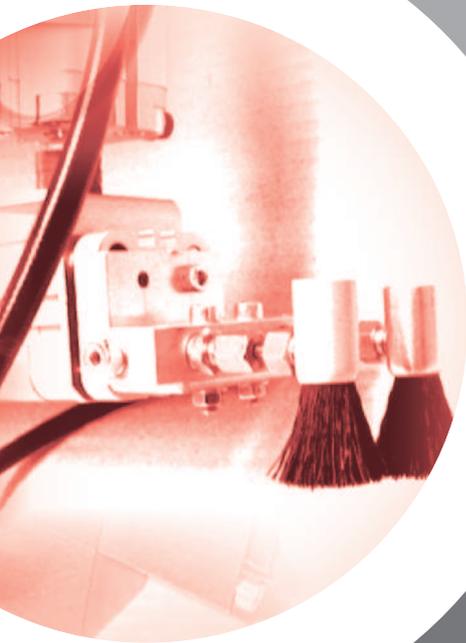


**As little as possible – as much as needed.  
Always measured out properly.**



**Metering systems**



**TEKAWE**

Tribo- und Industrietechnik GmbH

Technology for metering / lubrication / controlling

## 43- Metering Systems

43-00..	<b>General notes</b>
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43-0010	General information about metering systems
43-10..	<b>LP-, MP-, HP-presses</b>
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## 43- Metering Systems

- 43-70..**      **Metering valves**  
**43-7010**      Metering valve micro 0,5-12 mm<sup>3</sup> and 1-10 mm<sup>3</sup>  
                   Mini metering valve 5-100 mm<sup>3</sup> with needle and spraying accessories
- 43-7030**      Metering valve with assembling unit  
**43-7040**      Metering valve for direct mounting  
**43-7050**      Metering valve with grip horizontal / vertical  
**43-7060**      Metering valve for major quantities 100-1000 cm<sup>3</sup>

- 43-75..**      **Metering units for grease cartridges**  
**43-7505**      Cartridge metering unit 0-2 cm<sup>3</sup>  
**43-7540**      Metering unit with external control (3/2-way / 5/2-way)  
**43-7550**      Pneumatic metering gun for grease cartridges  
                   Grease cartridge, empty  
                   Greasing tools for metering units

- 43-82..**      **Bleeder valves / Spraying valves**  
**43-8210**      Bleeder valve  
**43-8250**      Hand-discharge unit "TEKA-Brush" / "TEKA-Line"  
**43-8270**      Grease discharging valves / Grease spraying valves  
                   Electropneumatical hand-discharge valve  
**43-8280**      Spraying valve mini / Spraying system "TEKA exacto Spray"    **\*\*NEU\*\***

**Exact dosages, reliable feeding and accurate dispensing mean clean, correct lubrication.**

**The correct dosage increases the quality of your product, the productivity and process-safety of the production and reduces your consumption of lubricant.**

The nowadays used high powered lubricants have to be brought - according to the rules of tribology impeccable and carefully - to the individual points.

The correct amount at the correct time to the correct place - can be achieved with our metering units.



**It's enough?**

At the following leaflets you find informations about this items:

**Delivery**

- grease press / barrel press
- container lift systems
- grease discharge unit

**Metering / Spraying**

- volumetrical metering units
- metering units for major quantities
- cartridge metering units
- discharge valves / Spraying valves

**Controlling**

- filter / manometer / pressure valves
- control sensor for metering-syst.
- Control units
- accessories

**Application**

For problems of all kind, like e.g. the "contact-lubrication" of individual surfaces, bores, shafts, etc., we develop, construct and produce special metering-units and application-units.

**Consistency-class / Delivering of lubricants**

The penetration (consistency) is one of the most important issue for the delivering of lubricants. The higher the penetration NLGI-class\* the stiffer the lubricant (grease).

NLGI-Klasse 000 is one of the lowest class, i.e. one of the softest lubricant.

The apparent dynamical viscosity is indicated by certain manufacturers. If it goes beyond 5.000 Pa.s = N\*s/mm<sup>2</sup>, a pumping by conventional lubricant pumps or systems is complicated.

At the same time the surrounding temperature as well as the length an diameter of the conduits or hoses is also important.

If the part of solid content in the lubricant is to big, especial points are to be observe.

NLGI-Class	worked penetration according DIN ISO 2137 [unit = 0,10 mm]	Remarks
<b>000</b>	445 - 475	floating
<b>00</b>	400 - 430	poor floating
<b>0</b>	355 - 385	semifluid
<b>1</b>	310 - 340	very soft
<b>2</b>	265 - 295	soft
<b>3</b>	220 - 250	mid solid
<b>4</b>	175 - 205	solid
<b>5</b>	130 - 160	very solid
<b>6</b>	85 - 115	stiff

\* NLGI-class = classification of lubricant, determined by National Lubricating Grease Institute.

