

Equipment for testing services



*Powder suction machines*  
*Water / foam systems*  
*Carbon dioxide filling units*  
*Testing and service devices*  
*Accessories and tools*



# Product Catalogue

The Company.  
Separated into two areas of operation.

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## 1. Production



### *From the garage into the world*

Garages are more than just storerooms for vehicles. They are a haven for ideas, offering room for **creative** thoughts to unfold. What is true for famous IT companies is also firmly anchored in the history of Brandschutztechnik Müller, because our company founder, Herbert Müller, built the first **powder suction machine** in such a garage; the basis of today's broad range of products and filling devices for fire extinguishers, corresponding testing and measuring equipment as well as tools and innovative high pressure fire extinguishing units. And our know-how continues:

We provide comprehensive test techniques with our hydrant testing pumps and flow meters for riser pipes, and

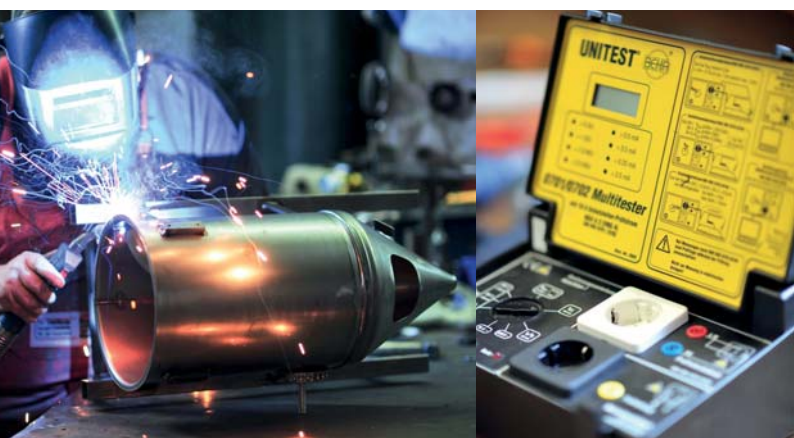


Brandschutztechnik Müller carbon dioxide filling units are also in hard daily use outside the fire extinguishing world. Almost all of our products can be adapted to your needs.

**We make your job faster and more effective.**

Brandschutztechnik Müller products from the two German sites in Zierenberg in northern Hesse as well as in Günthersleben in Thuringia are in use in more than 90 countries throughout the world. For voluntary fire brigades, professional and factory brigades and service companies they are numbered among the best state of technology available today. Regardless whether French army, Russian national railway or Saudi Arabia: **High-tech** from Zierenberg sets the safety standards.





### ***Made in Germany***

The development, the production, the screws, motors, electronics: As a traditional family-owned business, we know that only close and long-term collaboration will result in success. And so we have included our employees and our suppliers in our very own Made in Germany plan. A positive inward and outward **corporate climate** guarantees top quality and functionality.

All of our products with their partly hundreds of individual parts must satisfy the highest production standards and are produced exclusively in Germany. And that shall remain so in the future. We promise.



The Company.  
Separated into two areas of operation.

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## 2. Fire brigade specialised trade



### ***Saving life with safety***

If you look up the word 'safety' you will see definitions such as protection and certainty. Both are symbolic for the way we at Brandschutztechnik Müller understand our work and our products.

Particularly **reliable** products which are in **effective** use - that is the basis for the more than 30 years of success of our family-managed company.

We work every day for you, our customers, to make our products even better. The best specialised personnel and permanent customer dialogue is our foundation.

Our more than 60 employees are highly **motivated** and **specialised**.

### ***Partner of fire brigades***

Two sites, one goal: to perfectly outfit fire brigades. We present the latest state of technology at our headquarters in **Zierenberg**, northern Hesse, as well as in Thuringia's **Günthersleben**. As the **sole agency for MAGIRUS** we offer extraordinary service. We offer our customers a wide range to choose from, starting with repairs and the loading of emergency vehicles, maintenance service and vehicle design up to leased vehicles. As such, more than 11,000 articles in our warehouses are waiting to be deployed. Many of our employees assume responsibility in voluntary fire brigades. This guarantees not only excellent **specialised dialogue** but also ensures that our products are perfectly adapted to your needs.





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This becomes patently clear when our professional training team is at work.

The **seminars** we offer at our locations provide extensive training and technique exercises. Whether for rescue saws, respiratory protection and many other techniques: More than 2,000 participants from professional, factory and voluntary fire brigades have received theoretical and practical training at Brandschutztechnik Müller.

In more than 80 countries around the world, Brandschutztechnik Müller stands for High-Tech Made in Germany. Reason enough for you to trust our know-how, too. We look forward to meeting you.

## Equipment for servicing fire extinguishers.

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Powder suction machines **PSM**



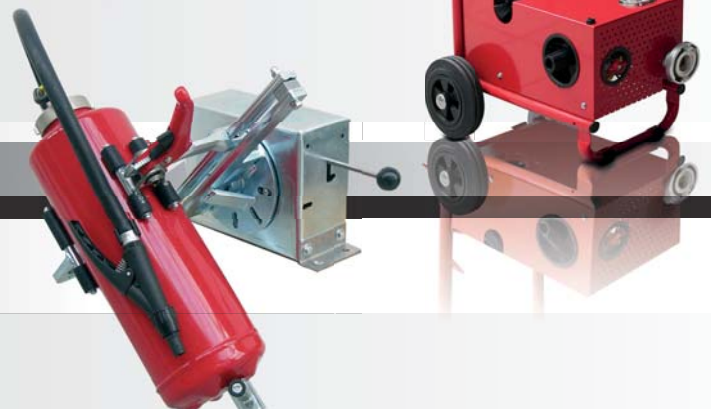
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Carbon dioxide filling units **CFA**



Testing and **service devices**



Accessories and **tools**



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Powder suction





# on machines PSM



## Operating sequence with the powder suction machines.

# Functions of the Powder Suction Machines

Our powder suction machines have been designed for the servicing of powder fire extinguishers (emptying and refilling).

But transferring, purely filling or purely emptying the fire extinguishing powder for disposal is also possible with these machines.

The modular structure ensures a largely consistent operating method for all machine types.



### Emptying

Service consists of first opening and then depositing the depressurized fire extinguishers next to the machines. The suction pipe with flexible hose (S) evacuates the fire extinguishing powder through a separation sieve (T) to remove contaminants and through a set of filter cartridges (separation of air and fire extinguishing powder) into the storage container (V).

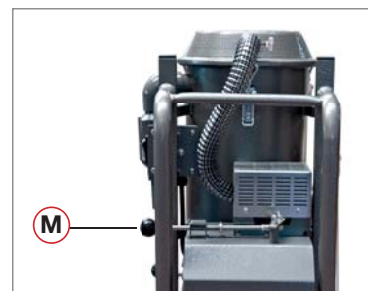


- The slow decompression of pressure can be omitted for stored pressure fire extinguishers. They are emptied by plugging the fire extinguisher hose into the suction hose (S) of the running PSM where the pressure from the nitrogen blows the extinguishing powder into the PSM.

### Filling

Fire extinguishers with a filling weight of up to 12 kg can be placed under the storage container (V) of the PSM for filling.

The newly developed hopper valve flap (B) with large passage opening accelerates filling by up to 100 %. The hand lever (H) lowers the storage container until the hopper valve flap with the conical filling nozzle seals airtight against the filling opening of the fire extinguisher. Both of the exchangeable adapters (W) supplied for the valve flap for stored pressure and cartridge pressured fire extinguishers can be easily exchanged at the filling valve. The closure of the hopper valve flap is opened and closed by a hand lever with ball button (K). Actuating the mechanical (M) or electrical (E) reversing mechanism will quickly fill the fire extinguisher using alternating pressure and suction phases, whereby the set of filter cartridges is automatically cleaned during the pressure phase. Installed between the storage container and suction hose (S) is a non-return valve (R) which automatically closes the suction line during the reversing process.



- Hand lever (M) for mechanical reversing operation.

The inspection glass (F) allows you to observe whether the entire fire extinguishing powder is filled into the fire extinguisher, thus completing the filling process.



## Servicing wheeled fire extinguishers

- During service work the extinguishing powder is removed from the wheeled fire extinguisher and evacuated into the separate additional storage tank at first.



- The SK 50 set fitted on the mobile fire extinguisher then refills the fire extinguisher with fire extinguishing powder from the additional storage tank.



## Service on wheeled fire extinguishers with PSM POWER

For emptying a wheeled fire extinguisher the filter head of the PSM POWER can be mounted directly on a special 50 kg additional storage tank or a 250 kg barrel.



- The SK 50 set available as accessory is required for filling the wheeled fire extinguishers (exception: PSM POWER and PSM Jumbo). It consists of an adapter with sieve and lashing strap for the wheeled fire extinguisher, a 1.4 m suction hose and a 1.15 m suction pipe.



- Service work on 50 kg fire extinguishers with all PSM types (exception: PSM Jumbo) requires an additional 50 kg storage container with optional mobile base.



- A 250 kg barrel with matching mobile base is also available for even greater quantities of fire extinguishing powder.



## Continuous flow process for series service

If several fire extinguishers of the same type need to be serviced, the continuous flow process enables time-saving series service. Two fire extinguishers are processed at the same time: Whilst one fire extinguisher is being emptied with the suction pipe, a second fire extinguisher can be filled under the storage container at the same time.



## Filling/refilling

During filling/refilling, the fire extinguisher can be filled from various fire extinguishing powder packing drums on additional scales. The filling process of the fire extinguisher is then the same as previously described.

Powder suction machines with automatic powder dosing scales are also available with the PSM COMPACT W and PSM COMPACT A stationary filling installations.

## Overview of types.

# Powder Suction Machines PSM

		Fire extinguishers up to kg	Turbine suction capacity (L/min)	Reversing operation
Mobile PSM	MINI Basic	12	2050	mechanical
	JUNIOR	12	1800	electrical
	JUNIOR N	12	1800	electrical
	ECONOMIC	50	2035	electrical
	COMPACT 230 V	250	1960	electrical
	COMPACT 400 V	250	2120	electrical
	POWER 230 V	750	1960	electrical
	POWER 400 V	750	2120	electrical
	JUMBO	1000	1890 / 2265	electrical
	BIG	12000	2665	electrical
	PEA BIG BAG	1000	2120	electrical
Stationary PSM	PEA STATIONARY	250	2100	electrical
	COMPACT S	12	2120	electrical
	COMPACT W	12	2120	electrical
	COMPACT A	12	1400	electrical
	Special solutions	Some powder suction machines are available with petrol engine or air ejector. For export, electric motors are available with different nominal voltages and		





Electric motor		Transport height (mm)	Working height (mm)	Weight (kg)
230 V		885	1270	34
230 V		1175	1745	53
230 V		1000	1410	55
230 V		1340	1645	64
230 V		1340	1645	72
	400 V	1340	1645	78
230 V		1850	2160	81
	400 V	1850	2160	87
	2 x 400 V	1910	2410	210
	400 V	2000	2650	389
	400 V	2598	2598	206
Electric motor	Working height (mm)	Width (mm)	Depth (mm)	Weight (kg)
400 V	variable	variable	variable	58
400 V	2300	735	670	120
400 V	2020	1080	900	180
400 V	2100	1080	880	213

or as drive upon request.

nominal frequencies.



**Small. Powerful.  
Extremely flexible.**

## Rapid servicing with the PSM MINI Basic

### *Our lightweight*

If you are looking for a particularly light refilling installation, the PSM MINI Basic is your first choice. Weighing just barely 34 kg with a transport height of just under one meter, the PSM MINI Basic can be accommodated in small service vehicles as well.

- Big, roller-bearing mounted wheels
- For fire extinguishers with filling openings of 28-77 mm
- Compact dimensions, exceptionally portable

### *Mechanical reverser provides you with time advantage*

As the only machine in its class, the PSM MINI Basic has a mechanical reverser and an automatic non-return valve. And so even our smallest system supplies the advantage of being able to cleanly refill 1-12 kg fire extinguishers in a quick and safe manner.

With the 12 kg storage container you can service fire extinguishers with different powder types without an intermediate container. And the continuous flow process for fire extinguishers with the same powder type will save you much time.



- So small and yet so functional.  
Our mobile PSM MINI Basic.



- Reduces work steps and saves precious time.

### **Set SK 50 (surcharge)**

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



### **Suction pipes (surcharge)**

High-grade steel suction pipe from Ø 8 to  
Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**





- Will fit in even the smallest service vehicle.



- An evacuated fire extinguisher is placed underneath the filling hole. The fire extinguisher to be checked is emptied and the powder is filled directly into the empty fire extinguisher.

### Take along and service

The small weight and size are basic requirements for a truly flexible system.  
But also the wheels play an important role.  
With our 160 mm roller bearing mounted wheels you can easily move the PSM MINI Basic over obstacles or stair treads, letting you reach rooms that are difficult to access.

### Vehicle mount (surcharge)

Vehicle mount for standing transport

**Art. No. 186004**



### Additional storage tank, suction hose and PVC suction pipe (surcharge)

Additional storage tank for 50 kg fire extinguishing powder  
includes suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### Wheeled base for additional storage tank 50 kg (surcharge)

**Art. No. 186072**

Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).



### Technical Data PSM MINI Basic

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186000**

#### Electric motor:

230 V, 50 - 60 Hz, 1.2 kW, 18,000 rpm

**Suction capacity:** 2050 L/min

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Operating noise:** 93 dB(A)

**Capacity of storage container:** 12 kg

**Filters:** Stainless steel sieve and 10 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** mechanical

**Suction hose:** Ø 32 x 1400 mm

**Suction pipe:** PVC Ø 25 x 780 mm

**Transport wheels:** Ø 160 mm, roller bearing mounted

**Dimensions:** 885 mm transport height,

1270 mm max. working height, 500 mm width, 545 mm depth

**Weight:** 34 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54

**Empty quickly. Fill safely.  
Universal talent for mobile use.**

## **The PSM JUNIOR proves itself in individual service and in continuous operation**

### ***The model of success***

Our PSM JUNIOR is a singular success story. For more than 20 years this powder suction machine has been sold successfully all over the world. And for a very good reason. Its flexible expandability and extraordinary quality with clever detailed solutions make the PSM JUNIOR so unique.

- Electrical reversing operation
- High quality and long-life motor
- Includes 2 filling adapters for all commercially available fire extinguishers

### ***The heart of your service vehicle and always ready for use***

The most important things for our PSM JUNIOR are function and handling. Its transport height is excellently suited for all standard service vehicles, and specifically its ergonomics makes work easier - and faster. Thanks to the ergonomic working height of 370 mm you can quickly lift any fire extinguisher to your workplace, allowing you to reach your daily target that much faster. The infinitely variable height adjustment and lock and its smooth-running wheels are further characteristics which make the PSM JUNIOR one of the best machines in its class.

### ***Timer control (surcharge)***

Timer control with adjustable cut-off function for automatic filling and cleaning of the filters.

**Art. No. 186038**



### ***Set SK 50 (surcharge)***

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



### ***Suction pipes (surcharge)***

High-grade steel suction pipe from Ø 8 to  
Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**



- Powerful and effective.  
The PSM JUNIOR defines standards in the class of mobile powder suction machines.



- Optional additional storage tank for emptying and filling wheeled fire extinguishers as well.



### Quality in the details is decisive

Every detail of our PSM JUNIOR shows our quality assurance of Made in Germany.

From development to production. The powerful brushless motor is extraordinarily long-lived, exchangeable adapters will fit on every commercially available portable fire extinguisher, and the electric reversing operation with automatic non-return valve accelerates the servicing process enormously.

### Vehicle fixture (surcharge)

Vehicle fixture for standing transport

**Art. No. 186004**



### Additional storage tank, suction hose and PVC suction pipe (surcharge)

Additional storage tank for 50 kg fire extinguishing powder

Includes suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### Wheeled base for additional storage tank 50 kg (surcharge)

**Art. No. 186072**

Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).



### Technical Data PSM JUNIOR

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186001**

#### Electric motor:

230 V, 50 Hz, 1.1 kW, 2840 rpm

**Suction capacity:** 1800 L/min

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Capacity of storage container:** 12 kg

**Filters:** Stainless steel sieve and 10 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** electrical, with automatic non-return valve

**Transport wheels:** Ø 160 mm, roller bearing mounted

**Suction hose:** Ø 32 x 1400 mm

**Suction pipe:** PVC Ø 25 x 780 mm

**Dimensions:** 1175 mm transport height,

1745 mm max. working height, 515 mm width, 500 mm depth

**Weight:** 53 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54

## Mobile. More mobile. JUNIOR N

### The powder suction machine.

## Service even in the vehicle with the PSM JUNIOR N

### Particularly easy to transport

Just like its big sister, the PSM JUNIOR, our JUNIOR N model is a multi-talent for individual service as well as the continuous flow process. The term 'mobile' is implemented here even more clearly. The 'N' standing for low construction is programmatic and speaks for itself.

- 1000 mm transport height
- 55 kg total weight
- For fire extinguishers from 2-12 kg
- Includes 2 filling adapters for filling holes from 28-77 mm

### Maximum flexibility for faster service

To keep our PSM JUNIOR N as small as possible whilst observing our high quality requirements, our engineers summarily installed the brushless motor at the rear of the system.

This gave us an enormously low height with advantageous centre of gravity during transportation at the same time. Which lets you install the JUNIOR N in your service vehicle. Another convincing point is the size of the 200 mm roller bearing mounted wheels as well as the level adjustment. That makes the JUNIOR N even more mobile.

### Timer control (surcharge)

Timer control with adjustable cut-off function for automatic filling and cleaning of the filters.

**Art. No. 186038**



- Especially compact and with mobile design. The low construction PSM JUNIOR N.

### Set SK 50 (surcharge)

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



### Suction pipes (surcharge)

High-grade steel suction pipes from Ø 8 to  
Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**



- Two extinguishers of the same type can be processed in one operational process.

- With optional additional storage tank for emptying and filling wheeled fire extinguishers as well.



### Rapid servicing

To enable you to service more fire extinguishers at less consumed time, our PSM JUNIOR N is equipped with an electrical reversing operation and automatic non-return valve. The optional timer control module lets you accelerate your work cycle even further. And you have the familiar advantages of simultaneously processing same powder type fire extinguishers and the optional additional storage tank for servicing big fire extinguishers.

### Vehicle fixture (surcharge)

Vehicle fixture for standing transport

**Art. No. 186003**



### Additional storage tank, suction hose and PVC suction pipe (surcharge)

Additional storage tank for 50 kg fire extinguishing powder includes suction hose Ø 32 x 1400 mm, PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### Wheeled base for additional storage tank 50 kg (surcharge)

**Art. No. 186072**

Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).



### Technical Data PSM JUNIOR N

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186002**

#### Electric motor:

230 V, 50 Hz, 1.1 kW, 2870 rpm

**Suction capacity:** 1800 L/min

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Capacity of storage container:** 12 kg

**Filters:** Stainless steel sieve and 10 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** electrical, with automatic non-return valve

**Transport wheels:** Ø 200 mm, roller bearing mounted, level compensation

**Suction hose:** Ø 32 x 1400 mm

**Suction pipe:** PVC Ø 25 x 780 mm

**Dimensions:** 1000 mm transport height, 1410 mm max. working height 440 mm width, 690 mm depth

**Weight:** 55 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54

**Powder suction machine with power for one-man operation.**

# PSM ECONOMIC

## Continuous high suction capacity

### *For the large service scope*

With the PSM ECONOMIC you receive a machine with an extraordinary price-performance ratio. Especially if you have to process and test many fire extinguishers every day, the PSM ECONOMIC is the right choice.

- With additional storage tank service for fire extinguishers up to 50 kg
- Continuously adjustable height
- Electric reversing operation with automatic non-return valve

### *Make your service easier, better and faster*

From the 6 kg fire extinguisher to the wheeled 50 kg fire extinguisher - the PSM ECONOMIC with the optional additional storage tank provides a comprehensive and fast service. The more your daily scope of work grows, the more you will learn to appreciate the ergonomic details of the PSM ECONOMIC.

Big, roller bearing mounted transport wheels and a gas pressure spring for easy height adjustment accelerate your work cycle.

### *Timer control (surcharge)*

Timer control with adjustable cut-off function for automatic filling and cleaning of the filters.



**Art. No. 186038**



• Professional and powerful.  
The PSM ECONOMIC.

### *Set SK 50 (surcharge)*

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



### *Suction pipes (surcharge)*

High-grade steel suction pipe from Ø 8 to  
Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**



- Work faster thanks to simultaneously processing fire extinguishers of the same type.

- Emptying a wheeled 50 kg fire extinguisher with the PSM ECONOMIC.

- The extinguisher is refilled using the optional SK 50 set.

### ***Convincing technology. Convincing operating sequence***

The electric reversing operation with automatic non-return valve cleans the filters and fills the fire extinguisher even more quickly. The 12 kg storage container lets you process several fire extinguisher of various types. In the continuous flow process you fill and empty two of the same type of extinguishers, and with the optional 50 kg additional storage tank you can also check wheeled fire extinguishers.

### ***Vehicle fixture (surcharge)***

Vehicle fixture for standing transport

**Art. No. 186003**



### ***Additional storage tank, suction hose and PVC suction pipe (surcharge)***

Additional storage tank for 50 kg fire extinguishing powder includes suction hose Ø 32 x 1400 mm, PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### ***Wheeled base for additional storage tank 50 kg (surcharge)***

**Art. No. 186072**

Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).



### ***Technical Data PSM ECONOMIC*** (EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186011**

#### **Electric motor:**

230 V, 50 Hz, 1.1 kW, 2870 rpm

**Suction capacity:** 2035 L/min

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Capacity of storage container:** 12 kg

**Filters:** Stainless steel sieve and 19 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** electrical, with automatic non-return valve

**Transport wheels:** Ø 200 mm, roller bearing mounted, level compensation

**Suction hose, earthed:** Ø 32 x 1400 mm

**Suction pipes:** VA Ø 25 x 800 mm and Ø 32 x 700 mm

**Dimensions:** 1340 mm transport height,

1645 mm max. working height, 440 mm width, 780 mm depth

**Weight:** 64 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54



**Flexible powder suction machine.  
Robust and with high performance.**

## **The PSM COMPACT** **A dynamic all-rounder**

### ***Powerful selection of motors***

The PSM COMPACT is characterised by its selection of motors: From the 230V model to an enormous 400V triple phase assembly and on to individually requested fitted motors, such as for deployment areas having no power, or where electrically powered motors may not be used for safety reasons.

- For fire extinguishers from 6 kg to 50 kg with additional storage tank
- Work ergonomically due to automatic reversing operation
- Up to over 2100 litres suction capacity per minute

### ***A special machine for that special service***

If you are looking for a powder suction machine that can perfectly serve all your service points ranging from the 6 kg fire extinguisher up to the wheeled 50 kg fire extinguisher, then you have found the right unit with our PSM COMPACT.

As with all of our machines, we focused on providing particularly easy and fast work with this PSM as well. So that you can achieve more with less expenditure.

### ***Timer control (surcharge)***

Timer control with adjustable cut-off function for automatic filling and cleaning of the filters.



**Art. No. 186040 (230 V motor)**

**Art. No. 186039 (400 V motor)**



- Compact design and strong suction capacity.

### ***Set SK 50 (surcharge)***

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



### ***Suction pipes (surcharge)***

High-grade steel suction pipe from Ø 8 to  
Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**



- Work faster thanks to simultaneously processing fire extinguishers of the same type.

- Emptying a wheeled 50 kg fire extinguisher with the PSM COMPACT.

- The extinguisher is refilled using the optional SK 50 set.

### Excellent handling Powerful performance

With the completely newly developed and enlarged hopper valve flap and the strong motors the PSM COMPACT will let you process even more fire extinguishers within the same amount of time. Despite its dead weight of just 80 kg, the 200 mm roller bearing mounted wheels make the PSM COMPACT extremely mobile. The gas pressure spring for height adjustment additionally simplifies your work.

### Vehicle fixture (surcharge)

Vehicle fixture for standing transport

**Art. No. 186003**



### Additional storage tank, suction hose and PVC suction pipe (surcharge)

Additional storage tank for 50 kg fire extinguishing powder

Includes suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### Wheeled base for additional storage tank 50 kg (surcharge)

**Art. No. 186072**



Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).

### Technical Data PSM COMPACT (EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186021 (230 V motor)**

**Art. No. 186022 (400 V motor)**

#### Electric motor:

230 V, 50 Hz, 0.95 kW, 2830 rpm,

**Suction capacity:** 1960 L/min, alternatively:

400 V, 50 Hz, 1.8 kW, 2900 rpm,

**Suction capacity:** 2120 L/min

Special voltages and other frequencies upon request

5 m cable feed line 230 V: H07RN-F 3 G 1.5 mm<sup>2</sup>, 400 V: H07RN-F 5 G

1.5 mm<sup>2</sup>, oil and acid resistant

**Capacity of storage container:** 12 kg

**Filters:** Stainless steel sieve and 19 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** electrical, with automatic non-return valve

**Transport wheels:** Ø 200 mm, roller bearing mounted, level compensation

**Earthed suction hose:** Ø 32 x 1400 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm

**Dimensions:** 1340 mm transport height, 1645 mm max. working height, 465 mm width, 815 mm depth

**Weight:** 72 kg (230 V electric motor), 78 kg (400 V electric motor)

**Colour:** Grey, hammer finish

**IP rate:** IP54

**Outstandingly powerful.**  
**The variable powder suction machine.**

## Mobile & stationary: PSM POWER shows strength

### Full performance

Performance is what counts for the professionals in workshops or the professional and factory fire brigades. And it is for them that we developed the PSM POWER. Choose between two excellent industrial motors with 230 V, 0.95 kW and even 400 V, 1.8 kW. And if you have extra special individual requirements we will also install petrol engines or others.

- Ideal for all extinguishers from 6 to 250 kg
- Transferable filter head for wheeled fire extinguishers
- First-class work ergonomics

### You choose the area of application, the PSM POWER will adapt itself

Despite its extraordinary efficiency, we deliberately gave the PSM POWER a flexible design. The large 200 mm transport wheels and its well-balanced centre of gravity makes it very easy to move the machine. If you remove the filter head from the 12 kg storage container, you can attach it directly to our accessory containers as well as to wheeled fire extinguishers.

### Timer control (surcharge)

Timer control with adjustable cut-off function for automatic filling and cleaning of the filters.



**Art. No. 186040 (230 V motor)**

**Art. No. 186039 (400 V motor)**

### Wheeled base (surcharge)

For 250 kg barrel

**Art. No. 187214**



- Quick action coupling with ball valve for direct connection of filter head with powder containers or fire extinguishers.

- Perfect handling and extraordinary suction capacity. The PSM Power for professional service.

### Accessories (surcharge)

Original cap nuts for various 50 kg or 250 kg fire extinguishers for fastening the filter head (specify make and type)

**Art. No. 186037**

### Suction pipes (surcharge)

High-grade steel suction pipe from Ø 8 to Ø 32 mm  
Outside diameter

**Art. No. 186005 (per pipe)**

### Barrel (surcharge)

For 250 kg fire extinguishing powder

**Art. No. 186026**

Different scales for controlling the filling quantity (upon request).





- Rapid emptying with additional storage tank and attached POWER filter head.

- Direct filling of wheeled fire extinguisher via filter head.



### Ergonomic details for best working results

A sensitive height adjustment with two gas pressure springs is just as standard for our PSM as is the level adjustment and quick action coupling for the removable filter head. For electric reversing operation we additionally offer our timer control module. Using this and the special additional storage tanks will save you a great deal of work steps, meaning valuable time.

### Vehicle fixture (surcharge)

Vehicle fixture for standing transport

**Art. No. 186003**



FES Fire extinguisher emptying system (upon request).

### Additional storage tank, wheeled base, suction hose extension (surcharge)

Additional storage tank "POWER/JUMBO" for 50 kg fire extinguishing powder

**Art. No. 186019**

Wheeled base for 50 kg additional storage tank

**Art. No. 186072**

Powder suction hose extension  
Ø 32 x 1400 mm with connection piece

**Art. No. 186035**

Air hose extension Ø 51 x 1500 mm  
with screw coupling

**Art. No. 186036**



### Technical Data PSM POWER (EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186031 (230 V motor)**

**Art. No. 186032 (400 V motor)**

#### Electric motor:

230 V, 50 Hz, 0.95 kW, 2830 rpm,

**Suction capacity:** 1960 L/min, alternatively:

400 V, 50 Hz, 1.8 kW, 2900 rpm,

**Suction capacity:** 2120 L/min

Special voltages and other frequencies upon request

5 m cable feed line 230 V: H07RN-F 3 G 1.5 mm<sup>2</sup>, 400 V: H07RN-F 5 G

1.5 mm<sup>2</sup>, oil and acid resistant



**Capacity of storage container:** 12 kg,  
with additional storage tank: 50 or 250 kg

**Filters:** Stainless steel sieve and 19 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** electrical, with automatic non-return valve

**Transport wheels:** Ø 200 mm, roller bearing mounted,  
level compensation

**Earthed suction hose:** Ø 32 x 1400 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 1150 mm

**Dimensions:** 1850 mm transport height,

2160 mm max. working height, 510 mm width, 850 mm depth

**Weight:** 81 kg (230 V electric motor), 87 kg (400V electric motor)

**Colour:** Grey, hammer finish

**IP rate:** IP54

**Our most effective PSM.  
For extraordinary requirements.**

## **The PSM JUMBO. Tremendous performance, gigantic container**

### ***Powder suction machine, newly defined***

The PSM JUMBO combines everything a powder suction machine is expected to do today. It has a gigantic force due to its two motors. Thanks to its comprehensive range of accessories, it is completely flexible in use. And with its four large smooth-rolling wheels it is mobile and can be moved to its field of use.

