm	76 cm	61 cm

**RECOMMENDED ACCESSORIES ON PAGE 334.**



### 647370

#### Rescue set 1 bar

Especially designed for handling and lifting of overturned vehicles. Operating pressure 1 bar. Total lifting capacity 12,100 kg, when using both lifting bags.

Further applications:

- Lifting loads on soft, uneven ground
- Lifting and pushing soft bodywork parts, e.g. on buses, railway wagons or aircraft
- Lifting uprooted trees
- Lifting and pushing of loads, simultaneously - in road crashes
- Bracing work pits
- Rescuing trapped people and animals

Each set consists of:

- 2 Lifting bags LH 1/30 S, including standard equipment
- 2 Air inflation hoses, each 5 m long
- 1 Dual safety controller with deadman controller
- 1 Pressure reducer 200/300 bar
- 1 Repair kit

#### Technical data:

Lifting capacity per bag:	6,050 kg
Lifting capacity per set:	12,100 kg
Size:	65 cm
Working pressure max.:	1 bar
Nominal contents:	530 l
Air requirement:	1,082 litres
Test pressure:	1.5 bar
Bursting pressure:	4.2 bar
Insertion height:	4 cm
Weight per set:	25 kg



647370

### VETTER MINI LIFTING BAGS S.TEC 10 BAR

Vetter Mini Lifting Bags apply the greatest power with millimetre precision on flat, uneven or sloping surfaces. They lift, push, press and support the heaviest of loads. They are robust and powerful tools, ideal in countless applications. They act as lifesavers in accident and natural catastrophes. They lift and adjust heavy-duty machines.

#### Applications:

Only 25 mm high, small, strong, fast and usable on any slope. Ideal for:

- Freeing people from under loads
- Rescue and recovery work after earthquakes
- Forcing window bars apart
- Opening lift doors
- Tyre change on low-loaders, buses and trucks
- Re-railing trams
- Freeing people trapped after accidents with industrial and farm equipment

#### Advantages:

First and foremost the S.Tec generation of mini lifting bags stands for:

- 25 % more power by using innovative technology compared to 8.0 bar (116 psi) mini lifting bags
- Modern sophisticated design
- Many details practically oriented
- Maximum insertion height of only 25 mm (1 inch)
- Innovative technology coupled with field-proven material (CR/aramide)
- Anti-static and self-extinguishing features
- New interlocking surface profile

- Maintenance free
- Fast lifters (10 t in 4 sec.)
- Lift on any slope

**Aramide reinforcement:**

- Highly flexible
- Corrosion-resistant
- Lightweight

**Technical Data S.Tec-Bags 10.0 bar, aramide**

Aramide	Unit	V 1. S.Tec	V 4 S.Tec	V 6 S.Tec	V 7 S.Tec	V 12 S.Tec	V 14 S.Tec	V 22 S.Tec	V 25 S.Tec
<b>Order no.</b>		<b>647840</b>	<b>647842</b>	<b>647844</b>	<b>647846</b>	<b>647848</b>	<b>647850</b>	<b>647852</b>	<b>647854</b>
Lifting power	kg	1,100	3,800	6,300	7,000	11,600	14,200	21,600	24,800
Lifting height, max.	cm	7.5	12.0	14.5	16.5	20.3	20.0	27.0	28.0
Insertion height (uninflated)	cm	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Size	cm	14 x 13	25.5 x 20	28 x 28	29.5 x 29.5	37 x 37	32 x 52	47 x 52	48 x 58
Working pressure	bar	10	10	10	10	10	10	10	10
Test pressure	bar	16	16	16	16	16	16	16	16
Bursting pressure, min.	bar	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
Air requirement at 10.0 bar	l	3.3	19.3	34.8	48.4	101.2	117.7	238.7	273.9
Nominal content	l	0.30	1.75	3.16	4.40	9.20	10.70	21.70	24.90
Inflation time, approx.	sec.	0.5	1.0	1.3	1.4	5.0	6.0	11.0	14.0
Weight, approx.	kg	0.6	1.5	1.2	2.5	3.9	4.6	6.4	7.8

Aramide	Unit	V 28 L S.Tec	V 29. S.Tec	V 41 S.Tec	V 45 L S.Tec	V 50 S.Tec	V 69 S.Tec	V 85 S.Tec
<b>Order no.</b>		<b>647858</b>	<b>647856</b>	<b>647860</b>	<b>647862</b>	<b>647864</b>	<b>647866</b>	<b>647868</b>
Lifting power	kg	27,700	28,900	40,900	44,800	49,500	68,900	84,600
Lifting height, max.	cm	20.1	30.6	37.0	31.0	40.2	47.8	52.0
Insertion height (uninflated)	cm	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Size	cm	31 x 102	52 x 62	65 x 69	43 x 115	78 x 69	86 x 86	95 x 95
Working pressure	bar	10	10	10	10	10	10	10
Test pressure	bar	15	15	15	15	15	15	15
Bursting pressure, min.	bar	40.0	4.0	40.0	40.0	40.0	40.0	40.0
Air requirement at 10.0 bar	l	258.5	361.9	632.5	426.8	825.0	1,366.2	1,780.9
Nominal content	l	23.50	32.90	57.50	38.8	75.00	124.20	161.90
Inflation time, approx.	sec.	13.0	18.0	31.0	35.0	41.0	68.0	88.0
Weight, approx.	kg	8.3	8.9	13	13.5	14.9	20.5	25

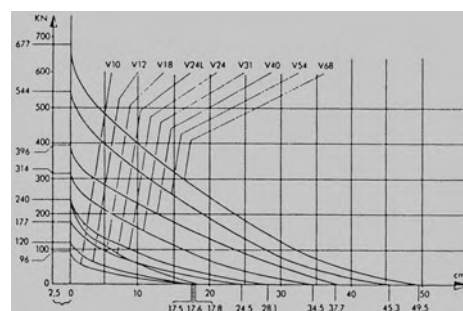
**STANDARD SETS FOR MINI LIFTING BAGS 10 BAR:**

**647800 Set of Mini Lifting Bags system 395 kN (39 T) 10 bar S.Tec**

With aramide reinforcement. Universal and explosion-proof lifting device for all sorts of rescue operations. Consists of:

- 1 Pressure reducer 200/ 300 bar
- 1 Dual deadman controller
- 1 Air hose yellow, 5 m
- 1 Air hose red, 5 m
- 1 Power bag V 6 S.Tec
- 1 Power bag V 12 S.Tec
- 1 Power bag V 22 S.Tec

Weight: 21.3 kg



Measured lifting capacity in relation to lifting height at 10 bar

**647810 Set of Mini Lifting Bags system 888 kN (89 T) 10 bar aramide**

With aramide reinforcement. Universal and explosion-proof lifting device for all sorts of rescue operations. Consists of:

- 1 Pressure reducer 200/ 300 bar
- 1 Dual deadman controller
- 1 Air hose yellow, 5 m
- 1 Air hose red, 5 m
- 1 Power bag V 6 S. aramide
- 1 Power bag V 12 S. aramide
- 2 Power bags V 22 S. aramide
- 1 Power bag V 28 L S. aramide

Weight: 35 kg

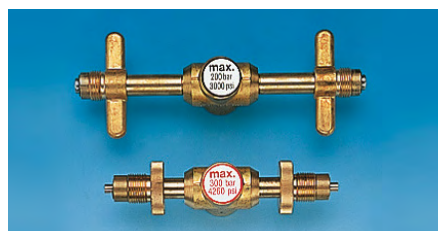


## LIFTING BAGS - ACCESSORIES

### Air sources / air supply



**408922 Compressed air cylinder, steel**  
6 l / 300 bar, supplied empty.  
Weight: 11.5 kg



**Dual connector with check valve**  
**647400** 200 bar. Weight: 0.9 kg  
**647410** 300 bar. Weight: 0.9 kg



**647460 Pressure regulator 200/300 bar**  
With finger-tight connector.  
Weight: 2.6 kg



**647420 Adapter set**  
Weight: 6.2 kg



**647423 Pressure regulator**  
16 bar max. inlet pressure.  
Weight: 0.8 kg

### 1 bar



**647003 Single controller**  
1 bar, fitting.  
Weight: 1.01 kg



**647004 Dual safety controller**  
1 bar, fitting.  
Weight: 2.34 kg



**647005 Dual deadman controller**  
1 bar, in plastic housing.  
Weight: 2.9 kg



**647001 Inflation hose**  
5 m, 1 bar, yellow.  
Weight: 2.01 kg



**647011 Inflation hose**  
5 m, 1 bar, red.  
Weight: 2.01 kg

### 10 bar



**647900 Dual controller**  
10 bar, S.Tec, in plastic housing with deadman controller.  
Weight: 2.9 kg



**647910 Single deadman controller**  
10 bar, S.Tec, aluminium style.  
Weight: 1.5 kg



**647920 Dual deadman controller**  
10 bar, S.Tec, aluminium style.  
Weight: 3.1 kg



**Inflation hose S.Tec**  
**647960** 10 bar, 5 m, red. Weight: 0,7 kg.  
**647950** 10 bar, 5 m, yellow. Weight: 0.7 kg

**647980** 10 bar, 10 m, red. Weight: 1.3 kg  
**647970** 10 bar, 10 m, yellow.  
Weight: 1.3 kg

**Inflation hose with safety relief valve**  
**64747106** 10 bar, 0.3 m, yellow  
**64747107** 10 bar, 0.3 m, red

## WEBER SPREADERS

Controlled spreading, pulling, crushing, pressing and lifting performed on vehicle wrecks and building ruins (after earthquakes, explosions, etc.). Ergonomic handling for right- and left-handed people in all operating positions because of favourable built holding devices and control knobs.

- Maximum power at very low weight
- Coaxial single couplings
- Ergonomically advantageous handling
- Tested according to DIN EN 13204:2012, NFPA 1936:2010
- Unique Weber-Control for fine-tuned precision handling
- Temperature range from -30 °C to +80 °C
- Can be operated under water

### 645315S Weber spreader SP 35 L

DIN EN 13204:2012, NFPA 1936:2010.

Spreader with very low weight.

Spreading force at tips:	38 to 47 kN
Spreading force in working range:	74 to 171 kN
Pulling force:	38 kN
Opening width:	600 mm
Weight:	only 16.6 kg
EN class:	AS 35/600-17

Construction/design:

- Arms and cylinder housing are made of high strength aluminium alloy with wear-resisting surface
- Lightweight and well balanced tool
- Inside of arms ribbed for crushing
- Space-saving slim shape with parallel arms
- Two handles, including a collapsible handle useable also for carrying

### 645341 Spreader tips for SP 35 L (1 pair)

1 pair = 2 pieces. Weight/pair: 0.7 kg

### 645215S Weber spreader SP 49

DIN EN 13204:2012, NFPA 1936:2010.

Sets standards! Lightweight spreader with highest spreading force in its class, big opening width and low weight.

Spreading force at tips:	54 to 67 kN
Spreading force in working range:	99 to 329(!) kN
Pulling force:	54 kN
Opening width:	710 mm
Weight:	19.9 kg
EN class:	AS 49/650-20

Construction/design:

- Cylinder body and arms made out of high-strength aluminium alloy with wear-resisting surface
- Lightweight and well balanced tool
- Space-saving slim shape with parallel arms
- New tip design for all requirements
- Two handles, including a collapsible handle useable also for carrying

### 645216 Spreader tips for SP 49 (1 pair)

1 pair = 2 pieces. Weight/pair: 1.8 kg



645315S



645215S



645216



645225S

**645225S Weber spreader SP 53 BS**

DIN EN 13204:2012, NFPA 1936:2010

The new spreader with big opening of 800 mm and low weight. New golden spreader tips with captive pins.

Spreading force at tips: 57 to 92 kN

Spreading force in working range: 95 to 421 kN

Pulling force: 72 kN

Opening width: 800 mm

Weight: 20.3 kg

EN class: BS 53/800-20

Construction/Design:

- Cylinder body and arms are made out of high-strength aluminium alloy with wear-resisting surface
- Lightweight and strong tool
- Space-saving slim shape with parallel black arms
- New tips with for better grip
- Two handles, including a collapsible handle, useable also for carrying

**645226S Spreader tips for SP 53 BS (1 pair)**

1 pair = 2 pieces. Weight/pair: 1.8 kg



645358S

**645358S Weber spreader SP 60**

DIN EN 13204:2012, NFPA 1936:2010.

Heavy duty spreader for hardest requirements!

Train accidents, van accidents, bus accidents etc.

Spreading force at tips: 68 to 97 kN

Spreading force in working range: 117 to 492 kN

Pulling force: 71 kN

Opening width: 810 mm

Weight: 24.7 kg

EN class: BS 63/810-25

Construction/design:

- Cylinder housing and arms out of high-strength aluminium alloy with wear-resistant surface
- Well balanced tool with parallel arms
- Favourable position of tips at completely opened arms (safety-factor!)
- Two handles, including a collapsible handle useable also for carrying
- New tip design for all requirements



645359

**645359 Spreader tips for SP 60 (1 pair)**

1 pair = 2 pieces. Weight/pair: 2 kg



## WEBER CUTTERS

For safe and silent rescue work following road and rail accidents, accidents in industry and on construction sites and on the occasion of natural disasters. Saving human lives by:

Controlled cutting of door posts, roof spars, seat fittings and obstructing parts of vehicles. Ergonomic handling for right- and left-handed users in all operating positions because of favourable built holding devices and control knobs (push buttons). Handle removable and adjustable through 360°. Protective guard plates are provided to cover all openings. Temperature range from -30 °C to + 80 °C.

- Ergonomically designed for easy handling
- Coaxial single coupling
- 360° adjustable and removable handle
- Tested according to DIN EN 13204:2012, NFPA 1936:2010
- Unique Weber-Control for fine tuned precision handling
- Can be operated under water

### 645005S Weber cutter type S 50-14

DIN EN 13204:2012, NFPA 1936:2010.

Extremely light and compact cutter for tension free cutting of pedals, steering wheels, steel bars and door chains.

Opening width:	50 mm
Max. cutting capacity steel bar:	16 mm
Flat steel:	50 x 6 mm
Weight:	only 4.3 kg
EN class:	AC 50-B-4
NFPA class:	A4/B3/C2/D4/E3

Construction/design:

- Exceptionally light and simple to use making one hand operation easy
- Compactness for access in tight situations such as motor car footwells

### 645007 Cutter blades for S 50-14

1 pair = 2 pieces. Weight/pair: 0.7 kg

### 645300S Weber cutter type C 100-31

DIN EN 13204:2012, NFPA 1936:2010.

Cutting tool with c-shape cutting blade for continuous cutting of side members, thick metal sheets and composite materials.

Cuts solid flat material up to 15 mm thickness.

Clean cut finish simplifies victim removal.

Very effective for rescue operations in accidents of railways, busses, trucks and aviation as well as cars.

Continuous cutting force of 31 tons over the whole stroke.

Opening width:	120 mm
Weight:	19.5 kg
EN class:	AC 120-C-20
NFPA class:	A4/B3/C5/D6/E6

### 64530001 Cutter blades for C 100-31 (1 piece)

Weight: 3 kg



645005S



645007



645300S



64530001



6450331S

**6450331S Weber cutter type RSX 105-29**

DIN EN 13204:2012, NFPA 1936:2010.

Extremely lightweight and strong with 29 tons cutting force.

Opening width:	105 mm
Max. cutting capacity steel bar:	25 mm
Weight:	only 9.3 kg
EN class:	AC 105-E-9
NFPA class:	A5/B4/C5/D6/E6

**6450332 Cutter blades for RSX 105-29 (1 pair)**

1 pair = 2 pieces. Weight/pair: 1.8 kg



645026S

**645026S Weber cutter type RSX 180-80**

DIN EN 13204:2012, NFPA 1936:2010.

High cutting performance, 180 mm opening width and only 17.6 kg weight. Round blades clasp the material to be cut and pull it towards the centre of the blades to the point of highest cutting force.

With integrated round steel bar cutter to cut large diameters. Upgradeable to RSX 180-80 PLUS.

Opening width:	180 mm
Weight:	17.6 kg
Max. cutting capacity steel bar:	35 mm
EN class:	BC 180-H-18
NFPA class:	A7/B9/C7/D9/E9

**64502302 Cutter blades for RSX 180-80 (1 pair)**

1 pair = 2 pieces. Weight/pair: 6.4 kg

**645029S Weber cutter type RSX 200-107**

DIN EN 13204:2012, NFPA 1936:2010.

Highest cutting force of 107 tons at an opening width of 200 mm: designed for hardest applications, especially new car technologies and materials. Upgradeable to RSX 200-107 PLUS!

Opening width:	200 mm
Weight:	19.9 kg
Max. cutting capacity steel bar:	43 mm
EN class:	CC 200-H-20
NFPA class:	A8/B9/C8/D9/E9

**64502901 Cutter blades for RSX 200-107 (1 pair)**

1 pair = 2 pieces. Weight/pair: 6.8 kg



645024S

**645024S Weber cutter type RSX 185-105**

DIN EN 13204:2012, NFPA 1936:2010.

- Xtreme-cutting technology for maximum cutting performance (105 tons) and easy handling
  - Forged high performance blades with bolt cutting recess
  - Rotatable and detachable handle
  - Integrated LED-lamps (changeable)
  - The only cutter with highest NFPA-class "ALL NINE"
- |                                  |                |
|----------------------------------|----------------|
| Opening width:                   | 185 mm         |
| Weight:                          | 22.5 kg        |
| Max. cutting capacity steel bar: | 45 mm          |
| EN class:                        | CC 240-H-23    |
| NFPA class:                      | A9/B9/C9/D9/E9 |

**64502401 Cutter blades for RSX 185-105 (1 pair)**

1 pair = 2 pieces. Weight/pair: 8 kg

**Weber PLUS cutters with inserts**

DIN EN 13204:2012; NFPA 1936:2010. Cutter blades with inserts made of high strength alloy to cut high strength and reinforced vehicle body parts. Long blade life due to less wear and tear of insert, better performance and lower maintenance costs (change inserts not blades).

Type	RSX 180-80 PLUS	RSX 200-107 PLUS
Order no.	<b>645026SP</b>	<b>645029SP</b>
Opening width	180 mm	200 mm
Weight	17.8 kg	20.9 kg
EN classes	BC 180-H-18	CC 200-H-21
NFPA classes	A7/B9/C7/D9/E9	A8/B9/C8/D9/E9
Max. cutting capacity	35 mm	43 mm

**645028P Cutter blades for RSX 180-80 PLUS**

Complete with inserts (1 pair)

Also applicable for upgrading the standard cutter RSX 180-80. 1 pair = 2 pieces. Weight/pair: 6.7 kg

**64502901P Cutter blades for RSX 200-107 PLUS**

Complete with inserts (1 pair)

Also applicable for upgrading the standard cutter RSX 200-107. 1 pair = 2 pieces. Weight/pair: 7.8 kg

**64502902P Inserts for RSX 180-80 PLUS blades**

1 pair in bag. Weight/pair: 0.6 kg

**64502905P Inserts for RSX 200-107 PLUS blades**

1 pair in bag. Weight/pair: 0.6 kg

**645658 Upgrade set RSX 165-65/ S 270-71 to RSX 180-80 PLUS**

Consisting of 1 pair of blades with inserts and 2 pins. Weight/set: 9 kg

**645659 Upgrade set RS 170 to RSX 180-80 PLUS**

Consisting of 1 pair of blades with inserts and 2 pins. Weight/set: 9.9 kg

**WEBER COMBITOOLS****645309 Weber combitool HANDVARIO SPS 260 H**

DIN 14751-4. Hand operated combitool – extremely light and strong.

Opening width: 260 mm

Max. spreading force: 383 kN

Spreading force at tips: 32 kN

Max. cutting capacity steel bar: 25 mm

Weight: 11.2 kg

EN class: BK 26/260-E-11

- Minimum encumbrance due to slender form
- Saves storage space and weight on the vehicle
- Blades (arms) made of high-quality tool steel with special cutter for round stock, cylinder housing made of high-strength aluminium
- Light and well balanced mass distribution
- Head can be rotated to any position within 360° for an always optimal position of pump lever
- Accessory RZM 740

**645026SP****645029SP****645309**



64532105S



643007



645322S



645323



645324



645325

**64532105S Combitool SPS 360 L**

DIN EN 13204:2012, NFPA 1936:2010

For various applications with different requirements without changing tools.

Spreading force:	47 to 718 kN
Max. cutting capacity steel bar:	30 mm
Spreading way:	360 mm
Pulling way (with pulling device):	444 mm
Pulling force max. (with pulling device):	52 kN
Weight:	14.9 kg
EN class:	CK 35 / 360-H-15
NFPA class:	A6 / B7 / C6 / D8 / E8

**64532106 Cutter blades for SPS 360 L and SPS 360 L E-FORCE**

(1 pair). Weight/pair: 5.4 kg

**64532104 Pulling devices for SPS 360 and SPS 360 L (1 pair)**

Weight/pair: 2.8 kg

**643007 Mechanical ram RZM 740**

Practical supplement for rescue work with the combi-tools SPS 260 H, SPS 270 and SPS 360. Works without any additional power source. Reliable hydraulic protective circuit by fixed connection to the VARIO.

Extension spreading way*:	308-650 mm
Max. spreading force:	26 kN
Extension spreading way SPS 360:	308-740 mm
Pushing force max.:	34 kN
Weight:	6.9 kg

\* SPS 260 H, SPS 270, SPS 360 L

DIN EN 13204:2012, NFPA 1936:2010.

For applications with extreme requirements without changing tools. Tips detachable for dedicated cutting operation.

**64532107S Weber combitool VARIO SPS 370****645322S Weber combitool VARIO SPS 400**

Type	SPS 370	SPS 400
Spreading force at tips	47 to 718 kN	48 to 726 kN
Max. cutting capacity steel bar	30 mm	35 mm
Spreading way	365 mm	425 mm
Pulling way *	390 mm	404 mm
Pulling force max. *	65 kN	63 kN
Weight	15.8 kg	18.3 kg
EN class	CK 35 / 365-H-16	CK 36 / 420-H-18
NFPA class	A6 / B8 / C6 / D8 / E8	A7 / B9 / C7 / D9 / E9

\* With pulling device.

**645323 Spreading tips for SPS 370 and SPS 400 (1 pair)**

Including bolts. Weight/pair: 1.6 kg

**64532108 Cutter blades for SPS 370 (1 pair)**

Weight/pair: 4.2 kg

**645324 Cutter blades for SPS 400 (1 pair)**

Weight/pair: 5.4 kg

**645325 Pulling devices for SPS 370 and SPS 400 (1 pair)**  
Complete with bolts, for attaching the chain-set to the blades (arms). Weight/pair: 2.8 kg

**645328 Chain set for SPS 360 L, SPS 370 and SPS 400**  
2 chains with 1.8 m length each and chain locks. The length of the chains can be adjusted simply by pressing the chain lock's knob. Weight/set: 13.8 kg



## WEBER RESCUE CYLINDERS

### Weber rescue cylinders, single stage

Optimal graduated, plenty power, less weight. Tested according to DIN EN 13204:2012, NFPA 1936:2010. Essential rescue accessory, to further enhance the opening created with a spreader or for instant pushing and pulling rescue work. With optional available pulling chains rams can be used for pulling operations. Simple mounting of the chains.

- Reliable steel construction in space-saving design with axial mounted hoses
- Coaxial single coupling
- Piston rods hard chrome plated
- Same control system like spreader and cutter: Fine tuned push button control knobs
- Temperature range from - 30 °C to + 80 °C
- Can be operated under water

Type	RZ 1 - 850	RZ 2 - 1290	RZ 3 - 1640
Order no.	<b>645500S</b>	<b>645501S</b>	<b>645502S</b>
Closed length	530 mm	750 mm	1,100 mm
Extended length	850 mm	1,290 mm	1,640 mm
Pushing force	14.0 tons	14.0 tons	14.0 tons
Pulling force	2.7 tons	2.7 tons	2.7 tons
Weight	11.7 kg	16.4 kg	19.4 kg



645500S

### Weber rescue cylinders, double acting, telescopic - two stage

Tested according to EN 13204:2012, NFPA 1936:2010

Type	RZT 2 - 600	RZT 2 - 775	RZT 2 - 1170	RZT 2 - 1500
Order no.	<b>645517S</b>	<b>645518S</b>	<b>645519S</b>	<b>645520S</b>
Closed length	300 mm	393 mm	540 mm	650 mm
Extended length	600 mm	775 mm	1,170 mm	1,500 mm
Pushing force 1. stage	19.3 tons	19.3 tons	19.3 tons	19.3 tons
Pushing force 2. stage	10.1 tons	10.1 tons	10.1 tons	10.1 tons
Weight	9.3 kg	11.5 kg	15.2 kg	18.0 kg



645519S

### Weber rescue cylinders, telescopic - two and three stage

Type	RZT 3-1310 XL	RZT 2-1500 XL
Order no.	<b>645525S</b>	<b>645521S</b>
Closed length	480 mm	650 mm
Extended length	1,310 mm	1,502 mm
Pushing force 1. stage	27.5 to	27.5 to
Pushing force 2. stage	13.2 to	13.2 to
Pushing force 3. stage	4.6 to	-
Weight	17.2 kg	20.9 kg



645521S



645518001



645510

#### ACCESSORIES FOR WEBER RESCUE CYLINDERS:

- 645503 Pulling devices for chain set (1 pair)**  
Required to use chain set 645327 for RZ 1-3.  
Weight/pair: 1.4 kg
- 645506 Pulling devices for chain set (1 pair)**  
Required to use chain set 645328 for RZ 1-3.  
Weight/pair: 1.6 kg
- 645327 Chain set for SP 35 and RZ 1-3**  
Weight/set: 7.4 kg
- 645328 Chain set for SP 49, SP 43 XL, SP 60, SPS 360, SPS 400, SPS 360 E-FORCE and RZ 1-3**  
Weight/set: 13.8 kg
- 645530 Pushing heads**  
Different pushing heads to optimise the use of rescue cylinders, complete with storage box.  
(Not suitable for telescopic rams!)  
Weight: 6.5 kg
- 645518001 Telescopic ram extension, 250 mm**  
Exclusively for RZT 2-600 and RZT 2-775.  
Weight: 3.4 kg
- 645510 Sill support**  
The sill support with widened seating stabilises the sill and the B column and prevents cylinder breakthrough. The sill is not pushed out of way. The graduations in the sill support enable optimum use of the cylinder travel. New dimension fit also new car technologies. Ideal supplement to all rescue cylinders. Weight: 10 kg

#### Base supports

Extensive extras for rescue cylinders to push inside a vehicle directly e.g. on the dashboard.

- 645507 Base support front**  
Weight: 6 kg
- 645508 Base support back**  
To support the rescue cylinder at the rear.  
Weight: 9.8 kg

#### Rim adaptor sets (for RZ, RZT, RZT XL)

Special adaptor sets for various rescue cylinders to lift lorries and busses at the wheel.

- 645535 Rim adaptor set**  
Consisting of: base plate, 3 rim adaptors and carrying case. Weight: 19.6 kg
- 645536 Rim adaptor set with front wheel adaptor**  
Consisting of: base plate, 3 rim adaptors, rim adaptor front and carrying case. Weight: 30.7 kg

## WEBER HEAVY DUTY POWER UNITS

### 645605S Hydraulic power unit E 50-T+SAH 20

Hydraulic power unit "two in one" for simultaneous operation of 2 tools or turbo mode for 1 tool.

With hose reel attached and 2 x 20 m high pressure hoses and single couplings.

Tested according to DIN EN 13204:2012 and NFPA 1936:2010. Standard power unit in Europe.

Motor:	E-Motor 230 V, 50 Hz, 1.3 kW
Nominal pressure:	700 bar
Oil volume:	4 l
Dimensions (LxWxH):	830 x 440 x 470 mm
Weight:	73 kg

### 645606S Weber hydraulic power unit V 50-T+SAH 20

Analogue to E 50-T + SAH 20, with 4-stroke petrol engine 3.0 kW

Motor:	4-stroke-petrol eng., 3 kW
Nominal pressure:	700 bar
Oil volume:	4 l
Dimensions (LxWxH):	845 x 440 x 470 mm
Weight:	71 kg



**645606S**  
(gear support optional)

## WEBER HEAVY DUTY POWER UNITS WITH COAX ("HOSE-IN-HOSE-SYSTEM")

### 645605C Hydraulic power unit E 50-T + SAH 20 COAX

Hydraulic power unit "two in one" for simultaneous operation of 2 tools or turbo mode for 1 tool. With hose reel attached and 2 x 20 m coax high pressure hoses and single couplings.

Tested according to DIN EN 13204:2012 and NFPA 1936:2010.

Motor:	230 V/50 Hz, 1.3 kW
Nominal pressure:	700 bar
Oil volume:	4 l
Type:	2 x 20 m hose
Dimensions (LxWxH):	830 x 440 x 470 mm
Weight:	69 kg

### 645606C Hydraulic power unit V 50-T + SAH 20 COAX

Analogue to E 50-T + SAH 20, with 4-stroke petrol engine 3.0 kW

Motor:	4-stroke-petrol eng., 3 kW
Nominal pressure:	700 bar
Oil volume:	4 l
Type:	2 x 20 m hose
Dimensions (LxWxH):	845 x 440 x 470 mm
Weight:	67 kg



**645605C**

## ACCESSORIES FOR WEBER HYDRAULIC POWER UNITS

### 645608 Holding device for 2 tools

Universal design for all T power units with SAH 20. For cutter and spreader.

Weight: 2 kg



**645608**



645050S



645392S



645377S



645393S

**645606 Additional hydraulic fluid tank E50-T\***

\* Please contact our service department if required!

**645050S Hand pump DPH 4018 SA**

Useable for operation of all Weber rescue tools, except large telescopic rams.

- Nominal pressure: 700 bar
- Incl. 5 m hoses
- Oil volume: 2.5 l
- Single couplings
- Mounted on a wooden board
- Weight: 14.6 kg

**645392S Compact power unit E-COMPACT**

Extremely lightweight and compact electric power unit with maximum power for one single tool.

Suitable for all Weber rescue tools.

- Single tool with highest flow rate
- Very compact dimensions
- Single coupling
- Incl. 4 m electric cable

Tested according to DIN EN 13204:2012 and NFPA 1936:2010.

Motor: E-Motor 230 V, 1.5 kW

Nominal pressure: 700 bar

Oil volume: 2.8 l

Oil flow LP/HP 1 tool: 2.7 l/min / 0.6 l/min

Weight: 11.5 kg

**645377S Compact power unit V 400 Eco**

Lightweight, powerful compact power unit for operation of one single tool. Suitable to drive all Weber rescue tools. Equipped with "power on demand" feature for less noise at the scene and longer operating times. Sturdy base frame.

Tested according to DIN EN 13204:2012 and NFPA 1936:2010.

Motor: 4- stroke petrol engine 1.5 kW

Nominal pressure: 700 bar

Oil volume: 2.5 l

Oil flow LP/HP 1 tool: 3 l/min / 0.6 l/min

Weight: 17.3 kg

**645393S Compact power unit V-Eco COMPACT**

Simultaneous operation of two tools or turbo drive for operation of one tool. Equipped with "power on demand" feature for less noise at the scene and longer operating times. With single couplings. Tested according to DIN EN 13204:2012 and NFPA 1936:2010

Motor: 4-stroke petrol engine, 2.2 kW

Nominal pressure: 700 bar

Oil volume: 3.8 l

Oil flow LP/HP

1 tool / 2 tools: 5.4/1.4 l/min / 2.7/0.7 l/min

Weight: 24.7 kg



**645395S Compact power unit V-ECO Silent**

Ultra lightweight, compact and low-noise power unit for simultaneous operation of two tools or turbo drive for operation of one tool. Tested according to DIN EN 13204:2012 and NFPA 1936:2010.

Compact dimensions, easy to carry by one person and unique low minimum noise level of 63.9 dB(A) at 1 m. Equipped with "power on demand" feature for less noise at the scene and longer operating times. With single couplings.

Motor:	4-stroke petrol engine, 2.2 kW
Nominal pressure:	700 bar
Oil volume:	2.7 l
Oil flow LP/HP	
1 tool / 2 tools:	5.4/1.4 l/min / 2.7/0.7 l/min
Weight:	24.9 kg

**645395S****645385S Compact power unit V 50 ECO**

Compact power unit for simultaneous operation of two tools plus turbo drive for operation of one tool. Tested according to DIN EN 13204:2012 and NFPA 1936:2010. Compact design, low weight and low minimum noise level of 72.7 dB(A) at 1 m.

Equipped with "power on demand" feature for less noise at the scene and longer operating times. With single couplings.

Motor:	4-stroke petrol engine, 2.2 kW
Nominal pressure:	700 bar
Oil volume:	4.0 l
Oil flow LP/HP	
1 tool / 2 tools:	5.4/1.4 l/min / 2.7/0.7 l/min
Weight:	29.9 kg

**645385S****645655 Hydraulic oil in canister, 5 litres****645655**



645494S



645495S



645493C



645610S / 645620S / 645630S



645611S / 645621S / 645631S

## WEBER HOSE REELS AND EXTENSION HOSES

### Single hose reel, free standing EHF 20-T

With carrying frame, complete with 1 x 20 m high pressure hose, 1 m connection hose and single couplings.

Weight: 22.0 kg

**645493S** Colour: red

**645494S** Colour: blue

### 645495S Double hose reel, free standing HF 20-T

Complete with 2 x 20 m high - pressure hoses, 2 x 1 m connection hoses and single couplings.

Both reels can be operated separately, even when the hoses are under pressure.

Weight: 40 kg

### Single hose reel, free standing EHF 20-T COAX

With carrying frame, complete with 1 x 20 m COAX high pressure hose, 1 m connection hose and single couplings.

Weight: 20.0 kg

**645493C** Colour: red

**645494C** Colour: blue

### 645495C Double hose, free standing HF 20-T COAX

Complete with 2 x 20 m COAX high pressure hoses, 2 x 1 m connection hoses and single couplings. Both reels can be operated separately, even when the hoses are under pressure.

Weight: 37 kg

### Weber high pressure hose (twin hose)

Extension hose, nominal pressure 700 bar, 4:1 safety factor, incl. single couplings on both sides, oil-filled, design twin hose.

Order no.	Length	Colour	Weight
<b>645610S</b>	5 m	yellow	4.0 kg
<b>645611S</b>	5 m	red	4.0 kg
<b>645620S</b>	10 m	yellow	7.2 kg
<b>645621S</b>	10 m	red	7.2 kg
<b>645630S</b>	20 m	yellow	13.0 kg
<b>645631S</b>	20 m	red	13.0 kg

### Weber high pressure hose (COAX hose)

Extension hose, nominal pressure line 700 bar, 4:1 safety factor, incl. single couplings on both sides, oil-filled, design coax hose (hose-in-hose-system).