The air-operated grease-supply-systems 10:1 are ideal for feeding lubricants (also silicone grease) of class NLGI 3.  
The grease supply-system 5:1 is suited especially for lubricants of class NLGI 1 - it is not suited for silicon grease.

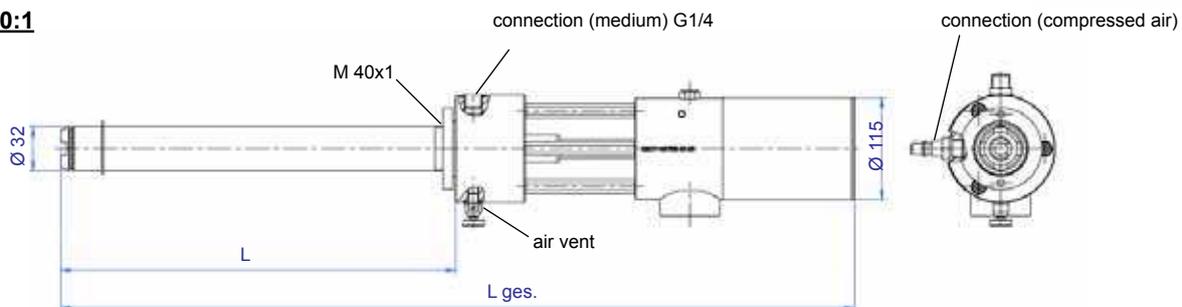
### Technical Data

	<b>10 : 1</b>	<b>5:1</b>
pressure transformation	2 / 10 bar	2 / 10 bar
input pressure (min./max.)	60 bar	27 bar
output pressure (6 bar on the engine)	150 l/min.	150l/min.
max. air consumption	16 cm <sup>3</sup>	20 cm <sup>3</sup>
max. discharge flow	1720 cm <sup>3</sup> /min.	1500 cm <sup>3</sup> /min.
max. flow rate on the engine	10° C / 40°C	10°C / 40°C
min./max. temperature	G 1/4	G 1/4
all connection threads		

Other details on request



### 10:1



Denomination	Weighth	for container	L [mm]	L ges. [mm]	Item no.
<b>pneumatic low pressure press 10:1</b>	3,6 kg	1 - 5 kg	288	288	<b>on request</b>
	4,3 kg	1 - 5 kg	402	693	<b>on request</b>
	4,6 kg	14 - 18 kg	370	661	<b>on request</b>
	5,0 kg	20 - 25 kg	473	764	<b>on request</b>
	6,0 kg	50 kg	620*	911	<b>1.51 64.1*</b>
	6,2 kg	50 kg	720	1011	<b>1.51 82.1</b>
	6,5 kg	180 kg	845	1136	<b>1.51 65.1</b>
<b>pneumatic low pressure press 10:1 complete with connections</b>	3,6 kg	1 - 5 kg	288	288	<b>on request</b>
	4,3 kg	1 - 5 kg	402	693	<b>on request</b>
	4,6 kg	14 - 18 kg	370	661	<b>on request</b>
	5,0 kg	20 - 25 kg	473	764	<b>on request</b>
	6,0 kg	50 kg	620*	911	<b>1.51 63.1*</b>
	6,2 kg	50 kg	720	1011	<b>1.51 83.1</b>
	6,5 kg	180 kg	845	1136	<b>1.51 62.1</b>

\* back version - only for replacement and on request.

### Other designs on request.

All technical data and picture are for information only and without responsibility. All designs is subject to change without notice.

# Grease supply-system MINI 1-5 kg

The air operated grease supply-system MINI are ideal for feeding expensive lubricants from small containers or dispensing small quantities of lubricants. This pump allows by means of a high pressure pipe with integrated air supply line a quick and easy connection to metering valves.