- Bi-motor power
- 50 kg storage container
- For stationary and mobile use

### ***All fire extinguishers. All sizes***

With the PSM JUMBO you can empty and fill everything from 6 kg fire extinguishers to wheeled fire extinguishers and the fire extinguishing powder tanks in vehicles. And all of this quite easily. By just one person. Thanks to exchangeable adapters and electrical height adjustment, portable and wheeled fire extinguishers up to 50 kg can be processed immediately without conversions. The additional filter head ultimately makes the PSM JUMBO an all-round talent.

### ***Remote control (surcharge)***



- Remote control for wireless control of reversing process (upon request).

**Art. No. 186096**

### ***Accessories (surcharge)***

High-grade steel suction pipe from Ø 8 to Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**



- The PSM JUMBO: Gigantic suction capacity with enormous storage container.

### ***Filter head, with suction hose (surcharge)***

including suction hose Ø 32 x 1400 mm with earthing and VA suction pipe Ø 32 x 1150 mm

**Art. No. 186069**

### ***Original cap nuts (surcharge)***

for fastening the filter head to P 50 or P 250 (please specify make and type)

**Art. No. 186037**

FES Fire extinguisher emptying system (upon request).

Different scales for controlling the filling quantity (upon request).



- Supplied shelving for fire extinguishers from 6 to 12 kg.

- Direct emptying and filling of a 50 kg fire extinguisher.

- Service for gigantic powder quantities thanks to high quality accessories.



### ***So big and yet so clever in the details***

As with all of our machines we spent much time thinking about the PSM JUMBO and your operating sequence: We developed our own silencer to reduce the noise generation from both motors.

Two 200 mm roller bearing mounted wheels and two lock-type 160 mm steering wheels make transportation child's play, the earthed suction hose ensures safety and the optional wireless remote control regulates the automatic reversing process.

### ***Wheeled base (surcharge)***

For 250 kg barrel

**Art. No. 187214**



### ***Powder suction hose, air hose extension (surcharge)***

Powder suction hose Ø 32 x 5000 mm with earthing

**Art. No. 186067**

Air hose extension Ø 51 x 3500 mm with screw coupling

**Art. No. 186068**

### ***Barrel (surcharge)***

For 250 kg fire extinguishing powder

**Art. No. 186026**



### ***Technical Data PSM JUMBO*** (EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186095**

#### **2 electric motors:**

400 V, 50 Hz, 1.8 kW, 2900 rpm

**Suction capacity:** 2265 L/min

(Suction capacity with 1 motor: 1890 L/min)

Special voltages and other frequencies upon request

5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Capacity of storage container:** 50 kg

**Filters:** Stainless steel sieve and 19 filter cartridges



**Filling hole of fire extinguishers:** 28 - 150 mm

**Reversing process:** electrical, with automatic non-return valve

**Transport wheels:** Ø 200 mm, roller bearing mounted

**Steering wheels:** Ø 160 mm, lock-type

**Earthed suction hose:** Ø 32 x 1400 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm and Ø 32 x 1150 mm

**Dimensions:** 1910 mm transport height,

2410 mm max. working height, 780 mm width, 1340 mm depth

**Weight:** 210 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54



**Super suction capacity  
through innovative drive.**

## **Power suction machine PSM BIG**

### ***Quickly moving large quantities of powder***

The PSM BIG has been designed for service work at stationary extinguishing systems or dry powder tank fire fighting vehicles such as are used at airports or for factory fire brigades. An innovative drive system enables extraordinarily high suction capacities.

- Dust-free emptying and refilling of large powder containers
- Highly efficient handling of 50 kg fire extinguishers
- Filling of Big Bags up to 1000 kg, e.g. for expired fire extinguishing powder recycling

The electrically driven rotary slide vacuum pump is highly efficient. The achievable suction capacity is nearly 1 bar, but has been limited to 0.7 bar by the factory. In order to use the high work performance of up to 50 kg / min, the discharge has been generously dimensioned on the one hand, and on the other hand 2 separate filter heads have been attached to the storage container with 100 kg capacity. All filters are cleaned by the electrical reversing operation.

A rack and pinion drive adjusts the height of the PSM BIG. To easily transport the machine it has a mobile base with 2 fixed rollers and 2 steering rollers with brakes. The base also includes holding fixtures for the forks of lift trucks. The functions of the PSM BIG can be controlled remotely via cable remote control. Included in the scope of delivery is a large-scale aluminium box for accessory parts. Also, 2 earthed suction hoses and 3 suction pipes are included.



- Emptying / refilling of fire truck extinguishing powder tank.



### ***Accessories (surcharge)***

Filling funnel for PSM BIG, for filling openings from 90 mm to 240 mm, with suction hose Ø 38 x 6000 mm

**Art. No. 187141**



### ***Barrel (surcharge)***

For 250 kg fire extinguishing powder

**Art. No. 186026**



### ***Wheeled base (surcharge)***

For 250 kg barrel

**Art. No. 187214**





- Emptying a P 250 fire extinguisher into an 250 kg additional storage tank.



- Refilling the P 250 fire extinguisher after the container inspection.



- Transferring powder from one fire extinguisher into another.



- Disposal of expired fire extinguishing powder into a Big Bag.

### Technical Data PSM BIG

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186062**



**Rotary slide vacuum pump:** 400 V, 50 Hz, 4 kW, 1450 rpm, Vacuum max. / recommended -0.95 bar / -0.5 bar, flow rate 160 m<sup>3</sup>/h, weight: 160 kg  
 5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant  
**Electrical reversing motor:** 230 V, 50 Hz, 0,041 A  
**Vibrating motor:**  
 230 V, 50 Hz, 3000 rpm, operating time 100 %  
**Electric remote control:** Cable length 5 m

**Powder container:** Capacity approx. 100 kg  
**Fillters:** Stainless steel sieve and 2 x 19 filter cartridges  
**Filling hole of fire extinguishers:** 80 - 110 mm  
**Transport wheels:** 2 roller bearing mounted fixed rollers, Ø 200 mm, 2 braked steering rollers, Ø 160 mm  
**Earthed suction hose:** Ø 38 x 2500 mm and Ø 38 x 5000 mm,  
**Suction pipes:** VA Ø 38 x 1200 mm, Ø 32 x 1100 mm and Ø 25 x 760 mm  
**Dimensions (transverse pump):** 1215 x 1600 x 2000 / 2650 mm  
**Operating noise:** approx. 80 dB(A)  
**Weight:** 389 kg  
**Colour:** Silver-grey, hammer finish  
**IP rate:** IP54



**Unproblematic and dust-free disposal  
of expired fire extinguishing powder.**

## **Powder recycling systems**

### **PEA BIG BAG, PEA STATIONARY**

#### ***Powder recycling system PEA BIG BAG***

- Dust-free fire extinguishing powder recycling from fire extinguishers
- Filter head with large storage container for efficient operation
- System for filling Big Bags up to 1000 kg

#### ***Powder recycling system PEA STATIONARY***

- Space-saving, stationary recycling system
- Direct disposal into permanent storage-capable drums
- Also for emptying and filling of wheeled fire extinguishers

#### ***Powder recycling system PEA BIG BAG***

The PEA BIG BAG powder recycling system transfers expired fire extinguishing powder dust-free from fire extinguishers into a Big Bag which is then disposed of properly.

The system has a base frame with 2 fixed rollers and 2 lock-type steering rollers. A Big Bag (not included) is fastened via lashing straps to the disposal connection and is suspended by its 4 loops to the base frame for stabilisation.

The storage container with a 100 kg capacity has a removable filter head and two inspection glasses for monitoring the filling level. The great suction capacity of the side channel compressor ensures a rapid working method. The earthed 2.5 m long suction hose is supplied



- With the PEA BIG BAG the expired fire extinguishing powder can be removed professionally and cleanly from all fire extinguishers. Of particular advantage is the mobility of the system so that the local conditions can always be taken into account despite the large capacity. (The picture shows optional accessories).

with three high-grade steel suction pipes. The outlet of the storage container can be closed by manual flap.

The PEA BIG BAG is optionally available with a pneumatically operated flap (requires compressed air of 4-6 bar).

#### ***Optional (surcharge)***

FES STATIONARY Fire extinguisher emptying system

**Art. No. 186735**



#### ***Technical Data PEA BIG BAG***

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



with mechanical shut-off flap

**Art. No. 186093**

with pneumatic shut-off flap

**Art. No. 186092**

**Electric motor:** 400 V, 50 Hz, 1.8 kW, 2900 rpm

**Suction capacity:** 2120 L/min

Special voltages and other frequencies upon request

5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Capacity of storage container:** 100 kg

**Filters:** Stainless steel sieve and 19 filter cartridges





- The PEA BIG BAG can also dispose of the powder from bigger wheeled fire extinguishers.



- The PEA STATIONARY system is used for the emptying and filling of P50 fire extinguishers and also even bigger fire extinguishers.

## Powder recycling system PEA STATIONARY

The PEA STATIONARY powder recycling system is suitable for quickly evacuating the expired fire extinguishing powder from all fire extinguishers into permanent storage-capable containers.

The stationary system is installed in the workshop. The sound-insulated side channel compressor is fastened to a panel for wall attachment. Underneath you will find the mains switch with motor protection switch.

The filter head has been suspended from a balancer for easy handling, which is also attached to the wall. The filter head is placed together with a quick action coupling on the barrel (accessory) or on the fire extinguisher to be filled.

## Barrel (surcharge)

For 250 kg fire extinguishing powder

**Art. No. 186026**

## Wheeled base (surcharge)

For 250 kg barrel

**Art. No. 187214**



**Reversing process:** electrical with automatic non-return valve

**Transport wheels:** Ø 200 mm, roller bearing mounted, 2 lock-type steering wheels

**Earthed suction hose:** Ø 32 x 2500 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm and Ø 32 x 1150 mm

**Dimensions:** 2598 mm height, 1600 mm width, 1600 mm depth

**Weight:** 206 kg

**Colour:** Silver-grey, hammer finish

**IP rate:** IP54

## Technical Data PEA STATIONARY (EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186091**

**Electric motor:** 400 V, 50 Hz, 1.8 kW, 2900 rpm

**Suction capacity:** 2120 L/min

Special voltages and other frequencies upon request 5 m cable feed line H07RN-F 5 G 1.5 mm², oil and acid resistant

**Filters:** Stainless steel sieve and 19 filter cartridges

**Reversing process:** electrical with automatic non-return valve



**Earthed suction hose:** Ø 32 x 1400 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm and Ø 32 x 1150

**Dimensions:** depends on fastening

**Weight:** 58 kg

**Colour:** Silver-grey, hammer finish

**IP rate:** IP54

Reliably process large numbers  
of fire extinguishers.

## Stationary service with the PSM COMPACT S

### *Powerful and ergonomic*

Derived from our successful model PSM COMPACT, the stationary "S" version shows its strengths when you need to process many fire extinguishers in the shortest amount of time. We focussed on fast and easy handling during the development. For all commercially available fire extinguishers from 2 to 12 kg.

- Time-controlled, automatic reversing operation
- Electrical hopper height adjustment
- Low operating noise level

### *Perfect workshop service with less time expenditure*

Now you can refill a variety of fire extinguishers even more quickly and easily. We not only equipped the PSM COMPACT S with a particularly high quality brushless electric motor, but we also damped the sound accordingly. The housing around the motor effectively shields your workshop from noise and at the same is also the working platform. Thanks to the vibration damping bases, the machine works completely vibration-free.

### *Timer control and height adjustment*



- Timer control of reversing operation and electrical hopper height adjustment as standard.

### *Filter head, with suction hose (surcharge)*

including earthed suction hose  
Ø 32 x 1400 mm and VA suction  
pipe Ø 32 x 1150 mm

**Art. No. 186069**



- Safe. Quiet. Fast.  
One unit for fast service.

### *Accessories (surcharge)*

Original cap nut for the optional filter head for fastening to the P 50 or P 250 (please specify make and type)

**Art. No. 186037**

Wall bracket with balancer  
for filter head

**Art. No. 186071**



### *Suction pipes (surcharge)*

High-grade steel suction pipe from  
Ø 8 to Ø 32 mm outside diameter

**Art. No 186005 (per pipe)**

### *Set SK 50 (surcharge)*

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



- Work ergonomically. Achieve more. With the optional FES fire extinguisher emptying system.

- Service for wheeled extinguishers via additional filter head and storage barrel.

- Transferring the filter head and refilling the extinguisher.



### Extensive range of accessories for all types of fire extinguishers

Our PSM COMPACT S will become even better when you adapt it to your needs with optional accessory parts. For example, the FES fire extinguisher emptying system lets you work even faster and more conveniently, whilst the additional filter head lets you also check wheeled fire extinguishers up to 250 kg. Together with the equally optional wall bracket with balancer you can provide the perfect workshop service.

#### Barrel (surcharge)

For 250 kg fire extinguishing powder **Art. No. 186026**

#### Wheeled base (surcharge)

For 250 kg barrel **Art. No. 187214**

### Additional storage tank, suction hose and PVC suction pipe (surcharge)

Additional storage tank for 50 kg fire extinguishing powder includes suction hose Ø 32 x 1400 mm, PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### Wheeled base for additional storage tank 50 kg (surcharge)

**Art. No. 186072**

Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).



### Technical Data PSM COMPACT S (EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186052**

#### Electric motor:

400 V, 50 Hz, 1.8 kW, 2900 rpm

#### Suction capacity: 2120 L/min

Special voltages and other frequencies upon request

5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

#### Capacity of storage container: 12 kg,

with additional storage tank: 50 or 250 kg

#### Filters: Stainless steel sieve and 19 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Reversing process:** electrical, with timer control and automatic non-return valve

**Earthed suction hose:** Ø 32 x 2500 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm

**Dimensions:** 2000 mm transport height, 2300 mm max. working height, 735 mm width, 670 mm depth

**Weight:** 120 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54



The professional machine.  
For inspection service workshops.

## Maximum service convenience with the PSM COMPACT W

### Top rate convenience

We aligned our PSM COMPACT W completely to the requirements of workshops with a large service volume. Without any exertion you can actuate the electropneumatic height adjustment and the pneumatically controlled container valve. Together with the integrated scales this will make your work even faster.

- Particularly high and continuous performance
- Integrated programmable scales
- For fire extinguishers from 2 to 12 kg

### Top high-tech for the automatic filling process

Once you have easily locked the fire extinguisher in the machine thanks to the pneumatic aids, your work is then supported by the electronic control.

You can assign three different values to the memory units of the scales and retrieve them at any time. Once a filling weight is reached, the PSM COMPACT W automatically activates the reversing process. Once completed, the machine switches off automatically.



- Integrated, programmable scales with filling process control.



- The power station with electronic scales and pneumatic aids.

### Set SK 50 (surcharge)

For filling 50 kg fire extinguishers

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**



### Suction pipes (surcharge)

High-grade steel suction pipes from  
Ø 8 to Ø 32 mm outside diameter

**Art. No. 186005 (per pipe)**

### Barrel (surcharge)

For 250 kg fire extinguishing powder

**Art. No. 186026**





- Emptying / refilling of portable fire extinguishers, refilling from powder packages or from additional storage tank.

### **Experience the perfect work flow**

Whilst the PSM COMPACT C is automatically reversing, you can process additional fire extinguishers. Whether opening or closing - there are always manual tasks that need to be done during an operating sequence. Our stationary system enables you to process considerably more fire extinguishers in the same amount of time.

You can be sure you will always provide the best quality even for a really great number of daily units.

### **Wheeled base (surcharge)**

For 250 kg barrel

**Art. No. 187214**



### **Additional storage tank, suction hose and PVC suction pipe (surcharge)**

Additional storage tank for 50 kg fire extinguishing powder

Includes suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

### **Wheeled base for additional storage tank 50 kg (surcharge)**

**Art. No. 186072**

Various scales for controlling the filling quantity (upon request).

FES Fire extinguisher emptying system (upon request).



### **Technical Data PSM COMPACT W** (EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186060**

#### **Electric motor:**

400 V, 50 Hz, 1.8 kW, 2900 rpm

#### **Suction capacity:** 2120 L/min

5 m cable feed line H07RN-F 5 G 1.5 mm², oil and acid resistant

Compressed air connection: 8 bar

Capacity of storage container: 12 kg

Filters: Stainless steel sieve and 19 filter cartridges

Filling hole of fire extinguishers: 28 - 77 mm

Digital scales with 20 g division

**Automatic reversing process:** electrical, with automatic non-return valve

**Earthed suction hose:** Ø 32 x 2500 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm

**Dimensions:** 2020 mm height, 1080 mm width, 900 mm depth

**Weight:** 180 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54

## Fire extinguishing powder filling system for series operation.

# Fully automatic filling with the PSM COMPACT A

### *Programmed success*

With its PLC control, electronic scales and professional workshop accessories, our automatic model PSM COMPACT A is the ideal filling machine when you need to fill enormous quantities of fire extinguishers in batches. A simple touch of the button is enough and the control unit will take care of the entire filling process.

- Effective and very fast operating sequence
- Complete automation
- For all fire extinguishers from 2 to 12 kg



- Automatic fire extinguishing powder filling system with stored program control.



- Operating panel with integrated digital scales and 3 freely selectable memory units for the filling weight.

### *Extensive range of accessories for batch filling*

The PSM COMPACT A adapts to your workshop process. Connect the machine to our BIG BAG emptying station or the silo for up to 300 kg fire extinguishing powder and start your batch filling. Our accessories allow you to work extremely safely, supplying fire extinguishing powder to your PSM with absolute reliability at any time. The combination of PSM and containers is characterised by an ergonomic operating sequence and exceptionally low investment costs. A combination which will accelerate your operation effectively.

### *Optional additional devices (surcharge)*

Big Bag emptying station

**Art. No. 186058**

Lifting equipment for Big Bag

**Art. No. 186059**

Silo for 300 kg fire extinguishing powder

**Art. No. 186065**

Storage barrel for

250 kg fire extinguishing powder

**Art. No. 186066**





• **Art. No. 186066**

Mobile storage barrel for interim storage of 250 kg fire extinguishing powder. Connection to the PSM via 32 mm hose connector, with additional aeration and compressed air connection for cleaning.



• **Art. No. 186065**

Silo with filter head for storing 300 kg fire extinguishing powder. Filling via separate suction line. Filling level inspection window for easy monitoring.



• **Art. No. 186058**

BIG BAG emptying station with safety support frame. Equipped with manual powder valve, additional air supply with non-return valve and lockable compressed air connection for cleaning.

## ***Simply automatically. The functions of the PSM COMPACT A***

Once the empty fire extinguisher has been pressed up precisely against the filling hole thanks to the electro-pneumatic height adjustment, pressing the tare key of the scales and the start key of the control unit is enough to begin filling. The reversing process begins as soon as the programmed filling weight is reached. Finally, all valves will close and you can release the accurately filled extinguisher at the touch of a button and remove it.

## ***Special solutions for professional operating methods***

With the stationary powder suction machine PSM COMPACT A can realise application-oriented service systems for fire extinguishers can be set up. Professional solutions



can thus be tailored to customer requirements. Processing large numbers of units in short amounts of time means a considerable streamlining effect in the service workshop.

## ***Technical Data PSM COMPACT A*** (EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186056**

**Electric motor:**

400 V, 50 Hz, 1.5 kW, 1400 rpm

**Suction capacity:** 1400 L/min

5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Compressed air connection:** 8 bar

**Capacity of storage container:** 12 kg

**Filters:** Stainless steel sieve and 19 filter cartridges

**Filling hole of fire extinguishers:** 28 - 77 mm

**Digital scales** with 20 g division

**Automatic reversing process:** electrical with automatic pneumatically actuated valves

**Earthed suction hose:** Ø 32 x 2500 mm

**Suction pipes:** VA Ø 25 x 800 mm, Ø 32 x 700 mm

**Dimensions:** 2100 mm height, 1080 mm width, 880 mm depth

**Weight:** 213 kg

**Colour:** Grey, hammer finish

**IP rate:** IP54

## Fire extinguisher servicing in a van.

# MFS mobile fire extin- guisher servicing unit

### All in one

The Mobile Fire Extinguishing Servicing unit MFS combines all of the machines and devices required for the inspection and maintenance of portable powder fire extinguishers in one compact rear module for commercially available vans.

- Basic module with Euro pallet dimensions, for loading and unloading by forklift
- Drawers with divider set, range of hooks and plastic boxes, for tools and spare parts
- Turnable clamping device DSV (extendible)

- Powder suction machine PSM JUNIOR N (extendible, with lowerable set-up table)
- Fire extinguisher emptying system FES
- Nitrogen filling machine
- Special compressor (20 bar)

Optional additional components enable the necessary check weighing, nitrogen supply, and the inspection of mobile fire extinguishers up to 50 kg. Additional functions (e.g. inspection of fire extinguisher hoses) can be realised upon request.



- Mobile fire extinguisher servicing unit MFS ready for operation in van.



- Mobile fire extinguisher unit MFS with accessories.

### Accessories (surcharge)

Scales Digi 5000 g,  
Digit increment 1 g

**Art. No. 186910**



Floor scales 30 kg,  
Digit increment 10 g

**Art. No. 186903**



Pressure reducer nitrogen  
0-20 bar

**Art. No. 186801**



Nitrogen cylinder (steel),  
filled with 10 L nitrogen,  
200 bar

**Art. No. 187072**



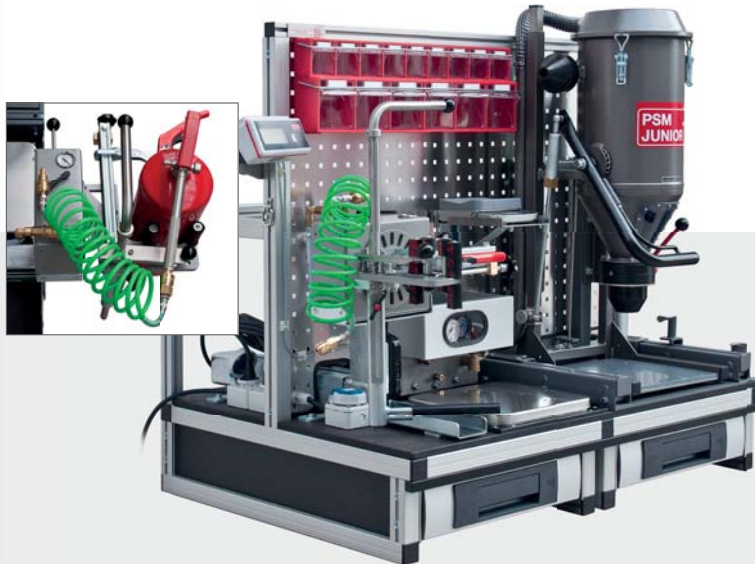
Set SK 50

including suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm,  
lashing strap 3 m

**Art. No. 186008**







- Integrated nitrogen filling machine for pressurising stored pressure fire extinguishers.



- Fire extinguishing powder transfer with the integrated emptying system FES.

### Accessories (surcharge)

Additional storage tank for 50 kg fire extinguishing powder

includes suction hose Ø 32 x 1400 mm,  
PVC suction pipe Ø 32 x 1150 mm

**Art. No. 186009**

Wheeled base for additional storage  
tank 50 kg

**Art. No. 186072**

High-grade steel suction pipes from  
Ø 8 to Ø 32 mm outside diameter  
(not pictured)

**Art. No. 186005 (per pipe)**



### Well thought-out down to the details

- Two drawers with divider sets for tools and spare parts.



- Lowerable set-up table for the filling of fire extinguishers.

### Technical data of mobile fire extinguisher service unit MFS

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186030**

**Equipment:** Basic module of anodized aluminium profile system with two drawers 520 x 780 mm, with divider sets  
Range of hooks and plastic boxes  
Powder suction machine PSM Junior N, extendible, with lowerable set-up table  
Integrated nitrogen filling machine  
Extendible, turnable clamping device with FES fire extinguisher emptying system



Special compressor, operating pressure 20 bar, with micro filter

#### Electrical connected loads:

PSM JUNIOR N: 230 V, 50 Hz, 1.1 kW

Compressor: 230 V, 50 Hz, 1 kW

#### Dimensions:

Height [mm]: 1100

Width [mm]: 1170 (without scales display)

Depth [mm]: 930

**Weight [kg]:** 180

**Colour:** Grey, hammer finish

**IP rate:** IP54



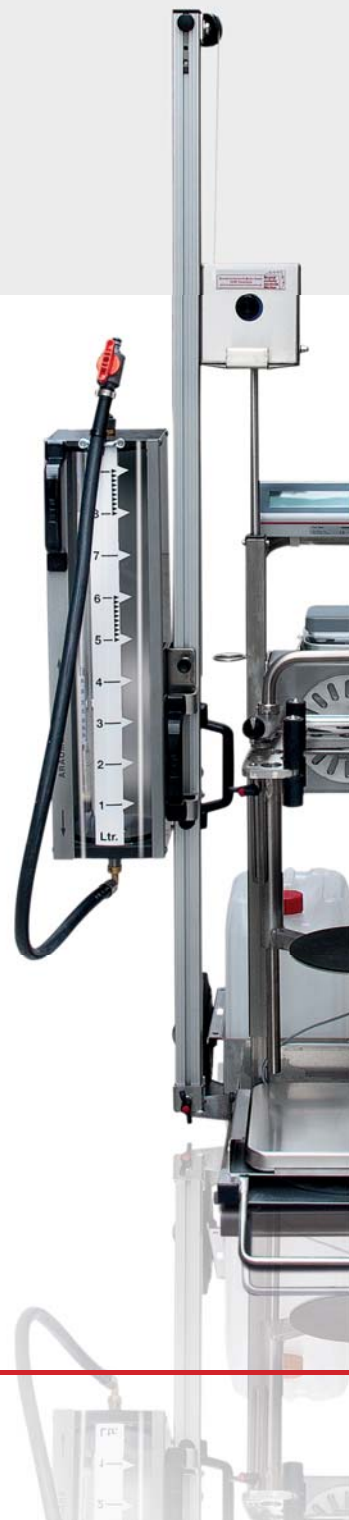
## Table of Contents.

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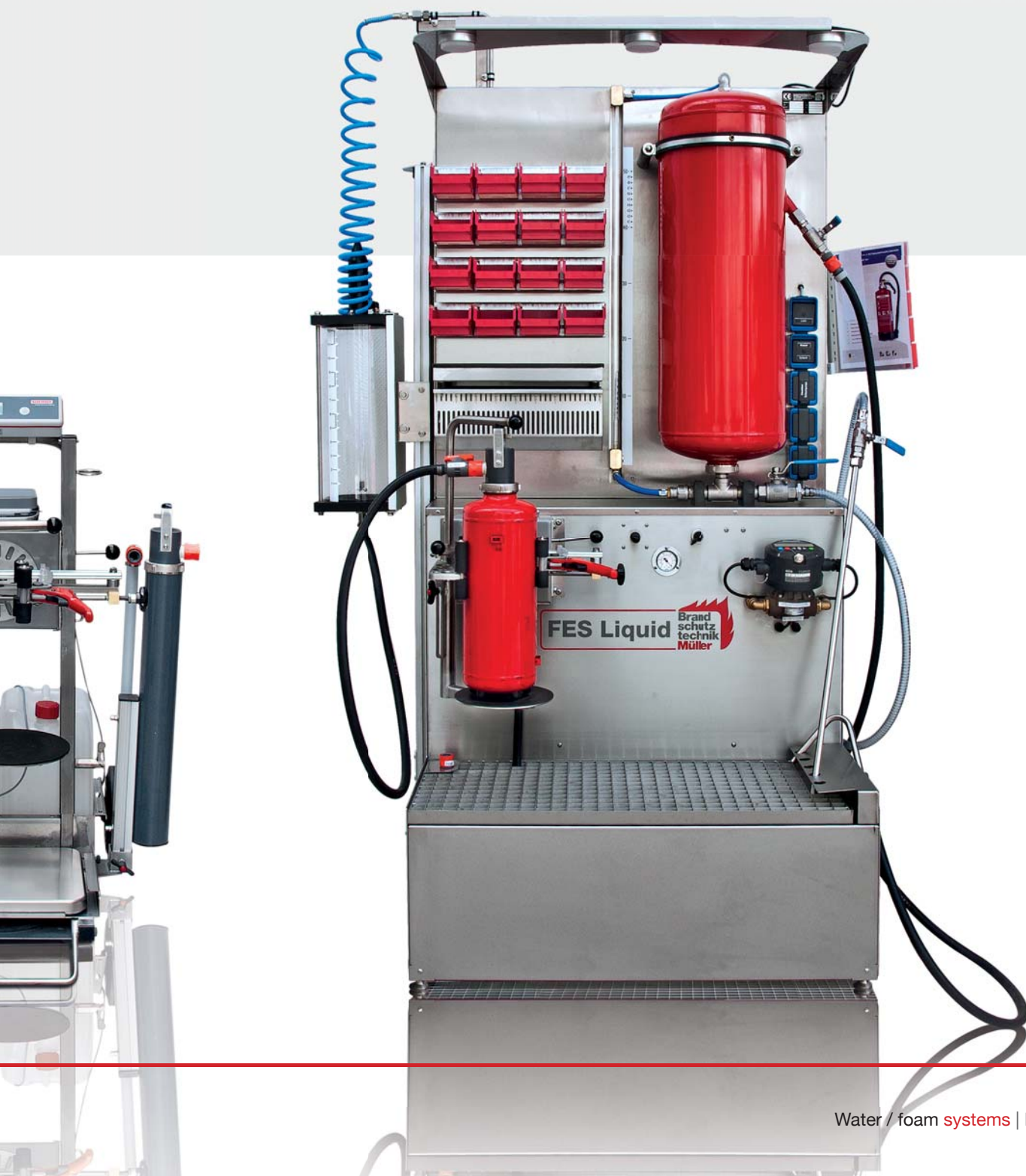
# Water / foam **systems**

Description	Page
Table of Contents: FES Liquid	40 - 41
FES Liquid Mobil	42 - 43
FES Liquid Stationary	44 - 45

Water / fo



# am systems



**Great time savings whilst servicing water or foam fire extinguishers.**

## **Fire Extinguisher Emptying System FES Liquid Mobil**

### ***Foamless, ergonomic, complete***

The fire extinguisher emptying system FES Liquid Mobil is a significant contribution to streamlining during the maintenance of water / foam fire extinguishers. It enables the convenient and above all rapid emptying and filling of cartridge pressured and stored pressure extinguishers with 6 to 9 litres wet fire extinguishing agents.