Order no.	Length	Colour	Weight
<b>645610CO</b>	5 m	yellow	3.3 kg
<b>645611CO</b>	5 m	red	3.3 kg
<b>645620CO</b>	10 m	yellow	5.5 kg
<b>645621CO</b>	10 m	red	5.5 kg
<b>645625CO</b>	15 m	yellow	7.7 kg
<b>645626CO</b>	15 m	red	7.7 kg

## WEBER MOBILE RESCUE TOOLS, BATTERY-DRIVEN E-FORCE

- Powerful heavy duty 28 V Li-Ion battery technology
- Long operating time due to 3,0 Ah capacity
- Click-on / Click-off battery
- Illuminated On / Off switch
- Easy to read battery capacity indicator
- Rocker switch for fine tuned handling
- Powerful 28 V industrial motor
- Battery compatible with Milwaukee battery-operated saws
- Extensive range of accessories
- EN and NFPA tested, ingress protection IP 44
- Current Weber battery tools can be upgraded to E-FORCE technology!

**ATTENTION: One battery included!**

- 643008 Battery driven combitool SPS 270 E-FORCE**  
Versatile, electro-hydraulic combitool for cutting, spreading and pulling. With one battery.
- |                                     |                |
|-------------------------------------|----------------|
| Spreading force:                    | 35 to 591 kN   |
| Cutting capacity (round steel bar): | 25 mm          |
| Spreading distance:                 | 270 mm         |
| Pulling distance:                   | approx. 385 mm |
| Weight (incl. 1 battery):           | 13.9 kg        |
- 
- 643014 Battery driven combitool SPS 360 L E-FORCE**  
Versatile, electro-hydraulic combitool for cutting, spreading and pulling. With one battery.
- |                                     |                |
|-------------------------------------|----------------|
| Spreading force:                    | 47 to 718 kN   |
| Cutting capacity (round steel bar): | 30 mm          |
| Spreading distance:                 | 270 mm         |
| Pulling distance:                   | approx. 444 mm |
| Weight (incl. 1 battery):           | 17.9 kg        |
- 
- 643010 Battery driven spreader SP 35 L E-FORCE**  
Compact and lightweight battery driven hydraulic spreader. With one battery.
- |                                   |               |
|-----------------------------------|---------------|
| Spreading force at tips:          | 38 bis 47 kN  |
| Spreading force in working range: | 74 bis 171 kN |
| Pulling force:                    | 38 kN         |
| Spreading distance:               | 600 mm        |
| Weight (incl. 1 battery):         | 20.1 kg       |
- 
- 643015 Battery driven cutter RSX 160-50 E-FORCE**  
Lightweight and compact cutter. Ideal for indoor applications (earthquakes, aircrafts, trains, buses). With one battery.
- |                                     |         |
|-------------------------------------|---------|
| Opening width:                      | 160 mm  |
| Cutting capacity (round steel bar): | 32 mm   |
| Weight (incl. battery):             | 17.6 kg |
- 
- 643013 Battery driven cutter RSX 180-80 PLUS E-FORCE**  
The advantages of the PLUS technology in combination with the E-FORCE battery technology.  
High cutting force, mobile and flexible.  
With one battery.
- |                                     |         |
|-------------------------------------|---------|
| Opening width:                      | 180 mm  |
| Cutting capacity (round steel bar): | 35 mm   |
| Weight (incl. battery):             | 20.8 kg |



643008



643014



643010



643015



643013



643011



643020



643007



645329



6430201



645317



643002



643012



643004/643006



643003

**643011 Battery driven cutter RSX 200-107 PLUS E-FORCE**

The advantages of the PLUS Technology in combination with the E-FORCE battery technology. High cutting force, mobile and flexible. With one battery.

Opening width: 200 mm

Cutting capacity (round steel bar): 43 mm

Weight (incl. battery): 23.9 kg

**643020 Battery driven ram RZ 1-910 E-FORCE**

Lightweight and compact ram. Ideal for indoor applications (earthquakes, aircrafts, trains, buses).

With one battery.

Pushing force: 111.3 kN

Closed length: 542 mm

Piston stroke: 368 mm

Extended length: 910 mm

Weight (incl. battery): 15.7 kg

**ACCESSORIES FOR WEBER MOBILE RESCUE TOOLS, BATTERY-DRIVEN E-FORCE****643007 Mechanical ram RZM 740**

Practical supplement for rescue work with SPS 270 and SPS 360 L E-FORCE. The spreading distance can be extended from 308 up to 650 and 740 mm. Pushing force max. 34 kN. Weight: 6.9 kg

**645317 Pulling devices for SPS 270 E-FORCE.**

Weight/pair: 1.4 kg

**64532104 Pulling devices for SPS 360 L and SPS 360 L E-FORCE**

Weight/pair: 1.4 kg

**645327 Chain set for SPS 270 E-FORCE**

Weight/set: 7.4 kg

**645328 Chain set for SPS 360 L E-FORCE**

Weight/set: 13.8 kg

**645329 Chain set for SP 35 L E-FORCE**

Weight/set: 13.8 kg

**64530901 Cutter blades for SPS 270 E-FORCE (1 Pair)**

Weight/pair: 3 kg

**64532106 Cutter blades for SPS 360 L E-FORCE and SPS 360 L (1 Pair)**

Weight/pair: 5.4 kg

**6430202 Extension 175 mm for RZ 1-910 E-FORCE**

Weight: 2 kg

**6430201 Extension 250 mm for RZ 1-910 E-FORCE**

Weight: 2.6 kg

**6430203 Extension 320 mm for RZ 1-910 E-FORCE**

Weight: 3 kg

**643002 Spare battery 28 volt**

28 V Li-Ion battery technology, click on / click off, 3.0 Ah, long operation time. Weight: 1.0 kg

**643004 Battery pouch**

For one battery. Weight: 0.2 kg

**643006 Belt for battery pouch**

Weight: 0.1 kg

**643012 Transport bag for SPS 270, SPS 360 E-FORCE**

Weight: 1.8 kg

**643003 Mains charger**

230 V, for one battery, charging time 1h,

Weight: 0.8 kg

**643028 On-vehicle-charger**

12/24 V. Weight: 1 kg

**643029 Permanent power supply**

Weight: 4 kg

## WEBER BATTERY-HYDRAULIC POWER UNIT AKKU-PAC

- Extremely lightweight hydraulic power unit with E-FORCE battery technology for the operation of one tool
- Back-pack solution with smooth, pleasant shoulder belts for safe fit
- ON / OFF switch
- Nominal pressure and tank volume suitable for operation of all Weber rescue tools (as well as big rams)
- Delivery with one battery, second battery optional to double the operation time

<b>645401S</b>	<b>Hydraulic power unit AKKU-PAC</b>
	Nominal pressure: 700 bar
	Oil volume: 2.5 l
	LxBxH: 427 x 203 x 301 mm
	Weight (oil-filled, incl. 1 battery): 10.2 kg

### ACCESSORIES FOR WEBER HYDRAULIC RESCUE TOOLS

<b>645345</b>	<b>Storage case made of plastic</b>
	Dim.: 425 x 300 x 110 mm for accessories. (Replacement shear blades, hooks, pulling chains, replacement tips). Weight: 1.6 kg

<b>508100</b>	<b>Glass-saw</b>
	Fast and simple manually operated tool to remove laminated windscreens. Incl. automatic centre punch. Weight: 1.7 kg

<b>508101</b>	<b>Replacement spare blade for glass-saw</b>
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<b>645540</b>	<b>Automatic centre punch</b>
	For safe punching of safety glass

<b>508150</b>	<b>Special tool for casing / lining</b>
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<b>508090</b>	<b>Glass management set in storage box</b>
	Complete equipment for creating a rescue or care opening and to protect accident victims.
	<ul style="list-style-type: none"> <li>• Glass-saw + automatic centre punch</li> <li>• Rescue knife</li> <li>• Uncoiler with adhesive tape</li> <li>• Goggles</li> <li>• 2 pc. rescue foil</li> </ul>
	Weight: 5 kg

### Airbag restraint device OCTOPUS

The belt plate with the eight belts is placed over the steering wheel and is tightened. TÜV-approved. Very simple and quick application, low weight.

<b>508087</b>	<b>CAR - Driver side, set of two in box</b>
	Weight: 1.7 kg

<b>508088</b>	<b>CAR - Passenger side, in bag</b>
	Weight: 3.8 kg

<b>508089</b>	<b>TRUCK - Driver side, in bag</b>
	Weight: 0.8 kg



645401S



508100



508150



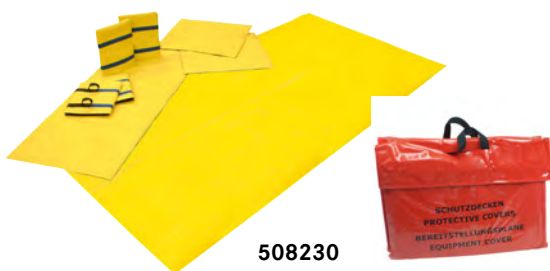
508090



508087

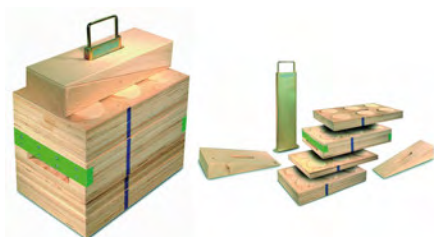


508088



508230

- 508230 Rough edge protective pads incl. ground sheet**  
 Ninepart protective cover set. Weight: 9.2 kg, consists of:
- 1 Protective cover for windshields
  - 2 Protective covers for side windows
  - 4 Protective hoods for columns
  - 1 Material provision cover
  - 1 Carrier bag
- Packing dimensions: 700 x 500 x 150 mm



645547

- 645547 Support system STAB-PACK**  
 New, very compact, space saving and simple support system. Elements with different heights and naps for secure support. Fine adjustment by two wedges.  
 Weight/pc.: 8.6 kg



645548

- 645548 Support system STAB-FIX BASIC set**  
 Various elements out of recycled PE for variable and secure stabilisation of objects. Weight: 19 kg
- Maximum load capacity up to 110 kg/cm<sup>2</sup>
  - Durable and shatterproof
  - Oil- and chemical resistant
- Consisting of:
- |                        |                    |
|------------------------|--------------------|
| 1 x Stab-fix block 25: | 230 x 230 x 25 mm  |
| 1 x Stab-fix block 50: | 230 x 230 x 50 mm  |
| 2 x Stab-fix wedge 75: | 215 x 75 x 80 mm   |
| 2 x Stab-fix chock:    | 640 x 140 x 280 mm |
| 1 x Carrying bag       |                    |



645549

- 64554801 Support system STAB-FIX set A**  
 Consisting of:
- |                          |                    |
|--------------------------|--------------------|
| 2 x Stab-fix stairs:     | 640 x 140 x 280 mm |
| 2 x Stab-fix wedges 75:  | 215 x 75 x 80 mm   |
| 2 x Stab-fix wedges 150: | 215 x 150 x 80 mm  |
| Weight:                  | 18.2 kg            |

- 64554802 Support system STAB-FIX set B**  
 Consisting of:
- |                         |                   |
|-------------------------|-------------------|
| 2 x Stab-fix wedges 75  | 215 x 75 x 80 mm  |
| 2 x Stab-fix wedges 150 | 215 x 150 x 80 mm |
| 2 x Stab-fix blocks 25  | 230 x 230 x 25 mm |
| 2 x Stab-fix blocks 50  | 230 x 230 x 50 mm |
| 2 x Stab-fix blocks 75  | 230 x 230 x 75 mm |
| Weight                  | 18.0 kg           |

- 645549 Support system STAB-FIX 4 Kant 100 set**  
 Various elements out of recycled PE for variable and secure stabilisation of objects. Weight: 28.4 kg  
 Consisting of:
- |                         |                    |
|-------------------------|--------------------|
| 3 x Squares 100 yellow: | 100 x 100 x 450 mm |
| 6 x Squares 100 black:  | 100 x 100 x 450 mm |
| 1 x Carrying bag        |                    |



642800

- 642800 First responder door opening kit**  
 Set consists of:
- Door opener cylinder with strap
  - Hand pump
  - 3 m hose with couplings
  - Hammer
  - Crowbar
- |                     |            |
|---------------------|------------|
| Spreading force:    | max. 89 kN |
| Spreading distance: | 105 mm     |
| Weight:             | 16 kg      |

**645546 Interlocking-system STAB-LOCK set**

STAB-LOCK interlocking system is usable for all stabilisation situations. Construction waterproof beech-plywood and functionality is based on the Lego stone principle. Completely interchangeable with STAB-PACK stabilisation system.

Set consisting of:

1 x Eurobox:	600 x 400 x 270 mm
1 x Base plate 4x6:	540 x 360 x 36 mm
4 x Wedges:	230 x 90 x 60 mm
1 x Top 2x3:	270 x 185 x 22 mm
1 x Top s 2x3:	270 x 185 x 22 mm
1 x Square 1x3:	270 x 95 x 95 mm
1 x Square s 1x3:	270 x 95 x 95 mm
1 x Square 1x6:	540 x 95 x 95 mm
1 x Square s 1x6:	540 x 95 x 95 mm
2 x Squares 2x3:	270 x 185 x 95 mm
1 x Square 2x6:	540 x 185 x 95 mm
Weight:	29.0 kg



645546

**645568 Stabilisation kit STAB-FAST MK 2**

TÜV and CE certified. Easy and safe system - also for difficult vehicle positions. Multiple uses - for all cars, estates, mini vans and truck cabs. Compact - for space-saving storage in the vehicle. Quick and easy installation.

Max. length:	1,720 mm
Min. length:	1,070 mm
Max. load of strut:	1,500 kg
Max. load of strap:	5,000 kg

Struts adjustable in various steps. Set consisting of 3 struts incl. straps, hooks and ratchet spanners, wedge and special cutter in 2 bags.

Weight: 39.6 kg



645568

**645567 Stabilisation kit STAB-FAST MK 2 Basic**

TÜV and CE certified. Easy and safe system - also for difficult vehicle positions. Space-saving basic version for multiple uses. Quick and easy installation.

Max. length	1,720 mm
Min. length	1,070 mm
Max. load of strut	1,500 kg
Max. load of strap	5,000 kg

Struts adjustable in various steps. Set consisting of 2 struts incl. straps, hooks and ratchet spanners, wedge and special cutter in a bag.

Weight: 23 kg



645567

**645569 Stabilisation kit STAB-FAST MK 2 XL**

Bigger edition of well proven STAB-FAST MK2 for heavy duty stabilisation at trucks, busses, heavy load vehicles. For vertical, horizontal and diagonal operation.

Max. length of struts:	2,500 mm
Min. length:	1,500 mm
Length of belts:	10 m

For vertical, horizontal and diagonal applications.

Struts adjustable in various steps

Max. load of of strut:	2,500 kg
Max. load of strap:	5,000 kg

Struts adjustable in various steps. Set consisting of 2 struts and special knife in a bag.

Weight: 35 kg



645569



646210



64577501



646200



64574001



646101

## LUKAS EDRAULIC

### 646210 Lukas cutter S 700 E

The S 700 E frees your mind. Whatever comes, you can cut it. No matter where. Because it combines the best cutting performance of all time with liberating eDRAULIC- technology. Convince yourself of true superiority in practice.

- Optimised for current and upcoming vehicles with stronger and wider car posts
- More power where you need it
- Superior C-shaped blades for the perfect pull effect
- Intelligent cutter geometry causes the cutter to automatically adopt the optimal position
- Up to 77 % more cutting force in the relevant work area
- Large performance reserves for future vehicle generations

Blade opening:	185 mm
NFPA classes:	A8/ B9/ C8/ D9/ E9
EN cutting class:	H
Dimensions (LxWxH):	925 x 300 x 290 mm
Weight without battery:	24.5 kg

### 64577501 Cutter blades for S 700 E and S 700

### 646200 Lukas cutter S 311 E

Agile. Compact. Free. The “little brother” of the S 700 E is particularly convenient, and its sophisticated blade geometry means that it is fully optimised for vehicle extrication. Rescue workers value its combination of cutting performance and blade opening – not to mention its low weight.

- Low weight combined with high performance
- Large opening width
- Superior C-shaped blades
- Perfect pull effect
- Cutter automatically adopts optimal position
- Performance reserves for future vehicle generations

Blade opening:	150 mm
NFPA classes:	A7/ B8/ C6/ D7/ E7
EN cutting class:	G
Dimensions (LxWxH):	860 x 225 x 290 mm
Weight without battery:	19.4 kg

### 64574001 Cutter blades for S 311 E

### 646101 Lukas spreader SP 300 E

Liberty at the tip. With this new, completely redesigned top spreader nothing can stop you during a vehicle extrication. It offers the perfect combination of strength, blade opening and convenient weight. Our specially developed diamond tips are especially designed for vehicle extrication. Their extra-flat tips and special surface finish give them an extremely good grip. They will enable you to penetrate even the narrowest gaps for faster and safer rescues.

Spreading force:	36 - 125 kN
Spreading distance:	605 mm
Pulling force up to:	31 kN
Pulling distance:	475 mm
Certification:	EN 13204; NFPA 1936
Dimensions (LxWxH):	895 x 355 x 290 mm
Weight without battery:	20.5 kg



**645725 KSV 11 chain set for SP 300 E, SP 310, SP 510**  
Length: 2 x 2 m

**64570002 Lukas spreader tip diamond for SP 300, SP 300 E and SP 310**

**64570003 Lukas multifunction-spreader tip universal for SP 300, SP 300 E, SP 310**

**646300 Lukas rescue ram R 411 E**  
Liberty through flexibility. This rescue ram is extremely compact and convincing in practice. The claws at the two ends can be rotated by 360°, enabling you to apply the ram correctly in any situation.

- First rescue ram without hoses
- Extracted length (with extension) up to 1,205 mm
- Extremely solid assembly for safe operation
- Claws can be rotated by 360°

Piston stroke: 360 mm  
Lifting force: 103 kN  
Retracted length: 545 mm  
Extended length: 905 mm  
Extended length with extension: 1205 mm  
Dimensions (LxWxH): 545 x 150 x 265 mm  
Weight without battery: 16.9 kg

**646305 Extension 300 mm for R 411 E**

**645856 Ram support LRS-C**

**645855 Ram support LRS 120**

**646150 Lukas combination tool SC 350 E**  
This multi-talent shows its superiority, especially in first response vehicles, helicopters and motorcycles.

- Faster cutting and spreading without tool change
- Independent of external power sources
- Significantly reduced space requirements
- Fast work due to short opening and closing time
- Battery life in operation: 30 minutes
- Enough battery capacity to free people from at least one vehicle

Switching to power supply operation is possible.

**646152 Cutter blades for SC 350 E/M**

**646154 Chain set KSV 8**

**646156 Battery bag for storage and transport of three batteries and one charger**

**646158 Carrying bag for the SC 350 E**  
With integrated backpack straps.

**646160 Transport case for the SC 350 E and accessories**  
Dimensions: 1,430 mm x 415 mm x 296 mm



645725



646300



646305



645856



645855



646150



646152



646154



646156



646158



646160



646142



646400 / 646410



646405 / 646415 / 646390



646420

#### 646140 Lukas combination tool SC 250 E

Whether in civil defence, first response or urban search and rescue (USAR), when casualties are hard to reach and where every gram counts when transporting rescue equipment, the lightweight SC 250 E is an indispensable companion. For its weight class, the SC 250 E demonstrates convincing cutting performance for preliminary work at rescue sites.

- Minimal space needs
- Size and weight reduced for maximum freedom of movement
- Especially suited to advance vehicles, motorcycles or helicopters
- For operations at traffic pile-ups or in rough terrain
- Independent of external power sources; total freedom with battery operation
- Extended operation with mains adapter at any time

#### 646142 Cutter blades for SC 250 E/M

Type	SC 350 E	SC 250 E
Cutting force up to	360 kN	280 kN
Round steel up to	30 mm	26 mm
Spreading force	350 kN	405 kN
Spreading force 25 mm from tips end	40.5 kN	33.5 kN
Spreading distance	360 mm	318 mm
Pulling force up to	41 kN	32 kN
Pulling distance	371 mm	330 mm
Dimensions (LxWxH):	908 x 225 x 290 mm	870 x 215 x 295 mm
Weight*	19.8 kg	16.9 kg
NFPA classes	A6/B7/C7/D7/E7	A6/B6/C6/D7/E7
EN cutting classes	H	F

\* Weight without battery or power supply

#### ACCESSORIES FOR EDRAULIC

646400	Power supply eDRAULIC 230 V
646410	Power supply eDRAULIC 110 V
646405	Battery charger eDRAULIC 230 V
646415	Battery charger eDRAULIC 110 V
646390	Battery charger eDRAULIC 12-24 V
646420	Lithium-ion battery 24 V eDRAULIC

## LUKAS SPREADERS

### 645711S **Lukas spreader SP 310**

Flexible, top-performance spreader. The SP 310 combines the best mix of force, weight, opening width and handling. Its flexibility fills rescue organisations around the world with enthusiasm. Thanks to its patented multifunction tips and unique ergonomic design, it can spread, peel, pull and squeeze, without the need for changing tips.

- Spreading, peeling, squeezing and pulling without the need to change tips
- Strong all-rounder that reliably masters every challenge

Spreading force:	46-308 kN
Spreading distance:	720 mm
Squeezing force:	122 kN
Pulling force up to:	41 kN
Pulling distance:	573 mm
Oil requirement:	243 cm <sup>3</sup>
Certification	NFPA 1936
EN Classification	AS 46/720-20
Dimensions (LxWxH):	783 x 345 x 192 mm
Weight	19.9 kg



645711S

### 645725 **KSV 11 chain set for SP 300 E, SP 310, SP 510**

Length: 2 x 2 m



645725



64571001 / 64571005

### 64570002 **Lukas spreader tip diamond for SP 300, SP 300 E, SP 310**

### 64570003 **Lukas multifunction-spreader tip universal for SP 300, SP 300 E, SP 310**

### 64571005 **Squeezing attachment for SP 310**

### 645720S **Lukas spreader SP 510**

Powerful, wide-opening spreader. The SP 510 is used for the most difficult rescues worldwide. Its high force, very wide opening and intuitive use permits quick and safe rescue work on vehicles (car, truck, bus, tram) or during events resulting in major damage such as natural disasters.

- Peel away steel walls up to approx. 4 mm thick
- Create rescue openings up to 80 cm x 80 cm



645720S

### 645725 **KSV 11 chain set for SP 300 E, SP 310, SP 510**

Length: 2 x 2 m

### 64572001 **Spreader tip for SP 510**

### 645722S **Lukas spreader SP 512**

Extremely powerful spreader. Nothing can stop you when you have an SP 512. Its tremendous power makes it one of the strongest most formidable spreaders worldwide and perfect for the most difficult rescues on heavily deformed vehicles, truck cabins, trains or trams.

- Tremendous force on the multifunction tips
- Peel away steel walls up to approx. 6 mm thick
- Spreading, peeling, squeezing and pulling without the need to change tips



645722S



64572001 / 64572201



645780S



64578001



64578002



645740S



64574001

**645727 KSV 13/100 chain set for SP 512**

Length: 2 x 2 m

**64572201 Spreader tip for SP 512**

Type	SP 510	SP 512
Spreading force	62-230 kN	84-540 kN
Spreading distance	800 mm	610 mm
Squeezing force	70.4 kN	128 kN
Pulling force up to	55 kN	99 kN
Pulling distance	665 mm	437 mm
Oil requirement	425 cm <sup>3</sup>	341 cm <sup>3</sup>
Dimensions (LxWxH):	900 x 380 x 215 mm	795 x 380 x 216 mm
Weight	25 kg	26.3 kg
Certification	NFPA 1936	NFPA 1936
EN classification	BS 62/800-25	CS 84/610-26

**LUKAS CUTTERS****645780S Lukas cutter S 120**

Mini-cutter for use in tight spaces. With the highest cutting force in its class. For example to remove pedals, steering wheels or headrests.

- Very lightweight due to compact construction
- Intuitive one-hand operation

Type	S 120
Cutting force up to	183 kN
Round steel up to diameter	22 mm
Blade opening	53 mm
Oil requirement	17 cm <sup>3</sup>
Dimensions (LxWxH):	346 x 130 x 87 mm
Weight	4.3 kg
NFPA classes	A4/B3/C2/D3/E3
EN classification	AC 53 B-4

**64578001 Movable cutter blade for S 120****64578002 Firmly mounted cutter blade for S 120****645740S Lukas cutter S 311**

The top product in the compact-class. The blade geometry of the S 311 cutter was specially developed for vehicle rescue, matching the particular requirements. It provides an unbeatable combination of opening range, cutting power and low weight.

- Optimal blade geometry for more force at the right point
- High cutting performance
- Lightweight and well-balanced design is less tiring
- High reliability in use due to robust blades with a long service life

Type	S 311
Cutting force up to	642 kN
Round steel up to diameter	33 mm
Blade opening	150 mm
Oil requirement	98 cm <sup>3</sup>
Dimensions (LxWxH):	705 x 190 x 160 mm
Weight	13.9 kg
NFPA classes	A7/B8/C6/D7/E7
EN classification	BC 150 G-14

#### 64574001 Cutter blades for S 311/E

#### 645750S Lukas cutter S 330

High cutting force, wide opening and long blades are the great advantages of the S 330. Its performance is always masterful, e.g. when used by factory fire brigades or across the entire field of technical assistance when emergencies occur.

- Wide blade opening
- High cutting performance
- High reliability in use due to robust blades with a long service life
- Lightweight and well-balanced design is less tiring

Type	S 330
Cutting force up to	616 kN
Round steel up to diameter	33 mm
Blade opening	228 mm
Oil requirement	98 cm <sup>3</sup>
Dimensions (LxWxH):	726 x 211 x 163 mm
Weight	14.8 kg
NFPA classes	A7/B7/C7/D8/E8
EN classification	BC 175 H-15

#### 64575001 Cutter blades for S 330

#### 645760S Lukas cutter S 510

With the S 510 you can cut current vehicle-sections very reliable. It has a very well-balanced relationship between long cut, optimal pull effect, force and weight. Numerous fire brigades around the world already value this fully developed cutter in practice.

- Long blades with optimum pull-in effect
- High cutting performance
- Intelligent blade geometry
- Highest reliability in use
- Robust blades with a long service life



645750S



64575001



645760S



64576001



645770S



64577001



645775S



64577501

Type	S 510
Cutting force up to	962 kN
Round steel up to diameter	39 mm
Blade opening	202 mm
Oil requirement	150 cm <sup>3</sup>
Dimensions (LxWxH):	776 x 240 x 170 mm
Weight	18.9 kg
NFPA classes	A8/B9/C7/D8/E9
EN classification	CC 202 H-19

#### 64576001 Cutter blades for S 510

#### 645770S Lukas cutter S 530

The cutter that opens widest. By combining a very wide opening and very long, straight blades, the S 530 cutter is the right tool to cut rescue openings or access holes.

Type	S 530
Cutting force up to	1015 kN
Round steel up to diameter	39 mm
Blade opening	297 mm
Oil requirement	150 cm <sup>3</sup>
Dimensions (LxWxH):	780 x 245 x 170 mm
Weight	18.1 kg
NFPA classes	A8/B7/C7/D8/E9
EN classification	CC 200 H-18

#### 64577001 Cutter blades for S 530

#### 645775S Lukas cutter S 700

The alpha cutter. The perfectly matched force application and pull effect deliver ultimate performance that can overcome any vehicle geometry. In the relevant range of cutting force, it markedly outperforms all previous Lukas cutters.

- Up to 77% more cutting force in the relevant working range
- Strong, safe pull with C-shaped blades
- Cutter orients itself optimally to target material
- Optimised for increasingly thicker car posts
- Modified force application suited to cutting thicker material
- High reserves of cutting force for future vehicle generations

Type	S 700
Blade opening	185 mm
Oil volume	325 cm <sup>3</sup>
Dimension (LxWxH):	790 x 300 x 258 mm
Weight	21.3 kg
NFPA classes	A8/B9/C8/D9/E9
EN classification	BC 182 H-21

#### 64577501 Cutter blades for S 700

## LUKAS COMBINATION TOOLS

Combination tools combine both spreader and cutter in a single piece of rescue equipment. Above all, they are suited for getting initial access to the injured, e.g. to ensure that medical first aid can be provided. In addition, combination units can be used during first response, when providing assistance after an accident, when carrying out rescues in buildings and for civil protection. These compact units have astonishing forces and are very flexible in use.

- Reliable cutting and spreading without the need for reconfiguration
- Pulling possible with the quick-fit chain set (accessory)
- Very low amount of oil required – ideal for mobile motor pumps (e.g. P 600 OB)

**645784S** Lukas combination tool SC 357

**645785S** Lukas combination tool SC 557

Type	SC 357	SC 557
Cutting force up to	387 kN	810 kN
Round steel up to diameter	32 mm	38 mm
Spreading force	38-780 kN	41.5-1,150 kN
Spreading distance	365 mm	430 mm
Pulling force up to	49 kN	90 kN
Pulling distance	380 mm	315 mm
Oil requirement	73.5 cm <sup>3</sup>	108 cm <sup>3</sup>
Dimensions (LxWxH):	777 x 220 x 170 mm	840 x 295 x 190 mm
Weight	14.8 kg	19.8 kg
NFPA classes	A7/B7/C7/D7/E7	A8/B9/C8/D9/E9
EN classification	CK 38/365H-15	CK 41/430H-20

### ACCESSORIES FOR COMBINATION TOOL SC 357

**64578402** KSV 8/50 chain set for SC 357  
Length: 2 x 2 m

**64578401** Cutter blades for SC 357

### ACCESSORIES FOR COMBINATION TOOL SC 557

**64578502** KSV 13 chain set for SC 557  
Length: 2 x 2 m

**64578501** Cutter blades for SC 557



**645784S**



**645785S**



**64578402 / 64578502**



**64578401**



**64578501**



645787



646142



645788S

#### 645787 Lukas combination tool SC 250 M

This tool with built-in hand pump is the affordable entry point for rescue work. It is completely self-sufficient – without power unit, hose or cable. It is instantly ready for use, it can cut and spread without modifications, and is especially suited to rescues in areas at risk of explosion (no sparks), in rough terrain and for equipping rescue helicopters or technical rescue.

- Tool can be rotated through 360° – always in the optimum working position
- Independent of external power sources
- Light and easy to handle – fits in any car or even on motorcycles
- Integrated hand pump with low leverage due to automatic switching from low-pressure to high-pressure range

Type	SC 250 M
Cutting force up to	261 kN
Round steel up to	26 mm
Spreading force up to	405 kN
Spreading distance	308 mm
Dimensions (LxWxH):	850 x 190 x 158 mm
Weight	11.9 kg
NFPA classes	A6/B6/C6/D7/E7
EN cutting class	F

#### 646142 Blade arm for SC 250 M/E

#### 645788S Lukas concrete crusher LSI531 CC

The strong helper in U.S.A.R. operations.

- Crushing and cutting with one tool
- Dependable cutting and breaking of brickwork
- Easy cutting of steel reinforcement
- Little place required
- Minimal dust formation
- Low-noise and patientgentle rescuing

Type	LSI531 CC
Maximum opening	309 mm
Crushing force up to	80 kN
Cuts round steel up to	30 mm
Dimensions (LxWxH):	810 x 425 x 325 mm
Weight	26.3 kg



## LUKAS RESCUE RAMS

**645800S** Lukas telescopic rescue ram R 410

**645810S** Lukas telescopic rescue ram R 412

**645820S** Lukas telescopic rescue ram R 414

The standard rescue rams. The range of single-stage hydraulic rams is carefully matched in size and extended length so that there are no gaps. Each ram creates an opening into which the next largest ram can be inserted.

- Claws can be rotated 360°
- Minimal size for comparatively large lift

Type	R 410	R 412	R 414
Piston stroke	300 mm	500 mm	700 mm
Lifting force	135 kN	135 kN	122 kN
Retracted length	450 mm	680 mm	900 mm
Extended length	750 mm	1,180 mm	1,600 mm
Oil requirement	477 cm <sup>3</sup>	795 cm <sup>3</sup>	1,113 cm <sup>3</sup>
Dimensions (WxH):	86 x 174 mm	86 x 174 mm	86 x 174 mm
Weight	13 kg	17.7 kg	24.2 kg
Certification	EN 13204; NFPA 1936		

**645830S** Lukas telescopic rescue ram R 430

Lukas was the first worldwide manufacturer to have developed a 3-stage rescue ram, making rescues even quicker. With this hydraulic ram, during rescue work in road, rail and air traffic, you can move an enormous distance in a single working action – saving you valuable time.

- Rescues quicker and more safely as only one working process is required with a hydraulic ram
- Compact dimensions and low weight
- Minimum size and maximum lift

Type	R 430
Total stroke	820 mm
Stroke piston 1	295 mm
Stroke piston 2	280 mm
Stroke piston 3	245 mm
Lifting force piston 1	266 kN
Lifting force piston 2	133 kN
Lifting force piston 3	39 kN
Extended length	1,295 mm
Retracted length	475 mm
Oil requirement	1,514 cm <sup>3</sup>
Dimensions (WxH):	112 x 221 mm
Weight	17.7 kg



645800S / 645810S / 645820S



645830S



**645840S / 645845S / 645850S**

**645840S** Lukas telescopic rescue ram R 420

**645845S** Lukas telescopic rescue ram R 422

**645850S** Lukas telescopic rescue ram R 424

Compact and extremely strong. Rely on the strong rescue rams with a lifting force of up to 27 t. With the two-stage telescopic rescue rams, you can lift and push material out of the way which is impeding your rescue. The most powerful argument for its use is its enormous lift combined with its minimum size. They are simply indispensable when rescuing from vehicles, for accidents on railways or ships or after building collapses or natural disasters.

- Rescue quickly and easily as two telescopic rescue rams replace three standard rams
- High grip claws on the piston rod and in the base of the cylinder provide a good hold on sloping and smooth surfaces
- Claws can be rotated 360°

Type	R 420	R 422	R 424
Total stroke	575 mm	705 mm	875 mm
Stroke / lifting force, piston 1	295 mm; 266 kN	365 mm; 266 kN	445 mm; 266 kN
Stroke / lifting force, piston 2	280 mm; 133 kN	340 mm; 133 kN	430 mm; 133 kN
Extended length	1,055 mm	1,255 mm	1,500 mm
Oil requirement	1,410 cm <sup>3</sup>	1,735 cm <sup>3</sup>	2,139 cm <sup>3</sup>
Dimensions (LxWxH)	480 x 112 x 211 mm	550 x 112 x 211 mm	625 x 112 x 221 mm
Weight	16.8 kg	18.8 kg	21.0 kg
Certification	EN 13204; NFPA 1936		



**645855**



**645856**



**645857**

#### ACCESSORIES FOR LUKAS RESCUE RAMS

**645855** Ram support LRS 120

**645856** Ram support LRS-C

**645857** Ram attachment set for rescue rams to increase variety of applications for R410-R414, R420-R424

## LUKAS POWER UNITS

- 645882S** Lukas power unit P 650 SG
- 645886S** Lukas power unit P 650 SG - DHR 20  
With hose reel and toolholder.
- 645881S** Lukas power unit P 650 SE
- 645885S** Lukas power unit P 650 SE - DHR 20  
With hose reel and toolholder.