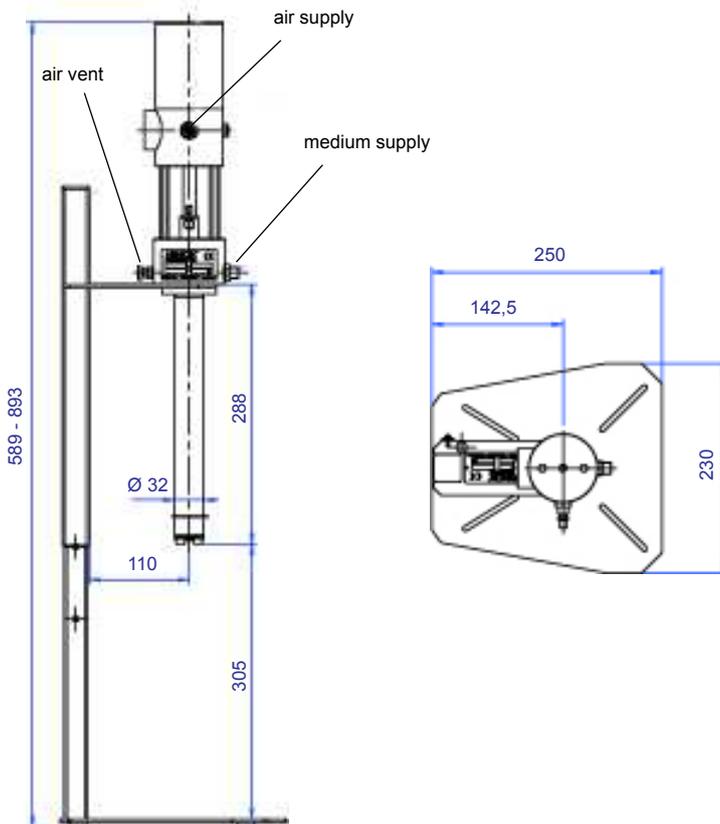
The system is consisting of an air-operated grease pump and a frame. Separate to the grease supply-system the selection of the follower plate will be made according to the container size.

## Technical Data

pressure transformation	<b>10:1</b>	<b>25:1</b>	<b>60:1</b>
input pressure (min./max.)	2-10 bar	2-10 bar	2-10 bar
output pressure (6 bar on the engine)	60 bar	140 bar	310 bar
delivery rate pro double stroke	16 cm <sup>3</sup>	17 cm <sup>3</sup>	6 cm <sup>3</sup>
max. flow rate on the engine	1720 cm <sup>3</sup> /min.	1295 cm <sup>3</sup> /min.	465 cm <sup>3</sup> /min.
specification for operation medium	<--- NLGI 3 / 5000 mPa.s --->		
min. / max. temperature	10°C / 40°C	10°C / 40°C	10°C / 40°C
all connection threads	G 1/4	G 1/4	G 1/4



43e-1010-2



Denomination	for container	pressure ratio	Item no.
grease supply-system MINI	1 - 5 kg	10:1	<b>1.51 74.6</b>
		25:1	<b>1.51 74.7</b>
		60:1	<b>1.51 74.8</b>

### Recommendation:

We recommend using a maintenance unit when air supplying device contains humidity.

Use the original container and fit the right follower plate, if possible with air vent. This will avoid air pockets.

### Other designs on request.

All technical data and picture are for information only and without responsibility. All designs is subject to change without notice.

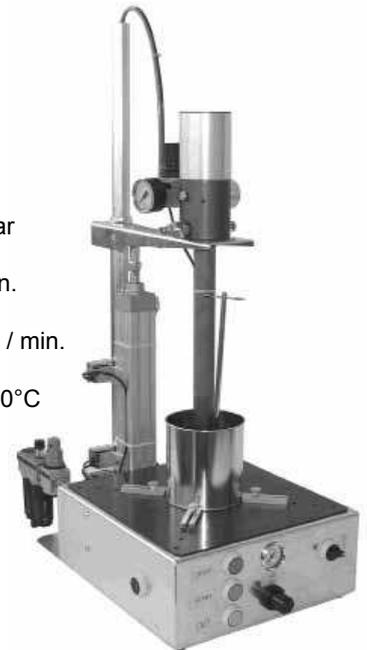
edition: 20.04.11

**These grease supply-system MINI for containers 1-5 kg with a pneumatic lifting device facilitates optimal suction and complete drainage of the container.**

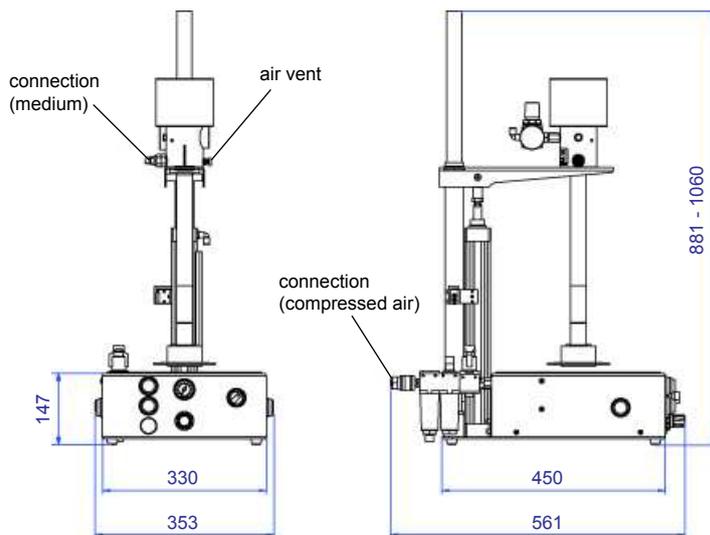
An empty state detector serves to switch off the pump when the low fill level has been reached, thus preventing the aspiration of air.