- Service work without fire extinguishing agent loss at minimal foam development
- Significantly improved ergonomic working

The effort of handling fire extinguishers which have been removed from their brackets has been reduced to a minimum. Also, special emptying adapters guarantee a high working speed. The working period per maintenance procedure is significantly reduced. Time savings of approx. 50% are achieved.

### ***Configuration***

The FES Liquid Mobil consists of a mobile turnable clamping device DSV Mobil made of high-grade steel with clamping bracket PA-Fix, attachment FES Liquid, the holder for emptying adapters and filling hose, one emptying adapter and the filling hose.

### ***Operating process***

With the FES Liquid Mobil, water and foam fire extinguishers are not only filled professionally and quickly but also without contaminating the work station. Not a drop of liquid or foam will escape. The content of the fire extinguisher to be inspected is drained into the clear inspection container where it is visually inspected.

The measuring scale on the inspection container indicates the amount of fire extinguishing agent. A areometer checks the frost protection safety. Once the fire extinguishing agent container has been inspected, the fire extinguishing agent is refilled. For this purpose, the inspection container is lifted up with the support of the balancer. A filling hose is used for the filling so that filling occurs "against the liquid".

- FES Liquid Mobil (Photo shows accessories at extra charge).



### ***Individual components***

Clamping bracket PA-Fix with locking screw

**Art. No. 186075**

Example of an emptying adapter, (various models, depending on make of fire extinguisher)

**Art. No. 186078**

Filling hose

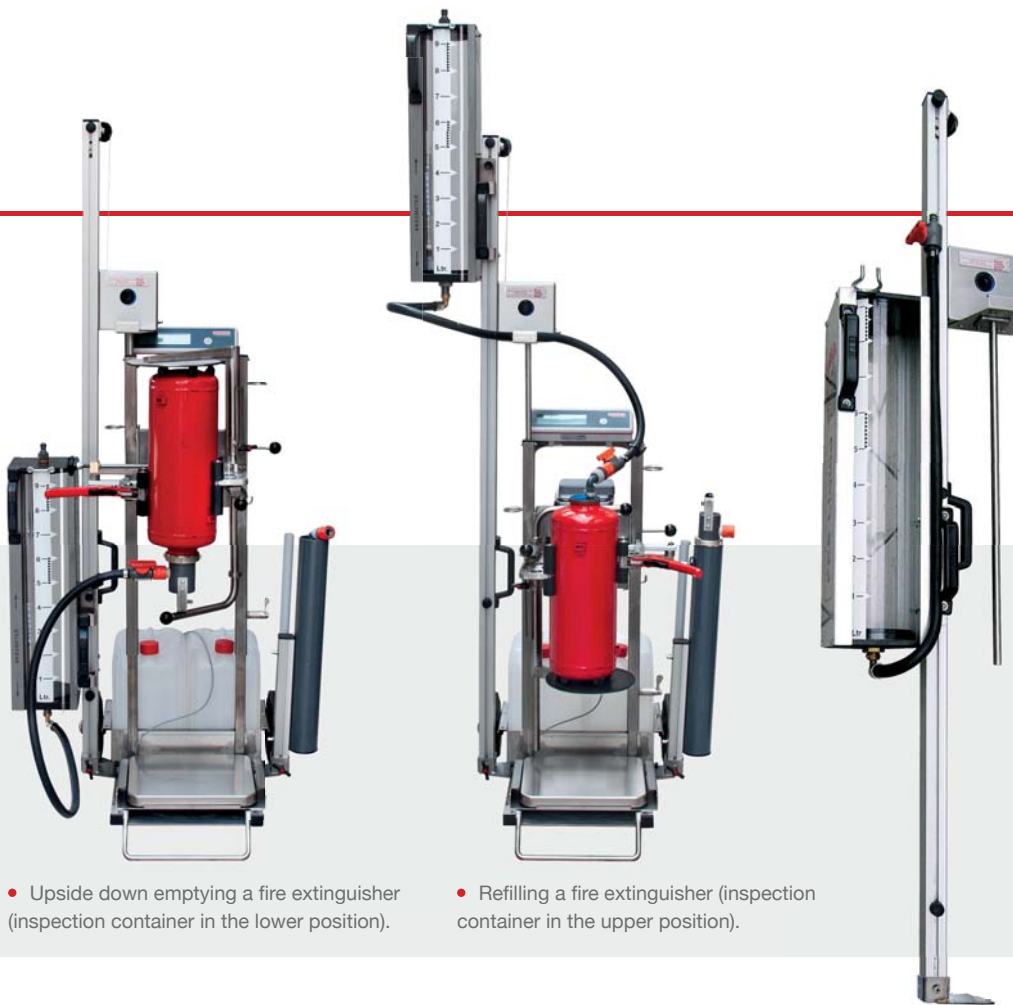
**Art. No. 186727**

Holder for emptying adapter and filling hose with retainer

**Art. No. 186726**







• Upside down emptying a fire extinguisher (inspection container in the lower position).

• Refilling a fire extinguisher (inspection container in the upper position).

• FES Liquid attachment part with clear inspection container 9 litres and balancer for simple height adjustment of the inspection container. The attachment part with the supplied fixture can be retrofitted to an existing turnable clamping device DSV Mobil and easily removed as required.

### Accessories for FES Liquid Mobil (surcharge)

Scales Digi 5000 g,  
Digit increment 1 g

**Art. No. 186910**

Bracket for scales  
Digi 5000

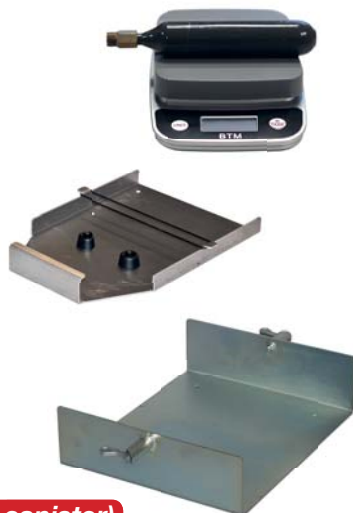
**Art. No. 187111**

Vehicle fixture for  
standing transport

**Art. No. 186004**

2 units 10 L canister

**Art. No. 186074 (per canister)**



Floor scales 30 kg,  
Digit increment 10 g

**Art. No. 186903**

Stainless steel holder  
for floor scales 30 kg

**Art. No. 186556**

Tool tray stainless steel

**Art. No. 186557**

Toolbox

**Art. No. 187096**



### Technical data FES Liquid Mobil (EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186720**



Emptying adapter (specify make of fire extinguisher)

#### Dimensions:

Height [mm]: approx. min. 1710  
Height [mm]: max. 2200  
Width [mm]: 730  
Depth [mm]: 750  
Weight [kg]: 48

#### Transport wheels:

Ø 200 mm, roller bearing  
mounted

High-grade steel model

### Technical data FES Liquid attachment part (EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186725**



#### Dimensions:

Height [mm]: approx. min. 1650  
Height [mm]: max. 2000  
Width [mm]: 380  
Depth [mm]: 215

Weight [kg]: 11

**Service and refilling of water  
or foam fire extinguishers.**

## **Servicing workstation FES Liquid Stationary**

### ***Foamless, efficient, complete***

The FES Liquid Stationary is a complete workstation for service workshops to inspect and / or refill water or foam fire extinguishers. It is not only a streamlined but also an extremely clean solution when having to process a high number of units in short order.

- Service work without fire extinguishing agent loss at minimal foam development
- Efficient refilling of water or foam fire extinguishers

The workstation is set up in a frame made of high-grade sheet steel. It comes with 4 adjustable bases for exact horizontal alignment. You will find a removable collecting tank underneath the high-grade steel grating. The workstation has a water connection with filling hose as well as a compressed air connection. The basic equipment includes a permanently installed tumbler clamping device DSV, an inspection container with pneumatic height adjustment, a water quantity meter and an universal emptying adapter.

### ***Options (surcharge)***

50 Litres intermediate storage container with filling level monitoring, areometer and suction lance

**Art. No. 186705**

Electronic, programmable metering device for the water quantity to be filled



**Art. No. 186755**

Electronic, programmable metering device for the water and foam quantities to be filled, including control electrics

**Art. No. 186750**



- FES Liquid Stationary.  
(Photo shows options and accessories at extra charge).

LED workstation  
lighting including switches  
and 2 socket outlets

**Art. No. 186751**

16 storage bins with pick open-  
ing size 4 with bearing rails

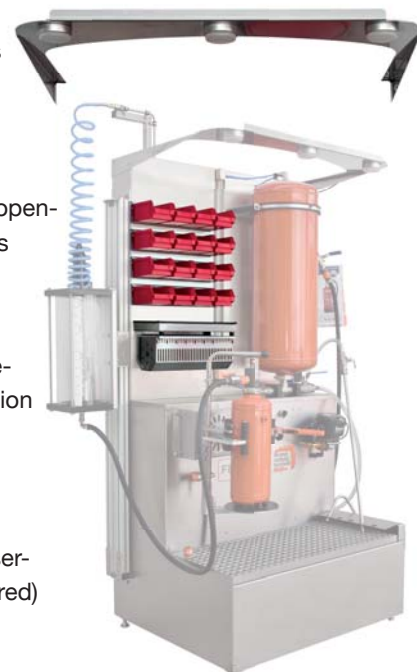
**Art. No. 186752**

Roller container for mainte-  
nance certificates, inspection  
flags and sealing wire

**Art. No. 186753**

Folding display panel for ser-  
vice documents (not pictured)

**Art. No. 186754**







- The FES Liquid Stationary is a stationary service station for fire extinguishers with liquid fire extinguishing agents (water and water-foam fire extinguishers).

### Accessories (surcharge)

Foam additive pump  
230 V / 240 L/min  
(not pictured)

**Art. No. 186706**

Scales Digi 5000 g,  
Digit increment 1 g

**Art. No. 186910**

Floor scales 20 kg,  
Digit increment 10 g

**Art. No. 186913**



Nitrogen filling unit SFA

**Art. No. 186301**

Steel cylinder filled with  
10 L nitrogen, 200 bar

**Art. No. 187072**

Holder for one nitrogen  
storage bottle

**Art. No. 186330**

N<sub>2</sub>-Pressure reducer, 0 - 20 bar,  
with quick action coupling and  
manometer protective caps,  
max. 200 bar

**Art. No. 186801**



### Technical data FES Liquid Stationary

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186700**

Max. volume inspection container: 12 Litres  
Filling and emptying speed for fire extinguishers: approx. 4 L/min  
Filling speed fresh water: approx. 10 L/min

**Universal emptying adapter:**

with cap nut M74 x 2 (other screw threads upon request)



**Connections (right):**

Compressed air connection, 5 to 8 bar  
Fresh water connection, for hose Ø 13 mm  
Outlet of drip tray, for hose Ø 25 mm  
Power connection 230 V (optional), with 5 m power cord & Schuko plug

**Dimensions:**

Height [mm]: 2250  
Width [mm]: 1310  
Depth [mm]: 850

**Weight [kg]: 155**

**Model:** High-grade steel



## Table of Contents.

# Carbon dioxide filling units CFA

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CFA 5-2W	64 - 65

## Carbon dioxide








# de filling units CFA



For every filling application  
the right solution.

## Carbon dioxide filling units CFA

CO <sub>2</sub> filling machine matrix		Interior cartridges of fire extinguishers	Soda cartridges approx. 1 kg (may require adapter)
CO <sub>2</sub> supply:	Filling machine:		
 <p>Single cylinder 30-50 kg with riser pipe or cylinder rack or medium pressure tank without return inlet</p>	CFA BASIC (2.4 kg/min)	only with suppl. unit	with scales
	CFA BASIC (4.5 kg/min)	only with suppl. unit	with scales
	CFA MOBIL	only with suppl. unit	with scales
	CFA 1	yes	yes
	CFA 2	yes	yes
	CFA 3	no	no
or			
 <p>Medium pressure tank with return inlet</p>	CFA 4 (6.5 kg/min)	no	no
	CFA 4 (12.5 kg/min)	no	no
or			
 <p>Cryogenic low pressure tank with return inlet</p>	CFA 5 (5 kg/min)	no	no
	CFA 5 (8 kg/min)	no	no
	CFA 5 (15 kg/min)	no	no
	CFA 5-1W	no	no
	CFA 5-2W	no	no



CFA Basic



CFA Mobil



CFA 1



CFA 2



CFA 3



## CO<sub>2</sub> containers to be filled:

Containers up to 1 kg or additional	Exterior CO <sub>2</sub> cylinders of fire extinguishers or CO <sub>2</sub> cylinders with turning valve up to 2 kg	CO <sub>2</sub> fire extinguishers or CO <sub>2</sub> cylinders from 2 to 6 kg	CO <sub>2</sub> fire extinguishers or CO <sub>2</sub> cylinders > 6 kg	Large CO <sub>2</sub> cylinders up to 50 kg
				
or suppl. unit	with scales or suppl. unit & F2	with scales or suppl. unit & F3	with floor scales	with floor scales
or suppl. unit	with scales or suppl. unit & F2	with scales or suppl. unit & F3	with floor scales	with floor scales
or suppl. unit	with scales or suppl. unit & F2	with scales or suppl. unit & F3	with floor scales	with floor scales
	with filling head F2	with filling head F3	with floor scales & F4	with floor scales & F4
	with filling head F2	with filling head F3	with floor scales platform	with floor scales platform
	no	yes	yes	yes
	no	yes	yes	yes
	no	yes	yes	yes
	no	yes	yes	yes
	no	yes	yes	yes
	no	yes	yes	yes
	no	yes	yes	yes
	no	yes	yes	yes



CFA 4



CFA 5



CFA 5-1W / CFA 5-2W

**Fill CO<sub>2</sub> economically.  
For mobile use.**

## Carbon dioxide filling unit CFA Basic

### Handy and expandable

The carbon dioxide filling unit CFA Basic can fill all CO<sub>2</sub> cylinders from 2 - 30 kg.

Various additional equipment guarantees the possibility of many additional filling applications.

- Low investment costs
- Many expansion possibilities
- For stationary and mobile use



For the CO<sub>2</sub> supply, the system can be connected to a CO<sub>2</sub> cylinder with riser pipe, to a CO<sub>2</sub> cylinder rack or to a CO<sub>2</sub> medium pressure tank (approx. 50 bar). The connection hose, the filling hose and the filling armature are included.

The system input contains a high-grade steel filter which protects the pump from contaminations from the CO<sub>2</sub> supply cylinder or from the CO<sub>2</sub> supply tank. Interior CO<sub>2</sub> cartridges, exterior CO<sub>2</sub> cylinders and CO<sub>2</sub> fire extinguishers up to 6 kg can be filled with the Basic Digital supplementary unit available as accessory and the

- The CFA Basic is a good value filling installation. A particular advantage is the economical entry point, with a subsequent expandability option for meeting future increasing requirements.

Basic F2 and Basic F3 filling heads.

The digital floor scales, available as accessory, enables the controlled filling of CO<sub>2</sub> cylinders from 2 kg to 20 kg, switching the CFA Basic filling unit off automatically when the pre-programmed filling weight is reached. These scales are also available in an officially calibrated version.

- Coordinated: CFA Basic with digital floor scales. (without cylinder).



### Digital floor scales (surcharge)

Digital floor scales with auto-stop function, weighing range: 0 - 60 kg, for CO<sub>2</sub> cylinders up to 20 kg (without cylinder)

**Standard scales**

**Art. No. 186670**

**Officially calibrated scales**

**Art. No. 186675**



## Modular filling concept for extended applications



- **Art. No. 186197**

Supplementary unit Basic Digital with scales controlled auto-stop function and filling head Basic F1 for interior CO<sub>2</sub> cartridges.



- **Art. No. 186192**

Filling head Basic F2 for exterior CO<sub>2</sub> cylinders with turning valve up to 300 g.



- **Art. No. 186193**

Filling head Basic F3 for CO<sub>2</sub> fire extinguishers, 2 - 6 kg.

## Holder and manifolds (surcharge)

**Holder** for one CO<sub>2</sub> supply cylinder

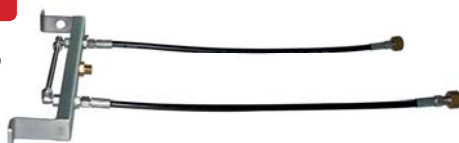
**Art. No. 186330**



**Manifold** for 2 supply cylinders with riser pipes

**Art. No. 186106**

(Available with up to 6 supply cylinder connections)



## Additional accessories (surcharge)

### Adapter flanges

for filling CO<sub>2</sub> cartridges, fit filling head Basic F1 (please specify make and type of fire extinguisher)

**Art. No. 186108**



### Closing devices

for various CO<sub>2</sub> cartridges, fit all F1 filling heads (please specify make and type of fire extinguisher)

**Art. No. 186105**



## Technical data CFA Basic

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186196 filling speed: 4.8 kg/min**

**Art. No. 186198 filling speed: 2.4 kg/min**

**Electric motor:** 230 V, 50 Hz, 1.1 kW, 1400 rpm  
Special voltages and other frequencies upon request

### Electric cable feed line:

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Filling power:** 2.4 kg/min or 4.8 kg/min

**Mech. safety valve:** 130 bar

### Dimensions:

Height [mm]: 305

Width [mm]: 510

Depth [mm]: 440

**Weight [kg]:** 42

**Colour:** Silver-grey

**IP rate:** IP54



## Modular filling concept CFA MOBIL.

# Carbon dioxide filling unit CFA MOBIL

### Transportable filling machine

The carbon dioxide filling unit CFA MOBIL can fill all CO<sub>2</sub> cylinders from 2 - 30 kg. Various additional equipment guarantees the possibility of many additional filling applications.

For the CO<sub>2</sub> supply, the system can be connected to a CO<sub>2</sub> cylinder with riser pipe, to a CO<sub>2</sub> cylinder rack or to a CO<sub>2</sub> medium pressure tank (approx. 50 bar). The connection hose, the filling hose and the filling armature are included. The system input contains a high-grade steel filter which protects the pump from contaminations from the CO<sub>2</sub> supply cylinder or from the CO<sub>2</sub> supply tank.



• Fig. 1: The CFA MOBIL is a filling machine with all-rounder properties. A particular advantage is the subsequent expandability option to meet increasing requirements.

Interior CO<sub>2</sub> cartridges, exterior CO<sub>2</sub> cylinders and CO<sub>2</sub> fire extinguishers up to 6 kg can be filled alternatively with the Digital I or Digital II supplementary units available as accessory. These are connected electrically as well as with a CO<sub>2</sub> high pressure hose to the CFA MOBIL.



• Fig. 2

The modular concept of the CFA MOBIL enables workplaces that are applicable and efficient. For example, the CFA MOBIL with supplementary unit Digital II including filling head F1B is set up on the workbench, available as accessory. Larger CO<sub>2</sub> cylinders can be filled on the additional floor scales platform for the supplementary unit Digital II.

### Accessories (surcharge)

Floor scales platform for CO<sub>2</sub> cylinders up to 20 kg (see Fig. 2)

**Art. No. 186158**

Workbench (see Fig. 2)

**Art. No. 186332**

Tool board for workbench

**Art. No. 186333**



• Fig. 3

Supplementary unit Digital I with scales controlled auto-stop function and filling head F3M for CO<sub>2</sub> cylinders up to 6 kg and CO<sub>2</sub> fire extinguishers from 2 - 6 kg.

**Art. No. 186156**



• Fig. 4

Filling head F2M for exterior CO<sub>2</sub> cylinders with turning valve up to 300 g.

**Art. No. 186102**

• Fig. 5

Supplementary unit Digital II with scales controlled auto-stop function and filling head F1B for interior CO<sub>2</sub> cartridges.

**Art. No. 186155**



• Fig. 6

Filling head F2 for exterior CO<sub>2</sub> cylinders with turning valve up to 300 g.

**Art. No. 186103**

## Modular filling concept for extended applications

Module		Items to be filled
CFA MOBIL (Basic equipment)		CO <sub>2</sub> cylinders, 2 - 30 kg (Requires additional scales)
with module / accessory	or with module / accessory	
----	Supplementary unit Digital II (Fig. 5)	Interior CO <sub>2</sub> cartridges
Digital floor scales (Fig. 8)	Supplementary unit Digital II (Fig. 5) and floor weighing platform (Fig. 2)	CO <sub>2</sub> cylinders / fire extinguishers up to 20 kg
Supplementary unit Digital I (Fig. 3)	Supplementary unit Digital II (Fig. 5) and filling head F3 (Fig. 7)	CO <sub>2</sub> cylinders up to 6 kg CO <sub>2</sub> fire extinguishers, 2 - 6 kg
Supplementary unit Digital I (Fig. 3) and filling head F2M (Fig. 4)	Supplementary unit Digital II (Fig. 5) and filling head F2 (Fig. 6)	Exterior CO <sub>2</sub> cylinders up to 300 g

• Fig. 7

Filling head F3 for CO<sub>2</sub>  
fire extinguishers 2 - 6 kg.

**Art. No. 186104**



### Digital floor scales (surcharge)

• Fig. 8

Digital floor scales with auto-stop function  
weighing range: 0 - 60 kg, for CO<sub>2</sub> cylinders up  
to 20 kg. (without cylinder)

**Art. No. 186670**

**Art. No. 186675 (calibrated)**



### Additional accessories (surcharge)

Holder for a CO<sub>2</sub> supply cylinder

**Art. No. 186330**

Manifold for 2 CO<sub>2</sub> supply cylinders  
with riser pipe (available with up  
to 6 supply cylinder connections)

**Art. No. 186106**

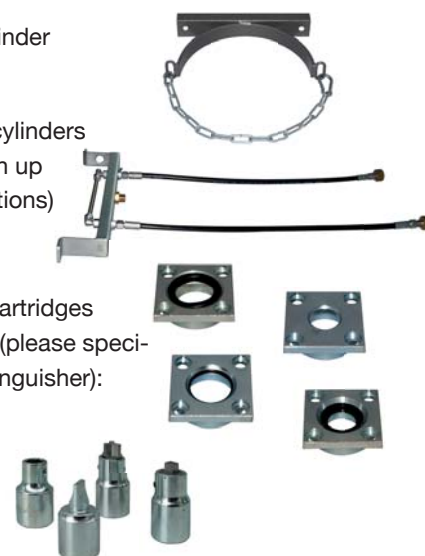
Accessories for filling CO<sub>2</sub> cartridges  
suitable for filling head F1B (please speci-  
fy make and type of fire extinguisher):

Adapter flanges

**Art. No. 186108**

Closing devices

**Art. No. 186105**



### Technical data CFA MOBIL

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186141**

**Electric motor:** 230 V, 50 Hz, 1.1 kW, 1440 rpm  
Special voltages and other frequencies upon request

**Electric cable feed line:**

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Filling power:** 3.5 kg/min

**Mech. safety valve:** 130 bar



**Dimensions:**

Height [mm]: 315

Width [mm]: 560

Depth [mm]: 360

**Weight [kg]:** 42

**Colour:** Grey, hammer finish

**IP rate:** IP54

**Safe filling of CO<sub>2</sub> cartridges, cylinders, fire extinguishers.**

## Carbon dioxide filling unit CFA 1

### *Compact and flexible*

With the carbon dioxide filling unit CFA 1 with integrated digital scales you can fill all types of interior CO<sub>2</sub> cartridges, exterior CO<sub>2</sub> cylinders with turning valve and CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 6 kg.

- Precise and safe filling of small and large CO<sub>2</sub> cartridges and CO<sub>2</sub> cylinders
- Work quickly with CO<sub>2</sub> in its liquid phase
- Automatic motor switch-off upon reaching the filling weight

For the supply, the system can be connected to a CO<sub>2</sub> cylinder with riser pipe, to a CO<sub>2</sub> cylinder rack or to a CO<sub>2</sub> medium pressure tanks (approx. 50 bar).

The system input contains a high-grade steel filter which protects the pump from contaminations from the CO<sub>2</sub> supply cylinders or from the CO<sub>2</sub> tank.

The universal filling head F1B of the CFA 1 filling machine is used to fill interior CO<sub>2</sub> cartridges, the filling head F2 (accessory) is used for exterior CO<sub>2</sub> cylinders with turning valve, and the filling head F3 (accessory) can fill carbon dioxide fire extinguishers and cylinders from 2 to 6 kg. With the help of the filling power control it is possible to achieve the exact correct filling weight for small cartridges as well.



- The universal filling head F1B for interior CO<sub>2</sub> cartridges with standard adapter flange No.1 and the CO<sub>2</sub> connection hose for supplying the system are included in the product range.



- The CFA 1 is an accurate and safe carbon dioxide filling unit for small and medium-sized CO<sub>2</sub> containers. Working with this system is economical because all working processes are precise and can be completed in a short amount of time.

The controls are clearly configured. A particular advantage is the low operating noise of the system and the sturdiness of the high-grade steel housing.

The CO<sub>2</sub> cartridge is mounted in next to no time thanks to the ratcheting coarse adjustment and the fine adjustment via threaded spindle with turning handle.

The filling weight is programmed at the digital scales and the scales are tared at the touch of a button. A very accurate filling process is achieved with this weighing technique.

Opening a ball valve and actuating the electric pushbutton enables the plunger pump to fill the container. When the filling weight is reached, the filling process is stopped automatically.

The valve of the filled container and the filling ball valve must be closed. The release ball valve discharges the filling head. The filled container can be removed. During the working process, the pressure in the CO<sub>2</sub> supply cylinder or in the tank can be monitored by manometer, and the actual filling pressure can be monitored via a second manometer.





• Art. No. 186103

Filling head F2 for exterior CO<sub>2</sub> cylinders with turning valve up to 300 g.



• Art. No. 186104

Filling head F3 for 2 to 6 kg CO<sub>2</sub> fire extinguishers, e.g. 2 kg.



• Art. No. 186104

Filling head F3 for 2 to 6 kg CO<sub>2</sub> fire extinguishers, e.g. 6 kg.

### Holder, manifold, workbench (surcharge)

Holder for one CO<sub>2</sub> supply cylinder

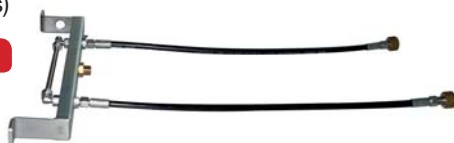
**Art. No. 186330**

Manifold for 2 CO<sub>2</sub> supply cylinders with riser pipe (available with up to 6 supply cylinder connections)

**Art. No. 186106**

Workbench (not pictured)

**Art. No. 186331**



### Additional accessories (surcharge)

#### Adapter flanges

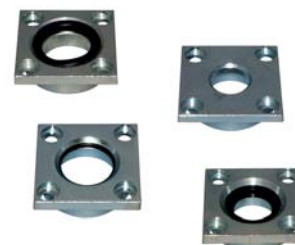
for filling CO<sub>2</sub> cartridges, fit filling head F1B (please specify make and type of fire extinguisher)

**Art. No. 186108**

#### Closing devices

for various CO<sub>2</sub> cartridges, fit all F1 filling heads (please specify make and type of fire extinguisher)

**Art. No. 186105**



### Technical data CFA 1

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186122**

**Electric motor:** 230 V, 50 Hz, 0.75 kW, 1440 rpm  
Special voltages and other frequencies upon request

**Electric cable feed line:**  
5 m cable feed line 230 V: H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Filling power:** 2.5 kg/min

**Mech. safety valves:** 130 bar



#### Dimensions:

Height [mm]: 500  
Width [mm]: 985  
Depth [mm]: 425

**Weight [kg]:** 80

**Housing:** High-grade steel

**IP rate:** IP54

**Optimal filling  
of all CO<sub>2</sub> containers.**

## Carbon dioxide filling unit CFA 2

### One for all

With the carbon dioxide filling unit CFA 2 you can fill all types of interior CO<sub>2</sub> cartridges, exterior CO<sub>2</sub> cylinders with turning valve, CO<sub>2</sub> fire extinguishers or cylinders up to 6 kg, and also CO<sub>2</sub> cylinders up to 50 kg with a separate floor scales platform.

- Filling heads and filling armatures for all CO<sub>2</sub> containers
- Continuously adjustable filling power through speed-controlled motor
- Digital scales with electronic motor switch-off upon reaching the filling weight

For the supply, the system can be connected to a CO<sub>2</sub> cylinder with riser pipe, to a CO<sub>2</sub> cylinder rack or to a CO<sub>2</sub> medium pressure tank (approx. 50 bar). The system input contains a high-grade steel filter which protects the pump from contaminations from the CO<sub>2</sub> supply cylinders or from the CO<sub>2</sub> tank.

The universal filling head F1M of the CFA 2 filling machine is used to fill interior CO<sub>2</sub> cartridges, the filling head F2 (accessory) is used for exterior CO<sub>2</sub> cylinders with turning valve, and the filling head F3 (accessory) can fill carbon dioxide fire extinguishers and cylinders up to 6 kg.

The filling weight is programmed at the digital scales and the scales are tared at the touch of a button. This weighing technique enables a very exact filling process.

Actuating the pushbutton opens the filling solenoid valve and the CO<sub>2</sub> container is filled by a speed-controlled plunger pump.