645882S / 645886S

Type	P 650 SG (P 650 SG-DHR 20)	P 650 SE (P 650 SE-DHR 20)
Engine	4-stroke gasoline	230 V electric
Connection	Two tools	Two tools
Operation	Two tools	Two tools
Turbo-function	included	included
Power	4.2 kW	2.2 kW
Electric starter	included	-
Max. operating pressure	700 bar	700 bar
Flow rate, low pressure - high pressure	2 x 3.1 - 2 x 0.9 l/min	2 x 2.55 - 2 x 0.7 l/min
Flow rate turbo, low pressure - high pressure	1 x 6.05 - 1 x 1.7 l/min	1 x 5.0 - 1 x 1.4 l/min
Usable oil quantity	4.8 l	4.8 l
Dimensions (LxWxH):	485 x 440 x 445 mm 810 x 440 x 590 mm (with hose reel)	485 x 440 x 445 mm 810 x 440 x 590 mm (with hose reel)
Weight	42 kg 80.5 kg (with hose reel)	41 kg 79 kg (with hose reel)
Hose length	2 x 20 m (with hose reel)	2 x 20 m (with hose reel)
Certification	EN 13204; NFPA 1936	EN 13204; NFPA 1936

- 645890S** Lukas power unit P 650 4G
- 645892S** Lukas power unit P 650 4G - DHR 20  
With hose reel and toolholder.
- 645894S** Lukas power unit P 650 4E
- 645895S** Lukas power unit P 650 4E - DHR 20  
With hose reel and toolholder.



645894S



645895S

Type	P 650 4G (P650 4G-DHR 20)	P650 4E (P 650 4E-DHR 20)
Engine	4-stroke gasoline	400 V electric
Connection	Four tools	Four tools
Operation	Four tools	Four tools
Turbo-function	2 x Turbo included	2 x Turbo included
Power	5.1 kW	3.5 kW
Electric starter	included	-
Max. operating pressure	700 bar	700 bar
Flow rate, low pressure – high pressure	4 x 2.55 – 4 x 0.7 l/min	4 x 2.2 – 4 x 0.6 l/min
Flow rate Turbo, low pressure – high pressure	2 x 5 – 2 x 1.4 l/min	2 x 4.3 – 2 x 1.2 l/min
Usable oil quantity	4.8 l	4.8 l
Dimensions (LxWxH):	485 x 440 x 445 mm 810 x 440 x 590 mm (with hose reel)	485 x 440 x 445 mm 810 x 440 x 590 mm (with hose reel)
Weight	49 kg 90.5 kg (with hose reel)	48 kg 90 kg (with hose reel)
Hose length	2 x 20 m (with hose reel)	2 x 20 m (with hose reel)
Certification	EN 13204; NFPA 1936	



645879



646156



646390 / 646415 / 646405



646420

#### 645879 Lukas power unit P 600 OE

Makes rescue tools mobile. The P 600 OE makes hose-connected rescue tools mobile. It gives you maximum freedom of movement in every situation because it is small, light and easy to handle, and also enables location-independent use of a rescue tool in the optional battery mode. You have the choice: Operate your rescue tool with mains power or with a high-performance battery. The power unit has a unique energy management system that guarantees you extremely long running times.

- Very patient-friendly: no exhaust fumes, very quiet
- Small, light (under 10 kg), easy to use
- Almost unlimited radius of action
- Perfect for use at traffic pile-ups or off-road
- Illuminated oil tank
- Suitable for one-man operation
- Efficient energy management in battery mode

Type	P 600 OE
Flow rate, low pressure – high pressure	2.4 – 0.45 l/min
Capacity	1.5 l
Usable oil quantity	1.2 l
Dimensions (LxWxH):	480 x 182 x 257 mm
Weight	8.2 kg

#### 646156 Battery bag

#### 646390 Battery charger eDraulic 12-24 V

#### 646415 Battery charger eDraulic 110 V

#### 646405 Battery charger eDraulic 230 V

#### 646420 Spare battery eDraulic

#### 646410 Power supply eDraulic 110 V

#### 646400 Power supply eDraulic 230 V

**645888S Lukas Power unit P 630 SG**

The gasoline-powered P 630 SG is the perfect power unit for all operations requiring mobility. It combines light weight and maximum power in a unique way and also features the turbo function to speed up rescues considerably, making it a friend for all helpers who need to change locations quickly.

Type	P 630 SG
Engine	4- stroke gasoline
Power	2.2 kW
Connection	2 tools
Operation	2 tools
Turbo function	1 x Turbo included
Flow rate low pressure - high pressure	2 x 3.0 - 2 x 0.7 l/min
Flow rate Turbo low pressure - high pressure	1 x 5.8 - 1 x 1.35 l/min
Standard oil quantity	2.2 l
Maximum oil quantity	3 l
Dimensions (LxWxH):	495 x 360 x 445 mm
Weight	23.9 kg

**645888S****LUKAS HOSES AND HOSE REELS**

Your strong companion – the Lukas single hose reel SHR 20 can be used as a practical extension afar from energy sources. With luminescent hoses. Rescue work at night is difficult enough. So it is good when hoses do not trip you. That is why our hoses are luminescent and make rescue work in the dark much more safe.

- Large reel brake for easy operation – even with gloves
- Fold-away handle that cannot get lost
- Separately stored on the truck
- Winding and unwinding even under pressure
- Safety ratio of the hoses more than 4:1

**645975S Stand-by reel SHR 20****645975S**



64598501S / 64598502S / 64598503S  
64598601S / 64598602S / 64598603S



64599005 / 64599010



645997



646000 / 646001 / 646002



646010

- 64598501S** Extension hose pair 5 m blue  
**64598601S** Extension hose pair 10 m blue  
**64599005** Hydraulic oil biogradeable HLP 10, 5 l  
**64599010** Hydraulic oil biogradeable HLP 10, 10 l

- 645997** **Lukas hand pump LH 2/1.8-70 DIN**  
 Hand pumps are an important back-up, for use in buildings, when there is a risk of explosion or if no electricity is available to drive the rescue equipment. They belong to the standard equipment for a rescue team.
- Low weight, easy to use, very mobile
  - Automatic switch-over from low to high pressure for quick work

- 646010** **Lukas rescue saw LES 18**  
**646020** **Lukas rescue saw LES 12**

Type	LH 2/1.8-70 DIN
Flow rate, low pressure	17 cm <sup>3</sup>
Flow rate, high pressure	1.55 cm <sup>3</sup>
Capacity	2.4 l
Usable oil quantity	1.8 l
Dimensions (LxWxH):	655 x 200 x 160 mm
Weight	9.8 kg

## LUKAS DOOR OPENER AND MINI CUTTER SETS

Two sets in one. Both of the above described sets in a transport case with a hand pump and a connection hose.

- 646000** **Lukas mini cutter set LSH 4**  
**646001** **Lukas hydraulic door opener HTS 90**  
**646002** **Lukas door opener and mini cutter set HTS 90/LSH 4**

Type	LSH 4	HTS 90	HTS 90 LSH 4
Cutting force	75 kN	-	75 kN
Spreading force	-	90 kN	90 kN
Stroke	-	100 mm	100 mm
Blade opening	40 mm	-	40 mm
Set weight	8.8 kg	12.8 kg	17.1 kg

## GLASS MANAGEMENT

Rescue saws are indispensable to quickly remove panes of laminated glass. The LES 18 also cuts metal, wood and plastic and is thus perfectly suited for work at traffic accidents, in buildings, on rough ground or on turntable ladders.

Recommended applications:

- To expose side impact protection for the use of hydraulic cutters
- To cut through steering wheels
- To cut through plastic bodywork and plastic parts
- To remove obstructions made of metal or plastic
- The saws come packed in a practical case with charger and replacement saw blades

Type	LES 18	LES 12
Strokes per min.	0 - 2000	0 - 3000
Stroke length	25 mm	13 mm
Li-Ion Battery	18 V, 2 Ah	12 V, 1.5 Ah
Dimensions case (LxWxH):	590 x 340 x 165 mm	450 x 305 x 115 mm
Weight	3.5 kg	1.2 kg

- 646011 Battery charger 230 V for LES 18 II**
- 646012 Spare battery for LES 18 II**
- 646015 5 saw blades 100 mm for LES 18 II**
- 646016 5 saw blades 150 mm for LES 18 II**

- 646021 Battery charger 230 V for LES 12**
- 646022 Spare battery for LES 12**
- 646025 5 saw blades for LES 12**

**646030 Lukas handsaw WSC 1**  
 Handsaw for laminated glass. This handsaw cuts and removes glued, laminated panes of glass such as those used in all modern cars, trucks and buses.

**646031 Saw blade for WSC 1**

**646032 Lukas glass management set**  
 For the safety of both injured persons and rescue workers and as well for creating supply- and support-openings – the convenient glass management set in a bag.  
 Content:

- Bonding sheet 500 mm, approx. 100 m
- Unwinder with adhesive tape
- Handsaw WSC1
- ResQme® – spring-loaded punch with beltcutter
- Carpeting remover
- Marker
- 3 pcs. dust mask
- Measuring tape 3 m

**646047 Lukas splinter guard**  
 Protects the injured from glass splinters. The Lukas splinter guard reliably protects accident victims from glass splinters and is thus an indispensable part of a careful rescue. Depending on the accident scenario and the state of the injured person, it can be used with a transparent window or with a completely closed surface. On vehicle roofs made of sheet steel, the splinter guard is held with strong magnets. For fixing on an aluminium or plastic bodywork, a belt is supplied with Velcro™ tape. Foam is sewn into the lower edge so that this can be securely pressed in between the windscreen and the dashboard.

**646035 Lukas spring-loaded punch**  
 To smash safety glass. With the spring-loaded punch you can shatter panes made of safety glass such as the side windows of cars and trucks.



646020



646030



646032



646047



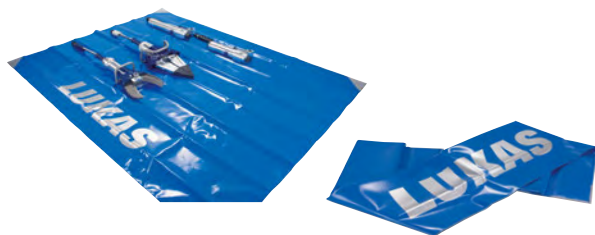
646035



646040



646041



646046



646050

646052



646054

## LUKAS AIR BAG SAFES

Reliable protection from late deploying air bags. For maximum protection for accident victims and rescuers. Lukas air bag safes protect both driver and passenger side from late-deploying air bags. Stored in a practical case (driver side) or in a nylon bag (passenger).

- Can be fixed before and after cutting out the windscreen and removing the roof
- Can be used both for left-hand and right-hand drive vehicles
- The system can be quickly fitted

**646040 Air bag safes for cars**

**646041 Passenger air bag II safe**

**646045 Lukas protection covers**

Protecting the rescuers. This is how to effectively protect your rescue team from injuries on sharp edges with little effort. The protective bags are put on the cut-off ends of the vehicle columns and are securely fixed with Velcro™ tape. The protective sheets are used everywhere on the bodywork to cover up sharp edges, e.g. on fender or in the roof area, and are fixed via sewn-in magnets. With one set, one side of a vehicle and, if necessary, a dangerous roof edge can be covered over. To completely cover both sides, a second set of protective sheeting is required.

**646046 Lukas tool station**

Staying organised. A multifunctional sheet made of tear-proof, waterproof and dirt-repellent material. Among other uses, during a rescue they are used as a central place to keep tools, providing a clear overview and increasing safety.

## LUKAS SUPPORT SYSTEMS LSS 12

Lukas supports serve to safely stabilise vehicles and support loads during rescue work. They prevent dangerous movements of accident vehicles which may become unstable when cutters and spreaders are used.

- Blocks and wedges can be stacked up to the height needed
- Stands securely as stacked blocks interlock with one another
- Resistant to oil, chemicals and the usual cleaning agents and solvents
- Made of environmentally friendly, recyclable plastic (polyethylene)
- Very robust, long service life and shatterproof
- Permissible load up to 110 kg/sq cm

**646050 Set 1**

**646052 Set 2**

**646054 Step chock with keg**





**RESCUE AND FIRST  
AID EQUIPMENT**

**11**



503000/503200



503300



501100



501200

## FIRST AID EQUIPMENT

### 503000 **Rescue sheet**

Certified as to DIN 13040. The rescue sheet is another piece of special equipment for difficult rescue operations where no stretchers can be used. For transporting patients, the grips installed on both sides have to be used. For this kind of transportation three people are required. Made of cotton canvas.

Dimensions: 1,950 x 700 mm

Weight: 1.7 kg

### RECOMMENDED ACCESSORY:

#### 503200 **Carrying bag for rescue sheet**

Weight: 0.4 kg

### 503300 **Emergency rescue set**

Certified as to EN 1498 and Austrian Standard ON F 1020. The emergency rescue set consists of a carrying sheet, a rescue sheet and a bag. The emergency rescue devices are very simple in their design and therefore easy to use. They can be deployed in extreme situations when, for instance, other rescue devices (rescue tubs, ambulance hammocks, rescue harnesses, rescue bags, etc.) cannot be used due to either local conditions (confined areas) or for time reasons (acute emergencies) or not availability. Comes with special polyester belt (2 m).

Rescue loop circuit: 1 m. Width: 25 mm.

Carrying sheet: The carrying sheet is suitable for transporting sitting or lying persons, but it must not be used for roping up or down. It is made of synthetic fabric, is easy to clean and can also be disinfected. For better comfort it comes with a head pillow and it is equipped with adjustable holding straps to prevent falling out. Strong straight straps and handy carrying grips ease the use and increase the safety.

Rescue sheet: The completely new designed rescue sheet is especially conceived for roping up or down. It has the shape of a triangle and is particularly simple and easy to use - especially in situations where seconds count. It meets all safety-technical requirements of a modern rescue device and offers suitable comfort in a sitting position. Due to the carrying sheet's simplicity a false use is practically impossible.

Weight of the complete set: 3 kg

### 501100 **Stretcher**

Certified as to DIN 13024 N. This stretcher serves at transporting sick or wounded persons. The frame rods are made of seamless aluminium square tubes. Cover made of coated synthetic material. The stretcher is lengthwise collapsible, for easy storage into all rescue and fire trucks.

Weight: 8.5 kg

### RECOMMENDED ACCESSORIES:

#### 501200 **Protective cover**

Made of synthetic material, for storage of the stretcher.

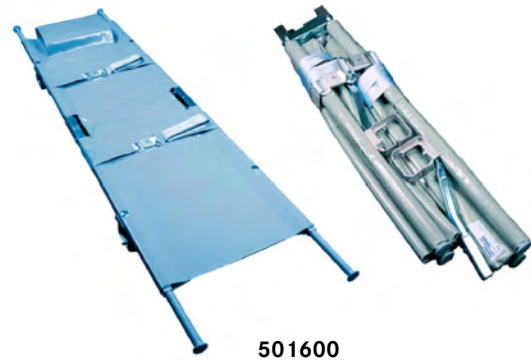
Weight: 0.8 kg

#### 502700 **Pillow**

Dimensions: 320 x 250 x 80 mm.

Weight: 0.2 kg

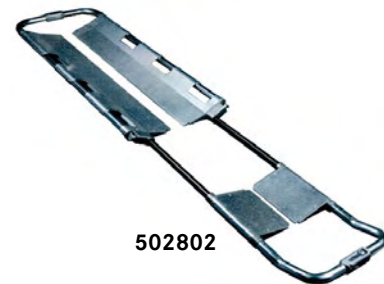
**501600 Collapsible stretcher**  
 This stretcher serves at transporting sick or wounded persons. The frame rods are made of seamless aluminium square tubes. Cover made of coated synthetic material. The stretcher is collapsible, cross- and length-wise for easy storage into all rescue and fire trucks.  
 Maximum load: 150 kg.  
 Weight: 8.5 kg



**501710 Carrying bag for stretcher**  
 Weight: 0.6 kg

**502700 Pillow**  
 Dimensions: 320 x 250 x 80 mm.  
 Weight: 0.2 kg

**502802 Folding scoop stretcher**  
 Light, special equipment made of colourless anodised aluminium alloy for gently and safely lifting and transferring seriously injured patients. The scoop stretchers are opened and pushed under the patient sideways. Recommended in the case that vertebral injury is suspected. Supplied with patient safety belt.  
 Maximum load capacity: 160 kg  
 Smallest packing size (LxWxH): 1,210 x 430 x 85 mm  
 Dimensions (LxWxH): 1,720 - 2,050 (max. extension) x 430 x 85 mm.  
 Weight: 8.3 kg



**502795 Basket stretcher, with belts, mat and footrest**  
 The basket stretchers can be used where conventional carry chairs and stretchers present difficulties: in the case of industrial or mining accidents, on ships, under helicopters, on water, in shafts and on mountains (ice rescue) or scaffolding. The basket stretcher can be used horizontally or vertically. Thanks to its stable design, the basket can be used as a dragging basket or as an abseil basket stretcher. Basket stretchers are made of high quality, impact-resistant and hard-wearing polyethylene, with a full aluminium tube frame. They are corrosion, chemical and extreme temperature resistant. When used as dragging baskets, the non-absorbent mattress protects against impact. Standard equipment includes adjustable foot supports (depending on patient size), continuous recessed grips on the sides, continuous nylon rope to which the safety belts can be attached.

- Colour: orange
- Dimensions: 2,170 x 640 x 200 mm
- Maximum load: 315 kg
- Total weight: 14 kg



**RECOMMENDED ACCESSORIES:**

**502801 Carrying bag**  
 Colour: grey.  
 Weight: 2 kg

**502825 Lifting bridles**  
 Weight: 2.5 kg

**502797 Six-point belt in extreme rescue situations for spine boards and basket stretchers**  
 Special 6- point SCHROTH belt to quickly and safely secure patients in extreme rescue situations.  
 Weight: 1.8 kg





502808



502750



502751



502752



502851

**502808 Basket stretcher TWIN, with belts, mat and footrest**

Same description as order no.: 502795 but it comes in a 2-pieces design. This TWIN-basket stretcher was designed to assemble und disassemble the stretcher within the shortest possible time. There will be no more "loseable" parts.

- Colour: orange
- Dimensions: 2,141 x 618 x 189 mm
- Maximum load: 315 kg
- Weight: 12 kg

**RECOMMENDED ACCESSORY:****502809 Storage carrying bag**

Made of orange PVC, easy to store and to carry.  
Weight: 1.8 kg

**502750 Spine board with 3 patient safety belts**

- Certified as to DIN EN 1865
- Special stretcher for spinal injuries
- Stable, light, floatable and versatile, made of highly compacted polyethelene with firm surface
- Designed for quick assembly of head restraint, X-ray permeable, suitable for MRI and CT, EC certified
- Supplied with 3 patient safety belts
- Maximum load: 150 kg
- Dimensions: 1,830 x 450 x 40 mm
- Weight: 7.5 kg

**RECOMMENDED ACCESSORIES:****502751 Straps for spinal board**

Patient restraint system. Consists of a set of straps with Velcro™ closure. Used in conjunction with a spinal board, the patient restraint system provides full body immobilisation.  
Weight: 0.4 kg

**502752 Head immobiliser for spinal board**

Made of moulded, non-toxic PVC and polyurethane, which will not absorb blood or any other body fluids. Used in conjunction with a spine board, Velcro™ straps and a cervical collar, the head immobiliser allows for patient transport even in difficult terrain. Thanks to the use of radiolucent materials, examination of patients in X-Ray chambers is also possible. The mobilising set comes complete with base, removable head pad, two foam blocks and head straps.  
Weight: 0.65 kg

**502851 Collar set**

The collar set provides perfect protection and stabilisation of the most critical part of the spinal column. The collars are made of vinyl covered foam rubber that will not absorb blood or any other body fluids. Thanks to the use of radiolucent materials, examination of patients in X-Ray chambers is also possible. Easy to use, simply slide the reusable collar under the neck and fasten at the side with the Velcro™ pads. Each set consists of 3 collars, sized from small to X-Large. Comes complete with a carrying bag.  
Weight per set: 0.5 kg

**502855 Fracture kit**  
 The kit consists of flexible splints, made of blue washable neoprene with inlays. Wide size Velcro™ tapes serve as fixation. Each set consists of 5 pieces and includes: arm, leg, full leg, full arm straight, and angular arm.  
 The fracture set comes complete with an orange carrying bag. Dimensions: 670 x 300 x 50 mm.  
 Weight per set: 1.2 kg



502855

**501730 Vacuum mattress X-BOON ONE**  
 Special granule, newly developed, especially durable and resilient.

- 90 chambers
- No undesired granule displacements
- Fulfills DIN EN 1789 during transport
- In accordance with DIN EN 1865
- Permeable to X-rays and suitable for MRI and CT
- 8 removable ergonomic carrying handles
- 4 fixation belts
- With owner ID on request
- Extremely ductile
- Inner surface made of skin-friendly, soft material
- Very robust and resilient outer surface
- Easy to maintain, clean and disinfect
- Individual mounting of handles and belts is possible thanks to the welded loop system

Weight: 5.1 kg



501730

**RECOMMENDED ACCESSORY:**

**501731 Vacuum pump**  
 Including filling adapter made of durable plastic.  
 Weight: 1.5 kg

**502600 Rescue blanket**  
 The blanket is made of a blend of wool and polyester. The edges are reinforced. Suitable for covering persons on stretchers. Dimensions 1,500 x 2,000 mm.  
 Weight: 1.5 kg



502600

**503500 Aluminium blanket**  
 Insulating rescue blanket, NASA type. Protects injured people against heat or cold and prevents shock.  
 Weight: 0.55 kg



503500

**503505 Disposable patient blanket**  
 Fleece blanket for ambulance services, rescue services or disaster relief services.  
 Features:

- Fleece outer, with seams all round
- Interior: layers of pulp material
- Dimensions: 190 x 110 cm
- Individually packed in film

Weight: 0.55 kg



503505

**505270 Disaster pouch (body bag)**  
 Comes with a full-length centre zipper, 6 handles, fabricated with superior vinyl-coated nylon fabric.  
 Dimensions: 2,000 x 850 mm  
 Weight: 0.25 kg



505270



504000



504100



505253



50435001

## FIRST AID KITS

### 504000 First aid kit for vehicles

Very compact plastic cabinet finished in black, especially designed for carrying on vehicles. Comes complete with contents. Dimensions: 260 x 170 x 80 mm. Weight: 0.65 kg

### 504100 First aid kit DIN 13157 with bracket and arabic labelling

Very compact plastic cabinet finished in black, especially for carrying on vehicles. Comes complete with contents. Dimensions: 260 x 170 x 80 mm. Weight: 0.65 kg

### 505253 First aid shoulder bag

Tough water resistant shoulder bag with five internal storage compartments, double zip closure, and adjustable shoulder strap. Contains:

- 1 First aid guidance leaflet
- 1 Emergency foil blanket
- 1 Microporous tape
- 3 Cool jel sachets
- 4 Sterile eye pad with bandage
- 6 Self seal waste bags
- 2 Life aid resuscitator
- 5 Eye wash pods (each 20 ml)
- 6 Triangular bandages
- 2 Pairs of latex disposable gloves
- 2 Eye wash bottles (à 150 ml)
- 1 Dressing scissors
- 12 Safety pins
- 1 Clothing cutter
- 10 Moist wipes
- 1 Instant cold pack
- 9 Sterile dressing with pad (med)
- 3 Sterile dressing with pad (Ige)
- 20 Sterile washproof plasters
- 20 Sterile fabric plasters

Weight: 2.5 kg

### 50435001 Emergency backpack for fire brigades

In full compliance with Austrian Standard ON Z 1020, type C. Made of sturdy 1000 DEN cordura, red-coloured with yellow reflective stripes. Comes complete with following contents:

- 3 Transparent, different coloured module-bags
- Numerous elastic loops for small material
- 3 Compartments made of elastic net
- Large external compartment for further attachment
- Solid military-zipper and buckles out of high-grade duraflex-synthetics guarantee supreme quality and durability
- Comfortable carrying-system thanks to 95 mm upholstered hip-belt and 65 mm wide shoulder-belt
- High-grade bandage material, such as textile-triangle-bandages, rescue-cover, aluminium bandage, sterile wound-compress, various bandages for fixing, mull, momentary-bandages, finger-bandages, various plaster and leather-finger-stalls
- Hand disinfectant
- Material for artificial respiration
- Single use gloves
- Scissors
- Forceps
- Safety-pins
- Illuminating staff

Dimensions: 480 x 320 x 210 mm

Weight: 2.5 kg

**FIRE BRIGADE FIRST AID KIT**

Heavy duty, compact wooden cabinet, certified as to DIN 14880. Finished in grey, for hand-carrying or mounting into the fire trucks. Designed for EMS and fire departments. Contents according to DIN 14143 and DIN 14142 including high quality dressing materials (e.g. AluDerm and DermaCare), bandage packages and sheets, compresses, bandages, net bandages, rescue sheet, aluderm-aluplast wound plaster.

**505200 First aid kit DIN 14143**  
Including resuscitator bag and pneumatic splints for arm and leg.  
Dimensions: 700 x 400 x 110 mm.  
Weight: 12 kg

**505110 First aid kit DIN 14142**  
Including resuscitator with BEEP valve.  
Dimensions: 400 x 350 x 110 mm.  
Weight: 6.5 kg

**505120 First aid kit DIN 14142 with mask**  
Including resuscitator with BEEP valve, with artificial respiration mask.  
Dimensions: 400 x 350 x 110 mm.  
Weight: 7 kg

**505205 Burns first aid kit**  
Comes in an ABS thermo-plastic orange case, complete with wall mounting bracket and 90° stop arrest. Contents are especially designed to treat burn injuries. The aluderm wound dressings do not stick to the wound and are a quick and effective healing medium. Contents: aluderm compresses, aluderm bandage dressings, aluderm cohesive bandage, aluderm special bandages for face, head, arm and leg. Cold packs, sterile water, infusion set, injection set, clothes scissors. Empty space is available for additional accessories, if required.  
Dimensions: 400 x 300 x 150 mm.  
Weight: 12 kg

**503510 Rescue blanket BURN SHIELD**  
Certified as to ISO 13485:2003. Vital for trauma care. Additionally, these blankets can be used as a fire shield, facilitating rescue or escape. Also suitable for extinguishing small fires.  
Special features:

- Pure wool base
- 96 % water contents
- Treated with melaleuca alt (tea tree)
- Gelling agent
- Sterilised by gamma irradiation
- Comes complete with carrying bag

Dimensions: 1,200 x 1,600 mm.  
Weight: 4.5 kg



505200



505110



505205



503510



505203



405870



505230

**505203 First aid kit model INDUSTRY**

Certified as to DIN 13169. ABS-plastic, colour orange, including wall bracket. Form stable, splash-proof, impact -, decay- and temperature-resistant. Two identically sized kit shells and transparent covering lids to protect contents. With rubber sealing, rotary locking system, carrying handle, screened lettering and colour pictograms.

Contents: quality dressing materials, amongst others aluderm, DermoTekt and DermaCare, bandage packages and sheets, compresses, bandages, net bandages, rescue sheet, aluderm speciality dressings, cool spray, compressions bandage packet, aluderm-aluplast wound plaster, hyperventilation mask, breathing device, first-aid scissors, splinter forceps.

Dimensions: 400 x 300 x 150 mm.

Weight: 5.7 kg

**405870 Defibrillator LIFEPAK 1000**

Basic life support (BLS) tool, fully customisable, cpr-MAX technology for high flexibility. Protection level IP55. Biphasic technology provides a full range of energy up to 360 joules. With a large screen, graphics and text are clear and easy to read at a distance. The LCD screen can provide both graphical and ECG displays. The advanced battery system in the LIFEPAK 1000 defibrillator provides more power for your patients. A visible and accessible battery gauge gives you the ability to assess battery readiness with the quick touch of a button.

Weight: 3 kg

**505230 Oxygen apparatus 2 litre adjustable**

High-speed oxygen delivery for immediate care and emergencies where oxygen therapy is required. Simple, constant flow type of oxygen administrator, providing approx. 100 minutes of oxygen supply from a fully charged cylinder. The unit consists of a 2 litre water capacity, charged to a pressure of 200 bar and containing a free compressed oxygen capacity of 400 litres. The integral cylinder valve and regulator is fitted with a pressure contents indicator. The complete apparatus is housed in a hard wearing orange nylon carrying bag (430 x 320 x 180 mm), complete with shoulder strap. Dangerous good as per UN1072, class 2.2.

Weight: 5 kg

**RECOMMENDED ACCESSORIES:****505240 Spare 2 litre water capacity cylinder**

Charged to a pressure of 200 bar and containing a free compressed oxygen capacity of 400 litres.

Dangerous good as per UN1072, class 2.2.

Weight: 4 kg



## ROPES AND HIGH-RISE RESCUE

### Personal protection equipment and support devices

#### Cleaning

It is best to clean safety belts, safety harnesses, and fasteners when they are dry using gentle brushes. For stubborn dirt, warm water and a mild detergent can be used. These items should only be air-dried, i.e. they should not be exposed to direct sunlight or put in a tumble dryer. Chemical cleaning products should never be used.

#### Storage

Safety belts, safety harnesses, and fasteners should be stored in a dry, dark place and away from heaters and aggressive substances such as oil and chemicals. If you are ever unsure, it is advisable to ask the manufacturer. The storage bag supplied with our safety harnesses is suitable for keeping these in. The equipment cases in our product range are also ideal for our safety devices.

#### Maintenance and periodic inspections

Firefighter belts, lifebelts, safety belts, safety harnesses, and fasteners should be inspected by a professional expert at least once a year.

#### Repairs

Necessary repairs may only be carried out by the manufacturer. For safety reasons, repairs should not be carried out in the vast majority of cases, however.

#### Period of use

The product must undergo a visual inspection after each use. When it is being used, it is important to make sure that it is not damaged by mechanical influences (sharp edges, welding sparks, etc.) and that it does not come into contact with harmful chemicals (acids, solvents, etc.). Personal protection devices that prevent the user from falling (e.g. safety belts, safety harnesses, and fasteners) must be thrown away

- When load-bearing components that are essential for safety become damaged
- When they are strained through the user falling
- When the recommended period of use has expired. This is
  - a maximum of five years for fasteners, moving guides (cables), and impact absorbers
  - a maximum of five years for safety harnesses and strap impact absorbers
  - a maximum of six years for lifebelts, rescue straps, and lifelines
  - a maximum of eight years for safety belts
  - a maximum of 20 years for firefighter belts
- If equipment is used less frequently than usual, its lifespan can be extended by up to 50 % (this only applies to euroline products).
- Likewise, if equipment is used more often than usual, suffers heavy wear and tear, or is exposed to extreme environmental influences, its permitted period of use can be shortened. It is up to the inspection expert to make this decision when carrying out the compulsory periodic inspections.
- There are no set lifespans for safety devices like moving fall arresters (fall catchers) and metal connectors. They may be used as long as they are fully functional. Fixed fabric connectors must however be replaced as soon as their period of use has expired.

10	11	12	13	14	15	16	17	18			
NÄCHSTE PRÜFUNG											
		INVENTAR-NR.:									
NEXT EXAMINATION											
1	2	3	4	5	6	7	8	9	10	11	12


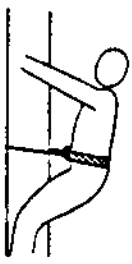






### Model overview and uses for safety belts, safety harnesses, and lifebelts

The right product for every use! Personal protection equipment for crashdown safety generally has one or both of two functions: a holding function and a catching function.

- Holding function: Holding systems prevent users from free-falling. The user should be held in his/her position so securely that he/she is not even in danger of falling. He/she should be tied to the edge when working on masts and should not be able to fall more than 0.5 m. Safety belts or safety harnesses must be used in holding systems!
- Catching function: Catching systems catch users who have fallen more than 0.5 m. The height of the fall and the forces that occur should be kept as low as possible through the use of suitable products. It is compulsory to use impact absorbers or fall arresters! Safety harnesses must be used in catching systems!

The safety belts and/or safety harnesses must be connected with suitable and permitted personal protection equipment such as connectors, impact absorbers, or fall arresters for holding and/or catching systems. When this equipment is selected, the possible risks and dangers must be taken into consideration, and only the personal protection equipment that is best suited to the respective working conditions and that offers the best possible protection from the dangers present may be used. The applicable legal regulations, standards, and instructions for use must also be observed!

							
Order no.	Model	Support function	Holding function for mast-climbing	Holding function for fall-protection	Holding function on inclines	Catching function for falls	Hanging and rescuing
<b>508000</b> <b>508001</b> <b>508002</b>	Euroline safety belt® DS 85, EN 358						
<b>508010</b>	Euroline safety harness® UNI 3, EN 361/EN 358						
<b>508023</b>	Euroline safety harness® UNI 4, EN 361/EN 358						
<b>508024</b>	Euroline safety harness® SALUS, EN 361/EN 358						
<b>508745</b>	Euroline lifebelt® RAPID, EN 361+EN 1497 ÖNORM F 4040						

**ROPES AND HIGH-RISE RESCUE**

**508745 Safety and rescue harness RAPID**

Certified as to EN 361, EN 1497, ON F 4040 tested, CE 0408. Safety and rescue harness RAPID with integrated seat pack has been especially designed for raising and abseiling on a rope and for quick and easy rescue of people from heights and depths. Thereby special attention has been paid to easy handling. Especially suited for fire brigade action and rescue services (e.g. together with abseiling devices)

- With 45 mm wide synthetic belts, teflon impregnated
- Seat pack made of synthetic material
- Imprint "BEIN/LEG" in the leg loops for quick and correct dressing
- Easiest handling: by hooking in the karabiner in both hooking rings the harness can be automatically locked
- Best wearing comfort due to the integrated seat pack
- Optimal fit due to continuous adjustability
- Fittings of light metal

Weight: 0.8 kg



508745

**508010 Full body harness UNI 3**

Certified as to EN 358, EN 361, CE 0408.

- Function: Suitable for all arrest systems, restraint systems and for climbing poles.
- Construction: The classical "3 point harness" with 1 suspension eye for fall arresting in the back, 2 suspension eyes as restraint elements in hip region, with integrated abdominal and chest belt, abdominal belt with automatic steel buckle and leg loops with imprint "BEIN/ LEG" for easy dressing. One size fits all.
- Material: Polyester belt 45 mm wide, teflon impregnated, automatic steel buckle in abdominal strap and thigh strap, plastic guides.

Weight: 1.1 kg

**A full body harness without an energy absorber resp. without a retractable fall arrester may not be used as fall arrest system.**



508010

**508023 Full body harness UNI 4**

Certified as to EN 361 / EN 358 / CE 0408.