- The CFA 2 is a carbon dioxide filling unit with adjustable filling power and speed-controlled motor. The universal filling head F1M is mounted to an electronic load cell. The operating panel has an ergonomically favourable layout.



When the filling weight is reached, the filling process is stopped automatically. The valve of the filled CO<sub>2</sub> container must be closed manually.

After the filling head has been discharged by the release solenoid valve the filled CO<sub>2</sub> container can be removed. During the working process the inlet pressure in the CO<sub>2</sub> supply line can be monitored by a manometer and the filling pressure can be read on a second manometer. Whilst filling, the rising CO<sub>2</sub> filling weight can be monitored at the scales display and the filling speed can be adjusted to the container size through speed regulation. That is how the exact programmed final weight is reached. To fill CO<sub>2</sub> cylinders up to 50 kg, also an external scales platform can be connected to the CFA 2 (see Fig. 1).

### Option (surcharge)

As an option, a thermal transfer printer for PE film labels can be attached to the machine. The printed label contains the date, time, tare, net and gross weight as well as an identifier of the filler.



• Fig. 1  
The optional floor scales platform lets you fill CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 50 kg.



**Art. No. 187275**



- The filling head F1M for interior CO<sub>2</sub> cartridges with standard adapter flange No. 1 and the CO<sub>2</sub> connection hose for supplying the system are included in the product range.

- **Art. No. 186103**  
Filling head F2 for exterior CO<sub>2</sub> cylinders with turning valve up to approx. 300 g.



- **Art. No. 186104**  
Filling head F3 for CO<sub>2</sub> fire extinguishers up to 6 kg, e.g. 2 kg.

- **Art. No. 186104**  
Filling head F3 for CO<sub>2</sub> fire extinguishers up to 6 kg, e.g. 6 kg.



## Accessories (surcharge)

### Floor scales platform

for CO<sub>2</sub> cylinders up to 50 kg, including filling armature, high pressure hose and access ramp

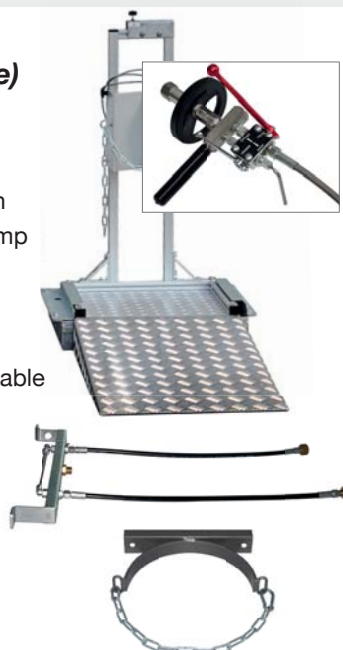
**Art. No. 186912**

**Manifold** for 2 CO<sub>2</sub> supply cylinders with riser pipe (available with up to 6 supply cylinder connections)

**Art. No. 186106**

**Holder** for one CO<sub>2</sub> supply cylinder

**Art. No. 186330**



## Additional accessories (surcharge)

### Adapter flanges

for various CO<sub>2</sub> cartridges, fit filling head F1M (please specify make and type of fire extinguisher)

**Art. No. 186114**



### Closing devices

for various CO<sub>2</sub> cartridges, fit all F1 filling heads (please specify make and type of fire extinguisher)

**Art. No. 186105**



## Technical data CFA 2

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

Prepared for connection to floor scales platform

**Art. No. 186112**

Without means of connection for floor scales

**Art. No. 186125**

**Electric motor:** 230 V, 50 Hz, 1.5 kW, 1400 rpm  
Special voltages and other frequencies upon request

**Electric cable feed line:**

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant



**Filling power:** max. 4 kg/min

**Electric pressure switch:** Cut-off pressure 130 bar

**Mech. safety valves:** 2 x 150 bar

**Dimensions:**

Height [mm]: 1070

Width [mm]: 1320

Depth [mm]: 460

**Weight [kg]:** 141

**Colour:** RAL 7032 pebble grey, hammer finish

**IP rate:** IP54



Filling of medium-sized and large CO<sub>2</sub> containers from a medium pressure tank.

## Carbon dioxide filling unit CFA 3

### Quick and safe

The carbon dioxide filling unit CFA 3 is only suitable for filling CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders from a medium pressure tank with an operating pressure of approx. 50 bar. The system input contains a high-grade steel filter which protects the pump from contaminations from the CO<sub>2</sub> tank.

- Filling machine for filling from the liquid phase
- High filling power
- For CO<sub>2</sub> fire extinguishers and CO<sub>2</sub> cylinders



- The carbon dioxide filling unit CFA 3 can accurately and economically fill CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 50 kg to weight thanks to short set-up times and rapid working speeds. The system has a low rate of wear and is low-maintenance.

The CFA 3 includes digital scales with automatic cut-off, which have a cylinder holder and an access ramp.

The CO<sub>2</sub> container is filled by placing and securing it on the scales platform. The filling armature is connected. After programming the filling weight, the cylinder valve and the filling armature are opened and the system is started.

The basic CO<sub>2</sub> pressure, the filling pressure and the filling weight can be monitored at the control stand and the optimal filling speed can be adjusted with the speed controller. When the programmed filling weight is reached, the filling process cuts off automatically. The valve of the filled container must be closed. The filling armature is then closed, released and screwed off. The filled container can be removed.



- The speed control enables the optimisation of the filling speed for different container sizes.

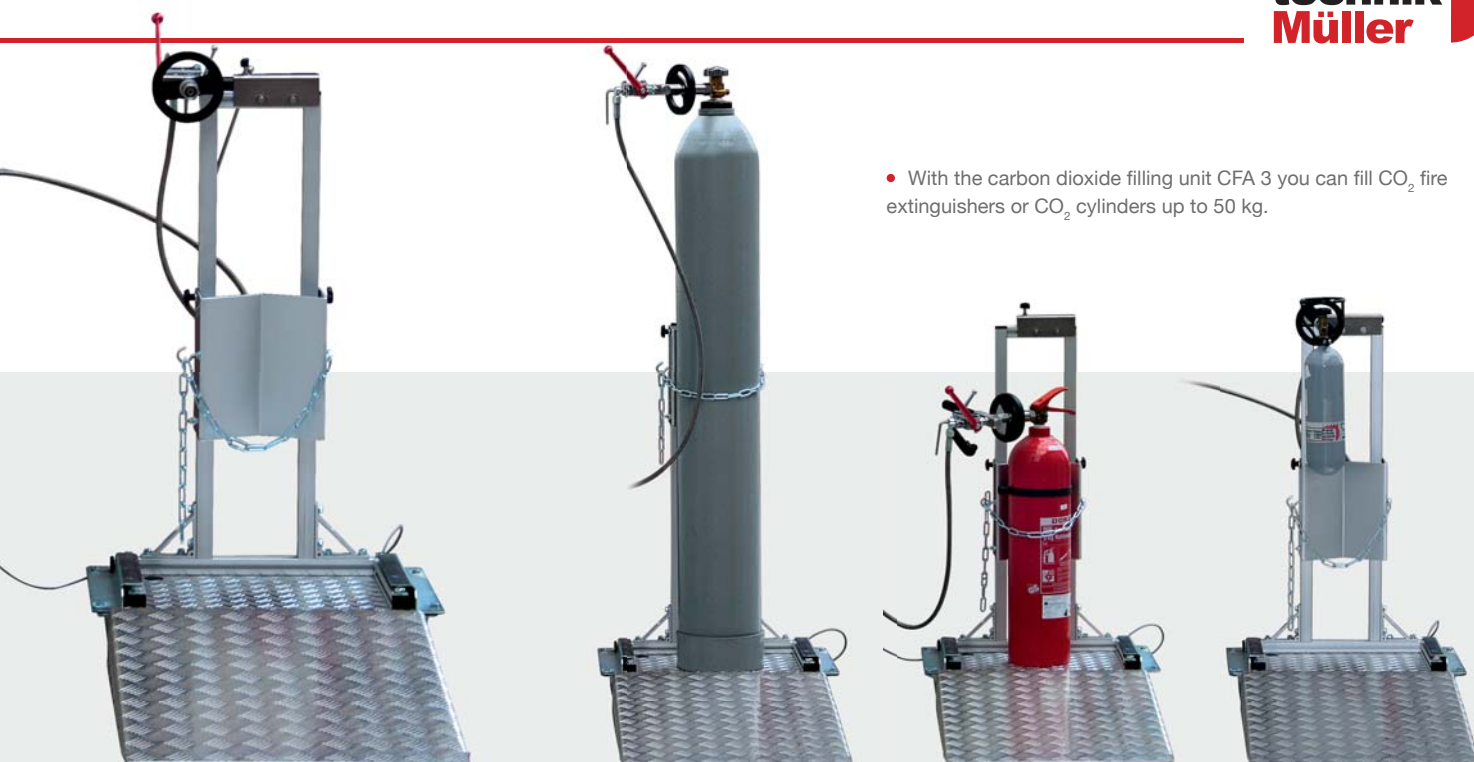


- The filling armature of the CFA 3 has one filling and one release ball valve and can be attached to the CO<sub>2</sub> cylinder as well as to the scales platform, if applicable.

### Floor scales platform

The floor scales platform (weighing range 0-150 kg) for CO<sub>2</sub> cylinders up to 50 kg, including cylinder holder, access ramp, filling armature and high pressure filling hose, is integral component of the CFA 3.



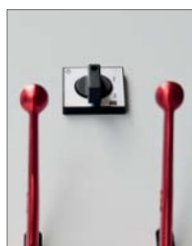


- With the carbon dioxide filling unit CFA 3 you can fill CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 50 kg.

### Selector switch (surcharge)

Switching unit for the quick selection of 3 freely programmable cut-off weights

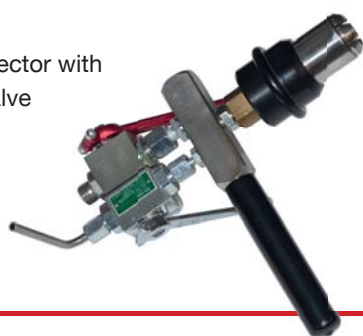
**Art. No. 186171**



### Quick action filling armature (surcharge)

Quick action filling connector with filling and release ball valve

**Art. No. 187217**



### Thermal transfer printer (surcharge)

As an option, a thermal transfer printer for PE film labels can be attached to the machine. The printed label contains the date, time, tare, net and gross weight as well as an identifier of the filler.

**Art. No. 187275**



### Technical data CFA 3

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186161**

**Electric motor:** 400 V, 50 Hz, 2.2 kW, 1400 rpm  
Special voltages and other frequencies upon request

**Electric cable feed line:**  
5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Filling power:** max. 6.5 kg/min, continuously adjustable  
**Cut-off pressure:** 130 bar



**Mech. safety valves:** 2 x 150 bar  
Freely programmable electronic floor scales

#### Dimensions:

Control stand	Floor scales with access ramp:	
Height [mm]:	1190	1000
Width [mm]:	895	600
Depth [mm]:	620	995
Weight [kg]:	153	44

**Colour:** RAL 7032 pebble grey  
**IP rate:** IP54

## Modular CO<sub>2</sub> filling machine for filling from a medium pressure tank.

# Carbon dioxide filling unit CFA 4

### *Flexible and powerful*

The carbon dioxide filling unit CFA 4 is only suitable for filling CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders from a medium pressure tank with return inlet and an operating pressure of approx. 50 bar. It consists of a pump stand, a control desk on a support and electronic floor scales.

- Carbon dioxide filling unit in a modular design
- Filling machine for filling from the liquid phase
- For CO<sub>2</sub> fire extinguishers and CO<sub>2</sub> cylinders

- With the carbon dioxide filling unit CFA 4 you can fill CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 50 kg. Thanks to the modular design, the CFA 4 enables customer-specific solutions regarding local conditions.



- The filling process is programmed and controlled at the freely placeable and height adjustable control desk of the CFA 4.

The modular design enables you to set up the pump stand directly at the CO<sub>2</sub> medium pressure tank, away from the control desk and the scales. The control desk is connected to the pump stand via a CO<sub>2</sub> supply line and a control cable. The carbon dioxide moves constantly during system operation: It is tapped in liquid form from the medium pressure tank and either pumped from the pump stand back into the tank or to the control desk and into the CO<sub>2</sub> cylinder to be filled. For the filling process, an empty CO<sub>2</sub> cylinder is placed on the scales and connected with the filling armature to the filling line of the control desk.

After opening the cylinder valve and filling ball valve the filling process is started by pressing the start button at the control desk.

When the programmed filling weight is reached, the filling process cuts off automatically.

The valve of the filled container and that of the filling ball valve must be closed. The filling armature is then released and screwed off. The filled container can be removed.

### **Filling armature**

The filling armature of the CFA 4 has one filling and one release ball valve and can be attached to the CO<sub>2</sub> cylinder as well as to the scales platform if applicable.

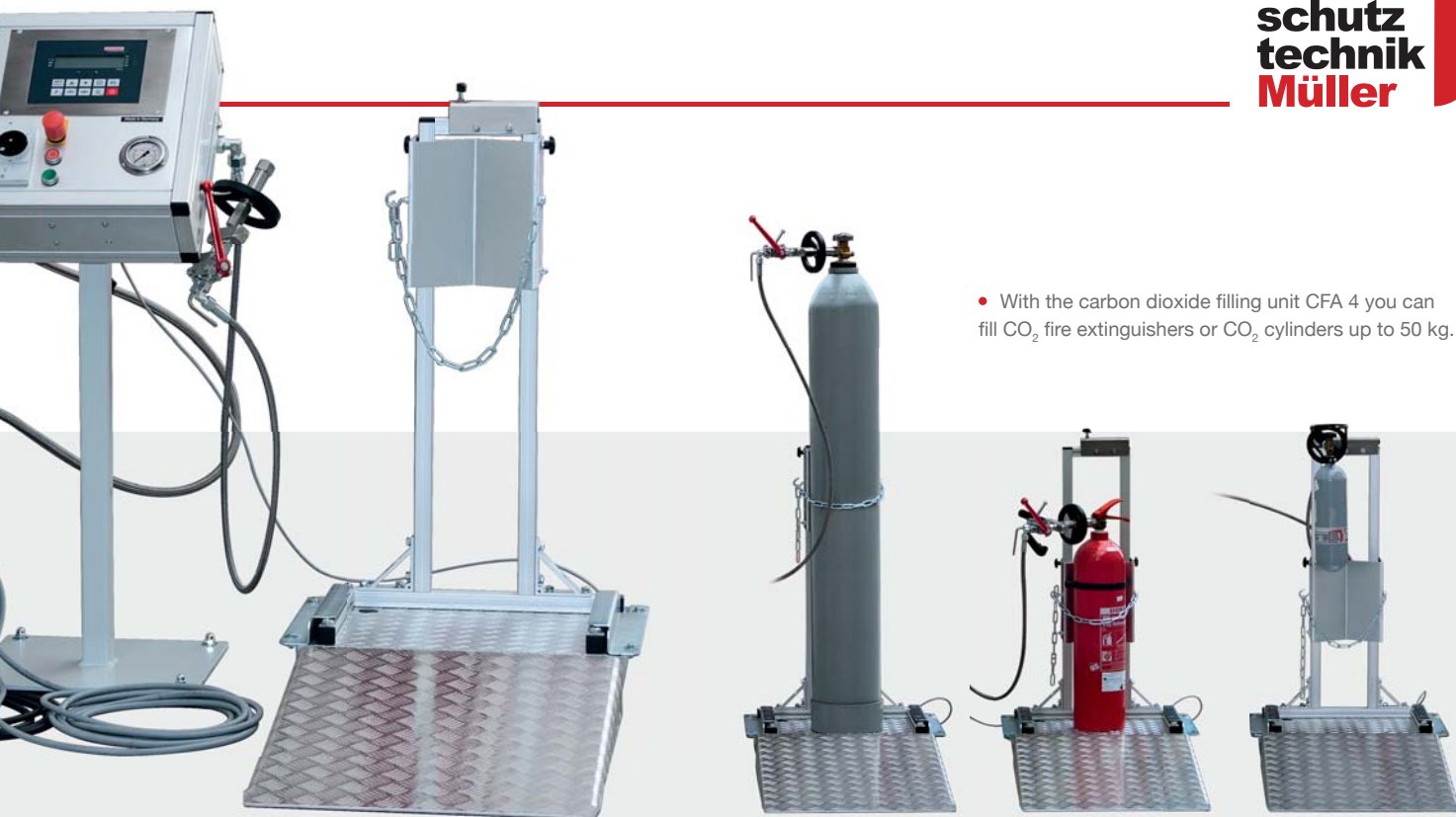


### **Floor scales platform**

The floor scales platform (weighing range 0-150 kg) for CO<sub>2</sub> cylinders up to 50 kg, including cylinder holder, access ramp, filling armature and high pressure hose, is an integral component of the system.







- With the carbon dioxide filling unit CFA 4 you can fill CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 50 kg.

### Selector switch (surcharge)

Switching unit for the quick selection of 3 freely programmable cut-off weights

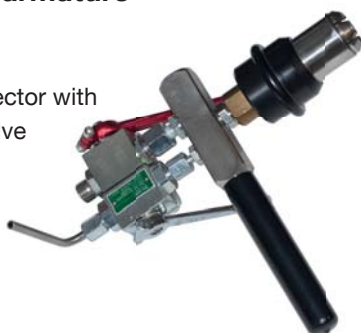
**Art. No. 186171**



### Quick action filling armature (surcharge)

Quick action filling connector with filling and release ball valve

**Art. No. 187217**



### Thermal transfer printer (surcharge)

As an option, a thermal transfer printer for PE film labels can be attached to the machine. The printed label contains the date, time, tare, net and gross weight as well as an identifier of the filler.

**Art. No. 187275**



### Technical data CFA 4

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186190**

**Electric motor:** 400 V, 50 Hz,  
2.2 kW, 1410 rpm

**Filling power:** 6.5 kg/min

**Art. No. 186195**

**Electric motor:** 400 V, 50 Hz,  
4 kW, 1435 rpm

**Filling power:** 12.5 kg/min

Special voltages and other frequencies upon request

**Electric cable feed line:**

5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Cut-off pressure:** 130 bar

**Mech. safety valves:** 2 x 150 bar

**Digital scales:** 0 - 150 kg

### Dimensions:

	Pump stand	Control desk with support	Floor scales with access ramp
Height [mm]:	605	1035	1000
Width [mm]:	845	500	600
Depth [mm]:	610	505	995
Weight [kg]:	110	37	44
<b>Art. No. 186190</b>			
Weight [kg]:	136	37	44
<b>Art. No. 186195</b>			

**Colour:** RAL 7032 pebble grey

**IP rate:** IP54

## Filling of cryogenic carbon dioxide from a low pressure tank.

# Carbon dioxide filling unit CFA 5

### Short set-up times and fast working speeds

The carbon dioxide filling unit CFA 5 operates with high process reliability. Short set-up times and fast working speeds guarantee efficient and streamlined work. The CFA 5 is a carbon dioxide filling unit with pump stand, control desk and electronic floor scales. It may only be used on tank systems with cryogenic carbon dioxide (approximately  $-20^{\circ}\text{C}$ , 15-20 bar).

- Carbon dioxide filling unit in modular design
- Three different filling power variants
- For  $\text{CO}_2$  fire extinguishers and cylinders up to 50 kg



- The carbon dioxide filling unit CFA 5 has been designed for precise  $\text{CO}_2$  filling from the liquid phase. This unit fills cryogenic carbon dioxide from low pressure tanks (15 to 20 bar) into  $\text{CO}_2$  cylinders up to 50 kg.



- The filling process is programmed and controlled at the freely placeable and height adjustable control desk of the CFA 5.

The modular design enables you to set up the pump stand directly at the  $\text{CO}_2$  tank, away from the control desk and the scales.

The control desk is connected to the pump stand via a  $\text{CO}_2$  supply line and a control cable. The carbon dioxide moves constantly during system operation: It is tapped in liquid form from the cryogenic tank and either pumped from the pump stand back into the tank or to the control desk and into the  $\text{CO}_2$  cylinder to be filled.

The filling weight is programmed at the digital scales and the scales are tared at the touch of a button.

After opening the cylinder valve and filling ball valve the filling process is started by pressing the fill button at the control desk.

After the filling weight is reached, the filling process cuts off automatically. After the valve at the filled  $\text{CO}_2$  cylinder is closed, the filling armature is closed, released and screwed off.

### Filling armature

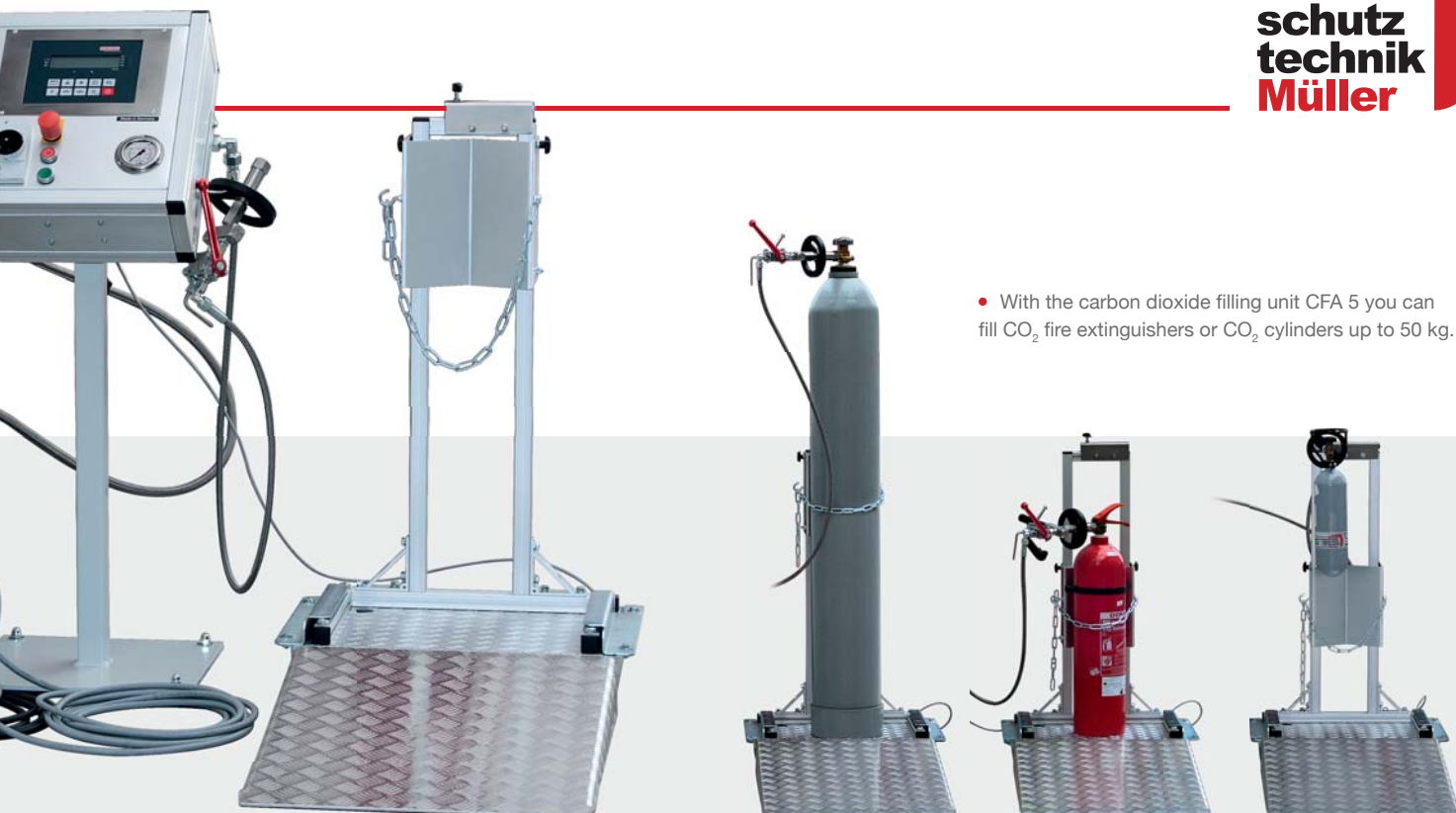
The filling armature of the CFA 5 has one filling and one release ball valve and can be attached to the  $\text{CO}_2$  cylinder as well as to the scales platform if applicable.



### Floor scales platform

The floor scales platform (weighing range 0-150 kg) for  $\text{CO}_2$  cylinders up to 50 kg, including cylinder holder, access ramp, filling armature and high pressure hose, is an integral component of the system.





- With the carbon dioxide filling unit CFA 5 you can fill CO<sub>2</sub> fire extinguishers or CO<sub>2</sub> cylinders up to 50 kg.

### Selector switch (surcharge)

Switching unit for the quick selection of 3 freely programmable cut-off weights

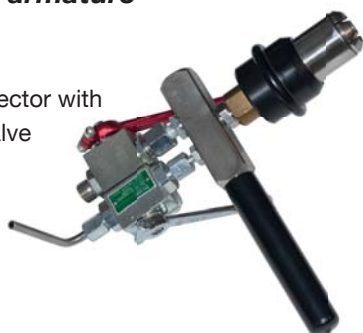
**Art. No. 186171**



### Quick action filling armature (surcharge)

Quick action filling connector with filling and release ball valve

**Art. No. 187217**



### Thermal transfer printer (surcharge)

As an option, a thermal transfer printer for PE film labels can be attached to the machine. The printed label contains the date, time, tare, net and gross weight as well as an identifier of the filler.

**Art. No. 187275**



### Technical data CFA 5

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186170**

Electric motor: 1.5 kW, 400 V, 50 Hz, 1400 rpm

Filling power: 5 kg/min

**Art. No. 186173**

Electric motor: 2.2 kW, 400 V, 50 Hz, 1400 rpm

Filling power: 8 kg/min

**Art. No. 186172**

Electric motor: 4.0 kW, 400 V, 50 Hz, 1400 rpm

Filling power: 15 kg/min



Special voltages and other frequencies upon request

**Electric cable feed line:**

5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Electr. pressure switch:** 100 bar

**Mech. safety valves:** 2 x 130 bar

Freely programmable electronic floor scales

### Dimensions:

	Pump stand	Control desk with support	Floor scales with access ramp
Height [mm]:	605	1035	1000
Width [mm]:	845	500	600
Depth [mm]:	610	505	995
Weight [kg]:	98	37	44
<b>Art. No. 186170</b>			
Weight [kg]:	100	37	44
<b>Art. No. 186173</b>			
Weight [kg]:	136	37	44
<b>Art. No. 186172</b>			

**Colour:** RAL 7032 pebble grey

**IP rate:** IP54



## Modular CO<sub>2</sub> filling machines for batch filling with cryogenic carbon dioxide.

# Carbon dioxide filling units CFA 5-1W and CFA 5-2W

- Art. No. 186167

Carbon dioxide filling unit CFA 5-1W with pump stand, control stand and floor scales including access ramp.

### Highly efficient and flexible

The carbon dioxide filling units CFA 5-1W and CFA 5-2W are the two convenient models of the CFA 5 whose working method is also applicable here. But they are equipped with a control stand instead of a control desk, providing more operating convenience.

The second independent filling control of the CFA 5-2W enables a higher performance through alternating or parallel filling on both scales.

- Carbon dioxide filling unit in modular design
- For CO<sub>2</sub> fire extinguishers and cylinders up to 50 kg



### Pump stand

The pump motor of the CFA 5-1W and the CFA 5-2W has a 2-stage speed regulation which optimally adjusts the filling speed in dependence on the size of the CO<sub>2</sub> cylinders to be filled.

### Control stand



The control stand of the CFA 5-1W guarantees ergonomically favourable operation. It contains a programmable scales display unit, manometers for filling pressure and circulation admission pressure, an overpressure indicator, the motor speed selector switch and an operating hours counter. Another selector switch lets you call up 3 different, freely programmable cut-off weights for the scale.



The control stand of the CFA 5-2W has two independently operating filling controls with connections for two filling armatures and two floor scales platforms.

### Floor scales platform

The floor scales platform (weighing range 0-150 kg) for CO<sub>2</sub> cylinders up to 50 kg, including cylinder holder, access ramp, filling armature and high pressure hose, is an integral component of the CFA 5-1W and is available twice with the CFA 5-2W.



• **Art. No. 186168**

Carbon dioxide filling unit CFA 5-2W with pump stand, control stand with two filling controls and two floor scales including access ramps.



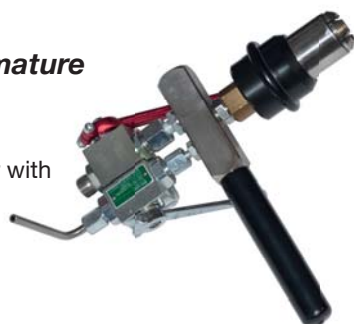
### Filling armature

The filling armature of the CFA 5-1W has a filling and a release ball valve and can be attached to the CO<sub>2</sub> cylinder as well as to the scales platform if applicable. It is available twice with the CFA 5-2W



### Quick action filling armature (surcharge)

Quick action filling connector with filling and release ball valve



**Art. No. 187217**

### Thermal transfer printer (surcharge)

As an option, a thermal transfer printer for PE film labels can be attached to the machine. The printed label contains the date, time, tare, net and gross weight as well as an identifier of the filler.

**Art. No. 187275**



### Technical data CFA 5-1W, CFA 5-2W (EN ISO 12100-1, EN ISO 12100-2, EN 60204)



#### **Art. No. 186167 (CFA 5-1W)**

**Filling power:** 8 kg/min  
**Electr. pressure switch:** 100 bar  
**Mech. safety valves:** 3 x 130 bar

#### **Art. No. 186168 (CFA 5-2W)**

**Filling power:** 8 kg/min  
**Electr. pressure switch:** 100 bar  
**Mech. safety valves:** 4 x 130 bar

**Electric motor, 2-stage:**  
400 V, 50 Hz, 1.4 kW at 705 rpm  
or 2.2 kW at 1435 rpm

**Electric cable feed line:**  
5 m cable feed line H07RN-F 5 G 1.5 mm<sup>2</sup>,  
oil and acid resistant

Freely programmable electronic  
floor scales with 3 switching points  
Stored program control

#### Dimensions:

	Pump stand	Control stand	Floor scales with Access ramp
<b>Art. No. 186167</b>			
Height [mm]:	605	1150	1000
Width [mm]:	845	690	600
Depth [mm]:	610	620	995
Weight [kg]:	136	110	44
<b>Art. No. 186168</b>			
Height [mm]:	605	1150	1000
Width [mm]:	845	890	600
Depth [mm]:	610	620	995
Weight [kg]:	136	130	2 x 44

**Colour:** RAL 7032 pebble grey

**IP rate:** IP54

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# Testing and





# nd service devices



**Safe pressure test of wall hydrants  
and fire pressure hoses.**

## Hydrant testing pump HPP Basic Hose drying device STG Basic

### Good and economic

- Hydrant testing pump and hose drying device from the "Basic Line" series with optimised price-performance ratio
- Safe pressure test of wall hydrants and fire pressure hoses
- Effective drying of fire pressure hoses
- Mobile, easy to transport devices for "on site" test



### Hydrant testing pump HPP Basic

The hydrant testing pump HPP Basic is a compact device with continuously adjustable pressure capacity for mobile use for the pressure test of wet / dry fire extinguishing water lines, wall hydrants and water pressure hoses. A three-plunger water pump provides the pressure which can be continuously adjusted by a pressure regulator. The adjusted pressure can be read at the glycerine-filled manometer.

### Accessories (surcharge)



Manifold for simultaneous pressure testing of up to 3 fire pressure hoses, floorstanding model, max. 16 bar

**Art. No. 186588**

Manifold, floorstanding model, max. 30 bar

**Art. No. 186589**

- The hydrant testing pump HPP Basic for the mobile pressure testing of wet / dry riser pipes, shape-retaining hoses and fire pressure hoses.

### Additional accessories (surcharge)

Hose closure size C with automatic vent valve

**Art. No. 186553**

Adapter size C - D

**Art. No. 186551**

Adapter size B - C

**Art. No. 186552**

Retaining washer size C

**Art. No. 186554**

Coupling size C on ¾ inch external thread for water inlet

**Art. No. 186555**

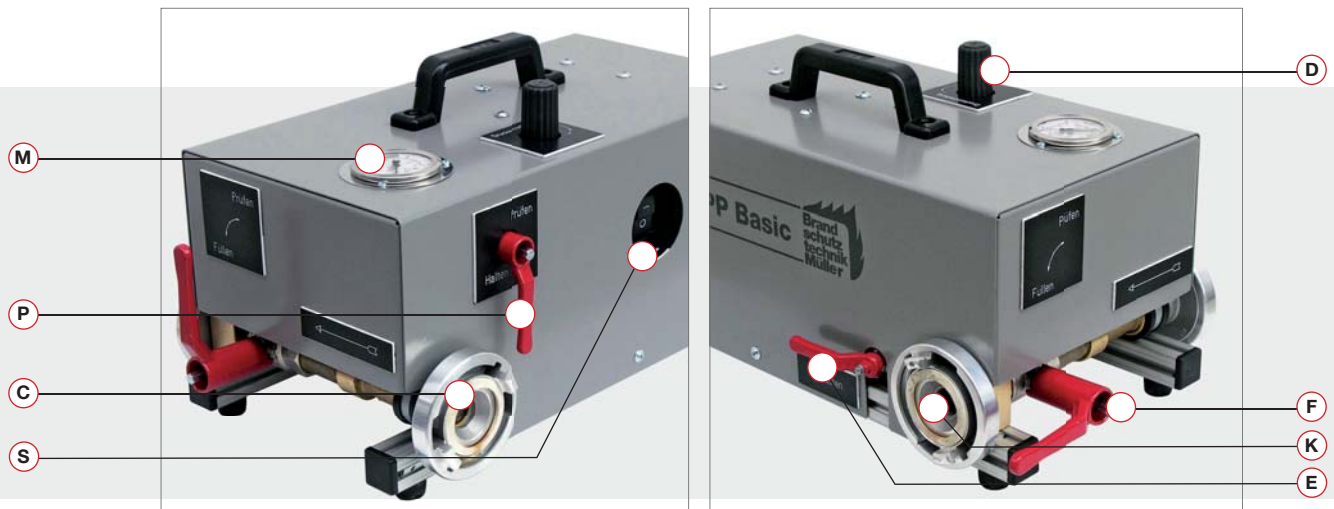
Attachable mobile base parts, approx. 4 kg

**Art. No. 186587**



#### • Handling

Connect the HPP Basic via the Storz coupling (C) to the water supply. After the fire pressure hose to be tested has been connected to the coupling (K), it is filled with water by opening the filling ball valve (F). Next, the test ball valve (P) is closed to prevent pressure kickback in the filling line. The test pressure is then built up by switching on the motor at the switch (S). The turning handle (D) regulates the pressure which can be read at the manometer (M). After the test, the fire pressure hose is decompressed by the release ball valve (E).



### Hose drying device STG Basic

The device is composed of an aluminium profile frame, an electric motor with side channel blower and flanged air heater, and a Storz C coupling connection.

Motor and air heater are protected by a galvanized and coated sheet steel housing. A 5 m cable and cam switch supply the power.

To dry, one side of the inside wet fire pressure hoses is connected to the Storz C coupling of the hose drying device STG Basic. The other end of the hose remains free to discharge air. The device supplies a flow rate of approx. 1600 L/min. The heating capacity is 1200 W.



- The hose drying device STG Basic is used to dry fire pressure hoses.

#### Technical data HPP Basic

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



Operating pressure: max. 16 bar, adjustable

**Art. No. 186585**

Operating pressure: max. 30 bar, adjustable

**Art. No. 186586**

Filling power: 11 L/min

Electric motor: 230 V, 50 Hz, 2.1 kW, 1400 rpm

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

Dimensions: 310 mm height, 530 mm width, 280 mm depth

Weight: 24.5 kg, Colour: Grey

IP rate: IP54

#### Technical data STG Basic

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186534**

Flow rate: 1600 L/min

Electric motor: 230 V, 50 Hz, 0.75 kW, 2840 rpm

Air heater: 230 V, 50 Hz, 1200 W

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

Dimensions: 385 mm height, 300 mm width, 445 mm depth

Weight: 23.5 kg

Colour: Grey

IP rate: IP54



Safe pressure test of fire extinguishing water lines, wall hydrants and fire pressure hoses.

## Hydrant testing pumps HPP and HPP Maxi

### *Mobile, compact, strong*

Hydrant testing pumps are compact devices with differing adjustable pressure capacity. They are suitable for mobile use for the pressure test of fire extinguishing water lines, wall hydrant riser pipes and water pressure hoses. A three-plunger water pump with the HPP and a diaphragm pump with the HPP Maxi provides the pressure which can be continuously adjusted by a pressure regulator.

- Mobile device for "on site" testing
- Non-hazardous testing with water pressure

The adjusted pressure can be read at the glycerine-filled manometer. The automatic non-return valve prevents return flow during pressure build-up.

Handling is easy: The test object is filled with water via the ball valve at the device. Then the pressure is built up. After the test, a second ball valve decompresses the pressure.

Water inlet and outlet are fitted with fixed Storz C couplings, or 1 inch external thread for the 60 bar version of the HPP. A C coupling with  $\frac{3}{4}$  inch external thread is also available as accessory for the water inlet.

A galvanized and powder-coated sheet steel hood with ventilation perforated plate at the front protects the motor and the pump from dirt and damage.



- The hydrant testing pumps HPP have been designed for mobile use for pressure testing. They are compact devices with high adjustable pressure capacity.

### *Manifold, standard model (surcharge)*

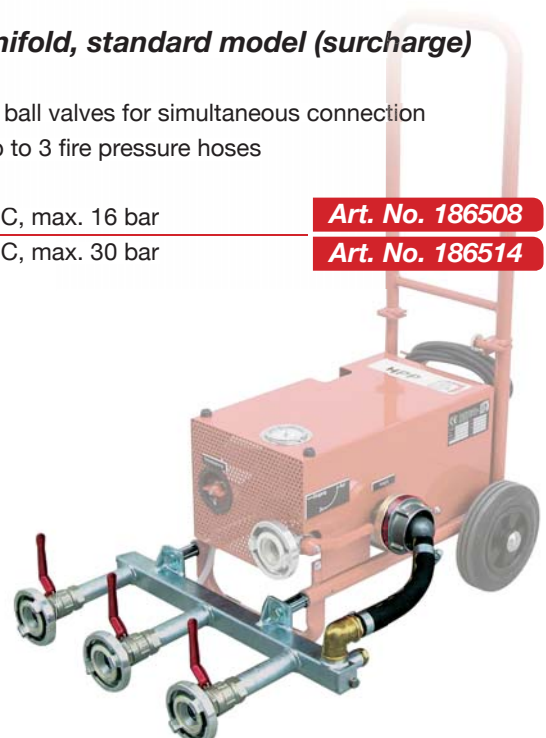
With ball valves for simultaneous connection of up to 3 fire pressure hoses

Size C, max. 16 bar

Size C, max. 30 bar

**Art. No. 186508**

**Art. No. 186514**



- The devices are mounted on a steel pipe transport cart with folding handle. They also have a device for winding up the electric cable.

- Easily mountable manifold. Four-fold manifold or other coupling system available upon request.

- The hydrant testing pump HPP Maxi has a greater filling power than the HPP.



- Floorstanding model of the manifold. Other coupling systems and the depicted hose closures available upon request.

### Important details:

- High filling power
- Continuously adjustable pressure control valve
- Automatic non-return valve in the filling line
- Strong electric motor with low speeds
- Integrated mobile base with folding handle
- High-quality robust housing
- Large roller-bearing mounted transport wheels
- Appliance for winding the electric cable
- Easily mountable manifold

### Manifold, floorstanding model (surcharge)

With ball valves for simultaneous connection of up to 3 fire pressure hoses

Size C, max. 16 bar **Art. No. 186588**

Size C, max. 30 bar **Art. No. 186589**

### Accessories (surcharge)

Adapter size C - D **Art. No. 186551**

Adapter size B - C **Art. No. 186552**

Hose closure size C with automatic vent valve **Art. No. 186553**

Retaining washer size C **Art. No. 186554**

Coupling size C on 3/4 inch external thread, for water inlet **Art. No. 186555**

### Technical data HPP

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186500**



Operating pressure: max. 16 bar, adjustable

Filling power: 12 L/min

**Art. No. 186515**

Operating pressure: max. 30 bar, adjustable

Filling power: 12 L/min

**Art. No. 186517**

Operating pressure: max. 60 bar, adjustable

Filling power: 13 l/min

Electric motor: Art. No. 186500 and

Art. No. 186515: 230 V, 50 Hz, 1 kW, 1400 rpm

Art. No. 186517: 230 V, 50 Hz, 2.2 kW, 1400 rpm

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>,

oil and acid resistant

Transport wheels: Ø 200 mm, roller bearing mounted

Dimensions: Art. No. 186500 and

Art. No. 186515: 38 kg, Art. No. 186517: 41 kg

475 mm transport height, 1000 mm height,

460 mm width, 650 mm depth

Colour: Red, RAL 3000, IP rate: IP54

### Technical data HPP Maxi

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186565**



Operating pressure: max. 30 bar, adjustable

Filling power: 35 L/min max

Electric motor: 230 V, 50 Hz, 2.2 kW, 1400 rpm

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>,

oil and acid resistant

Transport wheels: Ø 200 mm, roller bearing mounted

Dimensions: 550 mm transport height, 1035 mm height,

520 mm width, 760 mm depth

Weight: 69 kg, Colour: Red, RAL 3000

## Hydrant testing pumps HPM and HHP, hydrant testing set HPS.

# Hydrant testing devices HPM, HHP and HPS

### Hydrant testing pump HPM

The manual hydrant testing pump HPM can measure the static and flow pressure of a wall hydrant's fire extinguishing water and determine the flow rate. In addition, wall hydrants and fire pressure hoses can be pressure tested very simply.

- Flow rate determination and pressure testing in one
- Integrated water collection tank
- Mobile and stable device

The HPM has a 50 litre plastic water collection tank with water inlet funnel, vent openings and a ball valve at the bottom for easy draining, and is mounted to a stable mobile base.

The hand pump and the pressure gauge are ergonomically mounted to the mobile base. The device has two fixed Storz C couplings and a fixed D coupling with non-return valve for connection to the high pressure hose of the testing pump. The mobile base contains two C retaining washers and an aluminium storage for pressure hoses.

- Hydrant testing pump HPM Maxi with large water collection tank (125 L) for special application purposes.

**Art. No. 187485**

### Accessories (surcharge)

Collection tank emptying pump with battery and charging power unit, delivers approx. 20 L/min

**Art. No. 186580**



- Manual hydrant testing pump HPM with basic equipment.

### Additional accessories (surcharge)

Nitrogen cylinder 3 L

**Art. No. 187570**

Pneumatic hose draining for HPM (Shut-off ball valve with hose and cylinder holder)

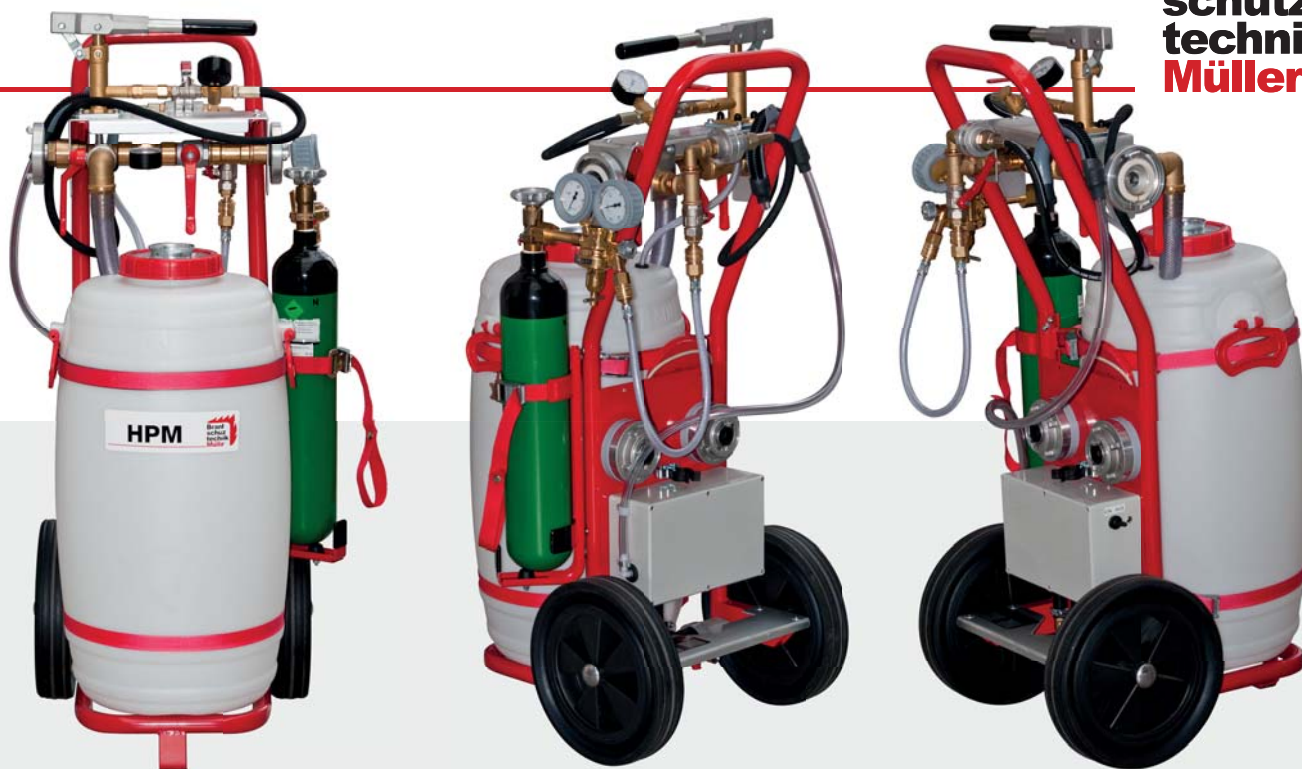
**Art. No. 186581**

N<sub>2</sub> pressure reducer, 0 - 20 bar, with quick action coupling and manometer protective caps, max. 200 bar

**Art. No. 186801**







- Hydrant testing pump HPM: Maximum configuration with emptying pump, pneumatic hose draining, nitrogen cylinder, N<sub>2</sub> pressure reducer.

### Hydrant hand testing pump HHP

Wall hydrants and fire pressure hoses can be pressure tested very simply with the hydrant hand testing pump HHP.

**Art. No. 187142**



Hydrant testing pump HPP-16 with additional clamping device for wall hydrant nozzles (not pictured)

**Art. No. 187145**

### Hydrant testing set HPS

The hydrant testing set HPS can measure the static and flow pressure of a wall hydrant's fire extinguishing water and determine the flow rate.

**Art. No. 186995**



#### Technical data

##### Hydrant testing pump HPM

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186516**



Operating pressure: 16 bar max.

Container capacity: 50 L

Transport wheels: Ø 300 mm

Dimensions:

Height [mm]: 1105

Width [mm]: 450

Depth [mm]: 590

Weight [kg]: 28. Surface: Red (RAL 3000)

#### Technical data

##### Hydrant hand testing pump HHP

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 187142**



Operating pressure: max. 16 bar

Hydrant hose with C coupling: 1.5 m

Dimensions:

Height [mm]: 310

Width [mm]: 590

Depth [mm]: 195

Weight [kg]: 7

High-grade steel housing

#### Technical data

##### Hydrant testing set HPS

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186995**



Dimensions:

Length complete [mm]: 1500

Hose length [mm]: 1300

Transport case:

Height [mm]: 130

Width [mm]: 520

Depth [mm]: 370

Weight [kg]: 4.5

**Effective drying device for fire pressure hoses.**

## Hose drying device STG

### *High hot air capacity for drying*

To dry, one side of the inside wet fire pressure hoses is connected to the Storz C coupling of the hose drying device STG.

The other end of the hose remains free to discharge air. The device has an air moving power of approx. 1600 L/ min. The heating capacity is 2200 W.

- Effective drying device for fire pressure hoses
- Large roller-bearing mounted transport wheels
- Integrated mobile base with folding handle

The device is composed of a steel pipe frame with wheels, an electric motor with side channel blower and flanged air heater, an adjustable thermostat and a Storz C coupling connection.

Motor, air heater and thermostat are protected by a galvanized sheet steel housing.

A 5 m cable and cam switch supply the power.



- The STG is mounted on a steel pipe transport cart with handle. The handle can be folded down to enable smaller dimensions during transport.



- Connection to the fire pressure hoses.

- The hose drying device STG is used to dry fire pressure hoses. It has an adjustable, thermostat-controlled air heater.





- Plug-on hose winder for hose drying device STG as accessory.



### **Plug-on hose winder for hose drying device STG (surcharge)**

Plug-on hose winder for fire pressure hoses, for attachment to the hose drying device STG.

**Art. No. 187215**



### **Technical data Hose drying device STG**

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186531**

**Air moving power:** 1600 L/min

**Electric motor:**

230 V, 50 Hz, 1.1 kW, 2820 rpm

**Air heater:** 230 V, 50 Hz, 2.2 kW

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>,  
oil and acid resistant



**Transport wheels:**

Ø 200 mm, roller bearing mounted

**Dimensions:**

Height [mm]: 1000

Transport height [mm]: 475

Width [mm]: 480

Depth [mm]: 610\* without coupling

**Weight [kg]:** 36

**Colour:** Red, RAL 3000

**IP rate:** IP54



## Pressure testing of fire extinguisher hoses.

# Hose testing device SPG

### Simply safe

The hose testing device SPG can test all fire extinguisher hoses with pistols for pressure resistance and gas-tightness. In the SPG the fire extinguisher hoses are tested in extended length. The device is connected by a high pressure hose (250 bar) to a nitrogen cylinder.

- High operator protection through shatter-proof polycarbonate hood
- Practice-oriented testing of fire extinguisher hoses



The pressure reducer installed in the device is set to the required test pressure. The fire extinguisher hose to be tested is coupled to the SPG with the matching testing connector. For safety reasons, the transparent safety cover must be closed. The ball valve for testing the fire extinguisher hose can then be opened. After the test the ball valve is closed. The hose vents automatically. The safety cover can be opened to remove the fire extinguisher hose. A hose connection (M22 x 1.5 flat or conically sealing) is included testing connector with the SPG.

### Special compressor

Sound-insulated special compressor with max. 20 bar operating pressure.

**Art. No. 187067**



### Testing connectors (surcharge)

No.	Description	Art. No.
1	Testing connector M 26x1.5 EXT. for Wintrich, Total P 50	187166
2	Testing connector R ½" EXT. for Weber	187167
3	Testing connector M 24x1.5 EXT. for Bavaria P 50	187168
4	Testing connector M 12x1 for Bav. GI INT.	187169
5	Testing connector M 14x1.5 INT. for Vulkan, Wintrich	187170
6	Testing connector M 18x1.5 INT. for Minimax, Gloria PS/PE	187171
7	Testing connector closing cap M 22x1.5 INT.	187172
8	Testing connector closing cap M 26x1.5 INT.	187173
9	Testing connector M 16x1.5 INT. for Döka GI 6/12, Total GX	187174

No.	Description	Art. No.
10	Testing connector M 20x1.5 INT. for Neuruppin, Bavaria Quick	187175
11	Testing connector M 22x1.5 EXT. for Gloria, Werner, Total GI	187176
12	Testing connector M 20x1.5 EXT. for Total GS	187305
13	Testing connector M 22x1.5 INT. for Jockel P 6 J40	187308
14	Testing connector G ¾" EXT. for Gloria P 50	187309
15	Testing connector M 30x1.5 EXT. for Gloria P 250	187319
16	Testing connector M 24x2 EXT. Werner / Sicli MQ / ES	187313



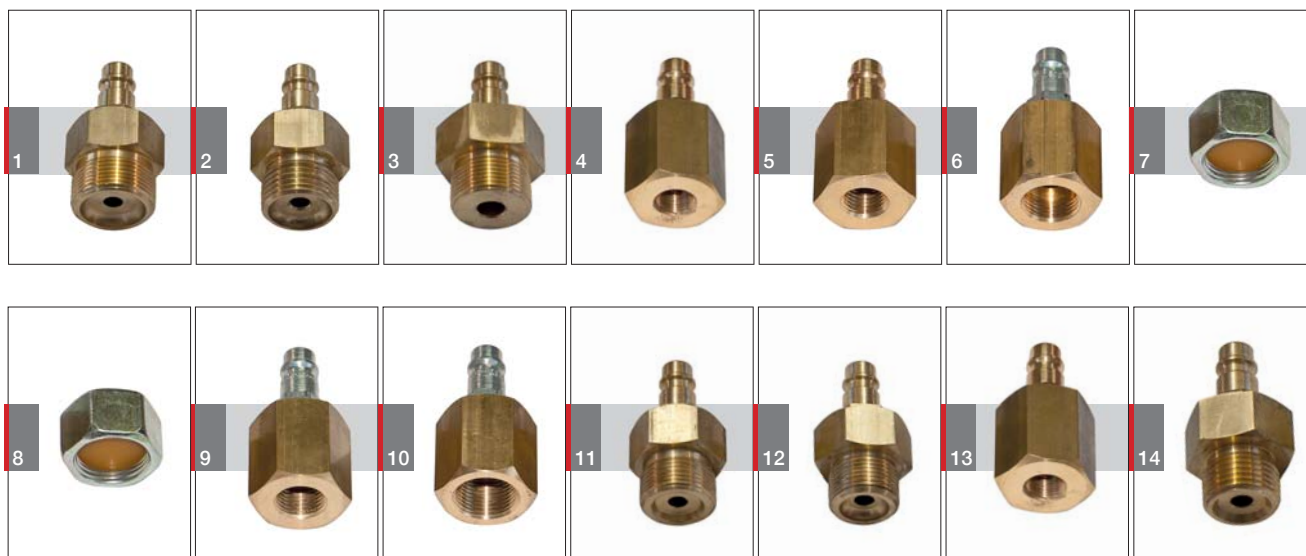
- The hose testing device SPG can test all fire extinguisher hoses.



- Exact pressure setting.



- Manometers for inlet and test pressure.



- Testing connectors (accessories)

### Technical data hose testing device SPG

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186405**



**Inlet pressure:** max. 200 bar

**Test pressure:** max. 30 bar

**Dimensions:**

Height [mm]: 230

Width [mm]: 1150

Depth [mm]: 215

**Weight [kg]:** 18

**Surface:** zinc plated

### Technical data special compressor

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 187067**



**Operating pressure:** max. 20 bar

**Suction capacity:** 160 L/min

**Filling volume:** 125 L/min

**Electric motor:**

230 V, 50 Hz, 1.1 kW, 3000 rpm

**Sound pressure level:** 60 dB(A)

**Pressure vessel:** 4 l

**Dimensions:**

Height [mm]: 510

Width [mm]: 350

Length [mm]: 570

**Weight [kg]:** 31

## Pressure testing of hoses and safety valves of fire extinguishers.

# Hose and valve testing device SPGV

### Simply safe

Pressure resistance and gas-tightness of all fire extinguisher hoses with and without pistol are tested in the SPGV. In addition, this device can also test the safety valves of fire extinguisher valves. The device is connected with a high pressure hose via quick action coupling to a 50 bar pressure reducer of a compressed air or nitrogen cylinder.

- Practice-oriented testing of fire extinguisher hoses and valves
- High operator protection through shatter-proof polycarbonate hood



The fire extinguisher hose to be tested is screwed into the device. There are five different test connection options installed in the device. Open fire extinguisher hoses without pistol are closed by a nozzle closure for the test.

All fire extinguisher hoses are tested in extended length. To test, the shatter-proof polycarbonate hood must be closed which in turn opens the pressure supply. After the test, all lines are automatically vented when the hood is opened. Various valve testing adapters are

- With the hose testing device SPGV the fire extinguisher's hose with pistol and valve with safety valve can be tested together in one working process. Since these parts also interact in the fire extinguisher, this test provides the best possible functional reliability.

available to test the safety valves of the fire extinguisher valves. The safety valve is screwed into the matching valve testing adapter which is connected with the connecting hose to the SPGV.

### Valve testing adapters (surcharge)

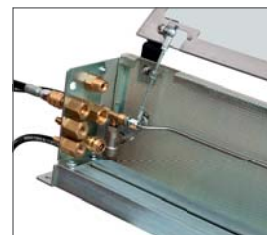
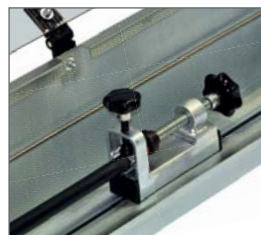


- Other valve testing adapters can be manufactured according to a sample safety valve.





- Testing of a fire extinguisher hose with pistol in extended length.



- Testing of a stored pressure fire extinguisher hose which is sealed by the longitudinally flexible nozzle closure of the SPGV.



- Testing of a safety valve with a valve testing adapter.

No.	Description	Art. No.
1	Werner Gi	187063
2	Total Y	186841
3	Bavaria	187064
4	Wintrich UHsp	186954
5	Total	186842
7	Gloria Gi	186840
10	Werner GA	186844
11	Minimax, Total, Bavaria, Jockel, BW, Neuruppin	186843
12	P 50, 1"	186550

- Other valve testing adapters can be manufactured according to a sample safety valve.

### Nitrogen pressure reducer, compressed air reducer and connecting hose (surcharge)

Nitrogen pressure reducer 0 - 50 bar, admission pressure max. 200 bar

**Art. No. 186802**

Compressed air pressure reducer 0 - 50 bar, admission pressure max. 200 bar

**Art. No. 186882**

Connecting hose from quick action coupling of the safety valve testing line to the valve testing adapter

**Art. No. 186402**



### Technical data hose testing device SPGV

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186401**



**Inlet pressure:** max. 40 bar

**Supply hose with coupling plug:** 1.5 m

**Dimensions:**

Height [mm]: 220

Width [mm]: 1100

Depth [mm]: 225

**Weight [kg]:** 18

**Surface:** zinc plated

**5 test connections (installed):**

M 14 x 1.5 Int. thread

M 16 x 1.5 Int. thread

M 18 x 1.5 Int. thread

M 22 x 1.5 Int. thread

M 22 x 1.5 Ext. thread, flat or conically sealing

Quick action coupling for the safety valve test line

## Water pressure test of compressed gas cylinders up to 500 bar.

# Hydrotesting system HTG 500

### Safe and powerful

The hydrotesting system HTG 500 can simultaneously test up to 5 steel or aluminium compressed gas cylinders with a test pressure of up to 500 bar, e.g. CO<sub>2</sub> fire extinguishers, CO<sub>2</sub> cylinders, breathing apparatus compressed air bottles.

- Non-hazardous pressure testing of metallic compressed gas cylinders
- Hydrotesting of several cylinders in one operating process
- Clamp, fill, test and empty with short work cycles

Before the first test, the collecting tank of the system is filled with water from a water tap via a filling hose. After clamping up to 5 compressed gas cylinders, they are filled with water from the basin via the installed electric pump. A filter will hold back any possible contaminations. The matching test adapters are screwed onto the cylinders and connected to the high pressure hoses with the quick action couplings.