- Function: Suitable for fall arrest systems, for work positioning systems as well as climbing poles.
- Construction: 4 point harness with 1 suspension eye for fall arresting in the back, 1 suspension eye in the chest area (2 belt loops, are at the same time closure, holding and suspension eye), 2 suspension eyes in the hip region, with integrated abdominal and chest belt, abdominal belt with automatic steel buckle and leg loops with imprint "BEIN/LEG" for easy dressing. One size fits all.
- Material: Polyester belt 45 mm wide, teflon impregnated, automatic steel buckle in abdominal strap and thigh strap, plastic guides.

Weight: 1.1 kg

**A full body harness without an energy absorber resp. without a retractable fall arrester may not be used as fall arrest system.**



508023



508024



508022



508775 / 508774



508777

**508024 Full body harness SALUS**

Certified as to EN 361, EN 358, EN 813, CE 0408.

- Function: Integral harness for safety and work place positioning systems. Ideally suited for work on ropes. For usage e.g. for height rescue, in pipeline construction, for rock removal, for building and exterior cleaning, for special police forces etc.
- Construction: Full-body harness and work positioning belt for work positioning with 1 fall arrester eyelet on the back, 1 fall arrester eyelet in the chest region, 2 attachment elements in the hip area, 1 safety abseil, eyelet in the abdominal area, 1 restraint fall arrester eyelet in the back area of the safety belt leg closures with automatic metal release buckle (if requested, can also be delivered with Cobra release buckles).

Universal size can be continuously adjusted.

- Material: Polyester belts 45mm wide, teflon-impregnated, light alloy fittings, automatic metal release buckles, belt guide made of synthetic material. Back support, kidney protector made of foam with two-sided textile coating, padding on shoulder and leg belts.

Weight: 2.2 kg

**A full body harness without an energy absorber resp. without a retractable fall arrester may not be used as fall arrest system.**

**RECOMMENDED ACCESSORY FOR BODY HARNESS UNI 3 AND UNI 4****508022 Kidney pad**

Foamed. Weight: 0.4 kg

**Full body harness set ROSENBAUER**

Consists of:

- Full body harness UNI-4, certified as to EN 358, EN 361, CE 0408
- Flexible anchor line 12 mm cladded core rope 15 m or 30 m, certified as to EN 353-2, CE 0408
- Type fall arrester MAA1 certified as to EN 358, EN 353-2, CE 0408
- Tape sling, 0.80 m (UL 1.6 m), certified as to EN 354, EN 795B, EN 566, EN 1498-C
- Twistlock karabiner, 22 kN, certified as to EN 362
- Carrying bag

**508775 Cladded core rope, length: 15 m****508774 Cladded core rope, length: 30 m****508777 High-rise rescue set fall protection**

Activities in high altitudes can be operated reliably with the high-rise rescue set. Through building a powerful safety chain, action forces can get secured to exposed areas. Knowledge of rope technique is a requirement. One person is the lead climber and has to be secured by a second person by "top-rope-method". Another advantage of the high-rise rescue set is the possibility to secure a casualty in an exposed area. The set consists exclusively of high-quality components and has been designed for working heights up to 30 m. Weight: 12.5 kg.

**508778 High-rise rescue set people rescue**

The high-rise rescue set people rescue supports an effective and simple lifting and abseiling of humans. For operational units it offers the feasibility to work, for example in a cored hole or to rescue a casualty from high altitudes (scaffold/cran). The single components are highly suitable for the manifold application of the fire brigade, for example utilization of a basket barrow or use of breathing apparatus. The lifting block incorpo-

Ropes and high-rise rescue, lanyards

rates a gear reduction of 4:1 and gives a huge advantage for heavy loads.

Performance of the lifting block:

- Gear reduction: 4:1
- Rope length: 30 m (to be operated from ground)  
Optimum relation between performance and technical effort
- Swivel pivot-karabiner prevent twirling of lifting block

Weight: 21.5 kg



508778

LANYARDS

Lanyard VARIO 12-MAA 1

Certified as to EN 354, EN 358, CE 0408.

- Function: Serves as a connection of the attachment element (on the work positioning belt or full body harness) to the anchor point. Especially suitable for “restraint systems” due to a quick and simple adjustment of length, but also for climbing poles in combination with work positioning belts and full body harnesses.
- Construction: One end with one-hand aluminium karabiner, the other end with end knot. The length of the lanyard is continuously adjustable with the guided type fall arrester MAA1.
- Material: Polyamide clad core rope 12 mm Ø, fittings and guided type fall arrester in light metal.

50806005 Length: 5 m

Adjustable from 0.4 m to max. 5 m. Weight: 1.0 kg

50806010 Length: 10 m

Adjustable from 0.4 m to max. 10 m. Weight: 1.1 kg



50806005 / 50806010

Guided type fall arrester/descender device LORY

Certified as to EN 353-2, EN 341 class A, EN 358, CE 0408 (EN 15151 with dynamic ropes EN 892 from 9 mm to 11.4 mm).

Basic body: aluminium, die formed, anodised

Brake cam: steel

Rope guide: steel

Function:

- Lead climb safety with controlled rope arrester in case of surprise force of fall
- Positioning and holding
- Rope shortening function
- Descending in passive and active mode
- Furthermore LORY can be used in manifold ways in rope techniques, e.g. as: Disengageable return stop with mobile systems, to back belay tackle systems, as ascent support for ascending on free hanging rope and many more.

The releasing and controlling mechanism is equipped with a camming device (anti-panic system), in order to avoid too high speed during abseiling (double-stop function). Flexible anchor line / anchor rope for LORY: The anchor rope includes a pivoting one-hand aluminium karabiner, a tape fall-absorber, which absorbs the occurring fall force as well as the rope with an 11 mm Ø w (sheathed core) structure. The ends are finished off with stitches, which are protected by shrink tubes. Standard lengths are 10 m or 15 m.

50806035 Anchor rope for LORY 15 meters

50806040 Anchor rope for LORY 30 meters



50806035 / 50806040



508025

**508025 Lanyard KM rope VARIO**

Certified as to EN 354, CE 0408.

- Function: Adjustable range from 1.20 m to max. 2 m.
- Construction: One end with light metal one-hand karabiner hook, the other with insertion loop, the "adjustable eight" allows continuous adjustment of length with the VARIO models.
- Material: Polyamide clad core rope 12 mm Ø, fittings in light metal.

Weight: 0.4 kg



508060

**508060 Energy absorber AHK/TWLK**

Certified as to EN 355, CE 0408.

- Function: With fall arrest systems the use of energy absorbers is prescribed. They are integrated in the system between the anchor point and the person to be secured – best directly on the full body harness. In case of a fall the fall shock is reduced when the tape "tears open". This reduces the strain for the person and the anchorage (anchor point) significantly. During use take care of the possible extension of the energy absorber in case of a fall: energy absorber length + tear open length = max. possible total length of 2 m!
- Construction: Energy absorber length without karabiner (loop/loop) = 20 cm on both sides with synthetic thimbles optional:
  - One end with a light metal one-hand karabiner hook (AHK), the other one with a twistlock karabiner hook (TWLK)
  - One end with a light metal one-hand karabiner hook (AHK), the other one only with a loop (incl. thimble)
  - Both ends with a loop (incl. thimble)
  - One end with a light metal pivoting one-hand karabiner hook (AHK pivoting) the other one with a twistlock karabiner hook (TWLK)
  - One end with a light metal pivoting one-hand karabiner hook (AHK pivoting) the other one only with a loop (incl. thimble)
- Material: 30 mm polyamide webbing with protective tube, end fittings in light metal

Weight: 0.4 kg



508051

**508051 Guided type fall arrester BUDDY**

Certified as to EN 353-2, CE 0408. Buddy is a guided type fall arrester for use with semi-static clad core (sheathed core) ropes according to EN 1891 with a diameter of 11-12 mm. Buddy has been certified with the 11 mm Euroline Kernmantel rope, the 12 mm Euroline clad core rope and the 12 mm Paraloc rope. Buddy can be fixed to the harness with or without textile lanyard, "following" the user automatically up and down the rope. A fall absorber is not required due to the slide of Buddy on the rope. In case of a jerky downward movement it blocks on the rope thereby avoiding a fall. Buddy is made of hot forged aluminium, can be unfolded and attached or removed at any point of the anchor line. Additionally Buddy can be fixed to the anchor line with an integrated screw, so it cannot be removed from the anchor line without loosening the screw.

Weight: 0.2 kg

**FIREMAN'S BELT**

**Fireman's belt, model AUSTRIA Type A**

Certified as to Austrian Standard ON F 4030:2008. All polyester webbing, breaking load 2,000 kg. Dual thorn buckle. Comes with abseil device (descender) and steel snap hook, serving as a hand brake for self-rescue. Accepts leather hatchet holder.

- 159080**     **DS0** Size waist: 65 - 80 cm. Weight: 1.5 kg
- 159081**     **DS1** Size waist: 75 - 110 cm. Weight: 1.5 kg
- 159082**     **DS2** Size waist: 95 - 120 cm. Weight: 1.55 kg
- 159083**     **DS3** Size waist: 115 - 140 cm. Weight: 1.6 kg



159080 / 159081 / 159082 / 159083

**Fireman's belt, model AUSTRIA Type B**

Certified as to Austrian Standard ON F 4030:2008. All polyester webbing, breaking load 2,000 kg. Dual thorn buckle. Comes with abseil device (descender) and elastic lanyard with snap hook, serving as a hand brake for self-rescue. Accepts leather hatchet holder.

- 159085**     **DS0** Size waist: 65 - 80 cm. Weight: 1.5 kg
- 159086**     **DS1** Size waist: 75 - 110 cm. Weight: 1.5 kg
- 159087**     **DS2** Size waist: 95 - 120 cm. Weight: 1.55 kg
- 159088**     **DS3** Size waist: 115 - 140 cm. Weight: 1.6 kg



159085 / 159086 / 159087 / 159088



159090

**ACCESSORY FOR FIREMAN'S BELT AUSTRIA:**

- 159090**     **Lanyard stretch**  
 Certified as to EN 345, EN 358, EN 137.  
 Material: PA-tube band with embedded elastic, fittings in light metal.  
 Construction: One end with light metal one-hand karabiner hook.  
 750 mm total length.

- 159006**     **Fireman's belt, model LINZ**  
 Certified as to EN 345, EN 358, EN 137. Uni size, comes with abseil device (descender), not flame retardant.



159006

**ACCESSORY FOR FIREMAN'S BELT, MODEL LINZ:**

- 159007**     **Lanyard stretch**  
 Certified as to EN 354.  
 Material: PA-tube band with embedded elastic, fittings in light metal.  
 Construction: One end with light metal karabiner hook.  
 500 mm total length.



159007

- 159040**     **Fireman's belt, model FS A**  
 Certified as to DIN 14927, EN 358. Made of 85 mm polyester webbing, black, flame retardant, with dual thonged buckle, comes with safety rope 12 mm Ø and hook, length 800 mm.  
 Weight: 1 kg



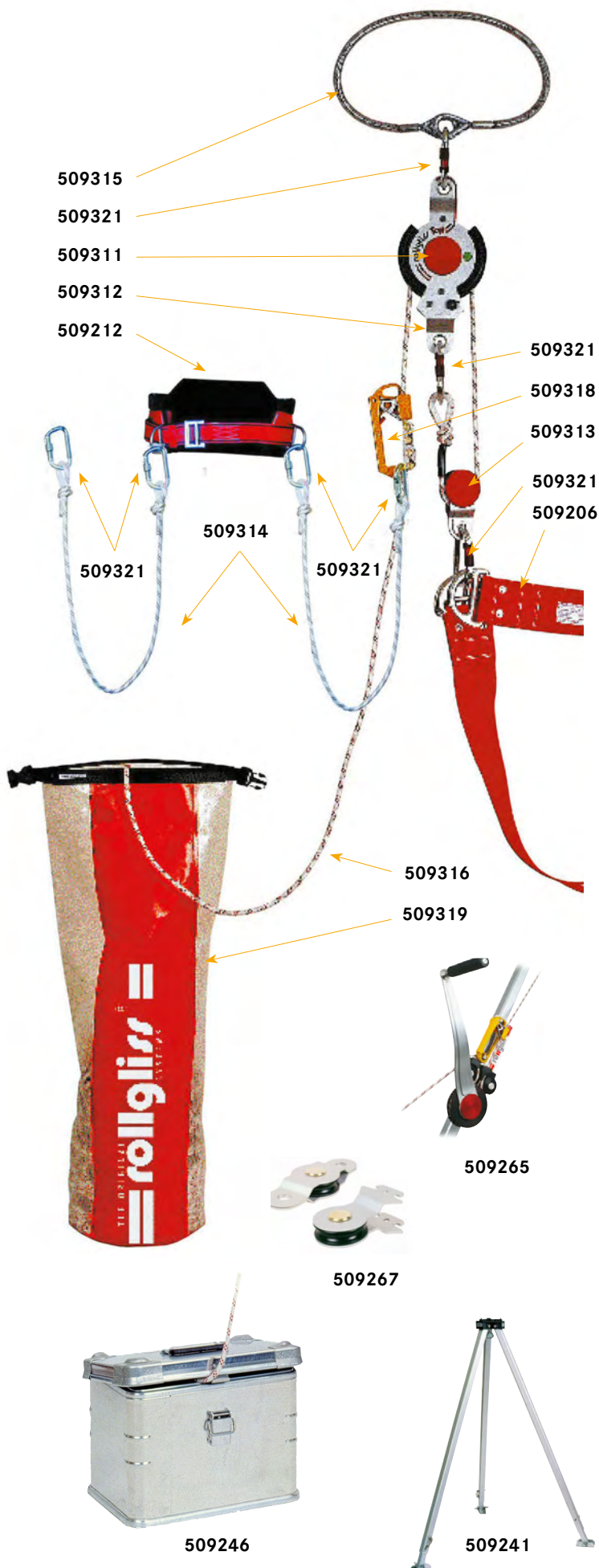
159040

**ACCESSORY FOR FIREMAN'S BELT, MODEL FS A:**

- 150350**     **Descender eight ALU**  
 In black powder-coated aluminium with imprint 30 kN.  
 Sizes: small Ø 26 mm, large Ø 51 mm, total length 146 mm.  
 Weight: 0.13 kg



150350



## ROLLGLISS SYSTEM

### 509310 Safety and rescue set ROLLGLISS

Reduction 2:1

Conformity: CE EN 341:1993 Class A (Descending devices) and CE EN 1496:2007 Class B (Rescue lifting devices). The ROLLGLISS R350 is a modular ascending and descending rope system that sets new standards in the safety and rescue market – whether it is the handling, the technology, the function, the safety, the weight, or the variety of applications, even under most difficult conditions. The ROLLGLISS R350 has been developed and tested on the strength of year of experience in the manufacture, maintenance, and practical use of safety and rescue systems, and examined and tested in the line with the very latest state-of-the-art and regulations.

#### Set consisting of:

- 509315 **Steel cable sheathed**, length 1m, CE EN 795:1996 B
- 509321 **Karabiner steel**, CE EN 362:2005 (7 pieces)
- 509311 **Rollgliss R350**, basic device, reduction 1:1
- 509312 **Anchorage point**, reduction 2:1
- 509318 **Stopping handle with controller**
- 509313 **Mobile pulley**, reduction 2:1
- 509206 **Rollgliss rescue seat**, harness EN 1498 Cl. B
- 509316 **Rollgliss rope**, cladded core rope Flex-Static, length 60 m
- 509319 **Rollgliss carrier bag**  
PVC, 45 litre, adj. shoulder straps
- 509212 **Work positioning belt** with extra wide back pad,  
2 lateral D rings, 4 accessory holders CE EN 358:2000
- 509314 **Lanyard (2 pieces)**  
Length 1m, cladded core rope, CE EN 354:2002

#### ACCESSORIES:

- 509265 **Hand winch**  
Simplifies ascending and descending. Easy mounting at Rollgliss tripods. To use with reduction 3:1 or higher; the stopper of the R350 will be used as an automatic rope stop. EN 1496:2007 class B.  
Weight: 3 kg
- 509267 **Modification set 3:1**  
Mobile and fixed pulley for modification reduction 3:1
- 509246 **Rollgliss carrier box**  
Aluminium for R 350 with 60 m rope.
- 509241 **Alu tripod**  
With 4 anchorage points, 8 height adjustment positions 1.35 to 2.35 m, 14.5 kg. CE EN 795:1996 B. Incl. carrier bag.



**ROPES AND ACCESSORIES**

**149000 Suction hose, working rope**  
 Made of polypropylene, spiral woven, 8 mm diameter, 15 m long, with 2 loops and aluminium, chromium plated karabiner 80 x 8. Suitable for controlling the suction strain valve and for securing suction hoses.

**RECOMMENDED ACCESSORY:**

**Carrying bag**  
 Made of synthetic fibre.

**149700 Colour: orange**  
**149750 Colour: blue**

**Rescue rope, polyester**  
 Certified as to Austrian Standard ON F 5260, made of 1a polyester, spiral woven, 12 mm diameter, at one end a loop with light-alloy safety karabiner according to ON F 5221, the other end bluntly smelted.

**150600 20 m length. Weight: 1.6 kg**  
**150700 30 m length. Weight: 2 kg**

**Rescue rope, polyamide**  
 Certified as to EN 1891. Cladded core rope made of polyamide, with a diameter of 11 mm one side with a sewn in one-hand aluminium karabiner according to EN 362, the other end bluntly smelted.

**150400 20 m length. Weight: 2.4 kg**  
**150410 30 m length. Weight: 2.65 kg**

**RECOMMENDED ACCESSORY:**

**151030 Storage bag for rescue ropes**  
 Certified as to ÖBFV RL GA 03. Made of orange coloured synthetic fibre. Comes with adjustable carrying belt. Bag can be closed with a string. Weight: 0.1 kg



149000



149700



149750



150600 / 150700



150400 / 150410



151030



507503



507505



153420



151715



154425



154435

**507503 Buoyant rescue rope, polyethylene**

Certified as to EN 362 T.

Made of polyethylene, spiral woven, 12 mm diameter, 30 m long.

At one end a loop with light alloy karabiner, the other end bluntly smelted.

**507505 Buoyant rescue rope, polyamide**

Certified as to EN 1891 and EN 362.

Cladded core rope, made of polyamide, 11 mm diameter, 30 m long.

One side with a sewn in one-hand light alloy karabiner, the other end bluntly smelted.

**150606 Rescue rope, paraloc 1/2"**

Certified as to EN 1891 A and ANSI Z359 + A10.14.

Made of patented parallel braided "GRS paraloc-rope".

With 2 light alloy karabiners, packed in a polybag.

- Humidity absorption: < 5%
- Material: PA
- Length: 50 m
- Colour: yellow
- Diameter: 12 mm
- Breaking load: 33 kN
- Weight per m: 0.085 kg

**150608 Rescue rope, paraloc 5/8"**

Certified as to EN 1891 A and ANSI Z359 + A10.14.

Made of patented parallel braided "GRS paraloc-rope".

With 2 light alloy karabiners, packed in a polybag.

- Humidity absorption: < 5%
- Material: PA
- Length: 50 m
- Colour: orange
- Diameter: 16 mm
- Breaking load: 38 kN
- Weight per m: 0.01 kg

**153420 Working line, polypropylene**

Spiral-braided, 14 mm diameter, 20 m long, one end with light alloy safety karabiner 11 x 120 mm, the other end is bluntly smelted.

Weight: 3.4 kg

**151715 Working line, polyester**

Spiral-braided, 12 mm diameter, 30 m long, one end with steel snap 11 x 120 mm, the other end is bluntly smelted.

Weight: 3.4 kg

**154425 Cladded core rope DYNAMIC with karabiner and end node**

Certified as to EN 892. Adapted for hoists, and safety ropes (climbing).

- Colour: red / black / grey
- Diameter: 9.4 mm
- Stretch: at 50-150 daN 5 % (min.)
- Breaking load: min. 15 kN
- Weight: 3 kg

**154435 Cladded core rope STATIC with karabiner and end node**

Certified as to EN 1891 and EN 353. Adapted for hoists or for protection of people with guided type fall arresters.

- Breaking load: min. 40 kN
- Diameter: 12 mm
- Knot strength: min. 25 kN
- Length: 60 m
- Weight: 5.8 kg

**Cladded core rope DYNAMIC, 9.4 mm**

Certified as to EN 892. Adapted for hoists and as safety rope (climbing).

- Colour: red / black / grey
- Diameter: 9.4 mm
- Weight per m: 60 g
- Breaking load: > 15 kN
- Stretch (static): < 10 %

- 154444** Length: 60 m
- 154445** Length: 80 m
- 154446** Length: 100 m
- 154447** Length: 200 m



154444 – 154447

**Cladded core rope DYNAMIC, 10.3 mm**

Certified as to EN 892. Adapted for hoists and as safety rope (climbing).

- Colour: yellow / orange
- Diameter: 10.3 mm
- Weight per m: 68 g
- Breaking load: > 20 kN
- Stretch (static): 4 %

- 154440** Length: 60 m
- 154441** Length: 80 m
- 154442** Length: 100 m
- 154443** Length: 200 m



154440 – 1154443

**Cladded core rope STATIC, 11 mm**

Certified as to EN 1891. Adapted for hoists or for protection of people with guided type fall arresters.

- Diameter: 11 mm
- Weight per m: 84 g
- Breaking load: > 30 kN
- Stretch at 1.5 kN: < 5 %

- 154460** Colour: black / orange. Length 60 m
- 154461** Colour: black / orange. Length 80 m
- 154462** Colour: black / orange. Length 100 m
- 154463** Colour: black / orange. Length 200 m
- 154464** Colour: white / black. Length 60 m
- 154465** Colour: white / black. Length 80 m
- 154466** Colour: white / black. Length 100 m
- 154467** Colour: white / black. Length 200 m



154460 – 1154463



154464 – 1154467

**Cladded core rope STATIC, 12 mm**

Certified as to EN 1891. Adapted for hoists or for protection of people with guided type fall arresters.

- Diameter: 12 mm
- Weight per m: 95 g
- Breaking load: > 40 kN
- Stretch at 1.5 kN: < 5 %

- 154468** Colour: black / orange. Length 60 m
- 154469** Colour: black / orange. Length 80 m
- 154470** Colour: black / orange. Length 100 m
- 154471** Colour: black / orange. Length 200 m
- 154472** Colour: white / black. Length 60 m
- 154473** Colour: white / black. Length 80 m
- 154474** Colour: white / black. Length 100 m
- 154475** Colour: white / black. Length 200 m



154468 – 1154471



154472 – 1154475



15 1020



15 1021



15 1022



508026/508027/508028



156100

155800 / 155900 /  
156000

156122

## STORAGE BAGS FOR ROPES

**151020** **Storage bag, orange coloured, for ropes up to 30 m**  
Made of synthetic fibre. Comes with adjustable carrying belt. Bag can be closed with a string.  
Dimensions: 400 x 280 mm.  
Weight: 0.1 kg

**151021** **Storage bag, blue coloured, for ropes up to 30 m**  
Made of synthetic fibre. Comes with adjustable carrying belt. Bag can be closed with a string.  
Dimensions: 400 x 280 mm.  
Weight: 0.2 kg

**151022** **Storage bag, orange coloured, for ropes up to 60 m**  
Made of synthetic fibre. Comes with adjustable carrying belt. Bag can be closed with a string. With carrying handles. Dimensions: 520 x 630 mm.  
Weight: 0.2 kg

### Tape slings

Certified as to EN 354, EN 795 B, EN 566, EN 1498 C, CE 0408.  
Breaking load: 22 kN.  
Function: Suitable as lanyard or anchor point.  
Material: PES belt band 25 mm x 2 mm.

**508026** **Length (circ.): 0.8 m (1.6 m)**  
**508027** **Length (circ.): 1.2 m (2.4 m)**  
**508028** **Length (circ.): 2 m (4 m)**

## KARABINERS AND ACCESSORIES

### Fire brigade karabiner

Pear shaped, chromium plated.

**155800** **120 x 11 mm. Breaking load 1.030 kg**  
**155900** **80 x 8 mm. Breaking load 780 kg**  
**156000** **60 x 6 mm. Breaking load 440 kg**

**156100** **Safety karabiner**  
Certified as to Austrian standard ÖNORM F 5221.  
Made of aluminium, with safety fastener. Breaking load: 22 kN, total length: 135 mm.  
Weight: 0.2 kg

**156122** **Mountaineer karabiner**  
Certified as to EN 362. Made of high gloss aluminium, orange anodised. Breaking load: 30 kN with imprint, total length: 116 mm.  
Weight: 0.09 kg

Storage bags, karabiners, jumping cushions

- 156123 Twistlock karabiner**  
 Certified as to EN 362. Made of high gloss aluminium, black coloured, orange anodised. Breaking load: 22 kN, total length: 123 mm.  
 Weight: 0.1 kg
- 156124 One hand karabiner**  
 Certified as to EN 362. Made of high gloss aluminium, orange anodised. Breaking load: 22 kN, total length: 141 mm.  
 Weight: 0.13 kg
- 150350 Descender eight ALU**  
 In black powder-coated aluminium with imprint 30 kN. Sizes small Ø 26 mm, large Ø 51 mm, total length 146 mm.  
 Weight: 0.13 kg
- 156125 Swivel pivot**  
 Certified as to EN 354. Made of high gloss aluminium, orange anodised. Breaking load: 30 kN with imprint, total length: 119 mm.  
 Weight: 0.1 kg
- 156126 Deflection pulley, single type**  
 Certified as to EN 12278. Made of high gloss aluminium, black-orange anodised. Breaking load: 32 kN (2 x 16 kN) with imprint, total length: 113 mm. Suitable for cladded core ropes 9 mm or 12 mm.  
 Weight: 0.2 kg
- 156127 Deflection pulley, double type**  
 Certified as to EN 12278. Made of high gloss aluminium, black-orange anodised. Breaking load: 32 kN (4 x 8 kN) with imprint, total length: 143 mm. Suitable for cladded core ropes 9 mm or 12 mm.  
 Weight: 0.4 kg

**JUMPING CUSHIONS**

- 506300 Jumping cushion**  
 Certified as to DIN 14151, T1 and T3.  
 Recommended for a maximum jumping height of 16 metres, that means approx. from the seventh floor of a building. Due to the low weight of approx. 55 kg, the jumping cushion can be relocated rapidly in case of need. The jumping cushion is used in rescue operations, where turntable ladders are not available or cannot be deployed because of space restrictions, for instance in narrow streets. The self-erecting supporting frame is made of a coated fabric. The cover is made of a special flame retardant, tear-proof and rot-proof material. A 300 bar, 6-ltr compressed-air cylinder, that is available at extra cost, is located in a protective pocket at the base of the supporting frame. Only two people are necessary to set up the jumping cushion. The supporting frame and the actual jumping cushion will be ready for service in less than 30 seconds. After a jump, the cushion is re-erected within 10 seconds and ready for the next jump.



156123



156124



150350



156125



156126



156127



506300

Catching area:	3,500 x 3,500 mm (12,25 m <sup>2</sup> )
Height, inflated:	1.7 m
Air capacity, inflated:	20 m <sup>3</sup>
Deployment time:	30 seconds
Re-erection time:	10 seconds
Colour:	neon yellow - blue
Packed size:	0.9 x 0.55 x 0.3 m (complete with carrying bag)
Weight:	45 kg (without air cylinder)

#### 506330 **Jumping cushion SP 25**

Similar to DIN 14151.

Recommended for a maximum jumping height of 25 metres, that means approx. from the seventh floor of a building. Due to the low weight of approx. 55 kg, the jumping cushion can be relocated rapidly in case of need. The jumping cushion is used in rescue operations, where turntable ladders are not available or cannot be deployed because of space restrictions, for instance in narrow streets. The self-erecting supporting frame is made of a coated fabric. The cover is made of a special flame retardant, tear-proof and rot-proof material. A 300 bar, 9-ltr compressed-air cylinder, that is available at extra cost, is located in a protective pocket at the base of the supporting frame. Only two people are necessary to set up the jumping cushion. The supporting frame and the actual jumping cushion will be ready for service in less than 30 seconds. After a jump, the cushion is re-erected within 10 seconds and ready for the next jump.

Catching area:	4,600 x 4,600 mm (21,16 m <sup>2</sup> )
Height, inflated:	2.4m
Air capacity, inflated:	20 m <sup>3</sup>
Deployment time:	60 seconds
Re-erection time:	20 seconds
Colour:	neon yellow - blue
Packed size:	1.1 x 0.63 x 0.45 m (complete with carrying bag)
Weight:	80.5 kg (without air cylinder)

#### RECOMMENDED ACCESSORIES:

**506310 Test pressure gauge**

**506315 Air retractor for vetter jumping cushion**

**525920 Compressed air cylinder (for order no. 506300)**  
6 l / 300 bar.

**40902509 Spare cylinder (for order no. 506330)**  
9 l / 300 bar carbon composite with valve, empty.



506200

#### 506200 **Rescue cushion set LIFE JUMP 100 A**

Inflatable rescue cushion with a total jumping surface area of approx. 46 m<sup>2</sup>. Jumps from a height of 30 m (10th floor of a high rise building) are possible. Made of special spread Polyester PVC fabric, coated on both sides with fire retardants class 2.

Dimensions of the inflated cushion: 6 x 7.6 m, height: 2.75 m. The cushion comes complete with two electric fans, 230 V 50 Hz 1-phase current, 1,100 Watt (special voltage upon request). Air output per fan: 10,000 m<sup>3</sup>/h.

Deployment of the whole system, including inflation time: less than 5 minutes when using 3 operators. The set comes complete with 2 cable drums 30 m each. Weight, including fans and cable drums: 292 kg

**LADDERS CERTIFIED AS TO EN 1147:2001**

**Scaling ladders**

Certified as to EN 1147:2001 and Austrian Standard ON F 4047:2002.

The ladder may be used by two persons with a maximum weight up to 216 kg. The beams are made of high-strength aluminium alloy. Grooved 28 mm strong square rungs. Feather/ spring snatching locks (steel galvanised), fixing stoppers and slip-resistant exchangeable ladder shoes as well as smooth exterior surfaces offer highest user friendliness. The ladder system is compatible with all usual ladders (as well as timber and older models).

**81000005 Scaling ladder insert part**

**81010005 Scaling ladder element**

**81020005 Scaling ladders 2 piece set**

**81030005 Scaling ladders 3 piece set**

**81040005 Scaling ladders 4 piece set**

**81050005 Bridge for scaling ladders**

**815500 Multipurpose ladder**

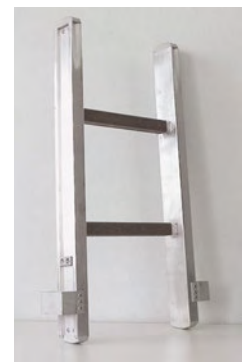
Certified as to EN 1147:2001 and Austrian Standard ON F 4047:2002. Combination step and sectional ladder. Numerous applications, especially suitable for outdoor use. Comes with patented fittings. Rubber safety shoes on bottom section. 3 parts. Light-alloy.  
 Transport dimensions: 2,300 x 418 x 164 mm  
 Used as wall ladder: 5,380 mm total length  
 Used as step ladder: 3,850 mm (stand-alone operation)  
 Base width: 795 mm  
 Weight: 19 kg

The multi-purpose ladder can be used as follows:

- (1) One-part pitching ladder
- (2) Double ladder, without extending part
- (3) Double ladder, with extending part
- (4) Two-part pitching ladder
- (5) Three-part pitching ladder, extended length: 5.4 m



81010005



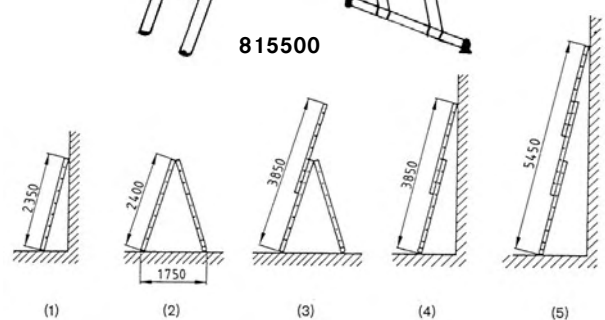
81000005



81050005



815500





8150005



Automatic ladder locks with metal design



81540002



806070

### Extension ladder – 2 sections

Certified as to EN 1147:2001 and Austrian Standard ON F 4047:2002. Aluminium heavy-duty extension ladder. Especially designed for fire fighting and rescue operations. Comes with:

- 2 Sections
- Rope pull with rope brake
- Setting up assistance with 2 spikers at the bottom for enhanced stability
- Wall rubber castors
- Automatic ladder locks
- Slip resistant rungs

The ladder may be used by two persons with a maximum weight up to 216 kg.

**8 m.** Transportation dimensions: 4.7 x 0.47 x 0.16 m

Weight: approx. 40 kg

**81500005 Automatic ladder locks**

**81500006 Automatic ladder locks, made of metal**

**9 m.** Transportation dimensions: 5.3 x 0.47 x 0.16 m

Weight: approx. 44 kg

**81510005 Automatic ladder locks**

**81510006 Automatic ladder locks, made of metal**

**10 m.** Transportation dimensions: 5.9 x 0.47 x 0.16 m

Weight: approx. 49 kg

**81520005 Automatic ladder locks**

**81520006 Automatic ladder locks, made of metal**

Extension ladders with metal ladder locks are available for hot climates upon request (e.g. 8150006 instead of 8150005).

### Extension ladder – 3 sections

Certified as to EN 1147:2001, Austrian Standard ON F4047:2002. Aluminium heavy-duty extension ladder. Especially designed for fire fighting and rescue operations. Comes with:

- 3 Sections
- Rope pull with rope brake
- 2 Support bars
- 2 Spindles for levelling purposes
- Wall rubber castors
- Automatic ladder locks

The ladder may be used as rescue ladder for 3 persons (max. 324 kg).

**12 m.** Transportation dimensions: 5.6 x 1.13 x 0.26 m

Weight: approx. 85 kg

**81530002 Automatic ladder locks**

**81530006 Automatic ladder locks, made of metal**

**14 m.** Transportation dimensions: 6.25 x 1.13 x 0.28 m

Weight: approx. 89 kg

**81540002 Automatic ladder locks**

**81540006 Automatic ladder locks, made of metal**

### Pitching ladder

Certified as to EN 131:1993. Light weight aluminium single section wall ladder. Width 420 mm. Rectangular side rails and grooved rungs. Both ends provided with slip resistant rubber shoes.

**806020 Length: 2.5 m**

Weight: 4.7 kg

**806070 Length: 4.17 m**

Weight: 6.8 kg



## HOOK LADDER

Certified as to EN 1147:2001 and Austrian Standard ON F 4047:2002. The ladder is used for scaling heights of one storey at a time, and may only be charged with one person at a time (total weight not to exceed 150 kg). Heavy duty aluminium ladder, width 310 mm.