Then the delivered water test pressure can be continuously adjusted via the pressure reducer which the compressed-air operated test pump, and checked by the manometer (Class 1.0).

After the test the water can be pumped back from the containers to the collecting tank for re-use, or the container can be emptied into the tank by upending.

For the subsequently required drying of the cylinders, the optional cylinder drying device BTG (Art. No. 186532) can be used.

- The quick action clamping devices can securely clamp up to 5 compressed gas cylinders during the hydrotest.



- The hydrotesting system HTG 500 can test steel or aluminium compressed gas cylinders with an adjustable test pressure of up to 500 bar. The system guarantees the highest possible operator protection because in the event of a bursting cylinder, the water pressure test only releases minor volume for decompression, and the high strength polycarbonate glazing is additional protection. The system can be expanded with an additional test bench, enabling considerable time savings thanks to alternating work.

### Test adapters for HTG 500 (surcharge)

Test adapter, small conical

**Art. No. 187101**

Test adapter, large conical

**Art. No. 187102**

Test adapter, cylindrical M18 x 1.5

**Art. No. 187320**

Test adapter, cylindrical M25 x 2

**Art. No. 187321**

Test adapter, cylindrical M30 x 2

**Art. No. 187322**

Special test adapter (upon request).

### Further options (surcharge)

Testing manifold for several CO<sub>2</sub> cartridges and small compressed gas cylinders for use in the test bench (upon request)

Test bench for 5 additional testing places (upon request)

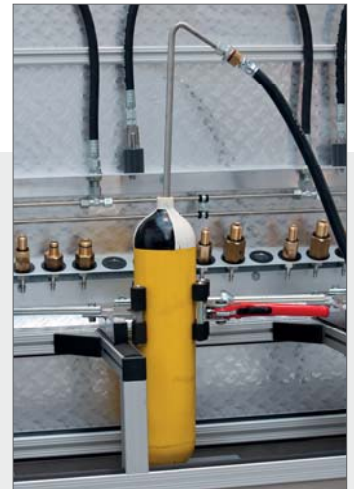




• Filling.



• Pressure testing.



• Emptying.



- The electrical, pneumatic and hydraulic components are configured in an operating and maintenance-friendly manner.



- The exactly adjusted test pressure can be read at the test gauge (Class 1.0).



- The control desk contains switches for the electric water pump and air pressure, air pressure controller, ball valve for testing / depressurization and pressure gauges for the air and water test pressures.

## Technical data hydrotesting system HTG 500 (EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186181**



**Maximum test pressure:** 500 bar

5 Adapters small conical

5 Adapters large conical

**Water pump:** 230 V, 50 Hz, 0,54 kW, 2800 rpm

Discharge rate: 45L/min

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Testing pump:**

Compressed-air operated fluid pump: max. 500 bar

Pressure reducer, adjustable: 0 - 4 bar

Safety valve: 4.5 bar

Required compressed air: < 10 bar, 300 L/min

**Dimensions:**

Height [mm]: 1780 or 2200  
at opened hood

Width [mm]: 2850

Depth [mm]: 560

**Weight [kg]:** 203

**Colour:**

Control panel: High-grade steel

Test bench: Aluminium

Collecting tank: High-grade steel



## Non-hazardous pressure testing of portable fire extinguisher containers.

# Hydrotesting system HTG 60

### Safe and efficient

The hydrotesting system HTG 60 with a test pressure of up to 60 bar can simultaneously test up to five containers of portable powder, water or foam fire extinguishers.

- Safe pressure testing with water pressure
- Hydrotesting of several containers in one operating process
- Clamp, fill, test and empty with short work cycles



Before the first test, the collecting tank of the system is filled with water from a water tap connection via a filling hose. After clamping up to 5 portable fire extinguisher containers they are filled with water from the basin via the installed electric pump. A filter will hold back any possible contaminations.

The matching test adapters are screwed onto the containers and connected to the high pressure hoses with the quick action couplings.

Then the delivered water test pressure can be continuously adjusted via the pressure reducer which controls the compressed-air operated test pump, and checked by the manometer (Class 1.6).

After the test the water can be pumped back from the containers to the collecting tank for re-use, or the container can be emptied into the tank by unclamping.

For the subsequently required drying of the containers, the optional cylinder drying device BTG (Art. No. 186532) can be used.

- The hydrotesting system HTG 60 can test containers of portable fire extinguishers with an adjustable test pressure of up to 60 bar. Working with this system is non-hazardous because in case of a bursting cylinder the water pressure test only releases a minor volume for decompression.

The system can be expanded with an additional test bench, enabling considerable time savings thanks to alternating work.

### Test adapters for HTG 60 (surcharge)



• Art. No. 187330



• Art. No. 187331



• Art. No. 187333

Test adapter, M24 x 1.5

**Art. No. 187330**

Test adapter, M30 x 1.5

**Art. No. 187331**

Test adapter, M34 x 1.5

**Art. No. 187333**

Special test adapters upon request.

- The quick action clamping devices can securely clamp up to 5 containers of portable fire extinguishers during the hydrotest.





• Filling.



• Pressure testing.



• Emptying.

### Further test adapters for HTG 60 (surcharge)



• Art. No. 187334



• Art. No. 187336



• Art. No. 187335

Test adapter with cap nut M74 x 2

**Art. No. 187334**

Test adapter, Wintrich USP

**Art. No. 187336**

Test adapter, Unitor

**Art. No. 187335**

Special test adapters upon request.



- The adjusted test pressure can be exactly read at the test gauge (Class 1.6).



- The control desk contains switches for the electric water pump and air pressure, air pressure controller, ball valve for testing / depressurization and pressure gauges for the air and water test pressure.

### Technical data hydrotesting system HTG 60 (EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186081**



**Maximum test pressure:** 60 bar

5 Adapters (please specify make of fire extinguisher)

**Water pump:** 230 V, 50 Hz, 0,54 kW, 2800 rpm  
Discharge rate: 45 L/min  
5 m cable feed line H07RN-F 3 G 1.5 mm²,  
oil and acid resistant

#### Testing pump:

Compressed-air operated fluid pump:  
max. 60 bar  
Pressure reducer, adjustable: 0 - 5 bar  
Safety valve: 6 bar  
Required compressed air: < 10 bar,  
300 L/min

**Weight [kg]:** 165

#### Dimensions:

Height [mm]: 1780  
Width [mm]: 2850  
Depth [mm]: 560

#### Colour:

Control panel: High-grade steel  
Test bench: Aluminium  
Collecting tank: High-grade steel

# Hydrotesting of portable fire extinguisher containers and compressed gas cylinders.

## Hydrotesting system HTG 500 / 60

### Safe and flexible

The hydrotesting system HTG 500 / 60 can test portable fire extinguisher containers and compressed gas cylinders with different test pressures: either with up to 60 bar, or with up to 500 bar - depending on container type.

- Combined system for testing powder, water, foam fire extinguishers as well as CO<sub>2</sub> fire extinguishers, CO<sub>2</sub> cylinders and breathing apparatus compressed air steel bottles
- Safe pressure testing with water pressure
- Hydrotesting of several containers / cylinders in one operating process



For each of the two pressure ranges a separate pressure circuit, an operating panel and the related different high pressure hose connections are installed in the control stand.

At each of the 5 testing places the test bench contains respectively 2 non-interchangeable hose connections to the tested containers / cylinders. Operation and function conform to the individual devices HTG 500 or HTG 60.

- The hydrotesting system HTG 500 / 60 is a combination of the devices HTG 500 and HTG 60. It is a system with allround characteristics which can test all fire extinguisher containers and compressed gas cylinders with the applicable test pressures.

### Test adapters for HTG 500 (surcharge)

Test adapter, small conical

**Art. No. 187101**

Test adapter, large conical

**Art. No. 187102**

Test adapter, cylindrical M18 x 1.5

**Art. No. 187320**

Test adapter, cylindrical M25 x 2

**Art. No. 187321**

Test adapter, cylindrical M30 x 2

**Art. No. 187322**

Special test adapters upon request.

### Further options (surcharge)

Testing manifold for several CO<sub>2</sub> cartridges and cylinders for use in the test bench (upon request)

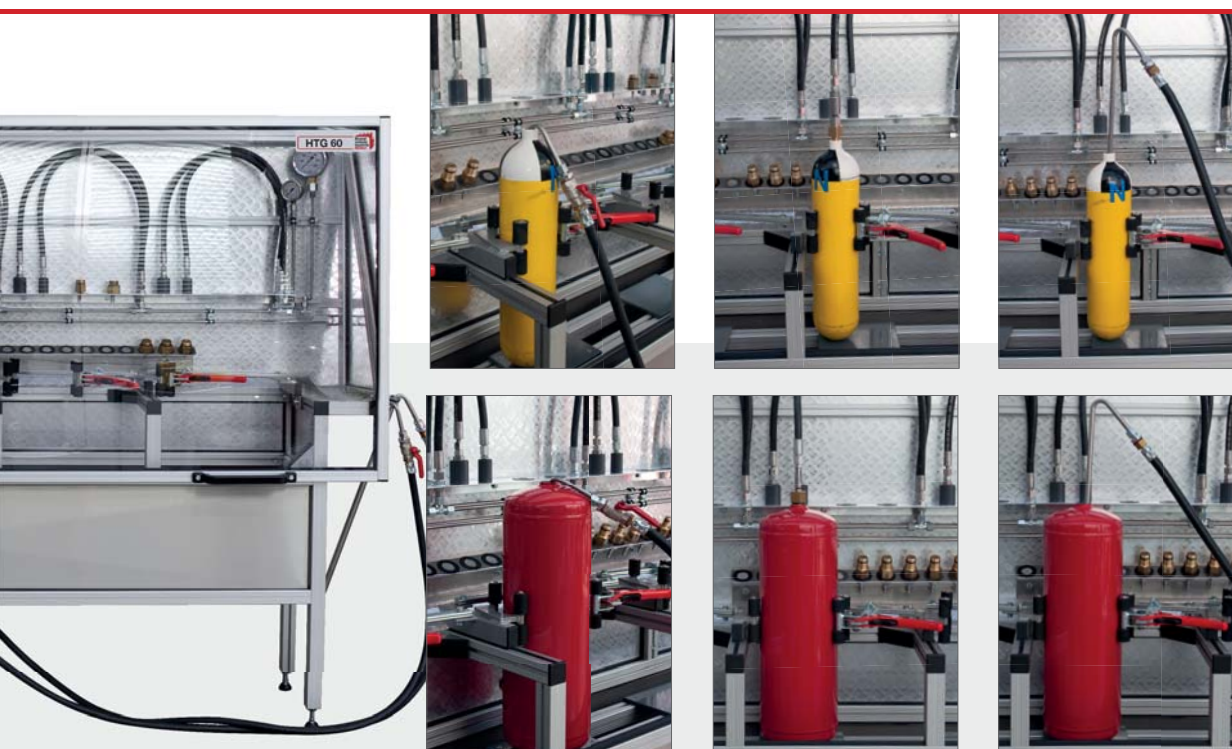
Test bench for 5 additional workplaces (upon request)



- Control stand with separate operating elements for "HTG 500" and "HTG 60".







• Filling, pressure testing and emptying of up to 5 steel or aluminium compressed gas cylinders.

• Filling, pressure testing and emptying of up to 5 containers of portable powder, water or foam fire extinguishers.

### Test adapters for HTG 60 (surcharge)



• Art. No. 187330



• Art. No. 187331



• Art. No. 187333



• Art. No. 187334



• Art. No. 187336



• Art. No. 187335

Test adapter, M24 x 1.5

**Art. No. 187330**

Test adapter, M30 x 1.5

**Art. No. 187331**

Test adapter, M34 x 1.5

**Art. No. 187333**

Test adapter with cap nut M74 x 2

**Art. No. 187334**

Test adapter, Wintrich USP

**Art. No. 187336**

Test adapter, Unitor

**Art. No. 187335**

Special test adapters upon request.

### Technical data hydrotesting system HTG 500 / 60

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)



**Art. No. 186080**

**Maximum test pressure:** 500 bar

5 adapters small conical

5 adapters large conical

**Maximum test pressure:** 60 bar

5 adapters (please specify make of fire extinguisher)

**Water pump:** 230 V, 50 Hz, 0,54 kW, 2800 rpm

Discharge rate: 45 L/min

5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>,

oil and acid resistant

#### Testing pumps:

Compressed-air operated fluid pump, max. 500 bar

Pressure reducer, adjustable: 0 - 4 bar

Safety valve: 4.5 bar

Compressed-air operated fluid pump, max. 60 bar

Pressure reducer, adjustable: 0 - 5 bar

Safety valve: 6 bar

Required compressed air: < 10 bar, 300 L/min

#### Dimensions:

	Pump stand	Controlstand
Height [mm]:	1780	1160
open [mm]:	2200	
Width [mm]:	2500	700
Depth [mm]:	560	610
Weight [kg]:	189	100

#### Colour:

Control stand: RAL 7032 pebble grey

Test bench: Aluminium

Collecting tank: High-grade steel

## Water jacket testing system Professional 2, cylinder drying device BTG, tumbling device.

# Water jacket testing system Professional 2

### Volumetric hydrotesting up to 500 bar

The water jacket testing system Professional 2 can subject composite compressed gas cylinders up to 10 L with the prescribed volumetric hydrotest.

- High-grade steel cabinet with 2 test tanks (Ø 150 and 240 mm)
- Computer system for cylinder data recording, measured value determination/storage and test report preparation
- With own test pressure generator, or for connection to the 500 bar pressure generator of an available hydrotesting system HTG 500 or HTG 500/60 KOMBI

### Test sequence

The water jacket testing method is a volumetric hydrotest of the expansion of a compressed gas cylinder under pressure, where the expansion is measured by way of the water surrounding the cylinder ("water jacket"). After the cylinder data are recorded by the computer, the compressed gas cylinder is completely filled with water and connected to the test hose where it is easily lowered by counterweight into the test tank corresponding to the cylinder diameter. The test tank is filled with water to the neck of the cylinder to be tested. The computer shows the deviation from the correct fill level. Now the measurement procedure can be started through drift calculation and zero setting. The operating pressure of the cylinder (e.g. 300 bar) is first adjusted at the pressure generator. The expansion of the cylinder for this pressure is displayed and saved by mouse click. Next, the pressure at the pressure generator is increased to the required test pressure (e.g. 450 bar), the expansion of the cylinder

### Pressure generator (optional)

- The optional pressure generator with compressed air operated testing pump enables the continuous adjustment of the required water test pressure up to 450 bar, which can be read at the manometer.



- The water jacket testing system Professional 2 is used to test the expansion of composite compressed gas cylinders under pressure.

under this test pressure is displayed and saved by mouse click. After complete decompression of the pressure generator (test pressure 0 bar), the remaining expansion of the cylinder is displayed after a brief wait time, and saved by mouse click.

The remaining expansion may not exceed a specific percentage of the expansion under test pressure (e.g. 5 %). After removing the test object from the test tank and uncoupling it from the test hose, the next compressed gas cylinder can be tested.

### Water jacket testing system Professional 2

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

without pressure generator

**Art. No. 186615**

with pressure generator

**Art. No. 186610**

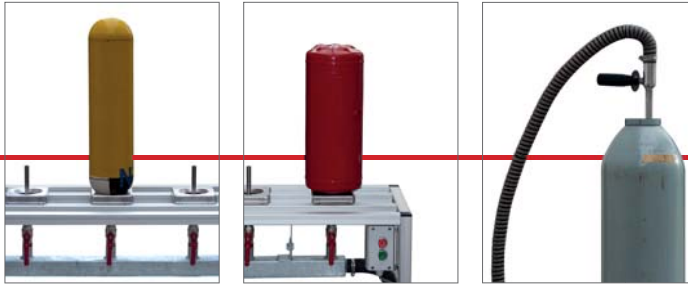


#### Dimensions of test console:

Height [mm]: 2050  
Table height [mm]: 900  
Width [mm]: 1000  
Depth [mm]: 700  
Test tank Ø [mm]: 150 and 240

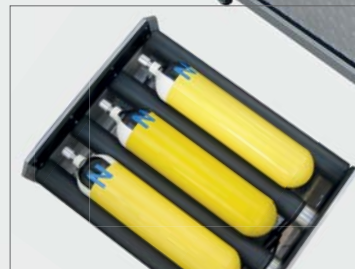
Weight [kg]: 70

High-grade steel housing



• Art. No. 186532

The cylinder drying device BTG is a quiet drying system for compressed gas cylinders. The high thermostat-controlled hot air capacity guarantees fast drying.



## Cylinder drying device BTG

The cylinder drying device BTG is used to dry steel or aluminium compressed gas cylinders with hot air, e.g. after hydrotesting. Up to 5 containers can be dried simultaneously. The wet containers are placed "upside down" over the individually closable air pipes. The residual water is collected in the collecting tank. A side channel compressor with heating and thermal monitor blows hot air into the containers. The drying time depends on the temperature set by the control electronics and the size of the containers.

### Accessories (surcharge)

Drying appliance for a big cylinder

Art. No. 186533



### Technical data cylinder drying device BTG

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

Art. No. 186532

**Side channel compressor:** 230 V, 50 Hz, 0.75 kW, 2840 rpm  
**Air heater, adjustable:** 230 V, 50 Hz, 2.2 kW  
 5 m cable feed line H07RN-F 3 G 1.5 mm<sup>2</sup>, oil and acid resistant

**Dimensions:**

Height [mm]: 860  
 Width [mm]: 1340  
 Depth [mm]: 370  
 Weight [kg]: 55

Aluminium profile frame  
 Collecting tank with draw-off tap: hot-dip galvanized



• Art. No. 186180

The tumbling device enables cleaning the inside of up to 3 compressed gas cylinders at the same time. It has been encapsulated in a high-grade steel housing for noise absorption.

## Tumbling device

The compressed gas cylinders to be cleaned are filled with granite gravel, sealed, and placed on the conveying rollers of the tumbling device.

After the cover is closed, the rollers rotate the compressed gas cylinders around their axes. They also swing up and down to clean the shoulder and bottom of the cylinders.

### Technical data tumbling device

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

Art. No. 186180

**2 electric motors:**  
 230 V, 50/60 Hz, 0.3 kW and 0.4 kW

**Dimensions:**

Height [mm]: 855  
 Width [mm]: 1000  
 Depth [mm]: 700

**Weight [kg]:** 106  
 High-grade steel housing





## Water, personnel and energy-saving testing of dry riser pipes.

# Flow meter for dry riser pipes DMT 600

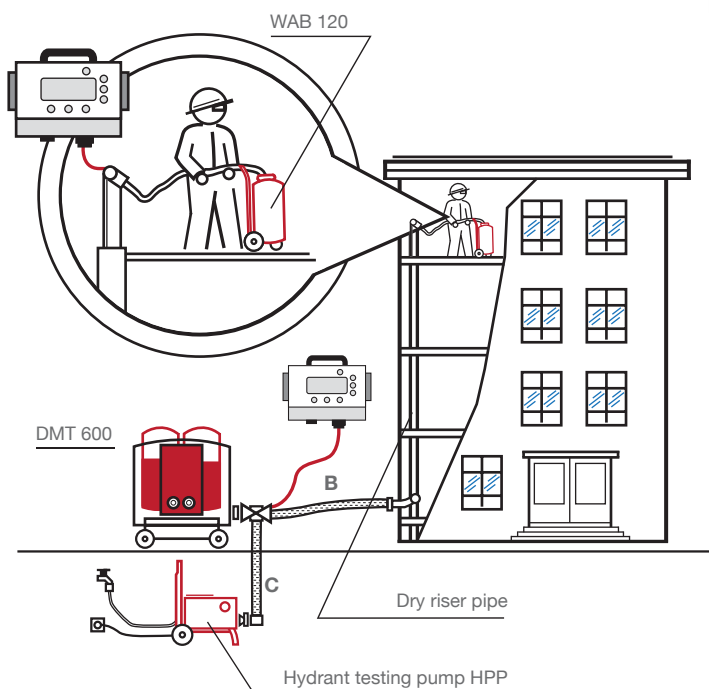
### *Test in accordance with DIN 14 462*

In accordance with DIN 14 462, dry riser pipes in buildings must be subjected to inspections at regular intervals. To document the functionality of the lines this test includes, among other things, the following points:

- Examination for pressure resistance at 16 bar (static pressure test)
- Test of pressure difference between the points of feed and withdrawal (at a defined rate of flow of 600 L/min)

If both of these tests have been performed successfully, it can be assumed that the line is free from defects or contaminations.

### *Schematic illustration of a dry riser pipe measurement*



### *The test requires the following devices:*

- Flow rate test device DMT 600 with supplied pressure-resistant connecting hose B
- Water collection tank WAB 120 (included)
- Hydrant testing pump HPP (not included)
- Connecting hose C with corresponding adapter for filling the riser pipes from the public water network (not included)

### *Sequence of test:*

After the line has been checked for completeness and functionality of the valves and other appliances, it must be completely filled with water from the water network. In the process, the hydrant testing pump HPP, the flow meter test device DMT 600 and the riser pipe are connected according to the alongside illustration. The static pressure test can be subsequently performed with the hydrant testing pump HPP. The rate of flow and the pressure difference is then determined directly following the static pressure test.



• DMT 600 with WAB 120 and optional hydrant testing pump HPP.



• Test valve at WAB 120.



• Pressure recording device at point of withdrawal.

## Operating principle

Since testing the rate of flow does not require a pump, the water column in the line system must be "pushed" using other resources.

The DMT 600 uses the energy of the compressed air in the integrated pressure vessel of the DMT 600 that is applied to the system with the hydrant testing pump HPP or a compressed gas cylinder with pressure reducer. When the ball valve of the WAB 120, which is attached to the uppermost point of withdrawal, is opened, the air cushion in the pressure vessels is released and the water column is pressed up the riser pipe.

The water discharged hereby from the point of withdrawal is captured in the water collection tank WAB 120.

## Patented measurement process

Both pressure recording devices simultaneously measure and record the pressure drop at the points of feed and withdrawal.

- Due to the specified nozzle diameter at the WAB 120 water collection tank, the flow rate of 600 L/min is reached at the point of withdrawal at a flow pressure of 3.0 bar.
- By comparing both of the logged pressure values at the instant of time when exactly 600 L/min flowed, the pressure difference can now be easily calculated and compared to the target value as per DIN 14 462 (max.1 bar + 0.1 bar compensation per metre of height difference) or evaluated with the supplied software and then documented.

### Technical data

#### Flow meter DMT 600

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 186780**

**Operating pressure:** 16 bar, safety valve

**Pressure recording devices:**

Electronic, battery-operated

**Test pressure gauge:** 0 - 25 bar

**Water inlet:** Fixed Storz D and C couplings

**Water outlet:** Fixed Storz B coupling

**Test hose:** B, pressure-resistant, 5 m

**Dimensions:**

Height [mm]: 1350

Width [mm]: 600

Depth [mm]: 1000

**Weight:** without accessories [kg]: 133

### Technical data

#### Water collection tank WAB 120

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Volume:** 120 litres, with electrical container emptying

**Pressure recording device:** Electronic, battery-operated

**Test pressure gauge:** 0 - 16 bar

**Dimensions:**

Height [mm]: 1300

Width [mm]: 640

Depth [mm]: 760

**Empty weight:** with accessories approx. [kg]: 50

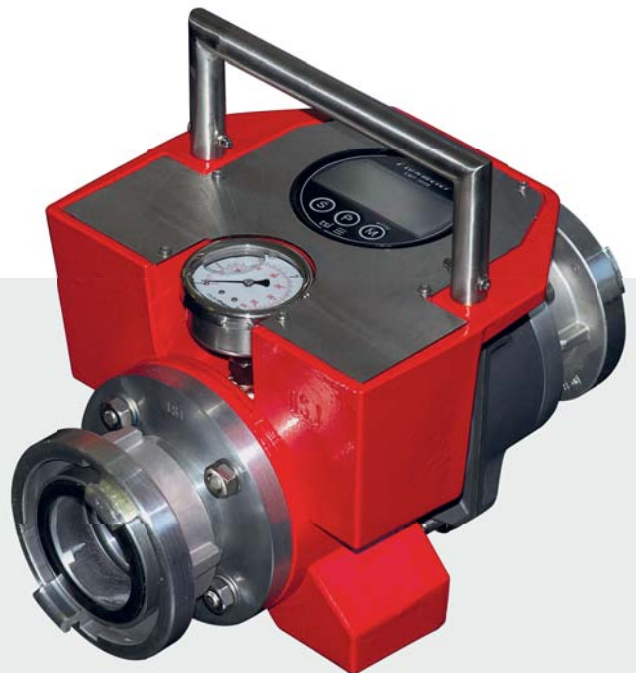
## Mobile pressure and flow rate measuring devices Flowmaster.

# The Flowmaster ANALOG

### *Hydrants and pumps in view*

The Flowmaster measures the pressure and flow rate at any point of water withdrawal. In addition to checking if hydrants or pumps are working properly, the entire water consumption from one point of withdrawal can be registered as well.

- Manageable device for measuring water flow rate and flow pressure at all points of withdrawal
- Resettable water quantity storage
- Quick and easy to use anywhere



- Test of pump capacity of a fire extinguishing centrifugal pump.

### **Application**

The Flowmaster is exceedingly robust in application. The sensor for measuring the flow rate does not have any moving parts. The pressure is measured with an analogue Bourdon gauge.

A stable and corrosion-resistant aluminium housing with practical carrying grip also provides protection from rough everyday use.

To measure the water flow rate, a touch of the button at the digital measuring device allows you to choose between current flow rate or total amount.



- Flow measurement at pillar hydrant.

### **Data interface (surcharge)**

For electronic evaluation of flow measurement, consisting of serial adapter cable and PC software.

**Art. No. 187223**

### **Accessory kit for pump testing (surcharge)**

For static pressure test:

Ball valve 2" with fixed Storz B/C coupling

For flow measurement:

1 nozzle Ø 9 mm, 1 nozzle Ø 12 mm

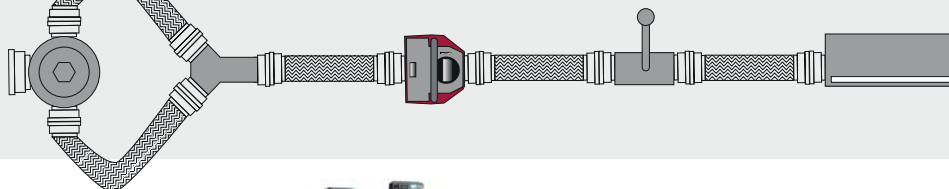
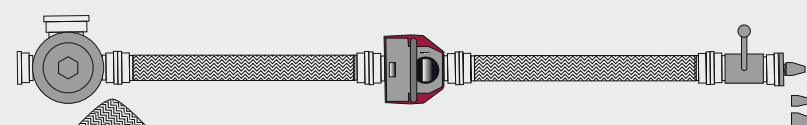
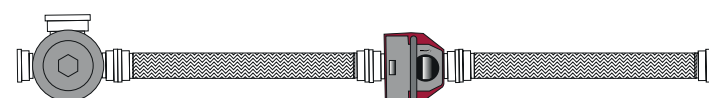
1 nozzle Ø 16 mm, 1 nozzle Ø 22 mm

**Art. No. 187221**

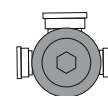




### Flowmaster connection variations



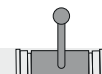
Pillar hydrant  
with output 2 x B/ A



Flowmaster



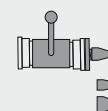
Shut-off valve B



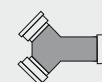
Pressure annihilator B



Shut-off valve with  
reduction Storz B/C  
Fixed coupling with  
set of nozzles 22, 16, 12,  
9 mm



Collection piece B



- The measuring range encompasses 30 to 3 000 L/min. Since the battery-operated device only weighs 13 kg, it can be easily and quickly connected anywhere. The powerful rechargeable battery provides a working duration of up to 6 hours.

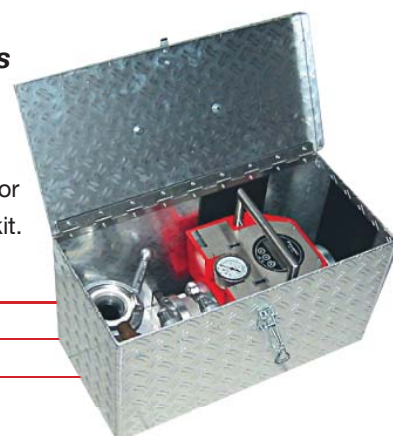
### Additional accessories (surcharge)

#### Transport case

with interior compartments for  
Flowmaster and accessory kit.

Dimensions: 360 mm high  
555 mm wide  
290 mm deep  
Weight: 6 kg

**Art. No. 187222**



#### Pressure annihilator B

**Art. No. 187375**



### Technical data Flowmaster ANALOG

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 187216**



Electric power supply: 2 installed rechargeable batteries, 12 V DC,  
2.4 Ah, separate charger included  
Working temperature: -10 to +50°C

**Connections:** B Storz couplings

**Dimensions:** 210 mm height, 240 mm width, 390 mm depth

**Weight:** 13 kg

Housing: Aluminium

**Colour:** Red, RAL 3000 / aluminium

#### Flow meter:

Type: Electromagnetic induction  
Operating range: 30 - 3 000 L/min  
Accuracy: 30 to 750 L/min  $\pm 15$  L/min, >750 L/min  $\pm 2$  %  
Standard functions: Display of current  
flow rate, display of total rate  
LCD display: 4-digit, character size 18 mm,  
bar display, background illumination

#### Pressure gauge:

Type: Bourdon-tube gauge  
Operating range: 0 to 25 bar  $\pm 1$  %, analogue scale  $\varnothing$  60 mm  
Operating pressure: 0 - 16 bar, maximum pressure: 25 bar

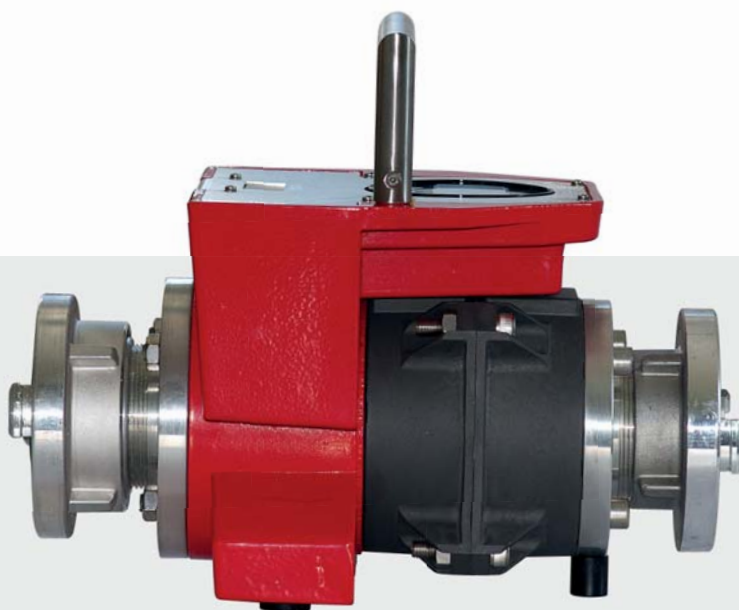
## Mobile pressure and flow rate measuring devices Flowmaster.

# The Flowmaster DIGITAL

### Portable control and monitoring

The Flowmaster is your first choice at all points of water withdrawal whenever you need to precisely check the pressure and flow rate. Its integrated data logger stores up to 360 hours of data, and the digital indicators directly display the accurate measured values.

- without moving parts in the measuring tube - extremely robust
- with installed rechargeable battery for mobile work
- only 13 kilos total weight



- Measurement and storage of flow rate and pressure.

### In use

We gave the Flowmaster a particularly rugged design for rough daily work: The stable measuring tube does without moving parts, the extremely resistant aluminium housing withstands the heaviest of loads whilst being light at the same time.

The rechargeable battery allows the Flowmaster to work completely independently for 6 hours, and the integrated data logger with scan rates from 0.1 seconds to 1 minute automatically stores all data to memory.



- Accessory kit.

### Accessory kit for pump testing (surcharge)

For static pressure test:

Ball valve 2" with fixed Storz B/C coupling

For flow measurement:

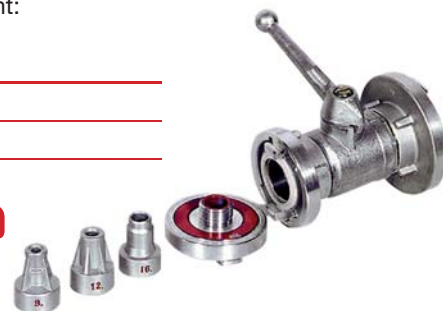
1 nozzle Ø 9 mm

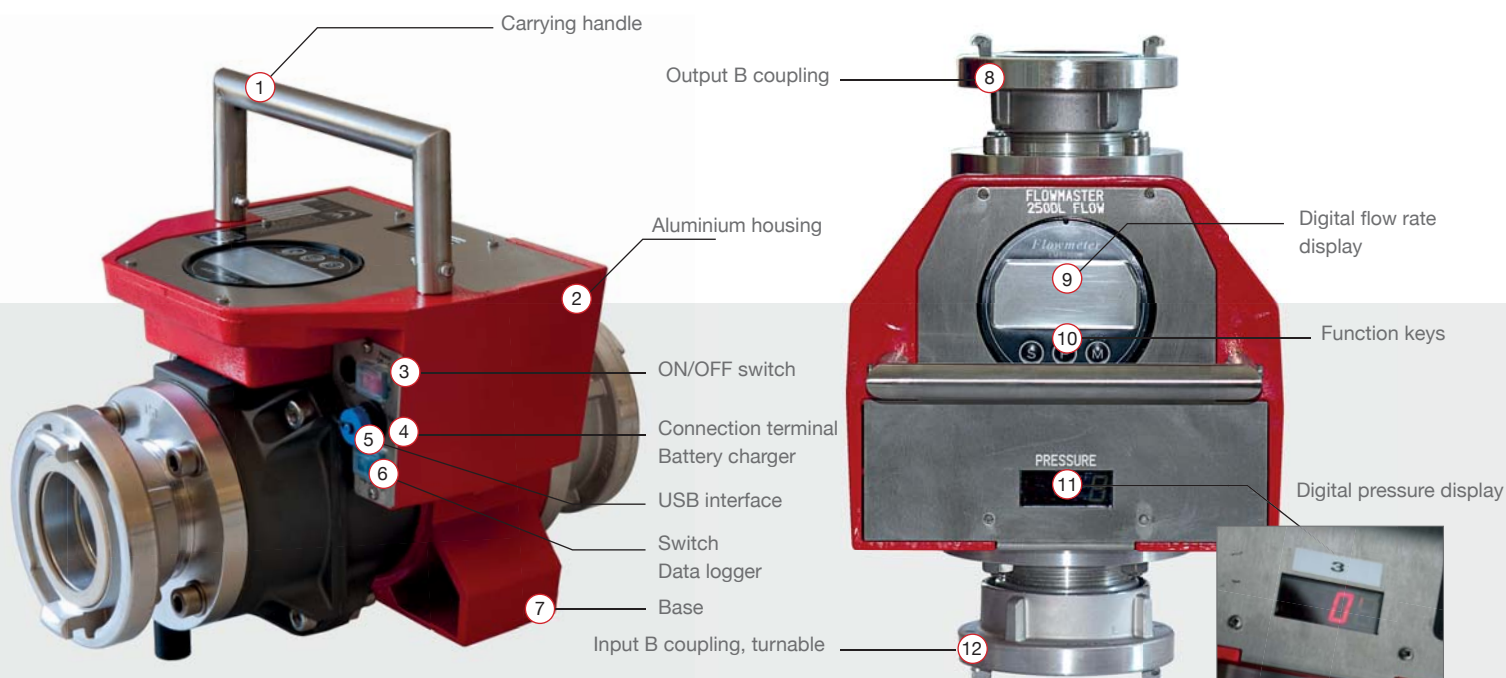
1 nozzle Ø 12 mm

1 nozzle Ø 16 mm

1 nozzle Ø 22 mm

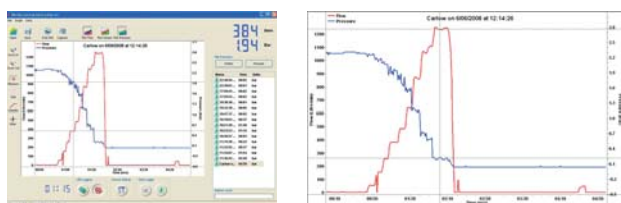
**Art. No. 187221**





### Manage and document measured values in an exemplary manner thanks to software and interface

Use the USB cable to read out the data of the Flowmaster in next to no time. The included software will help you create descriptive graphics and reports from the numbers. When issuing, you can choose between printing out or transferring your report as bitmap file to Word or Excel.



- PC display / Report.

### Additional accessories (surcharge)

#### Transport case

with interior compartments for Flowmaster and accessory kit.

Dimensions: 360 mm high  
555 mm wide  
290 mm deep  
Weight: 6 kg

**Art. No. 187222**



#### Pressure annihilator B

**Art. No. 187375**



### Technical data Flowmaster DIGITAL

(EN ISO 12100-1, EN ISO 12100-2, EN 60204)

**Art. No. 187370**



Electric power supply: 2 installed rechargeable batteries, 12 V DC, 2.4 Ah, separate charger included with delivery  
Working temperature: -10 to +50°C

**Connections:** B Storz couplings

**Dimensions:** 210 mm height, 240 mm width, 390 mm depth

**Weight:** 13 kg

Housing: Aluminium

**Colour:** Red, RAL 3000 / aluminium

#### Flow meter:

Type: Electromagnetic induction  
Operating range: 30 - 3 000 L/min  
Accuracy: 30 to 750 L/min  $\pm 15$  L/min, >750 L/min  $\pm 2$  %  
Standard functions: Display of current flow rate, display of total amount  
LCD display: 4-digit, character size 18 mm, bar display, background illumination

#### Electronic pressure sensor

Operating pressure: 0 - 16 bar  $\pm 1\%$ , maximum pressure: 25 bar  
LED display: 3-digit, character size 15 mm



## Table of Contents.

# Accessories and tools

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# ries and tools



Working ergonomically whilst servicing fire extinguishers.

## Fire extinguisher emptying system FES

### Safe clamping, fast emptying

The fire extinguisher emptying system FES consists of a mobile or stationary rotatable clamping device DSV, a clamping bracket PA-Fix, and a suction adapter with reducing insert. Upon request, the clamping bracket and adapter can be retrofitted to an already existing rotatable clamping device DSV.

- Great time savings whilst servicing fire extinguishers
- Significantly improved ergonomic working
- Suitable for all powder suction machines

The fire extinguisher emptying system FES is a significant contribution to streamlined maintenance of fire extinguishers. It not only permits the more convenient but also significantly faster evacuation of portable cartridge driven or stored pressure fire extinguishers (6 - 12 kg) with all powder suction machines.

The special suction adapter guarantees a high suction speed. The working period per maintenance procedure is significantly reduced. Time savings of approx. 50 % are achieved.



- Stationary rotatable clamping device **DSV STATIONARY** with clamping bracket PA-Fix.

- Mobile rotatable clamping device **DSV MOBIL** with clamping bracket PA-Fix and accessories.



### Clamping bracket PA-Fix

The clamping bracket PA-Fix is mounted to a rotatable clamping device DSV STATIONARY or DSV MOBIL. It serves to fasten the suction adapter to the opened fire extinguisher whilst it is upended into the emptying position.

**Art. No. 186075**



### Suction adapter, reducing insert

FES suction adapter P for cartridge driven powder fire extinguishers

**Art. No. 186076**

Reducing insert for stored pressure extinguishers

**Art. No. 186079**



### Suction hose (surcharge)

Suction hose Ø 32 x 1400 mm with earthing cable. Recommended for PSM without earthed suction hose.

**Art. No. 187119**





## Working method by taking the example of FES MOBIL



- After the fire extinguisher has been removed from the holder it is clamped in the FES. Further manual lifting of the fire extinguisher for emptying is no longer necessary. After opening the extinguisher the suction adapter is placed on the container and fixed into place with the clamping bracket PA-Fix. The rotatable clamping device simplifies aeration of the fire extinguishing powder. With the fire extinguisher "upside down", it can be evacuated with a powder suction machine. The special design of the suction adapter allows air to flow in the fire extinguisher, greatly accelerating evacuation. The emptied fire extinguisher can be subsequently checked and refilled with the powder suction machine.

### Accessories for FES MOBIL (surcharge)

Scales Digi 5000 g,  
Digit increment 1 g

**Art. No. 186910**

Bracket for scales  
Digi 5000

**Art. No. 187111**

Vehicle fixture for  
standing transport

**Art. No. 186004**



Floor scales 30 kg,  
Digit increment 10 g

**Art. No. 186903**

Stainless steel holder for  
floor scales 30 kg

**Art. No. 186556**

Tool tray VA

**Art. No. 186557**

Toolbox

**Art. No. 187096**



### Technical data FES STATIONARY

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186735**

including

Clamping bracket PA-Fix  
**Art. No. 186075**

Suction adapter P  
**Art. No. 186076**

Reducing insert for  
stored pressure extinguishers  
**Art. No. 186079**

**Dimensions:**

Height [mm]: approx. 650  
Width [mm]: 390 - 510  
Depth [mm]: 365

**Weight [kg]:** 16.1

**Surface:**

Powder coating, RAL9007  
Grey aluminium



### Technical data FES MOBIL

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186730**

including

Clamping bracket PA-Fix  
**Art. No. 186075**

Suction adapter P  
**Art. No. 186076**

Reducing insert for  
stored pressure extinguishers  
**Art. No. 186079**



**Dimensions:**

Height [mm]: approx. min. 950  
Height [mm]: max. 1340  
Width [mm]: 575  
Depth [mm]: 750

**Weight [kg]:** 32.6

Transport wheels: Ø 200 mm,  
roller-bearing mounted

**Surface:** Hammer finish, silver-grey  
powder coating, RAL9007

## Mechanical clamping devices for servicing of fire extinguishers.

# Clamping devices SVM, DSV MOBIL, DSV STATIONARY

### *Rapid, firm and safe clamping*

Our clamping devices simplify service work on fire extinguishers. Of essence is the robustness of all structural parts so that the containers can be held reliably, guaranteeing safe and accident-free work.

We have an extensive product range. This includes everything from mechanical clamping devices for a workbench to pneumatically operated models to rotatable or mobile devices.

We have economical solutions for every application case to make your work easier.

### *Rotatable clamping device DSV MOBIL*

The clamping device DSV MOBIL allows you to maintain 2 - 12 kg fire extinguishers in any position at any site with a minimum of physical effort. The mobility saves time because the fire extinguishers requiring maintenance no longer need to be collected, taken to a workbench and then returned. The storage and fastening options on the clamping device offer room for tools and spare parts, saving you from running back and forth. The "workbench" goes to the fire extinguisher!

### *Rotatable clamping device DSV STATIONARY*



The clamping device DSV Stationary is fastened to a workbench. The clamped fire extinguisher can be rotated by 360° and locked stepwise. Work can be carried out safely and with a minimum of physical effort with just a few strokes. The adjustable fire extinguisher rest ensures optimal balance whilst rotating.

- Mobile rotatable clamping device DSV MOBIL with accessories.



- A special model of the DSV MOBIL is also available with a specific roller set. This set permits the model to negotiate stair treads.

**Art. No. 186509**



### *Mechanical clamping device SVM*



The clamping device SVM is suitable for quick and safe clamping of all 2 - 12 kg fire extinguishers. As with all of our clamping devices, the pressing surfaces are rubberised to protect the fire extinguishers. Also, the drop-forged slide with hardened ratchet adjustment guarantees greatest stability and a long service life.



- The rotation of the clamping device is rather essential for efficient maintenance work. The clamped fire extinguisher can be revolved by 360° to any desired position and locked stepwise in 22.5° increments. Work can be carried out safely with just a few strokes. Once clamped, the fire extinguisher remains in the holder for the duration of the entire maintenance. You can work without great physical effort, which greatly increases work safety. The height adjustment of the clamping device additionally guarantees the ergonomically correct working height. Even if the DSV MOBIL is installed in a service vehicle it can be adjusted to such a low height as to make work convenient.

### Accessories for DSV MOBIL (surcharge)

Scales Digi 5000 g,  
Digit increment 1 g

**Art. No. 186910**

Bracket for scales  
Digi 5000

**Art. No. 187111**

Vehicle fixture for  
standing transport

**Art. No. 186004**



Floor scales 30 kg,  
Digit increment 10 g

**Art. No. 186903**

Stainless steel holder for  
floor scales 30 kg

**Art. No. 186556**

Tool tray VA

**Art. No. 186557**

Toolbox

**Art. No. 187096**



### Technical Data DSV STATIONARY

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186504**



**Dimensions:**

Height [mm]: 390  
Width [mm]: 390 - 510  
Depth [mm]: 360

**Weight [kg]:** 13.5

**Surface:** Powder coating, RAL9007  
Grey aluminium

### Technical data SVM

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186501**



**Dimensions:**

Height [mm]: 155  
Width [mm]: 415 - 560  
Depth [mm]: 245

**Weight [kg]:** 4.5

**Surface:** zinc plated

### Technical Data DSV MOBIL

(EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186503**



**Transport wheels:** Ø 200 mm, roller bearing mounted

**Dimensions:**

Height [mm]: min. 950  
Height [mm]: max. 1340  
Width [mm]: 575  
Depth [mm]: 750

**Weight [kg]:** 30

**Surface:** Hammer finish, silver-grey  
Powder coating, RAL9007



## Pneumatic clamping devices for portable fire extinguishers.

# Clamping devices SVP and SVPS

### *Pneumatic clamping device SVP*

The pneumatic clamping device SVP is screw-mounted in front of the workbench. The pneumatic clamping cylinder is powered by compressed air or nitrogen.

The clamping pressure can be checked via manometer and continuously adjusted by pressure reducer. For safety reasons, the clamping device is closed using two-hand operation.

To adjust to the different fire extinguisher dimensions, the fixed stop has a mechanical coarse adjustment, and the support table for 2 - 12 kg fire extinguishers is height adjustable.

- Pneumatic clamping device SVP.



- Pneumatic clamping device SVP.



- Continuous clamping pressure adjustment with pressure gauge.

### **Accessories for SVP and SVPS (surcharge)**

Pressure reducer nitrogen,  
0 - 20 bar

**Art. No. 186801**

### **Accessories for SVPS (surcharge)**

Filling connection, screw-on

**Art. No. 186806**

Valve charger

**Art. No. 186857**



- Rubber sheet on the support table and rubberised clamping jaws to protect the container surface.



- Pneumatic clamping device SVPS with nitrogen filling unit.



### ***Pneumatic clamping device SVPS with nitrogen filling unit***

The pneumatic clamping device SVPS works just like the SVP described opposite. But it is additionally equipped with a nitrogen filling unit.

The pressure hose is connected to the pressure reducer (accessory) of a nitrogen cylinder. The nitrogen pressure is present up to the ball valve. The test pressure gauge indicates the pressure whilst being a monitor for the filling process at the same time.

Opening the ball valve fills the clamped stored pressure extinguisher via a coiled hose with quick action coupling and a filling connection (accessory). A certified safety valve safeguards the filling process.

### ***Additional accessories for SVPS (surcharge)***

Hand filling nozzle M12 x 1.5

**Art. No. 186858**

Hand filling nozzle M18 x 1

**Art. No. 186859**

Hand filling nozzle M14

**Art. No. 1868860**

Other hand filling nozzles available for different screw thread types upon request (Specify make of fire extinguisher)

Universal filling clamp

**Art. No. 186807**



### ***Technical data SVP***

(EN ISO 12100-1, EN ISO 12100-2)



**Art. No. 186511**

**Inlet pressure:** max. 10 bar

**Operating pressure clamping cylinder:** max. 6 bar

**Dimensions:**

Height [mm]: 570

Width [mm]: 680

Depth [mm]: 380

**Weight [kg]:** 18

**Surface:** hot-dip galvanized, powder coated

### ***Technical data SVPS***

(EN ISO 12100-1, EN ISO 12100-2)



**Art. No. 186521**

**Inlet pressure:** max. 10 bar

**Operating pressure clamping cylinder:** max. 6 bar

**Dimensions:**

Height [mm]: 620

Width [mm]: 680

Depth [mm]: 380

**Nitrogen filling pressure:** 15 bar

**Safety valve:** 18 bar

**Nitrogen supply hose:** 1.2 m

**Weight [kg]:** 19

**Surface:** zinc plated, powder coated

## Clamping devices for breathing air, CO<sub>2</sub> and big cylinders.

# Clamping devices SVPA, SVPD, SVMA

### ***Pneumatic clamping device for breathing air and CO<sub>2</sub> cylinders SVPA***

The clamping device SVPA is suitable for quick pneumatic clamping of breathing apparatus compressed air bottles and CO<sub>2</sub> cylinders (2 and 6 kg). Even CRP breathing apparatus compressed air bottles can be clamped using the special clamping jaws (accessories).

The clamping device is screw-mounted in front of the workbench. The support table is height adjustable and can be changed to accept straight or curved cylinder bottoms. The clamping pressure can be continuously adjusted via the installed pressure reducer.



- Pneumatic clamping device for breathing air and CO<sub>2</sub> cylinders SVPA.

### ***Rotatable pneumatic clamping device for breathing air and CO<sub>2</sub> cylinders SVPD***

The clamping device SVPD has the same operating principle as the SVPA described previously.

However, it can be rotated additionally by 360 degrees and locked stepwise in 22.5° increments. Work can be carried out safely and with a minimum of physical effort with just a few strokes. Adjusting the height also ensures for the consistent ergonomically correct working height.



- Rotatable pneumatic clamping device for breathing air and CO<sub>2</sub> cylinders SVPD.



### ***Accessories for SVPA and SVPD (surcharge)***

1 pair clamping jaws for CRP bottles

Ø 145 mm **Art. No. 186536**

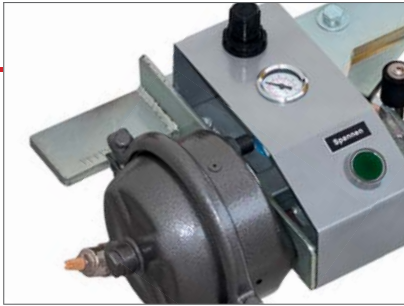
Ø 156 mm **Art. No. 186529**

Ø 177 mm **Art. No. 186537**

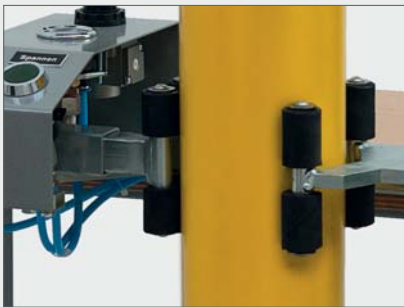


Other clamping jaws upon request.

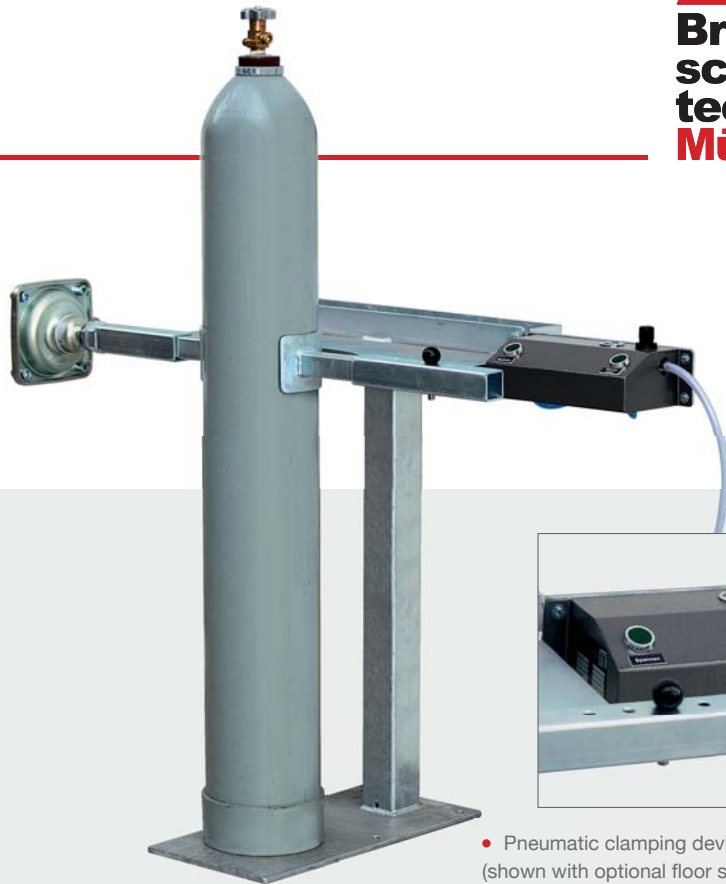




- Continuous clamping pressure adjustment with test pressure gauge.



- Rubberised clamping jaws to protect the container surface.



- Pneumatic clamping device for big cylinders (shown with optional floor stand).

### **Mechanical clamping device SVMA for steel compressed air bottles**

Mechanical clamping device for disassembling and assembling cylinder valves. The pressing surfaces are rubberised.

The drop-forged slide with hardened ratchet adjustment guarantees greatest stability and a long service life.

- Mechanical clamping device for steel compressed air bottles SVMA.



### **Pneumatic clamping device for big cylinders**

Clamping device with pneumatic pressure cylinder for big cylinders up to 280 mm diameter. For reasons of personal safety, the pneumatics is controlled via two-hand operation. To enable adjustment to various cylinder diameters, one clamping shoe has a mechanical rough adjustment.



- Pneumatic clamping device for big cylinders with wall mounting.

#### **Technical data SVPA** (EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186527**



Inlet pressure: max. 10 bar  
Operating pressure clamping cylinder: max. 6 bar

#### **Technical data SVMA** (EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186525**



**Dimensions:**  
Height [mm]: 570  
Width [mm]: 680  
Depth [mm]: 380  
Weight [kg]: 20  
**Surface:** zinc plated, powder coated

**Dimensions:**  
Height [mm]: 415-560  
Width [mm]: 155  
Depth [mm]: 245  
Weight [kg]: 4.5  
Zinc plated

#### **Technical data SVPD** (EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186528**



Inlet pressure: max. 10 bar  
Operating pressure clamping cylinder: max. 6 bar

#### **Clamping device for big cylinders** (EN ISO 12100-1, EN ISO 12100-2)

**Art. No. 186524**



**Dimensions:**  
Height [mm]: 1000 (with floor stand)

**Dimensions:**  
Height [mm]: 570  
Width [mm]: 680  
Depth [mm]: 515  
Weight [kg]: 23.5  
**Surface:** zinc plated, powder coated  
Width [mm]: 1330 (floor stand)  
Depth [mm]: 600  
Weight [kg]: approx. 62  
**Surface:** zinc plated, hammer finish, silver-grey

**High working safety - no overfilling of containers.**

## Nitrogen filling unit SFA

### Universally deployable

The nitrogen filling unit SFA is connected by its supply hose with plug-in coupling to the pressure reducer (accessory) of the nitrogen supply bottle. The input pressure gauge indicates the inlet pressure. Opening the ball valve fills the fire extinguisher via a connected coiled filling hose and a filling connector (accessory).

- High work safety - no overfilling of containers
- Integrated release of the filling line

The filling process can be checked via the filling pressure gauge. A safety valve eliminates overfilling. After the filling process is ended the coiled filling hose is forcibly released when the ball valve is closed.

### Accessories (surcharge)

Cylinder holder

**Art. No. 186330**

Steel cylinder filled with 10 L nitrogen, 200 bar

**Art. No. 187072**

N<sub>2</sub> pressure reducer, 0 - 20 bar, with quick action coupling and manometer protective caps max. 200 bar

**Art. No. 186801**



#### • Art. No. 186301

Stored pressure fire extinguishers can be safely pressurised with nitrogen with the nitrogen filling unit SFA. The picture shows the system with connected coiled nitrogen filling hose. The display of the input and filling pressure gauge is exceedingly precise.



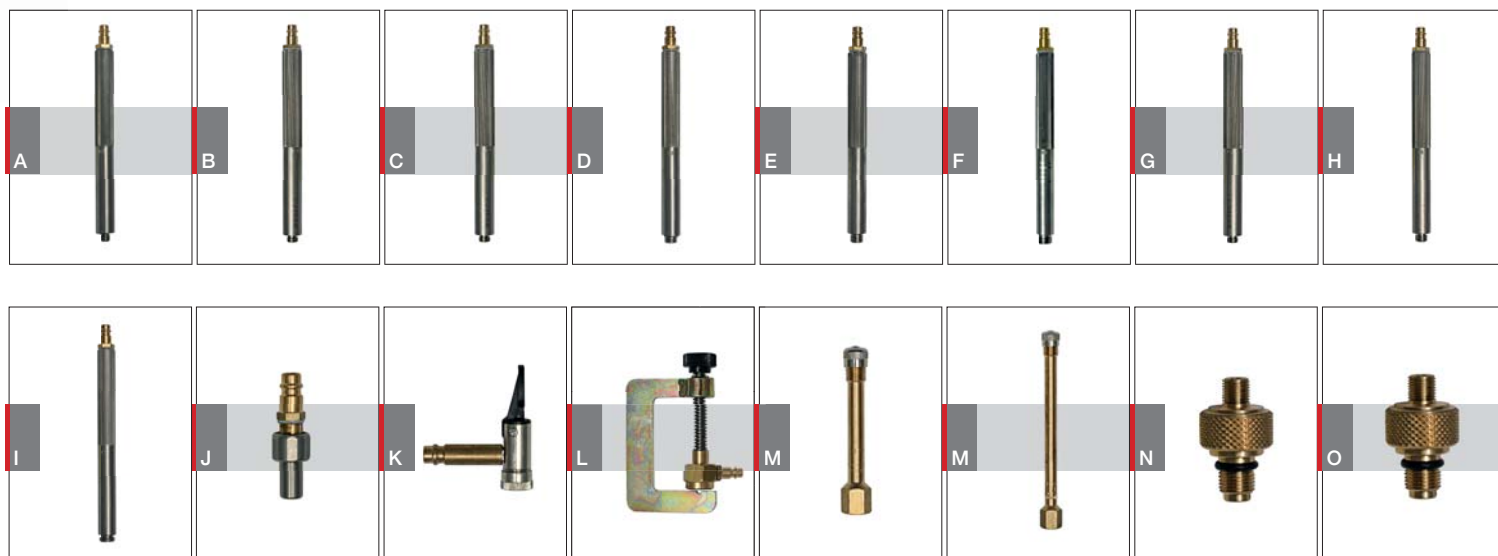
### Filling connectors (surcharge)

No.	Filling connectors (surcharge)	Art. No.
A	Hand filling nozzle M10 x 1	186863
B	Hand filling nozzle M12 x 1.5	186858
C	Hand filling nozzle M12 x 1	186859
D	Hand filling nozzle M14	186860
E	Hand filling nozzle M14 x 1.5	186861
F	Hand filling nozzle M16 x 1.5	186862
G	Hand filling nozzle M18 x 1.5 inside taper	187084
H	Hand filling nozzle R 1/4"	187208
I	Hand filling nozzle M18 x 1.5	186856
J	Filling connection, screw-on, with plug for stored pressure extinguishers	186806
K	Valve charger with plug for stored pressure extinguishers	186857
L	Filling clamp, flat-fitting for all current stored pressure extinguishers	186807
M	Valve extension 50 mm	187071
	Valve extension 100 mm	186877
N	Test and filling adapter for Minimax stored pressure extinguishers	187203
O	Test and filling adapter for Einhell stored pressure extinguisher	187302



• (Accessories) Art. No. 186501  
Mechanical clamping device.