### 820200 Hook ladder with folding hook

Light alloy. Certified as to DIN EN 1147:2001, part 1.  
Length: 4.4 m  
Weight: approx. 11.5 kg



820200

## WOODEN LADDER

### 806300 Folding ladder

Certified as to EN 1147:2001. Light duty wooden folding ladder. Width open: 400 mm, total length open: 3 m. May only be charged with one person at a time (total weight not to exceed 150 kg). When closed, the ladder may be used for ramming operations.  
Weight: approx. 11.5 kg



806300



806035

## GLASS FIBRE LADDERS

Certified as to EN 131:1993. Especially designed for chemical and electrical industry and firebrigades. Insulating properties (electrical as well as thermal properties) make them an excellent tool for all types of professional users. The ladders are non-conductive and therefore will not rot. Maintenance can be limited to a minimum. Insulated up to 20,000 V.

### Pitching ladder

Made of glass-fibre.

### 806015 2.5 m long, internal width 360 mm.

Weight: 6.2 kg

### 806035 3.05 m long, internal width 360 mm.

Weight: 7.6 kg

### 806065 4.2 m long, internal width 360 mm.

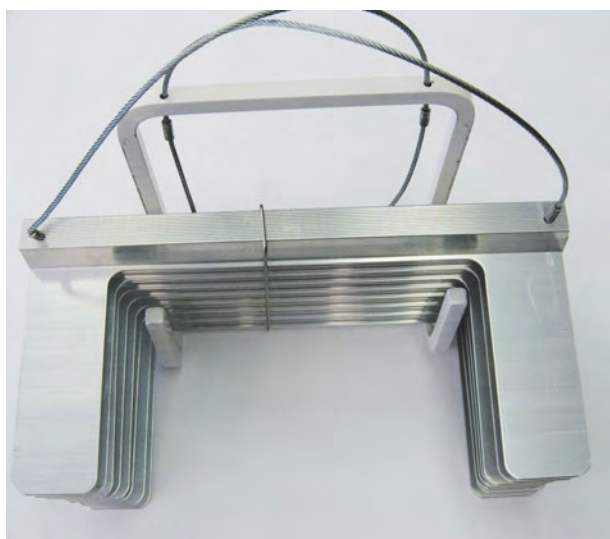
Weight: 10.3 kg



806082



808200



80832101

### Double ladder with steps made of glass-fibre

- 806082**    **1.85 m long, bottom width 0.55 m.**  
Weight: 10.2 kg.
- 806084**    **2.95 m long, bottom width 0.7 m.**  
Weight: 16.5 kg.
- 806086**    **4.05 m long, bottom width 0.8 m.**  
Weight: 23.8 kg.

### Rope ladder made of polypropylene

Certified as to ON Z 1509:1997. Ladder made of polypropylene ropes, the ends are equipped with rope eye stiffener. Comes with hardwood rungs fixed to the ropes with screws. UV resistant. Distance between the rungs: 300 mm. Any number of ladders can be connected to extend their length.

- 808200**    **Length: 5 m.**  
Weight: 6.3 kg
- 808205**    **Length: 10 m.**  
Weight: 11 kg
- 808210**    **Length: 15 m.**  
Weight: 16 kg
- 808212**    **Length: 20 m.**  
Weight: 20 kg

### RECOMMENDED ACCESSORY:

- 156100**    **Karabiner hook**  
Made of aluminium, with security fastener. Certified as to Austrian Standard ÖNORM F 5221:1985. Two pieces per ladder necessary!  
Weight: 0.2 kg.

### Rescue ladder KLETTER-FIX

KLETTER-FIX is a compact folding ladder made of steel cable and aluminium rungs. As it is fireproof, safe, approved by the German TÜV and can be used virtually anywhere. Folded by the unique patent safety system. The compact ladder needs very little space. It fits comfortably in a briefcase, on a car shelf, in a writing desk or on an office shelf. It is also maintenance-free and has a virtually unlimited service life thanks to the materials it is made of.

Technical Data:

Load capacity entire ladder:	3 kN (300 kg / max. 4 persons)
Load capacity each rung:	1.5 kN (150 kg / max. 2 persons)
Rung width:	330 mm
Rung interval:	315 mm
Carrying rope interval:	303 mm
Distance from wall:	150 mm

- 80830001**    **5 m.**  
Weight: 4.7 kg
- 80831101**    **8 m.**  
Weight: 6.8 kg
- 80832101**    **12 m.**  
Weight: 8.9 kg

**RESCUE PLATFORMS**

**64606005 Light rescue platform**

According to DIN 14830. Made of aluminium for rescue work in elevated position. Safe, light and stable design with non-slip steps and non-slip platform area out of aluminium profile. The platform is strong enough to carry three persons plus tools (500 kg). Recommended applications: rescue work on trucks, buses, trains, aircraft and buildings.

Platform size: 830 x 1,720 mm  
 Platform height: 880 up to 1,400 mm  
 adjustable in steps  
 Max. load: 500 kg  
 Storage dimensions: 1,790 x 1,050 x 280 mm  
 Weight: approx. 51 kg

Foot extension on all beams for uneven grounds.

**64606006 Wheels for rescue platform aluminium**

A retrofit set for rescue platform for mounting for castors by using on tracks for rescue platform order no. 64606005. Comes with: 4 pcs. quick release axle with wheels D 300 mm and fixing brake plus 2 pcs. axles for mounting at the platform. No tools necessary for mounting.

Track width: 1,435 mm  
 Maximum load: 500 kg  
 Weight: approx. 30.5 kg

**80130001 Rescue platform made of light alloy**

Max. load: 300 kg  
 Platform size: 1.86 x 0.75 m  
 Height: 0.97 m  
 Transport dimensions: 2.08 x 0.91 x 0.13 m  
 Weight: 30 kg



**64606005**



**80130001**



507427



507456



507301



507503

## WATER SERVICE

### Life jacket PIONIER

Certified as to EN 395:1996. For all who work professionally on the water, and who need an especially hard buoyancy foam life jacket. Will hold the wearer's face above water, even when the person is exhausted or unconscious.

Features: strong holder made of special nylon, super soft flotation foam, variably adjustable belt clasp with insert buckle, reflector strips, emergency whistle, breast pocket, adjustable leg straps, handles, closure pull-ties, wardrobe loop.

Colour: red

**507427**     **Size M / 46 – 50 / 60 – 80 kg**  
Buoyancy: 90 Newton. Weight: 1.3 kg

**507428**     **Size L / 50 – 54 / 80 – 100 kg**  
Buoyancy: 105 Newton. Weight: 1.3 kg

**507429**     **Size XL / 54 – 58 / 100 – 120 kg**  
Buoyancy: 120 Newton. Weight: 1.35 kg

**507430**     **Size XXL / 58 – 60 > 120 kg**  
Buoyancy: 130 Newton Weight: 1.35 kg

### 507456     Life jacket SAFETY AUTOMATIC

Certified as to EN 396:1996. Faint-proof life jacket. Inflation occurs upon water contact by means of a CO<sub>2</sub> cartridge or by manual release with the toggle fastening. The life jacket is very convenient to carry its deflated state. Outfitting: weld together air balloon with automatic-release, oral inflation tube, strong holder with snaps, variably adjustable waist belt with insert buckle, 6 reflector strips on flotation balloon, comfortable back. Buoyancy: 160 N. Colour: red. Uni size (60 – 120 kg).

Technical data:

Air volume:	160 N / 16 l
CO <sub>2</sub> cartridge:	33 / 34 g
Donning time:	under 60 sec
Rotation onto back:	under 5 sec
Freeboard height:	over 8 cm
Vertical bearing capacity:	over 75 kg
Horizontal bearing capacity:	over 200 kg
Reflector material:	300 cm <sup>2</sup>
Weight:	0.7 kg

### RECOMMENDED ACCESSORY:

**507457**     **CO<sub>2</sub> – replacement cartridge for life jacket**  
33 / 34 g CO<sub>2</sub> cartridge with release-ring and safety clip for one-time use.  
Weight: 0.15 kg

**507301**     **Rescue ring SOLAS 61 x 41 cm**  
Approved life-ring. Extreme tough polyethylene shell and polyethylene foam filling, 4 reflexstrips, all-round grab-line with dual-eyelets.  
Conforms to SOLAS 74/96 - Reg. III/4, and for that reason approved for public and commercial application.  
Diameter: outside 61 cm / inside 41 cm  
Colour: orange  
Weight: 2.5 kg

**507503**     **Floating line**  
Made of polyethylene. Diameter: 12 mm. Length: 30 m. Floats on water. Comes with light alloy karabiner hook at one end.  
Weight: 0.8 kg

**515512 Workboat P5**  
 Inflatable boat with round bow and stern, for paddling only. Comes with bow anchor attachment patch and outboard circumferential line. D-ring patches, slatted floor and anti-chafing strips on boat floor.  
 Material: high tenacity synthetic fabric, outside coating hypalon, inside coating neoprene, abrasion, rot, UV and seawater resistant.  
 Tensile strength: > 2,800 N / 5 cm  
 Dimensions: 1,200 x 3,000 mm  
 Weight: 35 kg



515512

**515513 Workboat P5M**  
 Inflatable boat for use with outboard engine up to 7 kW (10 HP). Comes with bow anchor attachment patch, outboard circumferential line, D-ring patches, external anti-chafing strips and separate wooden floor boards, stern transom and engine plate.  
 Material: High tenacity synthetic fabric, outside coating hypalon, inside coating neoprene, abrasion, rot, UV and seawater resistant.  
 Tensile strength: > 2,800 N / 5 cm  
 Dimensions: 1,200 x 3,000 mm  
 Weight: 38 kg



515513

**515511 Two way pump with pressure gauge**  
 For inflatable boats. Weight: 1.5 kg



515511

**515514 Paddle, 120 cm**  
 Made of wood. Per piece. Weight: 3.5 kg



515514

**515521 Outboat engine YAMAHA**  
 Sail power. 2-cylinder, 4-stroke, cubic capacity 212 ccm, 7.3 kW, 12 l extra tank, quick stop, propeller.  
 Weight: 39 kg

**515515 Anchor**  
 Made of hot galvanised cast iron. Weight: 4 kg

**515516 Buoy for anchorage**  
 Diameter 400 mm, colour: orange. Weight: 1.7 kg



515516

**515510 Life raft SOLAS, Type RS-E**  
 Certified as to SOLAS 83. Throw-over-board type raft, made of heavy duty natural black rubber, the canopy is made of synthetic material and red in colour. Suitable for 10 persons. Comes packed in a glass fibre reinforced plastic container. Complete with emergency pack A, approved for international waters. Comes complete with hydrostatic release device, cradle for the raft container and lashings for the cradle/container. Packed dimensions: 1,440 x 705 x 710 mm.  
 Weight: 135 kg



515510

**515525 ResQmax line deployment kit 410**  
 Launcher, streamline projectile, 200 kg test 3 mm dacron line, 1,000 kg test 8 mm PolySpectra line, streamline nozzle protector, O-ring kit, corrosion blocker, ResQmax operator's manual, ResQmax training CD, Streamline filler hose DIN, Cordura kit carry bag (red).  
 Weight: 14.5 kg



515525



411250



41125001



41125002



41125003



41125004



41125007



41125008

**411250 Regulator**

In-line, high-flow piston design.

- Large diameter piston guarantees a more stable intermediate pressure
  - High-performance, mid-size 2nd stage
  - Vane adjustment switch (VAS) controls venturi assist to reduce sensitivity to freeflow on surface and provide maximum airflow at deeper depths
  - Enlarged oral breathing channel with Comfo-Bite™ mouthpiece
  - Meets the CE requirements for cold water diving (<math>< 50^{\circ}\text{F}</math>)
  - Compatible with EAN 40 when new, out of the box
- Weight: 0.95 kg

**41125001 Gauge, depth-meter and underwater-compass**

Analog gauges, 2 gauges: 300 bars/metric, luminous easy-to read analog dials, reliable and accurate open bourdon tube mechanism, maximum depth indicator, end mount compass with exceptional tilt potential.

Weight: 0.7 kg

**41125002 BC-Jacket**

Made from tough, fade-resistant Armorshield™ Cordura®, V-Diamond Rubber™ and 840 Integra™. Easy-to-use, integrated Octo-Pocket™ (patent pending). New backpack with carrying handle and integrated traction pad. Right shoulder pull dump for quick and easy deflation. The waistband is now adjustable and removable. Chest strap included. Additional cylinder positioning strap and carrying handle. 2 large, hook and loop pockets. 2 stainless steel D-rings for accessories. 6 sizes, colour-coded for easy identification in rental lockers and schools. Optional weight pockets available.

Weight: 2.85 kg

**41125003 Diving air cylinder**

Complete steel air cylinder with Z-Valve, CE/EN 250, 10l/ 230 bar quality with single boot. Progressive opening action conserves HP seat, soft hand wheel absorbs shocks if the cylinder falls over, hexagonal body makes removal for inspection easier.

Weight: 16.1 kg

**41125004 One piece diving suit**

Modular suit comprising a 5.5 mm one-piece, a shorty 4 mm used as an over vest with a separate 5.5 mm hood. One piece with front zip and cuffs in "glideskin" for limit water entry. Clip for attaching hood pre and post-dive on right thigh.

Weight: 2 kg

**41125017 Diving suit SHORTY size 50 with hood size L****41125007 Diving gloves**

5 finger high stretch neoprene gloves, thickness: 3 mm. Palm: rubberised coating for protection and added grip. Closure: pull-on style eliminates bulk at wrist.

Weight: 0.14 kg.

**41125008 Diving boots**

Made of neoprene with terry-plush inside, flexible vulcanised rubber outsole, ERGO™ shaped footbed. Upper: four seam (2 front, 2 heel) pattern. Zipper: non-corrosive YKK, hook and loop zipper lock keeps zipper in place, added webbing reinforcement.

Thickness: 6.5 mm. Sizes: 3 - 16

Weight: 0.7 kg

**41125006 Fins**

The caravelle ADJ is an incredibly comfortable and lightweight fin with the power and efficiency of many larger and heavier fins. The key to its power is the specially formulated blade material that provides additional thrust at the end of every kick.

- Excellent entry level and all around fin
- Lightweight blade reduces kicking effort
- Flexible blade provides an easy kick while blade snap provides ample power
- Blade reinforced
- Anatomically shaped foot pockets enhance comfort and performance
- Extended heel pocket for additional support and power transmission
- Quick release buckles
- One size fits all

Weight: 1.8 kg



41125006

**41125005 Diving knife**

2 different blade designs. Made from marine grade stainless steel. Easy grip 2 layer handle. Simple non-mechanical sheath locking system. Sheath straps have quick-release buckles. Weight: 0.45 kg.



41125005

**41125009 Underwater goggles**

Low-volume, two-window design. Great visibility, optical lenses available upon request.

Weight: 0.2 kg



41125009

**41125010 Snorkel**

Simple neoprene rubber design, J-tube, secure keeper for mask strap. Weight: 0.2 kg



symbolic picture

**41125011 Reel 50 m**

Large reel with 50 meters of nylon line with S/S bolt snap. Features: Auto-stop, ergonomic design, rugged construction, sturdy ratchet system, suitable for search and rescue.

Weight: 0.7 kg



41125011

**41125012 Transport bag**

Aqua Lung Traveler 400. Dimensions: 33 x 69 x 30 cm, volume: 69 litres, colour: black/blue. Material: 840D and 600D nylon. External zippered accessory pocket. Velcro™ closure duffle handle.

Weight: 0.725 kg



41125012

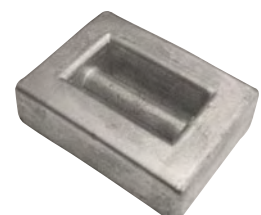
**41125016 Diving lead**

Standard lead 1 kg.

**41125014 Diving weight belt**

Pocket belt. Easily accepts shot pouches or standard weights. One sizes fits all. Kam buckle for easy belt length adjustment. Colour: black.

Weight: 0.12 kg



41125014

**41125015 Diving inox buckle**

For weight belt.

Weight: 0.1 kg



41125015







**FIRE STATION  
EQUIPMENT**

**12**



159913



159981



159921



159920

## WARDROBE CABINETS

Rosenbauer wardrobe cabinets are single type and available in 400 x 500 x 1,900 mm (WxDxH, without rack). You can create your own individual wardrobe system by combining the different wardrobe cabinets.

Rosenbauer wardrobes are made of galvanised high-grade steel sheet metal. These wardrobe cabinets come in red (RAL 3000) powder coated. Other colours available upon request. If a lockable storage box is required, it will be provided with a cylinder lock, different-locking implemented with two keys each.

Features:

- A rest for all helmet types: the helmet will be ventilated inside without crumpling the neck protection.
- The helmet shelf can be opened (luminous helmets can be loaded during light and are longer continuing to glow) or closed.
- The standard equipment contains a clothes rail and a belt hook.
- The cabinet bottom consists of a solid edged perforated plate. This enables ventilation of clothes and facilitates cleaning.
- Surface protection for high resistance.
- All RAL-colours available on request.

### Wardrobe cabinets with upward open to the top helmet shelf

Pedestal adjustable in height. Dimensions: 400 x 500 x 1,900 mm.  
Weight: approx. 19 kg

- |               |  |
|---------------|--|
| <b>159913</b> | <b>Without storage box</b>                           |
| <b>159919</b> | <b>With compartment for overalls and storage box</b> |
| <b>159986</b> | <b>With lockable storage box</b>                     |

### Wardrobe cabinets with upward closed helmet shelf

Pedestal adjustable in height. Dimensions: 400 x 500 1,900 mm.  
Weight: approx. 20 kg

- |                  |  |
|------------------|--|
| <b>159981</b>    | <b>Without storage box</b>                     |
| <b>159915010</b> | <b>With compartment for overalls and shelf</b> |
| <b>159917</b>    | <b>With lockable storage box</b>               |

### RECOMMENDED ACCESSORIES:

- |               |   |
|---------------|---|
| <b>159989</b> | <b>Coat hanger</b><br>Round steel, powder coated.<br>Weight: 0.5 kg   |
| <b>159990</b> | <b>Bracket for name plate</b>   |
| <b>159921</b> | <b>Pedestal</b><br>Comes with 4 legs, adjustable in height. Made of steel, powder coated red (as per RAL 3000). Can be used as alternative to wall mounting brackets.<br>Height: approx. 150 mm<br>Weight: 4 kg |
| <b>159920</b> | <b>Wall mounting bracket</b><br>Guarantees a distance of 30 mm between wall and cabinet to ensure proper ventilation.   |

## ENERGY SUPPLY SYSTEMS FOR VEHICLES

### 572812 Energy supply system for vehicles

Certified according to EN 60309-1. Comes with 5 m cable 3 x 2.5 mm<sup>2</sup>, a CEE type plug and socket 32 A with 3 pins for electricity plus one connecting pin for compressed air. Maximum operating pressure 21 bar, maximum ambient temperature 40 °C. Complete with wall coupling unit and lift-up lid.

Level of protection: IP 44 (unplugged)  
 Rated voltage: 230 V AC  
 Rated current: 32 A  
 Weight: 4.5 kg

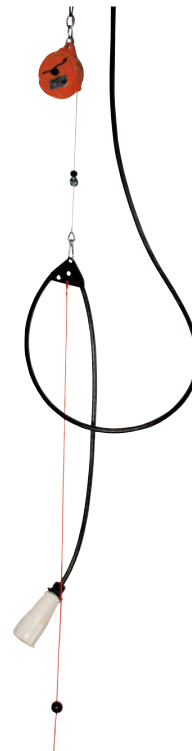


572812

### 012317 Energy supply system for vehicles

Certified according to EN 60309-1. 5 m, 6 pole, 24 V + compressed air. Technical specification: CEE plug 16 A with 7 pins including slip joint for compressed air, a 5 m system line 6 x 1.5 mm<sup>2</sup> with pneumatics hose (max. operating pressure 21 bar up to 40 °C). Wall coupling unit with lift-up lid.

Level of protection type: IP 44 (unplugged)  
 Rated voltage: < 50 V DC  
 Rated current: 6 A  
 Weight: 4.5 kg



316006/572812

### 316006 Lifting system, vehicle energy supply

Mounted on ceiling or wall. After taking off from the vehicle, the traffic area is free. The equipment is designed for commercial use. It possesses a spring break safety device, which prevents from falling of the load with spring breakage. With automatic locking of the rope pulling in.

Lifting power: 1 - 2 kg adjustable  
 Lifting way: 2 m  
 Weight: 0.75 kg



Symbolic picture



925028



925029



925028001



925028002



925028003



925028004

## PPE CLEANING

### 925028 Washer extractor Miele PW 6207 380-415 Volt, 50-60 Hz

Technical data:

Load capacity based on 1:10 load ratio: 20 kg

Dispensing connections: For up to 12 dispenser pumps

Spin speed: 1,100 rpm

G-factor: 460

Cold water connections: 2

Hot water fill: 1

Electrical connection (electric heating): 3N AC 380-415 V 50-60 Hz

External dimensions (WxHxD): 1,400 mm x 924 mm x 1,140 mm

Weight: 495 kg

### 925029 Electric dryer Miele PT 8507, 380-415 Volt, 50-60 Hz

Technical data:

Load capacity based on 1:25 / 1: 20

Load ratio: 20 kg / 25 kg

Electric connection (electric heating): 3N AC 380-415 V 50 Hz

External dimensions (WxHxD): 1,640 mm x 1,206 mm x 1,002 mm

Weight: 249 kg

### 925028001 Protective bag for washing breathing masks

Provides optimum protection to masks during wash cycle.

### 925028002 Holder for 2-4 breathing masks BHM03 for tumble dryer PT8507

Patented holder for 2-4 breathing masks (depending on version). For securing masks in tumble dryer PT8507 to facilitate perfect drying and high-level protection.

### 925028003 Adaptor for breathing masks with round thread for holder BHM03

### 925028004 Adaptor for breathing masks with tapered thread ADS for holder BHM03

**925028005 Liquid dispenser**

With mobile dispenser rack suitable for 3 chemical products DOS-GP3/DOS-S.

**925028005****289505****Drying cabinet for clothes and delivery hoses**

Steel plated cabinet with double doors, hard powder coated for maximum protection. Thermal output: 6 kW. Suitable for simultaneous drying of up to 21 fire hoses 1.5" or 2.5". The 7 gratings can be removed in order to dry garments, boots and other objects. Comes with rotation hook rim with electric gear motor for special drying process of clothing. Colour: RAL 7035 light. The warm air blower is maintenance-free and comprises a switch box with timer unit. Standard voltage 230 V, 1-phase, 50 Hz (special voltage upon demand). Dimensions (LxBxH): 750 x 780 x 2,040 mm. Weight: 135 kg

**289505****Ultrasound cleaning and disinfection unit**

Certified as to EN ISO 9001:12.2000, RFI proof and CE marked. High power ultrasonic cleaner with a frequency of 35 kHz, not audible to the human ear. Their high energy density shatters the cleaning fluid and forms innumerable vacuum bubbles. When these vacuum bubbles collide, the dirt adhering to the item being cleaned is dislodged. The system could also be referred to as an "electronic brush". Used with cleaning agent and disinfectant, the system ensures the very best results.

Comes with built-in heating system. Works on 230 Volt, 1-phase current, 50/60 Hz current (special voltages and frequencies upon request). Connection cable 2 m long, with Schuko type plug. Protection class: IP 32.

**411143020 Up to 6 full face masks**

Inner tank dimensions:	600 x 500 x 300 mm
Capacity:	90 litres
Filling volume for cleaning:	60 litres
Transducers:	16 PZT-broad beam oscillating systems
HF-peak output max.:	2 x 1,200 W/ per
Dimensions (LxWxH):	640 x 540 x 530 mm
Weight:	37.5 kg

**411143 Up to 3 full face masks**

Inner tank dimensions:	500 x 300 x 300 mm
Capacity:	45 litres
Filling volume for cleaning:	30 litres
Transducers:	8 PZT-broad beam oscillating systems
HF-peak output max.:	2 x 600 W/ per
Dimensions (LxWxH):	540 x 340 x 500 mm
Weight:	24.5 kg

**RECOMMENDED ACCESSORIES:****402402 Can of disinfectant DISTEL, 5 l**

5 litre contents, for disinfecting and cleaning face mask. Weight: 5.5 kg

**411143020  
(comes empty)**



**159931100**  
(comes without masks)



**924020/924030**



**662110**

#### **159931100 Drying device for masks**

Self-contained wall mounted drying panel, suitable for accommodating resp. drying of up to a maximum of 9 face masks. Comes with marking "Mask Dryer". CE earmarked. The panel is made of stainless steel. A 560 W hot air blower is incorporated, and the receptacles gently blow warm air into the masks through an appropriate aperture. Works on 1-phase current, 230 V, 50 Hz. Complete with connecting cable and Schuko type plug. Comes with automatic and programmable (up to 1.5 hours) switch-off device. Dimensions (LxWxH): 500 x 750 x 360 mm. Weight: 10.5 kg

## **DETERGENTS AND CLEANERS**

#### **924020 Concentrated professional detergent PROFI**

This detergent has specially been developed for fire brigades. It is environmental friendly, biodegradable, phosphate-free, non-toxic and has anti-static properties. It dissolves dirt, carbon black and neutralises smell of burning. The concentrate is to be diluted 1:3 down to 1:150, depending on the materials to be cleaned. Non hazardous goods. Comes in a plastic can, 10 litre contents.

Weight: 10.5 kg

#### **RECOMMENDED ACCESSORIES:**

#### **924030 Dispenser for professional detergent PROFI**

This dispenser has specially been developed for application of the PROFI detergent. Can be filled with 1.5 litres of diluted detergent and comes with pump and vaporiser. Comes empty.

Weight: approx. 0.5 kg

#### **662110 High pressure cleaner P 150.2-10 X-TRA**

This trolley mounted unit is used for cleaning up and decontamination of a wide range of liquids, chemical compounds, foam compounds, sewage etc. by means of high pressure steam, mixed with detergents. Water supply can be effected up to a maximum temperature of 60° centigrade.

The unit consists of the following components:

- High pressure pump, adjustable pressure up to 150 bar, water throughput between 540 and 610 l/h
- Electric motor 2.9 kW, suitable for 1-phase current 230 Volt, 50 Hz. Special voltages upon request at extra cost. Complete with 5 m rubber cable and Schuko type plug.
- High pressure water nozzle, trigger operated, with 10 metre safety type high pressure hose
- Screw type hose coupling for connection to the water mains
- One tank containing 4 litres of detergent, complete with dosing valve and suction device
- Automatic on/off control
- Dimensions: 391 x 391 x 955 mm
- Weight with empty tank: 23 kg

## SCBA TESTING EQUIPMENT

### 41141205 SCBA testing equipment MULTICHECK VARIO

The modular architecture of the breathing equipment test bench MULTICHECK VARIO allows easy adaption to customer needs. Various options allow to field-upgrade the test bench with less effort and increase testing capabilities. The MULTICHECK VARIO is user friendly and easy to operate. Depending on its configuration the test bench allows to test masks and lung demand valves in high and low pressure range as well as 200 and 300 bar breathing apparatus. Additional equipment also allows testing of protective suits (not included).

Test capabilities:

- Masks (mask leak test, exhausting valve leak test, exhausting valve opening pressure)
- Lung demand valves (LDV leak test, opening pressure for normal pressure LDV, closing pressure for high pressure LDV)
- Static medium pressure tests
- Dynamic medium pressure tests can be done if option artificial lung is also available
- High pressure leak tests
- Gauge accuracy tests
- Warning device tests

Dimensions including dummy head: 660 x 360 x 500 mm.  
Weight: 23,5 kg.



41141205

### 407357 Test Kit for Scott SCBA Sets for CONTOUR ACS and PROPAK

Tests:

- Reduced pressure test (max/min)
- Positive pressure test
- Leak test

The Set contains following parts:

- Magnahelic gauge and stand
- Quick fit connector
- Connector tube
- Test gauge



407357



413510



413500

## BREATHING AIR COMPRESSORS

### 413510 Compressor RBI 100 ATLANTIC

Suitable for filling SCBA cylinders at a pressure of 300 bar. Provided with an EN 144 thread connection and a pressure gauge.

Technical data:

- Design: 3-cylinder, 3-stage, air-cooled, oil-lubricated compressor
- Output: 100 l/min (6 m<sup>3</sup>/h) at 300 bar
- Drive: petrol engine 4 kW, 4 stroke Briggs & Stratton
- Operating temperature: +5°C to +50°C
- Working pressure: max. 330 bar
- Compressor speed: 2,300 RPM
- Filter system: P-21
- Noise level: 82 dB at 1 m distance
- Dimensions (LxWxH): 670 x 400 x 400 mm
- Weight: 43 kg

#### RECOMMENDED ACCESSORIES:

##### 41341401 Compressor oil

Each can holds 1 l. Weight: 1.1 kg

##### 412051 Spare filter cartridges

For P-21. Weight: 0.25 kg

### 413500 Compressor RBI 100 E1

Suitable for filling SCBA cylinders at a pressure of 300 bar. Provided with an EN 144 thread connection and a pressure gauge.

Technical data:

- Design: 3-cylinder, 3-stage, air-cooled, oil-lubricated compressor
- Output: 100 l/min (6 m<sup>3</sup>/h) at 330 bar
- Drive: 2.2 kW electrical motor, 230 Volt, 50 Hz, 1-phase current\*, with 2 m cable and Schuko type plug
- Compressor speed: 2,300 RPM
- Working pressure: max. 300 bar
- Filter system: P-21
- Dimensions (LxWxH): 750 x 420 x 400 mm
- Weight: 41 kg

\*Special voltages and frequencies upon request at extra cost.

#### RECOMMENDED ACCESSORIES:

##### 41341401 Compressor oil

Each can holds 1 l. Weight: 1.1 kg

##### 412050 Spare filter cartridges

For P-21. Weight: 0.25 kg



## Breathing air compressors

**413540 Breathing air compressor RBI 200 E**

Standard size compressor for filling SCBA cylinders

- Phases reversing switches with lead and plug
- With oil and water separator
- Safety valves after each stage
- Filling ramp with 2 x 200 bar and 2 x 300 bar filling valves EN 144
- Air purifier P-41 ensuring air quality according to DIN EN 12021, cartridge capacity: 1,200 m<sup>3</sup> at 20 °C

Technical data:

- Design: 3-cylinder, 3-stage, air-cooled, oil-lubricated compressor
- Output: 225 l/min (13.5 m<sup>3</sup>/h)
- Drive: 4 kW electrical motor, 400 V 3-phase, 50 Hz with cable and CEE plug 16 A
- Operating temperature: +5 °C to +50 °C
- Working pressure: max. 350 bar
- Noise level: 87 dB (A) at 1 m distance
- Dimensions (LxWxH): 1,200 x 600 x 850 mm
- Weight: 180 kg

**RECOMMENDED ACCESSORIES:****41341401 Compressor oil**

Each can holds 1l. Weight: 1.1 kg

**413416 Spare filter cartridges**

For P-41. Weight: 1.7 kg

**413540****413340 Breathing air compressor PE 250 HE without filling ramp**

Suitable for filling SCBA cylinders at a pressure of 300 bar (with switch-over device).

- Design: 3-cylinder, 3-stage, air-cooled high pressure compressor comes with interstage coolers and aftercooler. Safety valve after each stage.
- Drive: 5.5 kW, electric motor 400 V, 3-phase, 50 Hz, cable and CEE plug, 16 A
- Output: 250 l/min at 300 bar
- Pressure gauge manometer
- Thermal motor protection
- Star delta combination with auto shut down at final pressure
- Auto drain system
- Dimensions (LxWxH): 1,100 x 690 x 990 mm
- Weight: 230 kg

**RECOMMENDED ACCESSORIES:****41334001 Filling ramp with 2 x 300 bar and 2 x 200 bar****41341401 Compressor oil**

Each can holds 1 l. Weight: 1.1 kg

**41341604 Spare filter cartridges**

For P-31. Weight: 1.7 kg

**413340**



413360

#### 413360 Compressor PE 300 VE Super-Silent (without filling ramp)

4-stage, 4-cylinder air-cooled high pressure compressor with interstage coolers and aftercooler. Safety valve after each stage. Compressor driven by 3-phase, 400 V / 50 Hz electric motor (special voltage upon request). Compressor block and motor are connected by a V-belt and mounted in a sound absorbing cabinet for a sound level of 68 dB (A) max.

Technical data:

- 2 filling connections 300 bar and with lever filling valve with 1 m filling hose, connection DIN G 5/8"
- Pressure gauges
- Thermal motor protection
- Star delta combination with auto shut down at final pressure
- Autodrain system
- 3 m power cord and CEE-connector
- Filter system P-41 for 1,600 m<sup>3</sup> breathing air according to EN 12021
- Dimensions (LxWxH): 1,140 x 830 x 1,520 mm
- Weight of the complete unit: 305 kg

#### RECOMMENDED ACCESSORIES:

41334003 Filling ramp with 2 x 300 bar and 2 x 200 bar

41341401 Compressor oil  
Each can holds 1 l. Weight: 1.1 kg

413416 Spare filter cartridges  
For P-41. Weight: 1.7 kg

- 413415 Compressor with booster system PCB 250 E
- 3-stage, 3-cylinder air-cooled high pressure compressor with interstage coolers and aftercooler. Safety valve after each stage. Second and third stage separator with final safety valve. Automatic drain system for the regular draining of the condensate.
- Output of the compressor: 250 l/min
  - Applying the booster system, output is increased to 900 l/min
  - The switch-over from compressor to booster operation is done pneumatically, by control valve on filling ramp
  - Driven by a 3-phase, 400 V/ 50 Hz electric motor
  - Special voltage at extra cost
  - Filling ramp with 2 x 200 bar and 2 x 300 bar lever filling valves, connection R 5/8" outside
  - Central pressure gauge, and all control buttons, necessary for the automatic operation of the unit
  - With air purifier P-41, EN 12021
  - Switch and control box with star delta combination, thermal motor protection switch, pressure switch for the automatic shut-down of the compressor at final pressure, hour meter
  - Cascade storage system, consisting of 2 cylinders 50 l/ 300 bar, complete with frame, safety valve and condensate drain cock and all tubing
  - Tool kit for the compressor
  - Dimensions (LxWxH): 1,860 x 900 x 1,500 mm
  - Weight: 515 kg

#### RECOMMENDED ACCESSORIES:

41341401 Compressor oil  
413416 Spare filter cartridges for P-41



413415

## Breathing air compressors

**414402 Aerotest unit SIMULTAN**

For positive checking of air quality in SCBA cylinders, as per EN 12021. Gives a precise reading of CO<sub>2</sub>, CO, oil and H<sub>2</sub>O contents, by means of test tubes. The measurement takes place simultaneously by 4 test tubes in a special holding device. Comes in a heavy duty transport case, and includes 4 packs of test tubes. The aerotest unit comes with a pressure reducing valve and 5/8" thread connection in accordance with EN 144, suitable for connection to SCBA cylinders, both 200 and 300 bar.

Weight: 3.1 kg

**RECOMMENDED ACCESSORIES:****Spare pack of test tubes****414500 Carbon-dioxide 100/a-P**

Each pack consists of 10 tubes.

Weight: 0.1 kg

**414600 Carbon-monoxide 5/a-P**

Each pack consists of 10 tubes.

Weight: 0.1 kg

**414700 Oil 10 A/P**

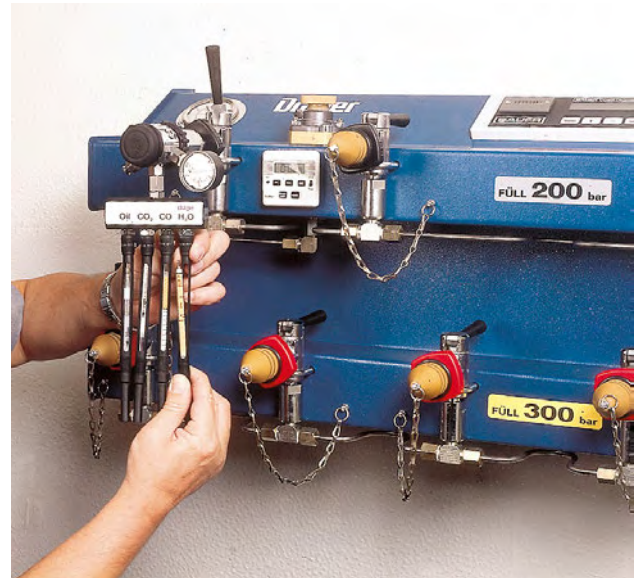
Each pack consists of 10 tubes.

Weight: 0.1 kg

**414800 Water vapour 10/a-P**

Each pack consists of 10 tubes.

Weight: 0.1 kg

**414402****287440****HOSE MAINTENANCE****Hose washing unit**

Suitable for washing hoses up to 75 mm (3") diameter. Works on hydrant pressure. The fire hose is propelled forward by the water pressure. Comes with carrying handle. Dimensions: 320 x 282 x 236 mm. Weight: 6.6 kg

**287410 Comes complete with Storz C coupling on the inlet**

**28744001 Comes complete with 2 1/2 BS male coupling on the inlet**

**297871010 Hose unreel container**

To soak fire hoses before washing. Dirty hoses can be picked up at the fire truck and transported to the washing machine. The trough comes with an easily removeable partition wall and will hold approx. 8 - 10 hoses, dimension 3" (Storz "B") or 4 hoses 4" (Storz "A").

Construction:

Made of strong plastic plates 20 mm thickness and a partition wall. Outlet valve, with overflow opening. Mobile design with 2 support and 2 swivel rollers.

Volume: 280 l

Colour: blue

Dimensions: 1.0 x 0.4 x 0.8 m (outside)

Weight: 56 kg

**297871010**  
(comes without hoses)



287630

**287630 Hose washing machine, electric MONDIALE**

It is suitable for pressure hoses up to a coupling diameter of 150 mm (6").

Technical data:

Electrical connection: 1.1 kW; 400 V/50 Hz; 2.8 A  
(special voltages and frequencies upon request)

Water connection: electro-valve with R $\frac{1}{2}$ " threads

Water consumption: approx. 40 l/min at 5 bar

Dimensions: 980 x 660 x 430 mm

Height with chassis: 1,240 mm

Surface: plastic and stainless-steel

Weight: 87 kg (105 kg with chassis)

**2876301 Hose washing machine, electric MONDIALE**

Same description as order no. 287630, but for 240 V / 50 Hz.

**RECOMMENDED ACCESSORIES:****287641 Chassis**

Made of galvanised and painted steel. With 2 rubber wheels, 2 antiskid base plates and folding transportation arm. Integrated drain. Colour: aluminium RAL 9006. Weight: 18 kg

**287642 Wall bracket set**

Made of galvanised and painted steel. Colour: aluminium.

**Mobile hose testing pump P2007**

With three-phase alternating current motor, clutched with a multilevel centrifugal pump to test fire delivery hoses up to 16 bars. Pressure reservoir (stainless steel) made as a distribution rack with 4 testing outlets which could be shut off separately. Pressure gauge 0 - 25 bars, stepless pressure regulation, ball valve for release of pressure and for ventilation, safety valve opens at 16 bars. All components are assembled on a four-wheel chassis which protects the equipment of tilting when the hoses will enlarge by the testing-pressure during the testing process.

Flow rate: max. 60 l/min

Connection cable: 3 m long with CEE-plug 5-pole 16 A

Dimensions: 1,120 x 670 x 830 mm

Weight: approx. 80 kg

**291036 Electric connection: 400 V, 50 Hz, 2.2 kW, IP 55**

Water supply: 1  $\frac{1}{4}$ ", coupling Storz C, (to be shut off)

Testing outlets: 2 x Storz B, 2 x Storz C

**29103602 Electric connection: 230 V, 60 Hz, 2.2 kW, IP 55, 3-phase**

Water supply: BS 1  $\frac{1}{2}$ " male (to be shut off)

**RECOMMENDED ACCESSORIES:**

Blank coupling with automatic ventilation valve.

**29103603 Electric connection 400 V / 50 Hz, single phase**

**291211 BS 336 2  $\frac{1}{2}$ " female**

**291221 BS inst. 1  $\frac{1}{2}$ " female**

**291206 Storz C**

**291209 Storz B**



291036

**Suction hose testing unit**

For pressure and 90 % vacuum testing. Consists of a vacuum pump, driven by a 0.2 kW 1-phase electric motor 230 Volt, complete with cable and Schuko type plug. The device comes with a vacuum gauge and plexiglas sight tube.

**291451** With blind coupling BSRT 4" female plug and with 4" male ball type venting valve. Weight: 17 kg

**292805 Electric hose binding machine**

Moveable, with rotating hose-table, for save and high quality wire binding according to actual standards for delivery and suction hoses for couplings from Storz 25 to Storz 150 mm inner diameter and other couplings (BS, french standard ...). Chassis made out of blue painted steel sheets, with 2 stop-wheels and 2 steerable wheels. Tabletop (830 mm width) is a 30 mm thick multiple beech-wooden plate. A gear-motor 400 V (optional 230 V) 0.73 kW, IP 54 is fixed upon this table. This motor has a special chucking device for holding couplings from 38 to 110 mm inner diameter. At the back of the table there are two fixtures for special wire-spools. Plastic spools with different types of binding wire will be available. (spools on plastic coils with 15 kg, stainless steel wire or zinc-plated wire, 1.4 mm or 1.8 mm).

The binding wire will be rewinded automatically during the binding process. A special gear will protect an unregulated rewinding. With the ready-for-use-spools the changing of the wire or recharge of the wire can be done in a very easy and safety way in less than 1 minute!

Wire tension will be adjusted by the wire brake, made out of hardened steel with floating-bearings. Thereby, the tension of the binding wire can be hold during the whole binding process according to each wire type, (also for stainless steel binding).

The new quick-release equipment makes the laying in of the binding wire extremly easy and without modifying the wire tension.

A wide wire-guiding roll, hold in maintenance-free floating-bearings, leads the binding wire in 10 preset grooves to the binding.

The rotating table, consists of one turnable steel-bowl, takes the hose coil.

Operation by pedal-operated switch (forward/backward)

Facilities:

- Emergency switch
- 5 m connecting cable with CEE-plug
- 16 A, special key for the jaw chucks
- Dimensions (HxLxW) approx.: 1,380 x 1,126 x 795 mm
- Height of the table top: approx. 925 mm
- Weight: approx. 135 kg



**292805**



293300



Manual hose binding apparatus  
(symbolic picture)



293300

#### RECOMMENDED ACCESSORIES:

- 292815 Spanning device**  
For small couplings, sizes 25 mm (1"). Weight: 1 kg
- 293300 Circlip driver**  
To remove circlip behind coupling catches.  
Weight: 0.2 kg
- 292805001 Binding wire, diameter 1.4 mm**  
Bundle of 15 kg, for hose-binding machine.
- 292805002 Binding wire, diameter 1.8 mm**  
Bundle of 15 kg, for hose-binding machine.
- 292805003 Clamping device 25 mm, Storz-D coupling**
- 292805004 Chuck jaws for coupling 110-150 mm**

#### Rubber protection cuffs

Come in pairs.

- 293237 For 2 ½" hose. Weight: 0.01 kg**
- 293235 For 1 ½" hose. Weight: 0.01 kg**

#### Trevira binding pads

Indispensable for binding Professional, Viking or Duraline hoses.  
Come in pairs.

- 293230 For 1 ½" hose. Weight: 0.09 kg**
- 293231 For 2 ½" hose. Weight: 0.15 kg**

- 293000 Manual hose binding apparatus**  
Suitable for binding all sorts of rubber lined delivery hoses, as well as Professional, Viking and Duraline delivery hoses. Iron frame contains wire spool, wire roller guide, and hand brake to control tension. This is an inexpensive and simple to operate unit, for those fire stations where only a limited number of fire hoses have to be refitted.  
Weight: 1.2 kg

#### RECOMMENDED ACCESSORIES:

- 293100 Clamp device**  
Galvanised. Holds couplings tight during hose binding.  
Fits any standard bench vice.  
Weight: 4.1 kg
- 292805001 Binding wire, diameter 1.4 mm**  
Bundle of 15 kg, for hose-binding machine.
- 292805002 Binding wire, diameter 1.8 mm**  
Bundle of 15 kg, for hose-binding machine.
- 293300 Circlip driver**  
To remove circlip behind coupling catches.  
Weight: 0.20 kg

**Hose clamp**

294503	Diameter: 19 – 28 mm. Weight: 0.02 kg
294504	Diameter: 22 – 32 mm. Weight: 0.02 kg
294505	Diameter: 26 – 38 mm. Weight: 0.02 kg
294506	Diameter: 32 – 44 mm. Weight: 0.03 kg
294507	Diameter: 38 – 50 mm. Weight: 0.03 kg
294508	Diameter: 44 – 56 mm. Weight: 0.04 kg
294509	Diameter: 50 – 65 mm. Weight: 0.04 kg
294510	Diameter: 58 – 75 mm. Weight: 0.05 kg
007165	Diameter: 68 – 85 mm. Weight: 0.05 kg
294512	Diameter: 77 – 95 mm. Weight: 0.05 kg
294513	Diameter: 87 – 112 mm. Weight: 0.05 kg
294514	Diameter: 104 – 138 mm. Weight: 0.06 kg
007168	Diameter: 130 – 165 mm. Weight: 0.07 kg
294516	Diameter: 150 – 180 mm. Weight: 0.06 kg
294517	Diameter: 175 – 205 mm. Weight: 0.07 kg



294503 - 294517



296500



296505



296250

## HOSE REPAIRMENT SET

### 296500 Hose vulcaniser PRONTO P 10

Certified as to EN 292:1992. State-of-the-art vulcaniser, suitable for repair of fire hoses (either Professional, Viking, Duraline, or standard rubber lined Trevira Polyester type), inner tubes of cars and trucks, tents, boots as well as other rubber/canvas products. Enables holes of up to 5 mm diameter and slits of up to 10 mm length to be safely repaired. Electric heating unit 230 Volt, 50-60 Hz, 1-phase current, 600 Watt. Special voltages upon request at extra cost. Heating element adjustable from 135 - 160° Centigrade. Complete with cable and Schuko type plug. Weight: approx. 7.5 kg

### 296505 Repair set for vulcaniser

Consisting of:

- 1 Brush
- 1 Pair of scissors
- 1 Plastic bottle to be filled with Acetone (comes empty)
- 1 Teflon foil
- 1 Repair Manual in English
- 2 Sheets of vulcanising patches Red/White

Weight: 2.5 kg

### 296510 Sheet of red/white vulcanising patches, 10x 15 cm

Suitable for external application, no need for internal patches! The patches are designed for repair of fire hoses (either Professional, Viking, Duraline). Enables holes of up to 5 mm diameter and slits of up to 10 mm length to be safely repaired.

- Shelf life 24 months, stored in a freezer (-10° to minus +15°C)
- Shelf life 12 months, stored in a refrigerator (at approx. +10°C)
- Shelf life 1 month, stored at room temperature (at approx. +20°C)

Weight: 0.5 kg

### 296250 Hose repairing kit for Trevira Fire hose LORIT-G

Suitable for vulcanising standard rubberlined Trevira Polyester hoses at a temperature of 165° C. Each pack consists of 50 patches and a bottle of white vulcanising powder.

Weight: 0.5 kg



## HOSE HOISTS, WINDER AND RACKS

### 290355 Hose winding device, outdoor use

To roll up of laid out fire hoses up to 3" diameter. Hoses with all coupling systems can be rolled up. Hoses can be picked up either in a single roll, or double (dutch roll). Simple to operate, just fix the coupling to the trolley and walk the hose line.

Colour: red RAL 3000  
 Length folded up: 790 mm  
 Length apart-folded: 1,380 mm  
 Dimensions (WxH): 430 x 245 mm  
 Weight: 9.5 kg

### 290340 Manual hose winder, indoor use

To wind up hoses up to size 75 mm diameter and 30 m length, half folded or in total length.

The winder consist of:

- Powder-coated hose reel 560 mm diameter, hose-guide, handle, brakes
- Base and supporting stand are made out of vanished steel
- The base guarantees stability for a safe winding process and the brakes ensure that the hose can not roll down by itself
- Transport rollers for manual hose winder for an easily move of the hose winder by tilting the winder on the rolls. 2 rolls (PP) 100 mm diameter, maintenance-free journal bearings, which are fixed at a ground plate
- Height: approx. 1.3 m  
 Weight: approx. 29.5 kg

Hose hoists upon request.



Hose hoist



290355  
 (comes without hoses)



**29030901**  
(comes without hoses)



**292524100**  
(comes without hoses)



Symbolic picture

#### Hose winder ROLLSTAR A40

This electric hose winder with single reel action is used for winding up of delivery hoses with a diameter from 25 - 100 mm (1 - 4"). Maximum hose length 40 metres. Designed for hoses with all models of couplings, e.g. BS 336, Storz or NH. The hoses can be rolled either as "Dutch Roll" (double rolled), or as standard single roll. Automatic shut down of the winding operation, as soon as the couplings reach the reel. Powered by a 3-phase current, 400 V, 50 Hz, 0.55 kW electric motor (special voltages and cycles upon request at extra charge). Rotating speed of reel: approx. 46 RPM. The reel speed will automatically be adjusted in accordance with the rolled-up diameter of the hose. The hose winder comes complete with 3.5 m cable and CEE-type plug 16A. Further accessories include guiding device for facilitating the winding up of the hose, as well as a tension relief, that facilitates taking the hose off the winder. Provided with 4 castors for ease of transport. Dimensions: 1,080 x 530 x 1,300 mm. Weight: approx. 84 kg

**29030901 Electrical connection 400 V, 50 Hz, 0.55 kW, 3-phase**

**20930902 Electrical connection 230 V, 50-60 Hz, 0.55 kW, 1-phase, comes with Schuko plug.**

#### 292524100 Mobile hose rack

Suitable for temporary storage and transport of fire hoses, equipment etc. inside the fire station. Made of galvanised steel, hot dip galvanised. Comes with 4 heavy duty castors and brake. Will accommodate 21 fire hoses 2.5" or 30 fire hoses 1.5". Dimensions: 900 x 545 x 1,790 mm. Weight: 54 kg

#### Hose rack

Single unit hose storage rack. Suitable for floor mounting. Aluminium frame and shelves made of Aluminium profiles. Included screws and nuts.

Height: 1.9 m

**290605 Hose capacity: 21 of 2½" or 27 of 1½". Length: 1 m**  
Weight: 28.5 kg

**290610 Hose capacity: 42 of 2½" or 54 of 1½". Length: 2 m**  
Weight: 43 kg

**290611 Hose capacity: 63 of 2½" or 81 of 1½". Length: 3 m**  
Weight: 58 kg

## FILLING AND TESTING UNITS

### 710590 Rosenbauer powder filling machine model UP-02-5

This versatile machine can be used both for dust-free filling and refilling dry powder extinguishers as well as for periodic control. The dry powder to be examined is sucked out of the extinguisher, passed through a strainer and filled immediately into another dry powder extinguisher. The machine comes with a multi-purpose soft cone adapter 34 - 89 mm diameter, allowing all common extinguishers, like Rosenbauer, Gloria, Ansul, Angus, Total, Bavaria, Wintrich etc., with a capacity of 1 to 12 kg, to be filled from dry powder drums. Mobile and vehicle mounted extinguishing units with a capacity of up to 250 kg can also be handled. Alternatively, the dry chemical powder may be sucked into the machine's 50 kg hopper and refilled into the same extinguisher. Any coarse grains of powder or foreign particles are thus isolated and the powder is thoroughly cleaned.

The machine comes with a special blow-off device, for emptying constant pressure (pressurised) fire extinguishers. The mesh width of the powder strainer is 1.6 mm. Filling capacity: approx. 600 kg/ h. The machine can be operated on the following voltages and frequencies.

- 200-240 / 345-415 Volt, 3-phase current, 50 cycles
- 220-275 / 380-480 Volt, 3-phase current, 60 cycles

Rating: 1.5 kW. Other voltages and frequencies upon special request and at extra cost. The machine comes complete with cable, 2 m long, and includes a CEE type plug.

The following special accessories are included:

- Floor scales model CW 150, with digital display. Electric supply 230 volt, 1-phase, 50-60 cycles. Weighting capacity 150 kg with 100 gram grading. Comes complete with cable, 2 m long, and includes a Schuko type plug (order no. 710601).
  - Set of filling and suction hoses P-50. Suitable for filling mobile dry chemical powder extinguishers such as model P 50 etc. Consisting of filling hose 1,300 mm long, 80 mm diameter, one end with flange 175 mm diameter, the other end with a flexible cone. This cone, made of soft plastic, is suitable for feed openings of 55 to 125 mm diameter. Comes with a sight glass for checking the flow. Also included is a special suction tube 38 mm diameter, 1,300 mm long, for sucking dry chemical powder out of P 50 extinguishers (order no. 710603).
  - Cylinder clamping device, to hold portable extinguishers during assembly and dismantling (order no. 710602).
  - Set of castors, for easy mobilisation of the unit (order no. 710609)
  - Special crimping pliers for sealing purposes (order no. 710615)
  - 1,000 plastic seals, for sealing extinguishers (order no. 710626)
  - 5 kg of galvanised iron sealing wire, sufficient for sealing 1,000 extinguishers (order no. 710617)
  - 50 Retaining rings, Rosenbauer/Gloria PS (order no. 711242)
  - 50 Retaining rings for total GE 6/12 series (order no. 710620)
  - One roll of testing labels and seals (1,000 pc.) (order no. 710619)
- Weight of the complete machine as described above: 230 kg

### RECOMMENDED ACCESSORIES:

#### 710612 Set of flexible hoses

Each 3 m long, for filling large dry powder containers. Includes a prefractionator and an adapter for the filling aperture of a Minimax PL 1000. Other adapters upon special demand. Weight: 9.5 kg



Symbolic picture



710590



Including a floor scale model CW 150, with digital display. Weighting capacity 150 kg, with 100 g grading



Universal chucking device to hold portable extinguishers during assembly



710589



711198 (comes empty)

**710610 Set of recommended spare parts**

For 3-5 years of operation.

Weight: 3 kg

**710589 Inspection kit for fire extinguishers**

Consisting of 1,000 weatherproof aluminium tags (120 x 90 x 0.3 mm) with your company logo printed on one side and a month/ year frame on the other side. The kit comes complete with 10 pliers, each with a different puncturing picture (star, round hole, asterisk square hole, triangle etc.) for identification of the inspector. Also included are 1,000 plastic laces for affixing the tags to the extinguishers.

Weight: 14.5 kg

**710615 Special sealing pliers****711198 CO<sub>2</sub> filling machine model CM 01-6**

Designed for filling CO<sub>2</sub> cartridges from a 40 kg master bottle. It enables all commercial types of CO<sub>2</sub> cartridges with a filling weight between 70 and 500 grams to be filled quickly and to be chucked safely. In addition, the filling machine will also allow for filling CO<sub>2</sub> extinguishers with a capacity of up to 30 kg. Suitable for all extinguishers currently in operation in your area, such as Rosenbauer, Ansul, Angus, Bavaria, Gloria, Total-Walther, Wintrich, Minimax and Sicli. The standard design of the filling plant comprises:

- High capacity filter unit
- Piston type filling pump with variable speed control, driven by a 0.75 kW electric motor, suitable for 208 - 240 V 1-phase current, 50/60 cycles (other voltages and frequencies upon request at extra charge). Fitted with a reliable safety valve, to prevent exceeding the maximum permissible working pressure of 150 bar.
- Cable, 2 m long, including Schuko type plug and socket
- Electronic balance, with automatic cut-off, to prevent the overfilling of cartridges. This device comes with a control for slower filling speed (necessary when filling small cartridges).
- Universal filling head with instantaneous clamp for filling cartridges of up to 500 grams. This filling head allows for filling of the most common cartridges, like Gloria, Rosenbauer, Bavaria, Total-Walther, Ansul, Angus, Sicli etc.
- One door cabinet with key, for storing all accessories. The cabinet is mounted on castors and therefore easily transportable.
- Set of six different insert keys for chucking the following brands of cartridges: Rosenbauer/ Gloria, Angus/British Standard, Sicli, Ansul E Type Extinguishers, Silvani (21 mm socket), Total-Walther PE and GE 12.
- Cradle with filling flange, allowing the filling of CO<sub>2</sub> extinguishers, as well as CO<sub>2</sub> cartridges with screw-down type valves.
- One CO<sub>2</sub> connection hose, 1,000 mm long, for the filling of trolley type mobile CO<sub>2</sub> extinguishers 20, 30 and 50 kg.  
Comes with hand wheel connection W 21.8 x 1/14" and thread adapter W 21.8 x 1.25".
- One CO<sub>2</sub> connection hose 2,000 mm long. It connects the master bottle to the CO<sub>2</sub> pump. Comes with thread connections W 21.8 x 1/14"

Weight: 3 kg

- One CO<sub>2</sub> master bottle 40 kg, filled
- Three special filling flanges, necessary for filling the following brands of cartridges: Sicli tempest S extinguishers, Ansul Red Line G type extinguishers, Angus, Pyrene, CO<sub>2</sub> master bottle refrigerator, for cooling of a 40 kg master bottle CO<sub>2</sub> (absolutely necessary in hot zones, where the ambient temperature may exceed 32° Centigrade). Maximum size of the master bottle: 1,700 mm long, 250 mm diameter. Comes with 230 V, 50 / 60 cycles 1-phase electric motor, complete with cable and Schuko type plug. Weight of the complete set, as specified above: 330 kg

**RECOMMENDED ACCESSORIES:**

- 711217 Bursting discs**  
For Angus, pyrene. Weight: 0.04 kg
- 710618 Retaining rings**  
For Rosenbauer and Gloria extinguishing model PS 6/ 9/ 12, PN 6/ 12. Weight: 3 g
- 711237 Cartridge discs**  
For chubb fire extinguishers. Each pack contains 100 pieces. Weight: 0.04 kg
- 711200 Set of spare parts**  
For 3 years of operation. Weight: 3 kg
- 711205 Master bottles**  
Filled with 40 kg of CO<sub>2</sub>, with ascending pipe. Weight, filled: 72 kg
- 711216 Cartridge heads**  
For Rosenbauer and Gloria extinguishers model PN 6 and PN 12. Weight: 0.003 kg
- 711215 Cartridge heads**  
For Ansul Red Line G type extinguishers. Weight: 0.003 kg
- 711218 Cartridge heads**  
For Total-Walther SW 10. Weight: 0.003 kg
- 711224 Seals**  
For Silvani extinguishers. Weight: 0.003 kg
- 711225 Seals and gaskets**  
For Total-Walther PE 12 extinguishers. Weight: 0.003 kg
- 71122505 Seals and gaskets**  
For Total-Walther GE 6-12. Weight: 0.003 kg
- 711220 Seals and gaskets**  
For Sicli Tempest S extinguishers. Weight: 0.002 kg
- 710625 Seals**  
Made of plastic, universal, diameter 1.2 mm

**711217****710618****711216****711215**



414395

**414395 Air compressor BOSS 7002 D with hose set**

- Two cylinders, air-cooled, direct driven
- Modern compact unit construction
- Finned cylinder heads made of light alloy
- Robust valves
- After cooler pipes

## Scope of supply:

- Plant completely ready for use with lead and plug
- Pressure switch with motor overload protection relay, unloaded start and run hour meter
- Manometer, check valve, safety valve and condensate drain
- Low noise intake filter
- Handle, large wheels and swivel rollers for comfortable transport
- Filter/regulator with quick connection coupling
- CE-certificate of receiver

## Comes complete with each:

- 2 Air hoses rubber 20 bar / 10 m with couplings
- 2 Spiral coiled airhoses 10 bar / 5 m with couplings

## Technical data:

- Air inlet: 600 l/min
- Free air delivery acc. to VDMA 4362
- Measured at 7 bar: 410 l/min
- Maximum pressure: 10 bar
- Electric 3-phase motor 3 kW, 230/400 V, 50 Hz
- Speed: 1,450 rpm
- Air receiver: 90 l
- Noise level: 67 dB(A)
- Dimensions (LxWxH): 1,250 x 590 x 920 mm

Weight: 94 kg



711300

**711300 Nitrogen pressurising device NF 80-B**

This device is suitable for pressurising permanent pressure type extinguishers. Suitable for all extinguishers currently in operation in your area, such as Rosenbauer Gloria, Total, Walther, Wintrich, Angus, Ansul, Minimax, Bavaria and Sici.

The device is installed in a housing with shut-off valve and pressure release. It comes with safety valve and gauges for ingoing and outgoing pressure. The nitrogen is taken from a 50 kg master bottle, filled at 200 bar, that is available at extra cost.

The pressurising device NF 80-B mainly consists of:

- A quick-action coupling, fixed at the end of the hose pipe, so that additional clamps or screw adapters may be installed
- Universal filling clamp VZ 211, with screw adapter for male thread VG8 and screw adapter for female thread R $\frac{1}{4}$ "
- Floor frame, complete with a special extinguisher support bracket model BS 102-T with height adjustment table

Dimensions: 1,100 x 800 x 900 mm

Weight of the complete device, excluding nitrogen master bottle: 45 kg

**RECOMMENDED ACCESSORIES:**

- 711230 Nitrogen cylinder**  
50 litres capacity. Filled at a pressure of 200 bar. The filling pressure is related to a temperature of 15°C. Testing pressure of the steel cylinder is 300 bar. The nitrogen used is 99 % pure, with a maximum steam content of 30 ppm. The steel cylinder is painted black (RAL 9005) and clearly marked NITROGEN in English, as per new EN 1089-3:1997.  
Weight filled: 75 kg
- 711290 Portable corrosion monitoring thickness gauge**  
Offers significant improvement in performance over previous corrosion. The device is designed for testing the wall thickness of components made of metal, glass, ceramics and plastics. Waterproof design, protection class IP 54.  
Weight: 0.22 kg
- 711312 Pressure reducer**  
For connection to the 50 litres nitrogen cylinder. The pressure reducer can be set between 0 and 50 bar. Comes with a gauge for showing the inlet pressure, and a separate gauge for showing the outlet pressure. Comes complete with connecting hose approx. 1.5 m.  
Weight: 3 kg
- 711302 Filling clamp VZ 212**  
For pressurising various brands of fire extinguishers with plastic fittings.  
Weight: 3 kg
- 711304 Set of screw adapters**  
Suitable for male threads on the extinguisher (M10x1 / M12x1 / M12x1.5 / M14x1.5R1/4").  
Weight: 3 kg
- 711310 Extinguisher hose testing device model SP 221**  
This device is suitable for testing the hose and valve of fire extinguishers. A control manometer gauge as well as a safety valve are incorporated.  
The device comes complete with a set of 12 different adapters, suitable for various connection threads on the extinguisher hose.  
Weight: 15 kg

**711310**



**4 14336**



**4 1434980**  
(comes without cylinders)



**4 1435610**  
(comes empty)



**4 14390**  
(comes without cylinder)

**4 14336 Rosenbauer hydrotest rig DPC-01-S1/3**

This versatile equipment can be used for testing of fire extinguishers, CO<sub>2</sub> cartridges and compressed air cylinders of SCBA sets etc.

The rig is equipped with 3 outlets, which can simultaneously be used for pressurising SCBA cylinders or fire extinguishers. A fourth, separate outlet is used for testing CO<sub>2</sub> cartridges. All outlets are provided with ball type valves. Further features:

- Connection to water mains, with filter
- High pressure water pump, maximum working pressure 500 bar
- This pump is driven by any compressed air source, with a pressure between 5 and 8 bar
- Air inlet with filter
- Pressure gauge, for switching off the pump after attaining the required testing pressure. Power supply for this device is 230 V, 50 Hz, 1-phase, special voltage upon request
- Roller shutter, giving additional protection to the operator
- The hydrotest rig comes complete with a frame and is designed as a self-contained unit
- Colour: light-blue as per RAL 5015

Weight: approx. 400 kg

**RECOMMENDED ACCESSORIES:**

**4 1433601 Electronic expansion check device**

Attention: the expansion check device can only be used in connection with the Rosenbauer hydrotest rig DPC-01-S1/3.

This equipment is required to hydrotest cylinders and extinguishers in accordance with NFPA 10 and ISO 11602 standards and procedures. The device consists of a container, that shall be filled with water. The cylinders that are to be tested, will be placed into the container, and after the hydrotesting procedure, the final deformation of the cylinder can be read from a sight tube with appropriate markings. Compulsory equipment for testing of fully wrapped composite SCBA-cylinders. Suitable for cylinders with a maximum diameter of 310 mm and a maximum height of 800 mm. Maximum possible volume of the cylinders tested: 15 litres.

Empty weight: 45 kg

**4 1434980 Cylinder drying station BT 30**

Mobile unit, with heater / blower (5.5 kW). Suitable for accommodation of 4 cylinders simultaneously. Separate flexible outlet for drying of large mobile units. Comes with air-filter against dust particles. Electric motor 3-phase current, 50 Hz, 400 V (special voltage upon request). Weight: 40 kg

**4 1435610 Work bench**

Made of durable wood, steel reinforced, size 2,000 x 800 mm, with 4 drawers. Weight: 80 kg

**RECOMMENDED ACCESSORIES:**

**4 1435615 Black plate for work bench**

Including fixtures for tools.  
Weight: 20 kg

**4 14356 General purpose vice**

Work bench mounted.  
Weight: 15 kg



**414390 Cylinder and extinguisher clamping device, model BSS101B**

Suitable for opening and closing of fire extinguishers, as well as SCBA cylinders. Stand-alone design, mounted in a heavy duty steel frame, hot dip galvanised. Effortless clamping is ensured by a pneumatic cylinder, operated by a manual switch and pressure regulator. Air supply required: at least 8 bar pressure. Comes complete with an air pressure hose 3 m, with instantaneous couplings, to connect the clamping device with the compressed Air Line System in the workshop. In case no such system is available, we suggest to purchase a compressed air cylinder, that is available at extra cost.

Weight: 50 kg

**RECOMMENDED ACCESSORIES:****408922 Spare cylinder 6 l / 300 bar, steel**

45 minutes nominal duration. Will be supplied empty. Weight: 11.6 kg

**647460 Pressure regulator 200 / 300 bar**

Comes with 2 m connection hose green and instantaneous coupling. Comes with shut off and control valve and two pressure gauges. Required for use with compressed air cylinder. Complete with quick release air couplings.

Weight: 1.5 kg

**Set of tools**

**41435620** Consisting of screwdrivers, pliers, hammers, wrenches (set of 23 pieces). Weight: 10 kg

**41435630** Consisting of torque wrench, handhold and form spanners for opening different types of extinguishers (set of 15 pieces). Weight: 12 kg

**414358 Set of marking tools**

For marking of SCBA cylinders after inspection.

**41434950 Rumbling-roller unit**

For refurbishing the interior of corroded cylinders. Can be tilted for emptying the ceramic pellets. Comes with electric motor, 50 Hz, 3-phase, 400 V.

Weight: 78 kg

**41434951 Ceramic pellets 4 x 4 mm**

Contains 25 kg. To be used together with the aluminous abrasive material, for interior cleaning of cylinders.

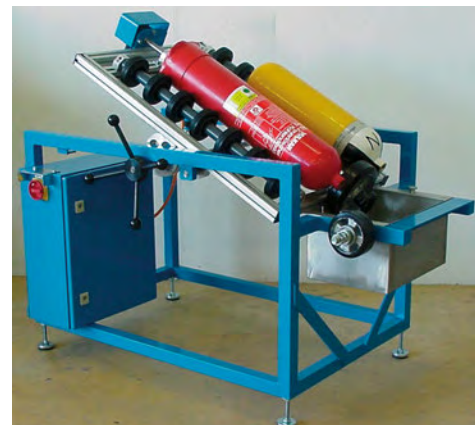
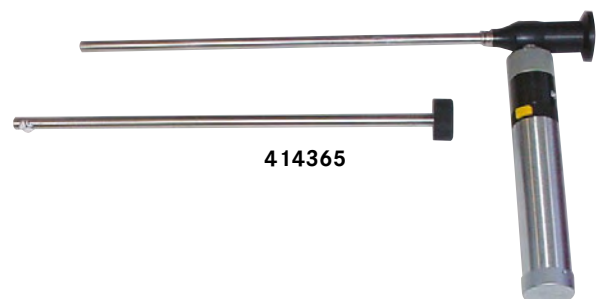
Weight: 28 kg

**41434952 Aluminous abrasive material**

For inside cleaning of cylinders. Each pack contains 50 kg. To be used together with the ceramic pellets, for interior cleaning of cylinders. Weight: 53 kg

**414365 Endoscope**

For inside inspection of cylinders, especially the insert thread and the passing from the cylinder neck to cylinder shoulder on SCBA bottles, with mirror tube 100° axis of reflection.

**41435630****414358****41434950****414365**



711254



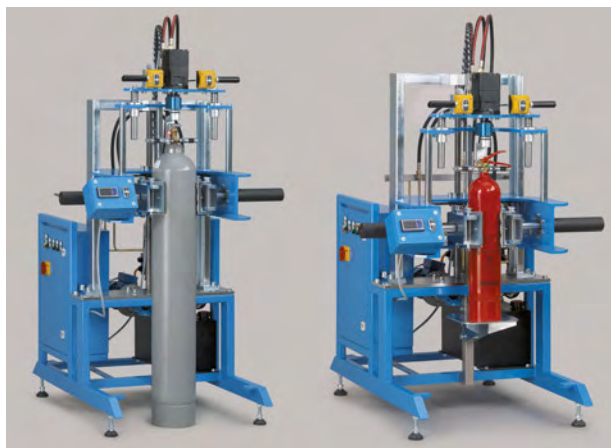
414368



414366



414369



414248

(comes without fire extinguisher or air cylinder)

**711254 Check balance with digital display**

Suitable for checking the weight of refilled cartridges. Platform made of light alloy and provided with a roll-off protection. Weighting capacity maximum 30 kg. Digital display with fine scale graduation of 5 / 10 g. Works on 1-phase current 230 V, 50 Hz. Can also be battery operated.

Weight: 10 kg

**911831 Leak indicator spray**

400 ml. Weight: 0.5 kg

**414368 Printed standards CGA and EN-ISO CYLINDER TESTING**

These publications deal with standards on cylinder testing.