• Filling of a stored pressure fire extinguisher from the nitrogen storage bottle.



• (Accessories) Filling connectors.

### Technical data nitrogen filling unit SFA

(EN ISO 12100-1, EN ISO 12100-2)



**Art. No. 186301**

**Nitrogen inlet pressure at pressure reducer:** 200 bar

**Nitrogen filling pressure:**

Adjustable at the pressure reducer according to instruction of fire extinguisher manufacturer

**Mechanical safety valve:** 18 bar

**Coiled filling hose:** 1.5 m

**Dimensions:**

Height [mm]: 185

Width [mm]: 300

Depth [mm]: 230

**Weight [kg]:** 5

**Housing:** High-grade steel



Electronic and mechanical  
scales with high accuracy.

## Mobile, flexible filling weight check

### Resources for quality assurance

#### Electronic scales

with digital display up to 5000 g for CO<sub>2</sub> cartridges and CO<sub>2</sub> cylinders. Battery operated. Tare function. Digit increment 1 g.

**Dimensions:** 140 mm width, 180 mm depth, 57 mm height.  
**Weight:** 0.365 kg.

**Art. No. 186910**



#### Electronic scales

with digital display up to 20 kg. Battery and mains operation. Power unit included. Tare function. Digit increment 10 g.

**Dimensions:** 320 mm width, 300 mm depth, 60 mm height.  
**Weight:** 1.5 kg (including power unit).



**Art. No. 186913**

#### Additional option (surcharge)

Rechargeable battery pack for 20 kg scales, Operating time up to 30 hrs., charging time approx. 10 hrs., can be retrofitted.

**Art. No. 186929**

#### Calibratable digital scales

Electronic dual range scales with digital display, (officially) calibratable. Power unit included.

**Dimensions:** 320 mm width, 330 mm depth, 125 mm height.  
**Weight:** 3 kg (including power unit 230 V, 50 Hz).

#### Scales range:

3 | 6 kg, digit increment 1 | 2 g

**Art. No. 186918**

6 | 15 kg, digit increment 2 | 5 g

**Art. No. 186919**

15 | 30 kg, digit increment 5 | 10 g

**Art. No. 186920**

#### Additional options (surcharge)

Rechargeable battery pack for calibratable digital scales, operating time up to 40 hrs., charging time approx. 12 hrs.

**Art. No. 186926**

DKD calibration certificate

**Art. No. 186927**

Initial official calibration  
at factory

**Art. No. 186928**



### Electronic scales

with digital display up to 5000 g for CO<sub>2</sub> cartridges and CO<sub>2</sub> cylinders. Battery and mains operation. Power unit included. Tare function. Digit increment 1 g. Calibratable.

**Dimensions:** 200 mm width, 245 mm depth, 90 mm height.  
**Weight:** 1.5 kg (including power unit).

**Art. No. 186916**



### Electronic platform scales

with digital display. Battery and mains operation. Power unit included. Tare function. Plus / minus and removal weighing.

**Dimensions:** 310 mm width, 285 mm depth, 35 mm height.  
**Weight:** 4 kg (including power unit).

#### Scales range:

30 kg, digit increment 10 g  
60 kg, digit increment 20 g

**Art. No. 186903**

**Art. No. 186914**



### Electronic platform scales

with digital display. Battery and mains operation. High-grade steel weighing platform.

**Dimensions:** 520 mm width, 400 mm depth, 70 mm height.  
**Weight:** 15 kg (including power unit).

#### Scales range:

60 kg, digit increment 20 g  
150 kg, digit increment 50 g

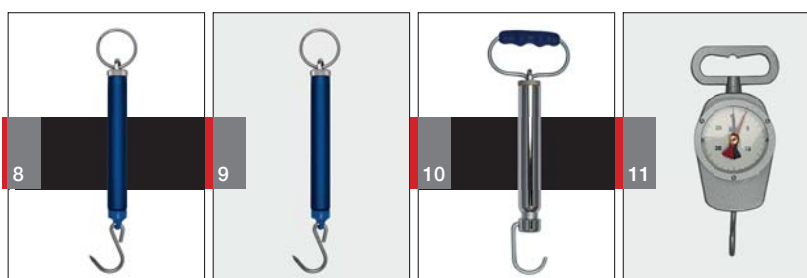
**Art. No. 186904**

**Art. No. 186905**



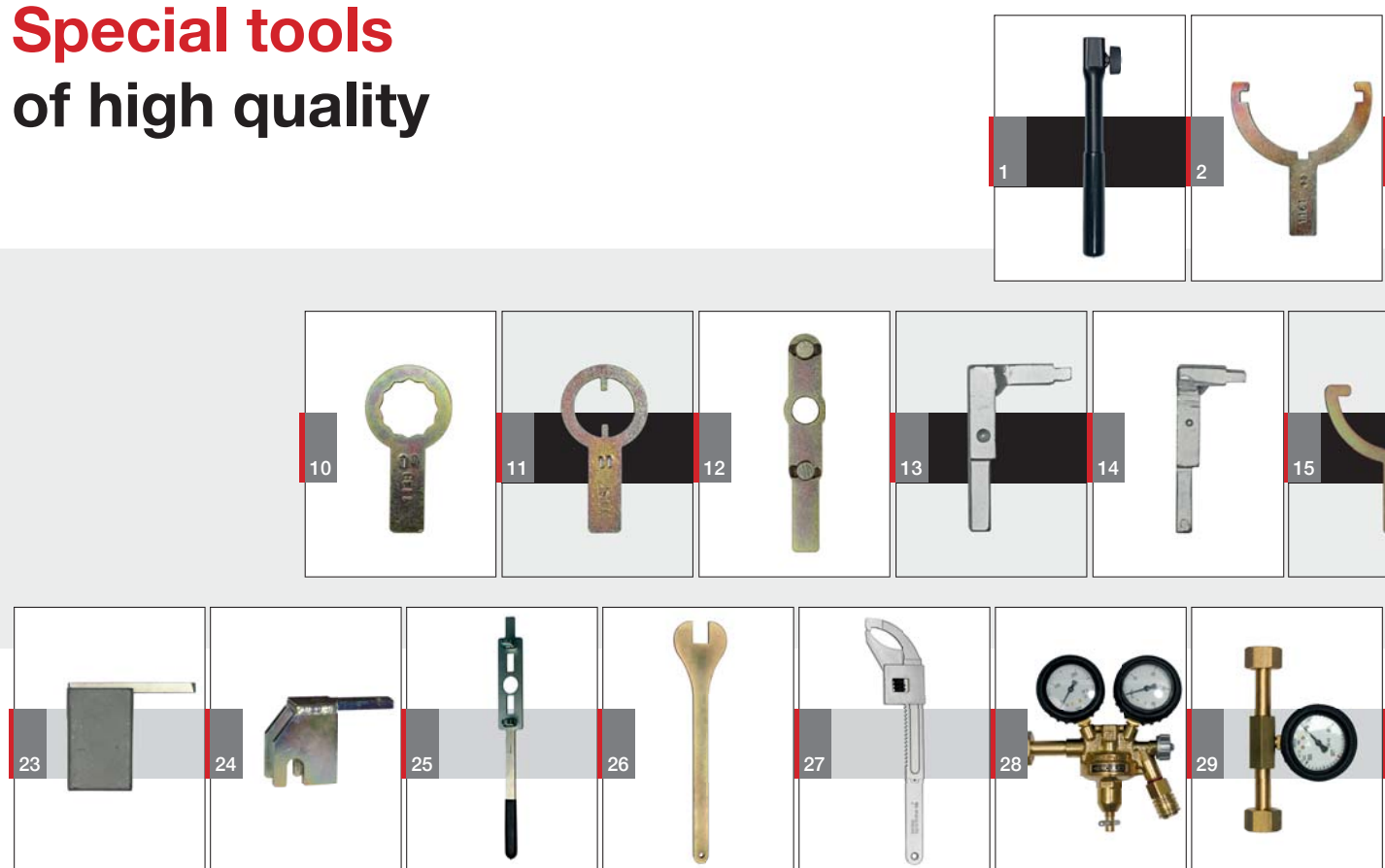
### Spring balances

No.	Description	Art. No.
8	Weighing range: 2.5 kg	<b>186811</b>
9	Weighing range: 5 kg	<b>186812</b>
10	Weighing range: 30 kg	<b>186813</b>
11	Weighing range: 25 kg	<b>186917</b>
	with stay-set indicator	



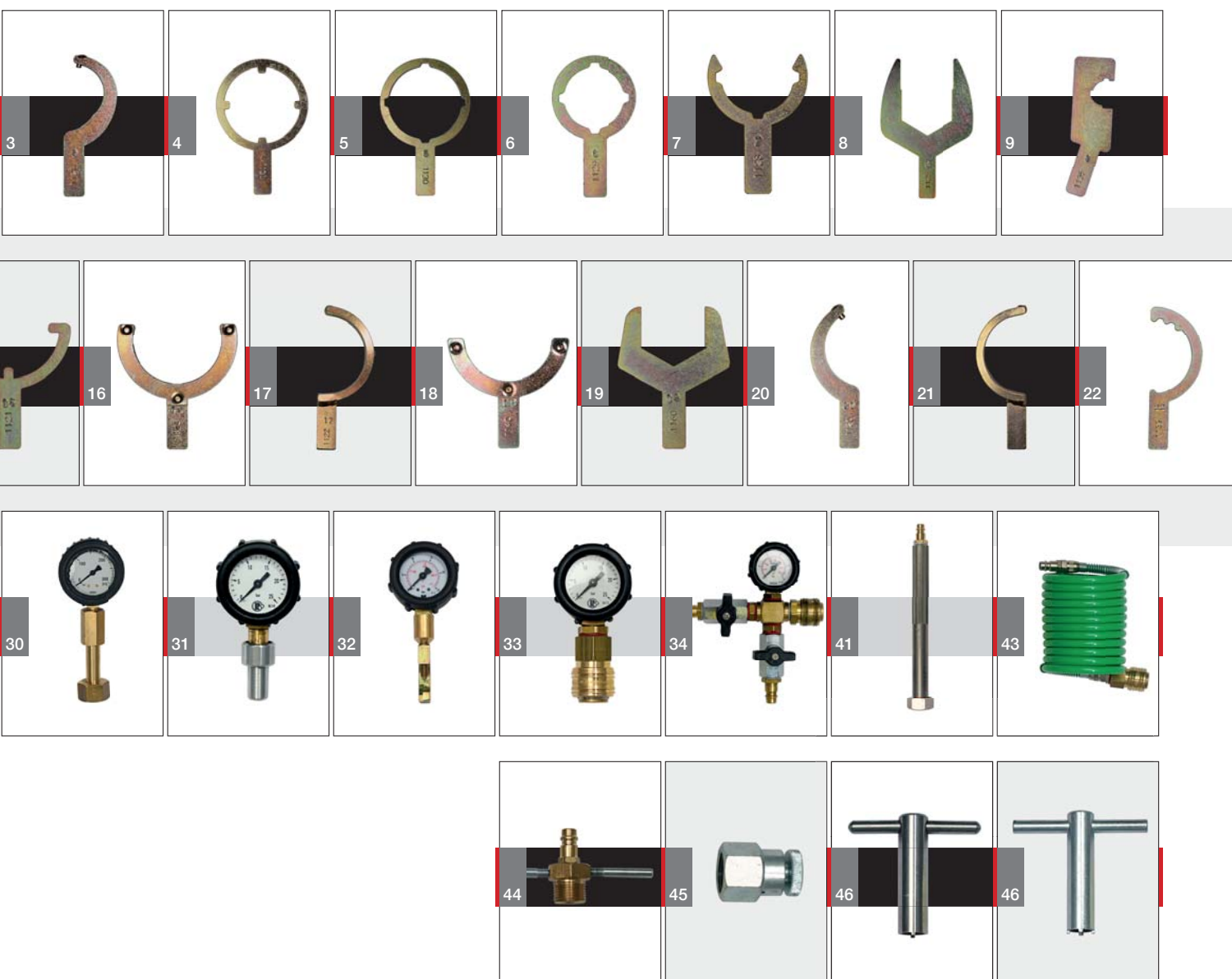
Streamlined and  
accident-free work.

## Special tools of high quality



No.	Description	Art. No.	No.	Description	Art. No.
1	Handle, fits all wrenches	186833		Favorit	
2	Wrench for Total Gi 6/12 and GE 6/12 N	187069	15	Wrench for Minimax RP	186816
	Feucom H-K, Minimax WS		16	Wrench for aluminium nut Minimax	186818
3	Pin spanner for Total-GE, Wintrich UHsp	186821	17	Wrench for Vulkan	186820
4	Wrench for Total-Y-6/12	186814	18	Wrench for Gloria PI, PN, SG, SV, PE, PEP, F6	186832
5	Wrench for Total G 6/12 S	186824	19	Wrench for Gloria water extinguisher WI, SI, PSE	186960
6	Wrench for Total G 6/12 X	186823	20	Pin spanner for Gloria Pi/Pn	186815
7	Wrench for Total GT, Cosmos GV	186822	21	Wrench for cam nut Döka, Gloria, Minimax,	186817
8	Combination wrench for Werner Gi 6/12 and	186819		Perfekt	
	Wintrich		22	Wrench for Bavaria 6/12 Gi	186831
9	Wrench for Werner Permanent PD 6/12 G	187019	23	Wrench for Gloria stored pressure	186828
10	Wrench for Werner charging fire extinguisher	186830		extinguisher GD 6/12, PA 6/12	
	with dodecagonal closing		24	Wrench for stored pressure valve Ceodeux,	186971
11	Wrench for Werner/Weber charging fire	186829		Döka, Feucom L-D/E	
	extinguisher with slotted cover closure		25	Wrench for Döka, Gloria P50	187048
12	Wrench for Weber 6/12 aluminium nut	187068	26	Wrench for Ceodeux CO <sub>2</sub> valve, large con.	187070
13	Wrench for valve opening Favorit	186826	27	Universal wrench for fire extinguishers with	186846
	stored pressure fire extinguisher			cam nuts	
14	Wrench for D disc screw connection	186825	28	Pressure reducer nitrogen 0-20 bar, max. 200 bar	186801



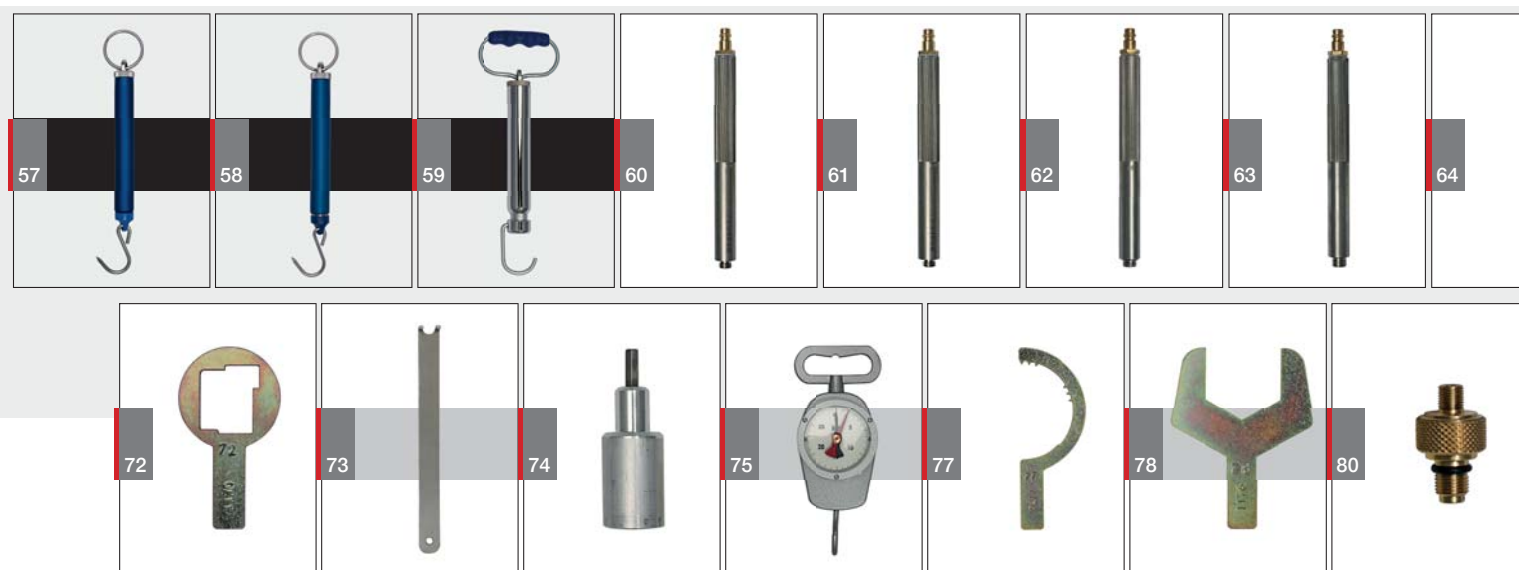


No.	Description	Art. No.
	Pressure reducer nitrogen 0-50 bar, max. 200 bar	<b>186802</b>
	Pres. red. compressed air 0-20 bar, max. 200 bar	<b>186803</b>
	Pres. red. compressed air 0-50 bar, max. 200 bar	<b>186882</b>
29	Nitrogen refilling pipe with manometer	<b>186838</b>
30	Nitrogen test pressure gauge for P 50/250	<b>186839</b>
31	Test gauge for stored pressure fire extinguisher	<b>186809</b>
32	Test gauge for stored pressure fire extinguisher with inspection hole	<b>186810</b>
33	Test gauge with quick action coupling, fits all test connections	<b>186848</b>
34	Filling valve with two ball valves	<b>186808</b>

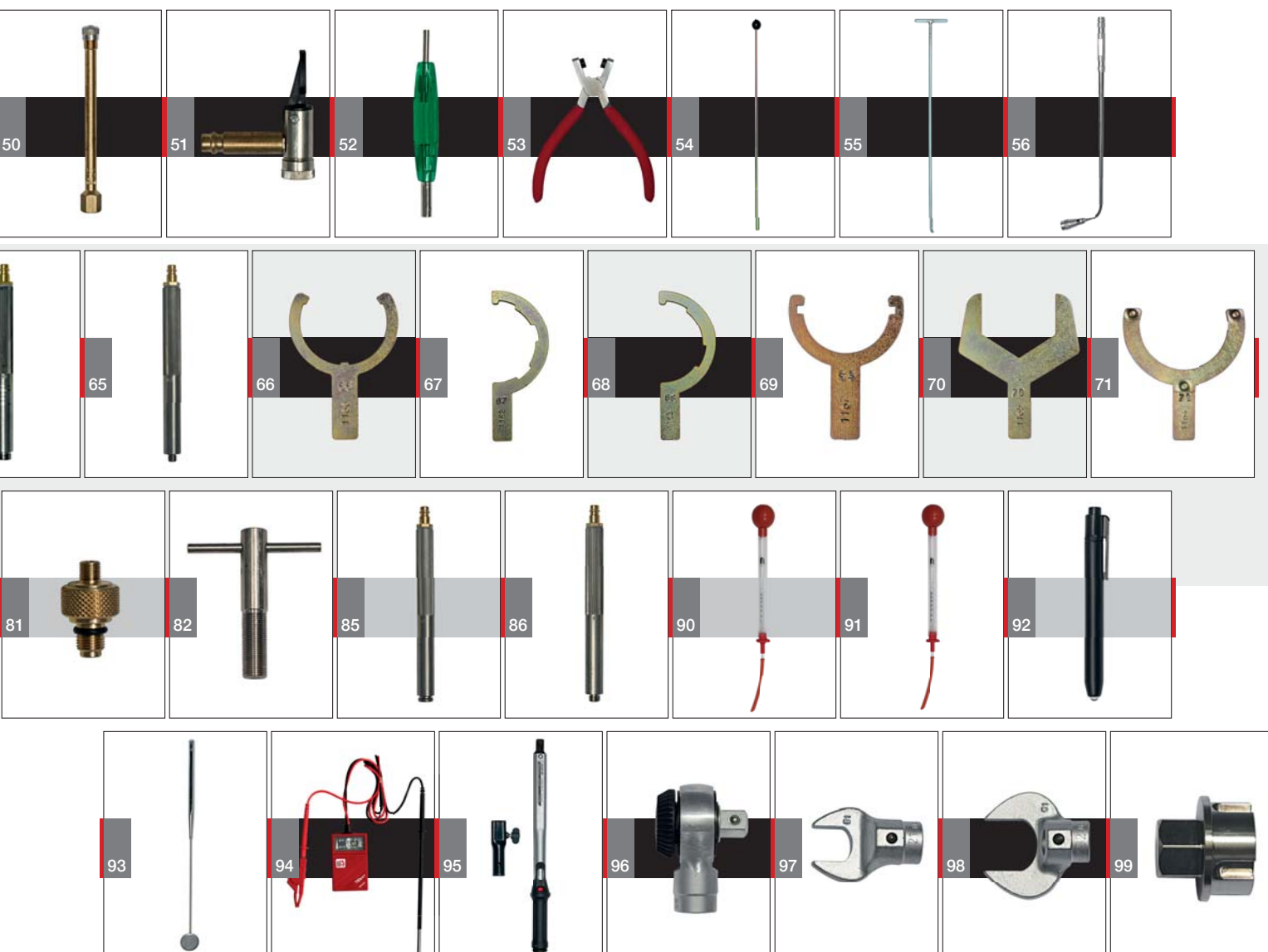
No.	Description	Art. No.
	and test pressure gauge	
41	Hand filling nozzle CO <sub>2</sub> thread	<b>186855</b>
43	Coiled nitrogen filling hose 1.5 m with plug and coupling	<b>186805</b>
44	CO <sub>2</sub> blowpipe connector with plug for quick action coupling	<b>186866</b>
45	CO <sub>2</sub> testing valve connector with release	<b>187050</b>
46	Wrench, safety valve with 2 cams (Minimax, Bavaria)	<b>186887</b>
46	Wrench, safety valve with 4 cams	<b>187108</b>
	(Total)	

Streamlined and  
accident-free work.

## Special tools of high quality



No.	Description	Art. No.	No.	Description	Art. No.
47	Short riser pipe withdrawing rod for various diameters	187062	60	Hand filling nozzle M 12 x 1.5	186858
48	Filling clamp flat-fitting for all current stored pressure fire extinguishers	186807	61	Hand filling nozzle M 12 x 1	186859
49	Screw-on filling connection with plug for stored pressure fire extinguisher	186806	62	Hand filling nozzle M 14	186860
50	Valve extension 50 mm	187071	63	Hand filling nozzle M 14 x 1.5	186861
50	Valve extension 100 mm	186877	64	Hand filling nozzle M 16 x 1.5	186862
51	Valve charger for stored pressure extinguisher	186857	65	Hand filling nozzle M 10 x 1	186863
52	Valve wrench for stored pressure extinguisher	186837	66	Wrench for Total Euro GE 6/12	187138
53	Lead sealing pliers	186889	67	Wrench for Vulkan PH 3, Gloria SE, Feucom PG/W/S H-B	187105
53	Lead sealing pliers with side nippers	186835	68	Wrench for Neuruppin PG 6, 9, 12, A, Total GX	187124
54	Riser pipe insertion rod	186834	69	Wrench for Total IBS GS 6/12	187144
55	Long riser pipe withdrawing rod	186865	70	Wrench for Bavaria Monsun Wet, size 65 mm	187151
56	Container lamp, flexible, LED	186847	71	Wrench for Jockel	187153
57	Spring balance 2.5 kg, division 25 g	186811	72	Wrench for Bavaria Sport 2	187152
58	Spring balance 5 kg, division 50 g	186812	73	Wrench for blowpipe Gloria	186895
59	Spring balance 30 kg, division 500 g	186813	74	Tool for screwing CO <sub>2</sub> cartridges in/out	187162
			75	Spring balance with stay-set indicator	186917
			77	Wrench, Total Isogard	187300



• We can also supply the corresponding tools for all other fire extinguisher types not listed here.

No.	Description	Art. No.
78	Wrench, Bavaria Monsun, Neuruppin S/W, size 50 mm	187219
80	Test and filling adapter for Mini-Max stored pressure fire extinguisher	187203
81	Test and filling adapter for Einhell stored pressure fire extinguisher	187302
82	Case extraction tool for cartridge case Gloria PSE 6	187315
85	Hand filling nozzle M18 x 1.5	186856
86	Hand filling nozzle G ¼"	187208
90	Areometer, 1.10 - 1.40 in 0.01G/ML	187073
91	Areometer, 1.00 - 1.30 in 0.01 G/ML	187211

No.	Description	Art. No.
92	Light pen	186896
93	Mirror for inspection of the container's inner surface	187160
94	Coating testing device	187218
95	Torque wrench with adapter 20-200 Nm with manufacturer's calibration certificate	187133
96	Plug-on ratchet ½" for torque wrench	187303
97	Attachable jaw spanner tool, size 21-24-23-24 Please specify size of jaw when ordering	187301
98	Attachable jaw spanner tool, size 27-30-32 Please specify size of jaw when ordering	187137
99	Wall hydrant mounting nut wrench	187310



**Confirmed quality through factory certificates and calibration certificates.**

## Measuring devices to ISO 9000

### Set of measuring devices from practical experience

To observe ISO 9000 it is necessary to use tools and measuring instruments which comply with specific quality criteria. BRANDSCHUTZTECHNIK MÜLLER has already supported many companies with their ISO 9000 certification process.

This expertise and acquired knowledge has led to the development of a complete set of measuring devices which are useful to all service companies in the fire protection technology sector.

- Indispensable resources for quality assurance



- Calibratable digital scales.

### Calibratable digital scales

Electronic dual range scales with digital display, (officially) calibratable. Power supply unit included.

**Dimensions:** 320 mm width, 330 mm depth, 125 mm height.  
**Weight:** 3 kg (including power unit 230 V, 50 Hz).

#### Scales range:

3   6 kg, digit increment 1   2 g	<b>Art. No. 186918</b>
6   15 kg, digit increment 2   5 g	<b>Art. No. 186919</b>
15   30 kg, digit increment 5   10 g	<b>Art. No. 186920</b>

### Additional options (surcharge)

Battery pack for calibratable digital scales, operating time up to 40 hrs., charging time approx. 12 hrs.

**Art. No. 186926**

DKD calibration certificate

**Art. No. 186927**

First official calibration at factory

**Art. No. 186928**

### Calibrated torque wrench

Calibrated torque wrench for 20 - 200 Nm with adapter for the special wrenches of the fire extinguisher valves. This torque wrench has a test certificate as per DIN ISO 6789.

**Art. No. 187133**



Since the lever lengths are different due to the different lengths of special wrenches, a compensation table has been enclosed to show how the corresponding corrections can be easily made. Adapters for attaching the special wrenches are also available individually. There are three different models for the current torque wrenches.

### Accessories (surcharge)

Special adapter for torque wrench



with round holding fixture 16 mm	<b>Art. No. 187207</b>
with rectangular holding fixture 9 x 12 mm	<b>Art. No. 187206</b>
with rectangular holding fixture 14 x 18 mm	<b>Art. No. 187205</b>



- Gauging equipment for test gauges.

### **Box of weights**

Box of weights with calibrated weights Class M3.  
Weight graduations: 1 to 2000 g.

**Art. No. 187131**

Other weight graduations upon request.



### **Gauging equipment for test gauges**

Test gauge Class 1.0 with acceptance inspection certificate B as per EN 10204 as control instrument. Ball valve with decompression. The manometer to be checked is connected to the connection piece.

**Art. No. 187132**



### **Test gauge**

Test gauge for stored pressure fire extinguisher Class 1.6 with acceptance inspection certificate B as per EN 10204.

**Art. No. 187156**



**Notes.**

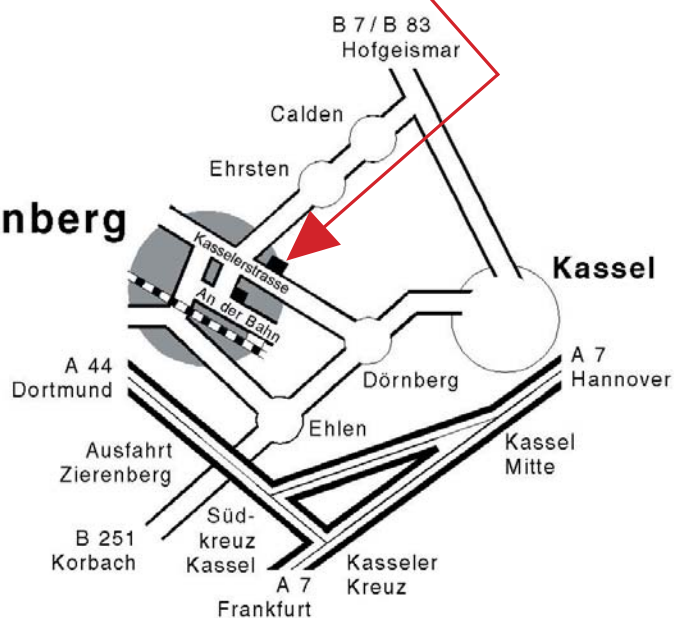
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