**414366 Thread and cylinder measuring kit**

Consists of the following items: 3 pcs. pitch gauge, ISO metric threads 60° 0.25-6.0, Whit worth 55° 62 G-4G, unified american thread series 60° 42P -4P, 2 pcs. thread file, 1 pc. small round steel brush, 1 pc. book "Guide to world screw threads", 1 pc. thread calculator (filter), 1 pc. calibre 0-160 mm, 1 pc. steel ruler with facet 400 mm, 1 pc. circumference measuring tape, 1 pc. depth dial gauge.

**414369 Digital ultrasonic thickness gauge DM 5 E**

Portable corrosion monitoring thickness gauge offers significant improvement in performance over previous corrosion. The device is designed for testing the wall thickness of components made of metal, glass, ceramics and plastics. The ultrasonic wall thickness measuring device will reliably test fire extinguisher and SCBA cylinders. Waterproof design, protection class IP 54. Weight: 0.22 kg

**414248 Valve tightening machine model VS91-2**

With the valve tightening machine a fast and safe clamping of cylinders and tightening of the valves in or out is possible. With hydraulic clamping device for simple mounting and demounting of the armatures into or out of cylinders. Adjustable torque. For the exact tuning moment of the different cylinders our valve tightening machine is equipped with an adjustable torque cut off and a variable wrench speed.

Technical data:

Maximum torque: 350 Nm / 253 Ft-lbs

Safety equipment: Two-hand control unit

Maximum cylinder size: Diameter: 250 mm

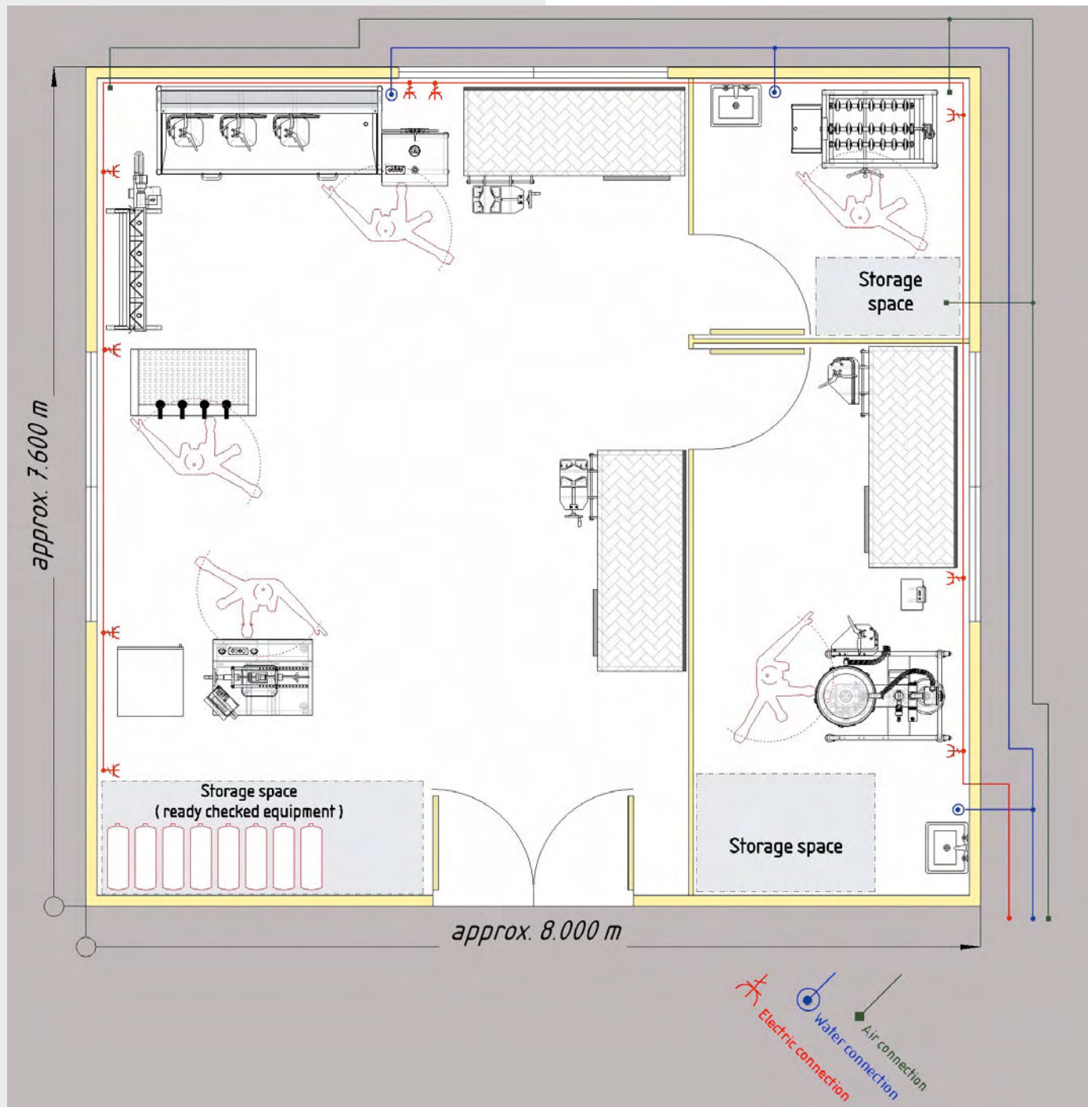
Height: 1,600 mm

Electrical supply: 400-480 V, 3 Ph, 50/60 Cy

Dimensions: 1,000 x 800 x 2,000 mm

Weight: approx. 180 kg

TYPICAL ARRANGEMENT OF A FILLING AND MAINTENANCE WORKSHOP





322350/322360



409210



505212

## FIRE TRAINING EQUIPMENT

### Long term fire wax torch

**321520** 60 cm. Weight: 0.19 kg

**321500** 70 cm. Weight: 0.23 kg

### Smoke cartridge

Excellent for fire drills, smoke impermeability tests and for marking landing areas. Smoke will be developed without flame formation and without considerable temperature, approx. 4 min. Non-corrosive, heavy smoke.

Dimensions: 35 x 70 mm

Weight: 0.3 kg

**322350** Orange

**322360** White-grey

### 409210 Fog machine MAGNUM 2000

This fog machine is suitable for training purposes involving fire simulation, evacuation procedures and breathing apparatus training. The fog machine generates an adjustable quantity of engine, power consumption max. 1,700 Watt.

Comes complete with remote control.

Weight: 13 kg

### RECOMMENDED ACCESSORIES:

#### 409209 Fluid for fog machine MAGNUM 2000

Can contains 5 litres liquid.

Weight: 5.5 kg

#### 505212 Rescue dummy RANDY

RANDY`S fully articulated body duplicates the weight and resiliency of a human body and can be positioned for realistic patient handling or extrication in situations too hazardous or uncomfortable for volunteer victims. His rugged construction means years of use in any rescue training environment from poletop retrieval to tunnel or confined space rescue, automobile extrication, fireman`s carry practice, smoke-filled buildings etc.

Height: 180 cm.

Weight: 67 kg

## FIRE TRAINERS UPON REQUEST







**STOWAGE SYSTEMS**

**13**



## MOBILE EQUIPMENT CARRIER (MEC)

The Rosenbauer MEC system has been developed especially for the transport and stowage of equipment kits. A wide variety of items, selected according to specific areas of operation, can be stowed in the MEC. In the case of an intervention, they can be moved to the scene by a single fireman.

MECs make standard transport vehicles multifunctional.

MECs with equipment for various applications (e.g. HAZMAT) can be stored in the fire station; when needed, they can be loaded easily and quickly on any truck and be brought to the place of action. Using the MEC in buildings (e.g. industrial halls) and on factory floors, a single person can transport bulky pieces of equipment, such as power generators, pumps or rescue equipment, to locations where vehicles have no access due to their size.

All pieces of equipment can be visibly and quickly stowed on the MEC; this increases the service life of the equipment and reduces the danger of firemen being injured in action (less stumbling hazards because equipment is not spread over the ground).

The MEC is the ideal means of transport to supply equipment quickly and easily using little manpower.

MEC answers the manifold requirements encountered in industrial and municipal fire and rescue services:

It improves the efficiency of man-power. Proper equipment is at the scene in a shorter time. The standardised pallet size of (LxW) 1,200 x 800 mm provides optimum loading options on all common transport vehicles, as well as parking on pallet locations in the fire station.

MECs are manufactured from extruded and light weight aluminium profiles; this increases the life span and ensures flexibility for continuously changing requirements.

High efficiency pressure spring loaded dead man's brake system holds MEC in position whenever the user releases the control handle. It also guarantees reliable positioning at steep inclinations. Additionally, the pivoted wheels at the operator's side are fitted with total stop brakes.

All these features provide the highest degree of operating comfort and the safe handling of the MEC.



**Field-proven brake system**



## Mobile equipment carrier

**961200-004 Heavy-duty undercarriage**

With all four wheels fitted with sealed bearings and durable polyurethane tyres are providing best manoeuvrability on the scene.

Load capacity: up to 350 kg

Dimension of base (LxW): 1,200 x 800 mm (different heights)

Max. gross weight: 450 kg



961850-004

**961850-004 MEC with lifting eyelets****Optional accessories for lifting:****628242 Chain suspension gear, 1.5 m**

Assembly consists of a master link for standard crane hooks, 4-leg chain 1.5 m long with load hook at the ends.

Weight: 15 kg



631810

**LIFTING GEAR FOR FORK LIFT TRUCK****631810 Round sling**

1.5 m working length, (2 pcs requested). Made of endless polyester threads with protective coating, 1,000 kg load capacity, as to EN1492-2.

Weight: 0.4 kg

**636600 Shackle (4 pcs required)**

Made of steel, galvanised, with screw type bolt.

Weight: 0.22 kg



636600



632520

**RECOMMENDED ACCESSORIES:****632520 Lashing strap for securing MEC on a truck**

Two-parted, with ratchet and round hook at the end. Length: 6 m, width: 35 mm, breaking strength 40 kN. Weight: 3.8 kg

**972420-002 MEC vehicle fixing system**

Clamping lever for fixing system MEC. 2 pieces for one MEC required!

**964391-001 Fixing rail**

L = 6,000 mm, for one MEC

**Protective cover**

Available upon request.

**961742-001 Ramp for stairs and steps**

Weight: 2.5 kg



972420-002, 964391-001



961742-001



## EXAMPLES FOR CUSTOMISED SOLUTIONS:

### Respiratory MEC

Has an on-top working platform for maintaining and repairing SCBA sets and comprises:

- 18 Pcs. 6.8 litre BA cylinders complete with cylinder covers
- 18 Pcs. SCBA full face masks
- Tool kit
- Spare parts kit for SCBA

### Decontamination MEC

Comprises:

- 1 Pc. rapid intervention tent complete with illumination and erecting equipment and partition wall
- 1 Pc. decontamination tub with accessories
- 1 Pc. personal cleaning kit
- 1 Pc. air inflation and deflation kit

## Mobile equipment carrier

**Flood handling MEC**

Comprises:

- 2 Pcs. submersible pumps
- 2 Pcs. cable reels
- 1 Pc. illumination kit for night time operation
- 2 Pcs. warning triangles
- 2 Pcs. coupling spanners
- 8 Pcs. delivery hoses
- 1 Pc. discharge tube
- Tools for manhole cover handling
- Cleaning and water handling tools
- 4 Pcs. utility ropes

**Other solutions available upon special request.**





013034



067642-001 to 067642-005



067642-006



970625-001



070278-102



957109-001



961060-001



957910-001



961050-001



067662-101



521504-001



582693-001

## BRACKETS

586388 For breathing mask

010051-001 For broom

056259-001 For bucket type pump 15 l

056259-002 For bucket type pump 10 l

013034 For coupling wrench ABC

004142-001 For barrier support

032715-002 For crow bar

049938-001 For hook ladder - rear

049916-001 For hook ladder - front

067642-001 For fire helmet 200 x 250 mm (LxH)

067642-002 For fire helmet 235 x 165 mm (LxH)

067642-003 For fire helmet 185 x 185 mm (LxH)

067642-004 For fire helmet 145 x 305 mm (LxH)

067642-005 For fire helmet 120 x 170 mm (LxH)

067642-006 For fire helmet 250 mm (H)

970625-001 For fire helmet 300 mm (H)

970767-001 For fire helmet 300 mm (H) with LED light

070278-102 For hydr. rescue cylinder RZT2 Weber

070278-101 For hydr. rescue cylinder RZ1-RZ3 Weber

070278-103 For hydr. rescue cylinder RZT2-1500 Weber

955423-001 For fire blanket

957109-001 Support for tripod

961050-001 For branch pipe B, left and right interlock

961051-001 For branch pipe C, left and right interlock

961060-001 For branch pipe B with watercurtain

961061-001 For branch pipe C with watercurtain

957910-001 For mallet 2 kg

067661-101 For nozzle RB 101 - strap orange

067662-101 For nozzle RB 102 - strap orange

521504-001 For NEPIRO Ergo high-pressure fog gun

582693-001 For traffic control cone laying

## Stowage system COMFORT

- 952364-001 For dividing breeching
- 957492-001 For plastic can according to DIN 14452, 20 kg
- 961731-001 Bracket for 3 plastic can acc. DIN 14452, 20 l
- 957691-001 For sill-support - Weber (order no. 597948)
- 961320-101 For submersible pump 210 mm (D) strap orange
- 961321-101 For submersible pump 265 mm (D) strap orange
- 543913-101 For extinguisher strap orange
- 970615-001 Set 1 for NEPIRO Ergo high-pressure fog gun
- 970620-001 Set 2 for NEPIRO Ergo high pressure fog gun
- 970012-001 Set 3 for NEPIRO Ergo high pressure fog gun
- 970187-001 For manhole cover lifting hook
- 970188-001 For signal stick
- 970334-101 For submersible pump NAUTILUS 4/1 strap orange
- 970334-102 For submersible pump NAUTILUS 8/1 strap orange
- 970591-001 Set for nozzle RB 99, RB 100
- 970591-002 Set for nozzle RB 101
- 970591-003 Set for nozzle RB 102
- 970745-001 Set for pedal cutter Weber S 50
- 970748-001 For standpipe 2-B



957492-001



961320-101



543913-101



970615-001



970620-001



970012-001



970187-001



970188-001



970334-001



970591-001



970745-001



970748-001



961490-001 to 961494-001



018792-002



018800-002



018782-002



030426-002



031992-002



534052-001



961024-001



961025-001



961025-002



036685-001

961490-001 For cylindrical equipment Ø 45-80 mm

961491-001 For cylindrical equipment Ø 80-120 mm

961492-001 For cylindrical equipment Ø 120-150 mm

961493-001 For cylindrical equipment Ø 150-200 mm

961494-001 For cylindrical equipment Ø 200-280 mm

018801-002 Clip 215 mm (W)

018792-002 Holding bracket 25 x 175 mm (HxL)

018800-002 Holding bracket 40 x 125 mm (HxL)

031992-002 Holding bracket 40 x 180 mm (HxL)

018782-002 Holding bracket 70 x 140 mm (HxL)

030426-002 Holding bracket 25 x 125 mm (HxL)

017747-002 Holding clip 53 x 150 mm (HxL)

534052-001 For guiding pin

961024-001 For SCBA (single cylinder)

961025-001 For SCBA (dual cylinder), left

961025-002 For SCBA (dual cylinder), right

036685-001 For SCBA (dual cylinder), left and right

036687-001 For SCBA (single cylinder)

019869-001 For monitor blank cap

## SHELF TYPE BRACKETS

014302-001 For battery 600 x 560 x 320 mm

004697-002 For 2 base plates

004697-001 For 3 base plates

013749-001 230 x 100 x 112 mm (WxDxH)

073828-001 230 x 70 x 112 mm (WxDxH)

073828-002 290 x 140 x 112 mm (WxDxH)

073828-003 580 x 140 x 112 mm (WxDxH)

037957-001 500 x 200 x 80 mm (LxWxH)

950274-001 260 x 60 x 100 mm (WxDxH)

961121-001 For signal electric torch

595326-001 For traffic warning triangle

961590-001 100 x 200 x 100 mm (LxWxH)

## Stowage system COMFORT

961590-002 100 x 250 x 100 mm (LxWxH)

961590-003 100 x 300 x 100 mm (LxWxH)

961590-004 100 x 350 x 100 mm (LxWxH)

961590-005 100 x 400 x 100 mm (LxWxH)

961590-006 100 x 450 x 100 mm (LxWxH)

961590-007 100 x 500 x 100 mm (LxWxH)

961590-008 100 x 550 x 100 mm (LxWxH)

961590-009 100 x 600 x 100 mm (LxWxH)

961590-010 100 x 650 x 100 mm (LxWxH)

961590-011 100 x 700 x 100 mm (LxWxH)

961590-012 100 x 750 x 100 mm (LxWxH)

961590-013 100 x 800 x 100 mm (LxWxH)

961590-101 100 x 200 x 150 mm (LxWxH)

961590-102 100 x 250 x 150 mm (LxWxH)

961590-103 100 x 300 x 150 mm (LxWxH)

961590-104 100 x 350 x 150 mm (LxWxH)

961590-105 100 x 400 x 150 mm (LxWxH)

961590-106 100 x 450 x 150 mm (LxWxH)

961590-107 100 x 500 x 150 mm (LxWxH)

961590-108 100 x 550 x 150 mm (LxWxH)

961590-109 100 x 600 x 150 mm (LxWxH)

961590-110 100 x 650 x 150 mm (LxWxH)

961590-111 100 x 700 x 150 mm (LxWxH)

961590-112 100 x 750 x 150 mm (LxWxH)

961590-113 100 x 800 x 150 mm (LxWxH)

961591-001 140 x 200 x 100 mm (LxWxH)

961591-002 140 x 250 x 100 mm (LxWxH)

961591-003 140 x 300 x 100 mm (LxWxH)

961591-004 140 x 350 x 100 mm (LxWxH)

961591-005 140 x 400 x 100 mm (LxWxH)

961591-006 140 x 450 x 100 mm (LxWxH)

961591-007 140 x 500 x 100 mm (LxWxH)

961591-008 140 x 550 x 100 mm (LxWxH)



036687-001



019869-001



004697-001



013749-001



073828-001



037957-001



961121-001



961590-001 to 961591-113



961710-001



961710-002



060341-001



957891-001



957892-001



970279-001



970279-002



970279-102

961591-009 140 x 600 x 100 mm (LxWxH)

961591-010 140 x 650 x 100 mm (LxWxH)

961591-011 140 x 700 x 100 mm (LxWxH)

961591-012 140 x 750 x 100 mm (LxWxH)

961591-013 140 x 800 x 100 mm (LxWxH)

961591-101 140 x 200 x 150 mm (LxWxH)

961591-102 140 x 250 x 150 mm (LxWxH)

961591-103 140 x 300 x 150 mm (LxWxH)

961591-104 140 x 350 x 150 mm (LxWxH)

961591-105 140 x 400 x 150 mm (LxWxH)

961591-106 140 x 450 x 150 mm (LxWxH)

961591-107 140 x 500 x 150 mm (LxWxH)

961591-108 140 x 550 x 150 mm (LxWxH)

961591-109 140 x 600 x 150 mm (LxWxH)

961591-110 140 x 650 x 150 mm (LxWxH)

961591-111 140 x 700 x 150 mm (LxWxH)

961591-112 140 x 750 x 150 mm (LxWxH)

961591-113 140 x 800 x 150 mm (LxWxH)

961710-001 For hand held radio MOTOROLA MTP850

961710-002 For hand held radio MOTOROLA MTP850 with bag



**HOOK TYPE BRACKETS**

- 060341-001 For blades  $\varnothing$  300 mm
- 957891-001 Cable hook  $\varnothing$  85 mm
- 957892-001 Universal hook
- 970279-001 For mallet 2 kg
- 970279-002 Left for small hatchet
- 970279-102 Right for small hatchet
- 970279-003 Left for axe
- 970279-103 Right for axe
- 970279-004 Left for 2 pick head fire axes
- 970279-104 Right for 2 pick head fire axes
- 970279-005 Left for big hatchet
- 970279-105 Right for big hatchet
- 970279-006 Left for german axe
- 970279-106 Right for german axe
- 970279-007 Left for 2 german pick head fire axe
- 970279-107 Right for 2 german pick head fire axe



970279-003



970279-004



970279-005



970279-006



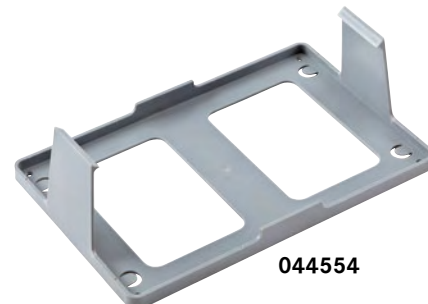
970279-007



900013-001 to 900014-001

**CLAMP TYPE BRACKETS**

- 900014-001 For cable drum-end stop
- 900013-001 For cable drum-spring
- 067741-001 For pillar hydrant wrench typ A
- 063919-001 For pillar hydrant wrench typ B
- 044554 For first aid box
- 002524-002  $\varnothing$  05 - 08 mm
- 002525-002  $\varnothing$  08 - 12 mm
- 002526-002  $\varnothing$  12 - 16 mm
- 002527-002  $\varnothing$  16 - 18 mm
- 020847-002  $\varnothing$  20 - 25 mm
- 020848-002  $\varnothing$  25 - 30 mm, 50 mm (H)
- 020845-001  $\varnothing$  25 - 30 mm, 80 mm (H) black
- 021680-002  $\varnothing$  30 - 40 mm
- 009195-003  $\varnothing$  40 - 50 mm
- 021427-002  $\varnothing$  55 - 65 mm
- 021426-002  $\varnothing$  70 - 80 mm



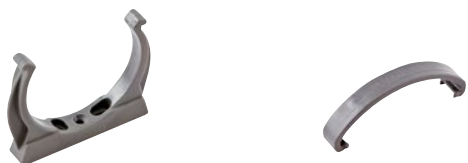
044554



002524-002 to 021426-002



002528-001 bis 009109-002



961802 - 961876

961879 - 970559



961877-001



961878-001



970234-001 to 970236-001



970554-001



019210-002



961234-001



062300-001



068519-001

002528-001 For 1-cylinder-type SCBA, Ø 140 mm

002528-002 For 1-cylinder-type SCBA, Ø 156 mm

002528-003 For 1-cylinder-type SCBA, Ø 180 mm

009109-001 For 2-cylinder-type SCBA, 58 mm (R)

009109-002 For 2-cylinder-type SCBA, 75 mm (R)

961802 Ø 63 mm without clamping bar

961707 Ø 90 mm with clamping bar

961708 Ø 110 mm with clamping bar

961874 Ø 140 mm without clamping bar

970556-001 Ø 160 mm without clamping bar

961876 Ø 180 mm without clamping bar

961879 Clamping bar for Ø 63 mm

961880 Clamping bar for Ø 90 mm

961881 Clamping bar for Ø 110 mm

970557 Clamping bar for Ø 140 mm

970558 Clamping bar for Ø 160 mm

970559 Clamping bar for Ø 180 mm

961877-001 For 2-cylinder-type-SCBA Ø 110 mm

961878-001 For 2-cylinder-type-scba Ø 160 mm

970234-001 22 mm (W) for handle

970235-001 35 mm (W) for handle

970236-001 40 mm (W) for handle

970554-001 35-45 mm (W) for handle 2 pcs.

## PLATE TYPE BRACKETS

019210-001 For fire broom

019210-002 For fire broom 4 pcs.

961234-001 Narrow for fire broom

961234-002 Narrow for fire broom 4 pcs.

062300-001 For hydro-shield B, C

068519-001 For diving breaching B-CBC

## RAIL TYPE BRACKETS

068325-001 For monitor rack 435 x 32 x 80 mm

069261-001 Railset 260 mm (L) cable reel KSA20 longitudinal

069261-002 Railset 293 mm (L) line roller GIFAS longitudinal

074222-001 Rail A for electric generator and hydraulic unit, left

074222-002 Rail A for electric generator and hydraulic unit, right

061871-001 Rail B for electric generator and hydraulic unit, left

061871-002 Rail B for electric generator and hydraulic unit, right

034388-011 Rail with lock 200 mm (L) left

034388-012 Rail with lock 200 mm (L) right

034388-003 Rail with lock 300 mm (L) left

034388-006 Rail with lock 300 mm (L) right

034388-002 Rail with lock 400 mm (L) left

034388-005 Rail with lock 400 mm (L) right

034388-007 Rail with lock 490 mm (L) left

034388-008 Rail with lock 490 mm (L) right

034388-001 Rail with lock 600 mm (L) left

034388-004 Rail with lock 600 mm (L) right

034388-009 Rail with lock 800 mm (L) left

034388-010 Rail with lock 800 mm (L) right

970594-001 Rail with rollers 170 mm (L)

970594-008 Rail with rollers 205 mm (L)

970594-002 Rail with rollers 270 mm (L)

970594-011 Rail with rollers 280 mm (L)

970594-003 Rail with rollers 370 mm (L)

970594-012 Rail with rollers 385 mm (L)

970594-009 Rail with rollers 435 mm (L)

970594-016 Rail with rollers 445 mm (L)

970594-004 Rail with rollers 460 mm (L)

970594-010 Rail with rollers 525 mm (L)

970594-005 Rail with rollers 570 mm (L)

970594-013 Rail with rollers 585 mm (L)

970594-006 Rail with rollers 770 mm (L)

970594-014 Rail with rollers 785 mm (L)



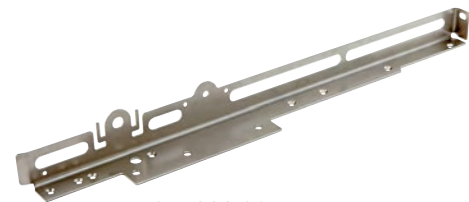
068325-001



069261-001



069261-002



074222-001



074222-002



061871-001



061871-002



034388-003



034388-006



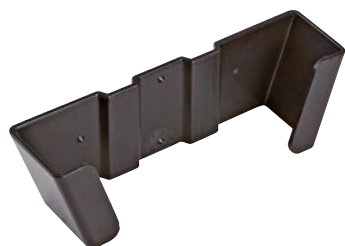
970594-001 to 970594-017



961340-001 to 961340-005



961340-101 to 961340-105



036696-001



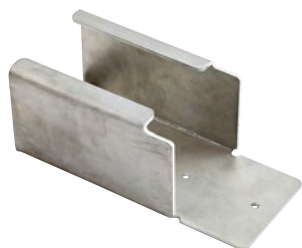
049991-001



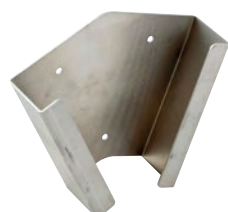
037920-101



019419-001



062159-001



523336-001



534543-002



525863-001



538128-001

970594-017 Rail with rollers 825 mm (L)

970594-007 Rail with rollers 1,170 mm (L)

961340-001 Console left 200 mm (L) with storage box fixture

961340-101 Console right 200 mm (L) with storage box fixture

961340-002 Console left 300 mm (L) with storage box fixture

961340-102 Console right 300 mm (L) with storage box fixture

961340-003 Console left 400 mm (L) with storage box fixture

961340-103 Console right 400 mm (L) with storage box fixture

961340-004 Console left 490 mm (L) with storage box fixture

961340-104 Console right 490 mm (L) with storage box fixture

961340-005 Console left 600 mm (L) with storage box fixture

961340-105 Console right 600 mm (L) with storage box fixture

## SHOE TYPE BRACKETS

036696-001 For signal baton

037920-101 For fire axe 115 mm (L) flat

037920-102 For fire axe 155 mm (L) flat

049991-001 For pike

019419-001 For combat knife

062159-001 For foot switch

019239-001 For charging station Motorola GP300

061959-001 For charging station Motorola GP340/GP360

523336-001 Pillar hydrant wrench w. ratchet

534543-002 For gloves 130 x 91 mm (WxH)

534543-003 For gloves 121 x 71 mm (WxH)

525863-001 For foam barrel NEPIRO Ergo

588405 For flashing light HELLA

538128-001 For Rotzler deflection pulley 14 t

527316-001 For bracket for rescue knife

548389-001 For bracket charging station Motorola MTP850

**CUP TYPE BRACKETS**

042636-001 For chain saw 178 x 200 x 23 mm

044723-001 For stretcher K

040908-001 For stretcher N

009003 PVC 116 x 97 x 90 mm (LxWxH)

009196-001 For mesh basket 369 x 369 mm (WxL)

031232-003 For rope 150 mm (H)

031232-002 For rope 75 mm (H)

031232-001 For rope 100 mm (H)

961326 For rope with drum

018528-001 A - for boxes 435 x 207 mm (LxW) box longitudinal

018528-002 B - for boxes 435 x 207 mm (LxW) lateral

957689-101 For rubber hose bride strap orange

957752-001 500 mm (L) for 2 spare bottles Ø 190 mm

955884-001 500 mm (L) for 1 spare bottle Ø 90 mm

955883-001 500 mm (L) for 2 spare bottles Ø 90 mm

955878-001 500 mm (L) for 3 spare bottles Ø 90 mm

957982-001 500 mm (L) for 4 spare bottles Ø 90 mm

961613-003 500 mm (L) for 2 spare bottles FRP

961613-001 500 mm (L) for 4 spare bottles FRP

950381-001 For box of cable pull

952736-001 For telescopic tripod, horizontal

953736-001 For anchor

961274-001 For flashlight EURO

961444 PS 200 x 100 x 90 mm (LxWxH)

961445 PS 100 x 100 x 90 mm (LxWxH)

961446 PS 50 x 100 x 90 mm (LxWxH)

961608-001 For standpipe 2-B

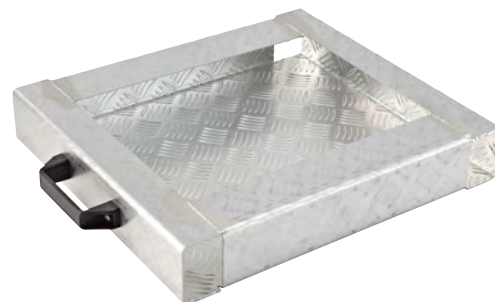
961611-001 For underground hydrant 1,100 mm

952011-002 For coupling wrench ABC set 3 pcs

970242-001 For accessories hydraulic unit



009003



031232-002



961326



957689-101



955878-001



961445



970242-001



052516-101 to 052516-112



064696-101 to 064696-105



064694-101 to 064694-103



961370-101 to 961370-103



961375-101 to 961375-104



061158-101 to 061158-103



086282-101 to 086282-105

## STRAPS

**052516-102 Strap black-orange with Velcro fastener**  
W=30 L=200 mm

**052516-111 Strap black-orange with Velcro fastener**  
W=30 L=250 mm

**052516-101 Strap black-orange with velcro fastener**  
W=30 L=300 mm

**052516-112 Strap black-orange with Velcro fastener**  
W=30 L=350 mm

**052516-103 Strap black-orange with Velcro fastener**  
W=30 L=400 mm

**052516-104 Strap black-orange with Velcro fastener**  
W=30 L=500 mm

**052516-105 Strap black-orange with Velcro fastener**  
W=30 L=600 mm

**052516-106 Strap black-orange with Velcro fastener**  
W=30 L=700 mm

**052516-107 Strap black-orange with Velcro fastener**  
W=30 L=800 mm

**052516-108 Strap black orange with Velcro fastener**  
W=30 L=900 mm

**052516-109 Strap black orange with Velcro fastener**  
W=30 L=1,000 mm

**052516-110 Strap black orange with Velcro fastener**  
W=30 L=1,100 mm

**972078-001 Cable tie black-orange W=30 L=500 mm**

**064696-104 Strap orange with hook 25 x 250 mm (WxL)**

**064696-103 Strap orange with hook 25 x 500 mm (WxL)**

**064696-102 Strap orange with hook 25 x 850 mm (WxL)**

**064696-101 Strap orange with hook 25 x 1,000 mm (WxL)**

**064696-105 Strap orange with hook 25 x 1,200 mm (WxL)**

**064694-101 Strap orange with hook and loop 25 x 300 mm (WxL)**

**064694-102 Strap orange with hook and loop 25 x 150 mm (WxL)**

**064694-103 Strap orange with hook and loop 25 x 70 mm (WxL)**

**961370-101 Strap orange with hook 40 x 800 mm (WxL)**

**961370-102 Strap orange with hook 40 x 1,000 mm (WxL)**

**961370-103 Strap orange with hook 40 x 1,200 mm (WxL)**

**961375-101 Strap orange with hook and loop 40 x 100 mm (WxL)**

**961375-102 Strap orange with hook and loop 40 x 150 mm (WxL)**

**961375-103 Strap orange with hook and loop 40 x 350 mm (WxL)**

## Stowage system COMFORT

- 961375-104 Strap orange with hook and loop 40 x 2,000 mm (WxL)
- 061158-102 Strap orange with loop 25 x 600 mm (WxL)
- 061158-101 Strap orange with loop 25 x 780 mm (WxL)
- 061158-103 Strap orange with loop 25 x 1,000 mm (WxL)
- 086282-101 Strap orange with loop 40 x 250 mm (WxL)
- 086282-102 Strap orange with loop 40 x 600 mm (WxL)
- 086282-103 Strap orange with loop 40 x 800 mm (WxL)
- 086282-104 Strap orange with loop 40 x 1000 mm (WxL)
- 086282-105 Strap orange with loop 40 x 1200 mm (WxL)
- 970471 Metal lashing buckle 25 mm (W) push button orange
- 970472 Metal lashing buckle 40 mm (W) push button orange
- 970260-001 Hook 90 x 22 mm (L x D) for lashing buckle 40 mm
- 031272-001 Support A for 25 x 15 mm (WxH)
- 005934 Support B for 40 x 10 mm (WxH)
- 005932 Support C for 30 x 10 mm (WxH)
- 957451-001 Clip for strap 30 mm (W)
- 952967-001 Clip for strap 30 mm (W) incl. holding plate
- 961868 Strap end W=25 mm
- 961869 Strap end W=40 mm



970472



005934



970260-001



031272-001



005932



957451-001



013370-001



032705-001



019827-001



970294-001



961868



961433-001

## HOLDING DISCS

- 019827-001 Holding disc for Storz 65, Storz 38
- 013370-001 Holding disc for Storz B/C
- 032705-001 Holding disc for Storz 125, A
- 961432-001 Holding disc for protecting cap CO2-bottle
- 961433-001 Pivot for BS coupling 2.5" female
- 961589-001 Pivot for dry powder gun
- 970294-001 Holding disc for Storz D/HD

## FIXING DEVICES

- 019009-002 Angle bracket A
- 053525-002 Angle bracket B
- 019037-002 Angle bracket C
- 018534-002 Angle bracket D
- 085123-001 Mounting bracket 30 mm (H), D up to max. 140 mm



961589-001



085123-002



004686-001



018476-001



957483-010



016945-001 to 016945-003

019415-001, 018985-001,  
018986-001

019867-001



900852



900019-001, 900019-002



961313-001



016944-001

085123-002 Mounting bracket 50 mm (H), D up to max. 200 mm

018958-002 Casing-in bracket A

018510-002 Casing-in bracket B

018476-001 Mounting bracket 60 x 102 mm (LxH) for pivot

004686-001 Angle bracket 400 mm (L), crenate 200 mm

957483-010 Mounting angle 30 x 30, 500 mm (L), crenate 100

957483-011 Mounting angle 30 x 30, 500 mm (L), crenate

006998-001 Mounting bracket 78 x 195 mm (L x W)

016945-001 Guide ring Ø 25 mm

016945-002 Guide ring Ø 50 mm

016945-003 Guide ring Ø 70 mm

081599-001 Guide ring with bracket Ø up to max. 30 mm

053527-001 Guide ring with bracket Ø up to max. 55 mm

016944-001 Guide ring oval Ø 40-55 mm

018304-001 Angular support DIN 14640, M12

018304-002 Angular support DIN 14640, M8

018978-001 Guide pin for bullbar Ø 38 mm

019415-001 Guide pin Ø 25 - 40 mm

018985-001 Guide pin Ø 38 - 50 mm

018986-001 Guide pin Ø 55 - 70 mm

019867-001 Guide pin Ø 55 - 70 mm with fixing device

900852 Coat hook made of black plastic

028199-001 Console 37 x 37 mm, 420 mm (L) for bottom sheet

900019-001 Corner brace left, with 3 legs

900019-002 Corner brace right, with 3 legs

064818 Rubber buffer conical 18 x 18.5 mm (DxH)

008881 Rubber buffer conical 20 x 10 mm (DxH)

008876 Rubber buffer cylindrical 30 x 32 mm (DxH)

004661-003 Partition wall 480 mm (L)

004661-001 Partition wall 762 mm (L)

004661-002 Partition wall 1,000 mm (L)

961313-001 Limit stop for aluminium transport box Zarges

597919-001 Thread bott M6 for clamping range 1 - 2 mm

597919-002 Thread bott M6 for clamping range 3 mm



## Stowage system COMFORT

- 597919-003 Thread bott M6 for clamping range 4 mm  
 970284-001 Fixing angle for forming device plastic can  
 582530-001 Spigot 16 x 25 mm (DxL), inside thread M6 x 15  
 582530-002 Spigot 9 x 15 mm (DxL), inside thread M6 x 10  
 970313-001 Edge protection 45 mm (H)

## HOSE SHELVES

- 045052-001 Fixing device for hose shelf  
 900826 Distance for b-hose shelf, 145 mm (L)  
 900825 Distance for c-hose shelf, 105 mm (L)  
 900824 Distance for HD-hose shelf, 90 mm (L)  
 047289-103 Hose strap B green-orange 900 mm (L)  
 047289-104 Hose strap B green-orange 1,000 mm (L)  
 047290-103 Hose strap C green-orange 900 mm (L)  
 047290-104 Hose strap C green-orange 1,000 mm (L)  
 047291-103 Hose strap H purple-orange 900 mm (L)  
 047291-104 Hose strap H purple-orange 1,000 mm (L)  
 000889-001 Partition panel for hose box B, C, HD 500 x 465 mm  
 062188-002 Partition panel BS double 1,000 x 296 mm (LxH)  
 961285-001 Partition panel BS 530 x 296 (LxH)  
 520972-001 Partition panel B DIN 550 x 540 mm (LxH)  
 579502 Extension nut M8 x 24

## STORAGE BOXES

- 972613 Storage box 117 x 300 x 490 mm (HxWxL)  
 970396 Storage box B 117 x 400 x 200 mm (HxWxL)  
 970397 Storage box B 117 x 400 x 300 mm (HxWxL)  
 970398 Storage box B 117 x 400 x 400 mm (HxWxL)  
 970399 Storage box B 117 x 400 x 490 mm (HxWxL)  
 970400 Storage box B 117 x 400 x 600 mm (HxWxL)  
 972614 Storage box B 220 x 300 x 490 mm (HxWxL)  
 970401 Storage box B 220 x 300 x 600 mm (HxWxL)  
 970402 Storage box B 220 x 400 x 200 mm (HxWxL)  
 970403 Storage box B 220 x 400 x 300 mm (HxWxL)



970313-001



597919-001



045052-001 to 000889-001



970396



970400



970403

972613 - 970408  
(symbolic picture)



970406



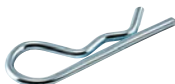
970622



597860-001



961010-001



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076179



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007121



970166



018608-001 to 018608-010

970404 Storage Box B 220 x 400 x 400 mm (HxWxL)

970405 Storage Box B 220 x 400 x 490 mm (HxWxL)

970406 Storage box b 220 x 400 x 600 mm (HxWxL)

970407 Storage Box b 220 x 400 x 800 mm (HxWxL)

970408 Storage Box B 320 x 400 x 600 (HxWxL)

972601 Hinge lid 300 x 490 mm (BxL) for storage box B

970991 Hinge lid 300 x 600 mm (BxL) for storage box B

970987 Hinge lid 400 x 200 mm (BxL) for storage box B

970622 Hinge lid 400 x 300 mm (BxL) for storage box B

970988 Hinge lid 400 x 400 mm (BxL) for storage box b

970989 Hinge lid 400 x 490 mm (BxL) for storage box B

970623 Hinge lid 400 x 600 mm (BxL) for storage B

970990 Hinge lid 400 x 800 mm (BxL) for storage box b

970624 Bush for hinge lid-storage box B

597860-001 Floodlight tray for 2 floodlights

961010-001 Storage box for 3 SCBA-cylinder steel 4 l 200 bar

961011-001 Storage box for 3 SCBA-cylinder steel 6 l 300 bar

961012-001 Storage box for 3 SCBA-cylinder RFP 6.8 l 300 bar

## SPECIAL FIXING DEVICES

030265 Cylindrical spring 90 mm (L)

007121 Safety pin Ø 10.5 mm

035345 Plug DIN 11024 size 3

007118 Plug DIN 11024 size 4

076179 Bracket for equipment PRAX 98

018608-009 Rubber strap 100 mm (L) with hook

018608-001 Rubber strap 150 mm (L) with hook

018608-002 Rubber strap 200 mm (L) with hook

018608-003 Rubber strap 250 mm (L) with hook

018608-004 Rubber strap 300 mm (L) with hook

018608-005 Rubber strap 350 mm (L) with hook

018608-006 Rubber strap 400 mm (L) with hook

018608-010 Rubber strap 500 mm (L) with hook

018608-007 Rubber strap 700 mm (L) with hook

## Stowage system COMFORT

- 018608-008 Rubber strap 900 mm (L) with hook
- 970166 Ring for rubber strap
- 018543-001 Handle L 360 mm (L)
- 046226 Handle 190 mm (L) black
- 046225 Handle 280 mm (L) black
- 571231 Handle 210 mm (L) orange
- 970651 Distance bushing orange for handle 571231
- 900956 Handle 330 mm (L) black
- 024050-001 Locker bearing with cross web 10 mm (L)
- 006059 Locker bearing 70 mm (L)
- 006060 Locker bearing 90 mm (L)
- 970212 Catch 55 mm (L) with threaded pin M6
- 970213 Catch 55 m (L) with flange plate
- 018548-001 Plug Ø 8 mm, 32 mm (L)
- 018548-003 Plug Ø 8 mm, 52 mm (L)
- 018548-005 Plug Ø 8 mm, 75 mm (L)
- 033175-002 Plug Ø 15 mm, 30 mm (L)
- 033175-001 Plug Ø 15 mm, 100 mm (L)
- 033175-003 Plug Ø 15 mm, 100 mm (L) lever short
- 972604 Snap pin A, Ø 8 mm lever orange
- 972605 Snap pin C, Ø 15 mm lever orange
- 961213-001 Plug Ø 8 mm, 52 mm (L) set
- 961213-002 Plug Ø 15 mm, 30 mm (L) set
- 961214-001 Snap pin A, Ø 8 mm set
- 961214-002 Snap pin C, Ø 15 mm set
- 970879 Locking bolt 8 x 8 mm (DxL) handle orange
- 970678 T-grip M8 orange



024050-001



006059 to 006060



970212



970213



033175-001 to 033175-003



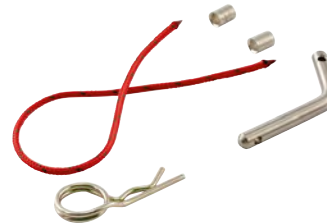
018548-001 to 018548-005



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961214-002



970879



970678

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## GENERAL TERMS AND CONDITIONS OF BUSINESS (GTCB)

of Rosenbauer International AG, FN 78543 f, LG Linz, and Rosenbauer Österreich Gesellschaft m.b.H., FN 86625 s, LG Linz

Edition 11/2013

The GTCB shall not apply to consumers within the meaning of the Consumer Protection Act (KSchG).

### 1. DEFINITIONS

These General Terms and Conditions of Business (hereinafter referred to as "GTCB") contain terms with the following meanings:

- 1.1 "Purchaser"** refers to the buyer and contracting party.
- 1.2 "End User"** refers to any person, organization or corporation that uses the delivery item or in which delivery item is used.
- 1.3 "Order" or "Contract"** refers to any type of contract between Rosenbauer International AG or Rosenbauer Österreich Gesellschaft m.b.H. on the one hand and the Purchaser on the other hand.
- 1.4 "We"** refers to Rosenbauer International AG or Rosenbauer Österreich Gesellschaft m.b.H..
- 1.5 "Purchase Order"** refers to any offer to conclude a contract brought to the attention of Rosenbauer International AG or Rosenbauer Österreich Gesellschaft m.b.H. by the Purchaser.
- 1.6 "Quotation from us"** refers to any quote by us, any offer and any related request to the Purchaser to make an offer to conclude a contract (purchase order) with us.
- 1.7 "Goods"** refer to the service (subject of the contract) to be provided by us as per the contents of the respective order; in particular any object to be supplied by us (delivery item).
- 1.8 "International Orders"** refer to orders where the Purchaser or End User typically resides in a country other than Austria.
- 1.9 "Working Day"** refers to any day from Monday to Friday, unless it is a public holiday in Austria.

### 2. SCOPE OF APPLICATION

- 2.1** Unless otherwise agreed (see also 2.2 and 2.3), our offers, orders, sales and deliveries shall be made solely in accordance with our GTCB, as reproduced below in their current version. In addition, our GTCB can be downloaded at any time from the "General Terms and Conditions of Business" section, or by following the link [www.rosenbauer.com/AGB](http://www.rosenbauer.com/AGB), and can also be saved and printed out by the Purchaser in a reproducible format.
- 2.2** These GTCB shall also apply as a framework agreement for all future transactions regarding the sale and/or delivery of our products to the same Purchaser without us having to refer to

them again in each individual case.

- 2.3** We hereby expressly object to any Terms and Conditions of Purchase of the Purchaser. Any deviating agreements from our GTCB shall only apply if, and insofar only for an individual case, these have been confirmed in writing by us as an amendment to our GTCB. This approval requirement shall apply in any event, for example even if we, being aware of the Purchaser's Terms and Conditions of Purchase, execute delivery to it without reservation. There were no verbal side agreements made upon conclusion of the contract.
- 2.4** Individual Purchaser agreements reached expressly with us in individual cases (including side agreements, additions and amendments to these GTCB) shall have precedence over these GTCB, provided they came into effect following the conclusion of this contract. The content of such individual agreements shall require a written contract or, if no such contract exists, written confirmation from us to the Purchaser.

### 3. OFFERS AND COST ESTIMATES

- 3.1** All parts of our offers are subject to change without notice, unless they have been expressly designated as binding for a defined time period.
- 3.2** Illustrations, designations, descriptions, dimensions and weights are only approximate in terms of their details and are non-binding with regard to possible deviations and amendments deemed reasonable for the Purchaser and End User by virtue of new experiences and improvements.

Our drawings, sketches, plans, photos, operation manuals, production know-how, software etc. shall remain our intellectual property and are protected by copyright law with respect to imitation, copying, competition etc. They may not be imitated, reproduced or copied, or indeed notified or handed over to third parties, without our written consent. Furthermore, they may not be used for any other purpose than the one they were supplied for.

- 3.3** Our prices are subject to alteration and are net ex works. We are entitled to adjust our prices to changed circumstances even following the conclusion of the contract, in case of extraordinary events (e.g. wars, war-like disputes, natural disasters, delivery blocks, strikes etc.). Extraordinary events also include changes to the legal situation, approval and export terms etc., which lead to increased expenses for the production and supply of the subject of the contract. This also applies if the prices were agreed as fixed prices.
- 3.4** If prices are denominated in a foreign currency (= currency other than EUR), then the Offer shall be based on a calculation exchange rate, the validity of which is stated in the Offer. Any additional costs arising up to the date of the order confirmation and/or the actual delivery of the goods as a result of exchange rate differences outside the validity of the calculation rate shall be borne by the Purchaser, who shall in turn compensate us.
- 3.5** If there are any obvious errors, in particular errors that were already included in our Offer as well as in the accompanying

documents, then we shall be entitled to terminate the contract or to adequately amend the agreed prices at any time and at our discretion.

- 3.6** Cost estimates shall not be binding in any way, unless the binding nature of any such cost estimate is expressly stated by us in writing.

#### 4. ORDERS

- 4.1** Orders are only established upon our written order confirmation (by mail, fax or e-mail). This shall be issued once all technical and commercial queries have been clarified.

- 4.2** We shall reserve the right to deliver goods ordered without any order confirmation. The delivery of any such ordered goods shall replace the order confirmation.

- 4.3** If an Offer was made by us, then we shall also reserve the right to reject purchase orders without specifying the reasons for doing so.

- 4.4** If the Purchaser is not the same as the End User or the final destination of the goods is not the same as the country in which the Purchaser resides, then the Purchaser undertakes to inform us of the final destination.

- 4.5** If the Purchaser is not the same as the End User, then the Purchaser must fulfill all obligations (e.g. provision of proof of usage and final destination) that are necessary in order for the End User to be able to receive and use the goods. The Purchaser also undertakes to pay for the goods if they cannot be delivered to the End User (either directly by us as part of a drop shipment or by the Purchaser forwarding them on to its own customer) due to the fact that such obligations have not been fulfilled. The Purchaser undertakes to pay compensation, regardless of negligence or fault, for any costs, reduced revenues or other financial losses arising from a breach of any such obligations.

- 4.6** The Purchaser shall be bound to its purchase order for 10 working days until such purchase order is accepted (order confirmation) or rejected by us. A purchase order may only be cancelled within this period following written approval by us.

- 4.7** Even after we have issued the order confirmation, the contract shall only be binding for us provided no governmental or other official bodies have raised any objections against the contract (e.g. import bans, export bans, bans on production, standards, licensing requirements etc.). In such cases, we shall be entitled to withdraw from the contract without having to provide any service. If we fail to declare our withdrawal from the contract, then it shall remain in force and the Purchaser shall assume any risk arising from the aforementioned circumstances.

#### 5. DELIVERY DATE

- 5.1** The delivery deadline specified in our Offers or in the order confirmation shall commence on the date of the order confirmation. Where an advance payment has been agreed to, the

delivery deadline does not begin until we have received this advance payment.

- 5.2** Delivery dates shall apply ex works. Our obligations shall have been fulfilled if the delivery item is made available to the Purchaser, i.e. if the readiness for delivery is notified to the Purchaser. If the delivery item is dispatched or transported by the Purchaser or its agents, then the risk for doing so shall also be transferred to the Purchaser.

- 5.3** If multiple delivery dates are specified or agreed, then the earlier dates shall merely be guidelines (declaration of intent, target) which do not create any legal obligations for us. We shall strive and indeed use our best efforts to comply with these guidelines.

- 5.4** The delivery deadline specified in the order confirmation shall be agreed to the best of our knowledge, subject to normal conditions. The delivery deadline shall be extended appropriately, without giving the Purchaser any right whatsoever to rescind or to assert claims of any kind, in case of events such as lack of transport, disruption of operations, strikes, labor restrictions, seizures, damage to important work pieces etc. suffered by us or a subcontractor, and delayed carriage and delivery of raw materials and components, chassis and motors etc., unforeseen difficulties during border processing and import or export customs clearance. We shall immediately notify the buyer upon occurrence of any such event and specify a new delivery deadline.

- 5.5** If the Purchaser requests any technical, commercial or schedule-based change to the Order, then we shall be entitled to unilaterally specify a new delivery deadline.

#### 6. DELIVERY AND DISPATCH

- 6.1** If it is an International Order, then the terms and conditions of delivery must be drawn up in accordance with Incoterms, as amended, unless otherwise specified under the terms of this contract or these GTCB.

- 6.2** We shall be entitled to carry out partial or advance deliveries.

- 6.3** We shall be entitled to deliver, at the stipulated price, goods that are, in our opinion, of an equivalent value or design instead of the ordered goods if it is impossible – for whatever reason – to deliver the ordered goods at all or in a timely manner. Such changes are only permitted if they are reasonable for the Purchaser. If the Purchaser approves such changes to the goods, then it cannot subsequently plead that this is unreasonable and, for this very reason, shall neither be entitled to withdraw from the Contract nor to request the cancellation of the sale, a price reduction or a restriction of its existing obligations under the terms of the Contract.

- 6.4** Unless otherwise expressly agreed, the goods shall be dispatched uninsured at the risk and for the account of the Purchaser. We shall only insure the delivery item against theft, breakage, transport, fire and water damage and other insurable risks at the written request of the Purchaser. Any other costs arising as a result shall be borne by the Purchaser.

- 6.5** If the goods are dispatched by us in accordance with the agreement, we shall only be liable for our shipping arrangements if there are shipping instructions provided by the Purchaser which were confirmed by us.
- 6.6** If import/export licenses or other documents are necessary for International Orders in order to carry out an import/export, or for transportation purposes, then the Purchaser undertakes to provide these documents at the time of issuing the Order, or at least in a timely manner in any case. Any costs and losses incurred as a result of the failure to supply such documents in a timely manner shall be borne solely by the Purchaser, irrespective of their nature. We shall not assume any liability whatsoever in this regard, and shall be indemnified and held harmless by the Purchaser for any losses and expenses incurred by us as a result.
- 6.7** Sample items requested by the Purchaser, display items or other goods made available must be sent back to us, prepaid and insured, within four weeks of receipt by the Purchaser. Otherwise these items shall be deemed to have been sold, and the invoice amount shall be due with immediate effect. We shall retain ownership of these items and goods until payment is received in full.
- 6.8** Only one copy of operation manuals, spare parts lists, drawings and other documents shall be provided with the goods. Additional copies shall be invoiced separately. If express agreement was reached regarding training, then this shall be performed by a Service technician as selected by us, unless otherwise agreed. The training, travel, accommodation and subsistence costs incurred by the Service technician shall be invoiced to the Purchaser.
- 6.9** The goods shall only be accepted in the presence of the Purchaser if this has been agreed separately. Tests or other examinations that go beyond typical factory acceptance tests must be agreed separately. The costs and expenses shall be borne by the Purchaser.
- 6.10** Provided this is to be performed by us in accordance with the agreement, the goods shall be dispatched by transport service industry partners selected by us and in line with standard regular delivery times. Packaging material cannot be taken back.

## 7. DELAY AND IMPOSSIBILITY OF PERFORMANCE

- 7.1** The written agreement of a binding delivery date, a written reminder by the Purchaser to perform the service within a reasonable grace period and the fruitless expiry of the grace period are all prerequisites for a delivery delay occurring.
- 7.2** If the Purchaser is able to demonstrate it has suffered a loss as a result of a delivery delay caused purely by gross negligence on our part (see item 7.1 of these GTCB), then it shall be entitled to compensation totaling 5% of the value of the part of the delivery that cannot be used by the Purchaser either on time or as intended as a result of said delivery delay. Any further claims on the basis of a delivery delay shall be excluded.
- 7.3** Notwithstanding any right of rescission of the Purchaser in the

event of defects (see item 11 of these GTCB), and provided more than two months have elapsed since the delivery delay in accordance with item 7.1 occurred, the Purchaser may only withdraw from the Contract as a result of a breach of duty for which we are responsible; any damage compensation claims shall be made exclusively in accordance with item 7.2. We on our part shall be entitled to withdraw from the Contract in the event of an initial or subsequent impossibility of performance; in the event of a withdrawal owing to impossibility of performance, the Purchaser shall not be entitled to any claims over and above item 7.2.

- 7.4** The Purchaser undertakes to declare at our request, and within a reasonable period of time, whether it intends to withdraw from the Contract as a result of the delay in the delivery, or whether it wishes to insist on such delivery being made. If the Purchaser fails to provide any such declaration within a reasonable period of time as set by us, then the Purchaser shall no longer be entitled to reject the delivery or withdraw from the Contract, and cannot assert any damage compensation claims in place of performance.

## 8. RISK AND DEFAULT OF ACCEPTANCE OF PURCHASER

- 8.1** Provided the goods are dispatched or transported by us, the risk of accidental loss or deterioration of the delivery item shall transfer to the Purchaser no later than when sending the delivery item to the Purchaser; this shall apply even if partial deliveries have been made or other services, in particular shipping costs or transportation, have been accepted by us as well.
- 8.2** If the goods are dispatched by us and the dispatch is delayed due to circumstances for which the Purchaser is responsible, then the risk of accidental loss or deterioration of the delivery item shall transfer to the Purchaser at the time notification that the goods are ready for shipment is sent. In such cases we shall be prepared, at the written request of the Purchaser, to take out insurance policies as requested by the latter. Any costs arising as a result shall be borne by the Purchaser. In any event, the Purchaser undertakes to reimburse additional expenses incurred by us as a result of any such delays.
- 8.3** If the Purchaser is in default of acceptance, fails to cooperate or delays our delivery for any other reasons attributable to the Purchaser, then we shall be entitled to demand compensation for any losses and additional expenses (e.g. storage costs) incurred by us as a result of any such delay, irrespective of whether the Purchaser was at fault or not. In order to do this, we shall charge flat-rate compensation totaling at least 0.5% of the invoice amount per week, but no more than 10% in total, commencing on the delivery deadline or, in the absence of a delivery deadline, date of notification that the delivery item is ready for shipment. This shall also apply if the goods are stored in the premises of another manufacturer. The proof of higher damages and our other statutory claims (in particular reimbursement of additional expenses, reasonable compensation, termination) shall remain unaffected; the flat-rate compensation shall however be offset against further monetary claims. We shall also be entitled to otherwise dispose of the delivery item and deliver to the Purchaser with an appropriately extended deadline at the prices applicable at the time after

setting a reasonable grace period to accept the delivery item, and such grace period expiring without success.

## 9. PAYMENT

- 9.1** Linz/Donau shall be the place of fulfillment for all payments, even if the transfer of the goods or other services takes place at a different location as agreed.
- 9.2** Unless otherwise agreed, all of our prices shall apply ex works in EUR plus the applicable rate of VAT. Where applicable, additional costs for packaging, transport, insurance, customs etc. in particular shall be charged separately. All domestic and foreign incidental costs incurred in conjunction with the delivery shall be borne by the Purchaser. All payments must be made, at our discretion, either in cash or by bank transfer to one of our bank accounts stated on the invoice.
- 9.3** Each payment must be made without deductions at the time the invoice is received, unless different arrangements were made in writing.
- 9.4** If a Purchaser's payment by way of transfer is not made from an account held by the Purchaser, then the payment shall only have a discharging effect if this has been agreed in advance or if we accept this payment subsequently and in writing. If there is no prior agreement in place, we shall be entitled to demand a new payment and withhold any payments received until the payment is made by bank transfer from an account held by the Purchaser.
- 9.5** If a payment has not been made by the agreed date, we shall be entitled to charge the Purchaser statutory default interest (§ 456 UGB) plus all accrued expenses and costs. In this case, we shall be entitled to make the handover of goods to the Purchaser, irrespective of the order in question, and the further completion of the goods contingent on the advance payment or bankable securing of the agreed price, or fully withdraw from the Contract. Any agreed delivery dates shall be invalid in the event of default by the Purchaser.
- 9.6** Purchaser claims may not be offset against our claims unless they are legally related to the objective liability of the Purchaser and they concern legally established claims or claims that we have recognized in writing.
- 9.7** The delivered goods shall remain our property until full payment of the agreed purchase price and any ancillary fees (9.2). Until the time of ownership transfer, the Purchaser shall not be entitled to sell or pledge the goods, or otherwise cede them to third parties without our consent. In the case of utilization of the goods through third parties (e.g. distress), the Purchaser is required to notify us immediately and provide us with an opportunity to assert our ownership rights. These rights shall in any case be asserted at the expense of the Purchaser. Our ownership shall also be maintained if the delivery item is mixed or combined with other items of the Purchaser or a third party, processed or otherwise converted. In the event the laws for the area in which the delivery item is located do not allow for a retention of title, but does permit the reservation of other rights to the subject of the contract, in particular regarding assignments of claims against another

buyer, we may exercise all rights of this kind. In the case of a resale in particular, the buyer shall provide to us all required information, grant permission to view all required documents and assign to us all claims against third parties to which the delivery item was transferred at its own cost, and also notify the secondary purchaser of the assignment of security at the same time the goods are sold, or at least note the assignment in its business records. All charges related to the delivery, such as taxes, duties, fees etc., are the responsibility of the Purchaser.

## 10. WITHDRAWAL FROM THE CONTRACT

- 10.1** The Purchaser shall have the right to withdraw from the Contract or the contract declaration submitted by it within the period mentioned below, without providing reasons for doing so, unless it relates to order-based manufactured or procured goods and the purchase of unaltered goods instead. It shall suffice for the notice of withdrawal to be sent within this period. The notice of withdrawal must be sent by letter, fax or e-mail to the return address contained in the delivery documents.
- 10.2** The withdrawal period is 5 Working Days. The withdrawal period shall commence on the date the incoming material is received by the Purchaser.
- 10.3** If the Purchaser withdraws from the Contract, it undertakes accordingly to send back the goods received in their original packaging, and without any traces of usage, to the return address contained in the delivery documents. The costs for returning the goods back shall be borne by the Purchaser. We shall then refund the purchase price accordingly. If the goods appear to have traces of usage or are damaged when they are sent back, then we shall reserve the express right to assert claims for price reduction.

## 11. WARRANTY

- 11.1** Provided no further claims have been agreed in writing in the Contract, and assuming all payment obligations are fulfilled, we shall grant the Purchaser, but not any third parties, a warranty against defects in material and workmanship in accordance with the state of the art applicable at the time the products are placed on the market by us. The Purchaser may only call upon this warranty if it can prove that the defect was present upon handover and if it immediately notifies us in writing, albeit no later than three Working Days, of any defect that has occurred along with a more precise description of the defect. Any complaints resulting from workmanship that is not in line with the order, and resulting from defects that could have been detected upon immediate investigation of the delivery item, must be notified in writing within three Working Days of the goods arriving at their destination and, in the event acceptance has been agreed (6.9), within three Working Days from acceptance, failing which it shall lose any warranty, error and damage compensation claim (including a damage compensation claim for consequential damages).
- 11.2** Unless otherwise specified by law, the warranty period is 12 months (6 months for replacement parts) and shall com-

mence, unless acceptance has been agreed (6.9), upon delivery ex works or upon dispatch, if this is performed by us. Once this period has expired, we shall no longer accept any liability for warranty claims. For International Orders, the warranty period is 13 months if the duration of transit demonstrably exceeds a period of four weeks. The rectification of any defects shall not extend the warranty period and any agreed written guarantee periods.

- 11.3** Initially the Purchaser may only request that we carry out remedial work or replace the defective items. If the repair or replacement is not possible or is associated with disproportionate financial or actual costs, the Purchaser may request a reduction in the price or rescission. Rescission shall not be considered if it is a minor defect within the meaning of the law. The warranty does not cover compensation for any frustrated installation and removal costs of defective goods.
- 11.4** The warranty claim is directed towards the rectification of defects that significantly impair usability. We shall, at our discretion, be entitled to repair parts that have become defective or replace them with new ones. Any such remediation work or replacements shall be carried out at the place of fulfillment; any related shipping costs shall be borne by the Purchaser.
- 11.5** For parts that were not manufactured by us, our warranty shall be restricted, even if the parts are installed or otherwise used in our products, to the claims that we have towards the supplier.
- 11.6** The warranty claim expires if the delivery item has been subject to modification, repair or any other interference without our prior written consent.
- 11.7** Our warranty obligation only applies to defects that occur despite compliance with the applicable operating, maintenance and installation provisions. In particular, it does not apply to defects that are the result of inappropriate or improper use, excessive stress, incorrect or negligent handling, non-authorized use or changes to the software supplied (in terms of the provision 13.2), use of unqualified personnel and normal wear and tear. This also applies in the case of failure to comply with the operating, maintenance and other provisions of our suppliers.
- 11.8** Any further warranty claims by the Purchaser, in particular claims for rescission or price reduction, shall be excluded as well as damage compensation claims arising from defective delivery. The Purchaser shall not be entitled to fully or partially retain the purchase price in the event of any defects either.
- 11.9** Where the Purchaser commissions a third party to perform repairs, only those costs may be charged to us which we would have incurred as a result of a repair using our own trained personnel, even if the Purchaser is entitled to carry out such repairs.
- 11.10** Recourse claims in accordance with § 933b ABGB are excluded.

## **12. DAMAGE COMPENSATION**

- 12.1** In the event of any personal injuries, the Purchaser shall be

due compensation even for slightly negligent behavior on our part.

- 12.2** It is expressly agreed that we shall only have to pay the Purchaser damage compensation for damages other than personal injuries (12.1) if it can be proven from the circumstances related to the individual case in question that we acted with intent or were grossly negligent. We shall assume no liability for consequential damages, including in particular lost profits, business interruption or loss of production. For damages that are to be compensated according to the Product Liability Act (PHG), we shall only be liable if this cannot be excluded as a result of mandatory statutory provisions. Any recourse claim in accordance with § 12 PHG is excluded.
- 12.3** The damage compensation may not exceed the amount that we would have been able to predict as a possible consequence of the breach of contract.
- 12.4** Even if a liability disclaimer is invalid, we shall not be liable for the occurrence of force majeure. Force majeure is understood to relate to unforeseeable events of an extraordinary nature which evade any control by the contracting parties. Force majeure also relates to circumstances such as industrial disputes and any other circumstances beyond the control of the parties, such as fire, mobilization, requisition, embargo, riot, war etc.
- 12.5** The subject of the contract only offers a level of safety that can be expected on the basis of the statutory provisions, official regulations, operation manuals, supplier provisions for handling the delivery item (operation manuals, service provisions etc.), particularly in view of the prescribed tests and reviews, and other given information. The Purchaser is required to comply with all provisions that apply to the delivery item, including those of the manufacturer, and to only use the product, including all components and software, for its intended use.
- 12.6** The Purchaser agrees to take all reasonable and possible measures to prevent damage occurring and to keep any damage incurred as low as possible. We shall otherwise be entitled to demand a reasonable reduction of the asserted damages.
- 12.7** For the case that the limitations to our liability as agreed herein are found to be legally invalid in entirety or in part, our liability shall in any case be limited in terms of content and scope to the maximum level permitted.

## **13. USE OF SOFTWARE**

- 13.1** Where the delivery scope includes software, the Purchaser or End User shall be granted a non-exclusive right to use the delivered software including its documentation. To this end, the software shall be made available only for use with the delivery item that has been provided for this purpose. The use of the software on more than one system is not permitted.
- 13.2** Non-compliance with installation requirements and installation instructions shall result in the immediate and definite loss of the Purchaser's warranty and damage compensation claims in this regard.

**13.3** Where we have imposed time limits to the use of delivered software, the Purchaser may not continue to use the software in any way whatsoever following the expiry of this time period.

**13.4** Subject to differing mandatory statutory provisions, the decompilation of delivered software is expressly prohibited, and may only be performed with our express written approval.

**13.5** The Purchaser undertakes to only remove manufacturer's information, particularly copyright notations, or to modify the same if it has received prior and express written approval from us for this purpose.

**13.6** All other rights to the software, the source code and documentation, including the copies, shall remain with us or the software supplier. Sublicenses may not be issued.

#### **14. DATA PROTECTION AND COMPLIANCE**

**14.1** In accordance with the provisions on data protection, we expressly advise that the execution of an order will involve the storage of Purchaser names, addresses, telephone and fax numbers, e-mail addresses and payment modalities on a data carrier for the purpose of automated data processing. We are entitled to transfer, where necessary, the Purchaser's data to third parties that we have commissioned with executing the order so as to ensure proper fulfillment of the same. Beyond this, Purchaser data shall be handled in confidence and not forwarded to third parties.

**14.2** The Purchaser shall not be permitted to offer, promise or grant a public official or individual obligated specifically for public service a payment or other benefit for himself or his immediate family members in return for carrying out, or intending to carry out in future, an official act that secures the Purchaser or us an unfair advantage as regards the delivery of products or commercial services. In the event of any breach, we shall reserve the right to assert any resulting damage compensation claims against the Purchaser.

#### **15. PLACE OF JURISDICTION**

**15.1** Unless otherwise agreed in writing, the location of the delivering company shall be the place of fulfillment for all of our deliveries and services. The court with jurisdiction for such cases in Linz/Donau shall be the exclusive place of jurisdiction for all of our disputes arising from the Contract, the establishment of the Contract, the implementation and cancellation of the Contract; we shall however be entitled at our discretion to call upon the court with jurisdiction for such cases at the Purchaser's general place of jurisdiction instead of the aforementioned court.

**15.2** A national or international court of arbitration may only be involved with our prior written consent.

**15.3** The German-language text shall always be authoritative in the case of disputes, regardless of the type, which arise in connection with an order, these GTCB, other written agreements, offers, cost estimates, order confirmations, bills, documents,

materials, notifications, operation manuals, spare parts lists, price lists (catalogs) etc.

#### **16. GENERAL ASPECTS**

**16.1** These GTCB cover the initiation, completion, implementation and cancellation of all of our legal transactions, more specifically to the extent that other agreements have not been made in the respective order confirmation or subsequently in writing. They shall also apply analogously to other services provided by us. However, service work and repairs shall not be covered unless our Terms of Service have been agreed.

**16.2** All agreements and changes to the same, as well as all declarations that must be issued on the basis of the agreements that have been concluded, shall only be valid if they have been made in writing. Declarations by fax or e-mail shall be deemed as complying with the written form requirement.

**16.3** Austrian law, with the exclusion of the United Nations Convention on Contracts for the International Sale of Goods and rules on conflict of law, shall apply exclusively to all Orders and Contracts, their initiation, completion, implementation, cancellation and establishment. This shall also and particularly apply to issues regarding the validity, applicability and interpretation of these GTCB.

**16.4** In the event that a provision of these GTCB, or parts thereof, are found to be invalid or void, it shall not affect the validity of the remaining provisions, and agreement shall be reached on such a provision that most closely matches the invalid or void provision.









**Impressum:**

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