## Technical Data

pressure transformation	<b>10 : 1</b>	<b>20:1</b>	<b>60:1</b>
input pressure (min./max.)	4 / 10 bar	4 / 10 bar	4 / 10 bar
output pressure (6 bar on the engine)	67 bar	115 bar	335 bar
max. air consumption	217 l/min.	150l/min.	217 l/min.
delivery rate pro double stroke	20 cm <sup>3</sup>	7,5 cm <sup>3</sup>	7,5 cm <sup>3</sup>
max. flow rate on the engine	1190 cm <sup>3</sup> /min.	890 cm <sup>3</sup> /min.	500 cm <sup>3</sup> / min.
specification for operation medium	<--- NLGI 4 / 1.000.000 mPa.s --->		
min./max. temperature	10°C / 40°C	10°C / 40°C	10°C / 40°C
all connection threads	G 1/4	G 1/4	G 1/4



43e-1010-3



Denomination	for container	pressure ratio	Item no.
grease supply-system MINI with control system	1 - 5 kg	10:1	on request
		20:1	on request
		60:1	on request

### Other designs on request.

All technical data and picture are for information only and without responsibility. All designs is subject to change without notice.

# Low pressure press 10-80

The pneumatic low pressure press discharges all usual lubricants and grease (minimal value of the grease neutral penetration: 200, during working temperature), which are used in machine and vehicle servicing.

## Technical Data

type	single-level, double action axial piston pump
fitting position	preferable vertical
compressed air connection	quick release coupling with tube mandrel 6 mm
compressed air	filtered and oiled, max. 10 bar
ambient air temperature	+5°C bis +60°C
noise pressure level	ca. 70 dB (A)
standpipe diameter	48 mm
standpipe length	628 mm; 990 mm
transmission ratio	1 : 10
displaced volume	80 cm <sup>3</sup> /double stroke
flow rate	Determined by employment of the charging press with tube, 2,25m long, ball-valve straight filing tube 10 mm Ø, without pipe, temperature + 20°C



Air pressure [bar]	gear oil SAE 140 [kg/min]	Medium consistency of grease [kg/min]	Medium consistency of ball bearing-grease [kg/min]
3	1,400	0,700	0,600
5	2,850	1,850	0,950
6,5	3,200	2,200	1,100

## Application range

The ND-charging presses are employed on the assembly line or on the work bench. Cases, lairs etc. are charged with oil, grease or similar lubricants. Working with paste-like materials is possible inasmuch as they have "gliding characteristics" (there is no lubrication in the charging part). Aggressive components (e.g. solvents) or solids (frictional properties) are not processable. For repeated charges of constant amounts (0,5-2.500 cm<sup>3</sup>) one can combine the ND-presses with TEKAWE-metering units (q.v. metering units). The connection with a grease distribution system is possible.

## Functional description

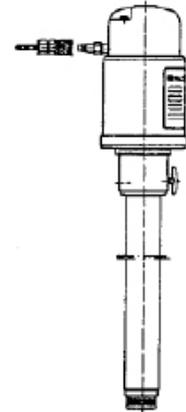
The ND-cask presses are intended for the application in 50 kg- and 200 kg-barrels respectively. The device has to be connected to the air duct.

required minimum pressure:	2 bar
maximal allowable delivery pressure:	100 bar

When there are greases or other paste-like materials in use, you need a stripping cover for proper airless charging from the original container. The application area of the ND-cask press was extended by a new steering with positively controlled flat gate valve and a standard exhaust air silencer. From this construction arise determining advantages e.g. accurate rerouting during slow-going operation, small control periods during fast mode and low noise handling in every situation.

## Item overview

Denomination	for containers up to [kg]	Total height [mm]	Mass [kg]	Item No.
Füllpresse	50	933	11	1.32 53 01.2
	200	1295	12	1.32 54 01.2



## Technical facilities

The 50 kg-charging press (1.32 53 01.2) can be extended with the following equipment:

Remarks	Pressure reduce	(*)	Other equipment	for containers up to [kg]	total height [mm]	roundly sheet metal-covering [mm]	cap, outside [mm]	Mass [kg]	Item No.
Filling pipe Ø 16 mm ("Hakenröhrchen" Ø16)	with manometer	+	cap, chassis	50	1078	462 Ø outside, useable height of cover 586, total height 780	472	30	1.32 58 01.2
Equipment for the dispensing with pipe-distributor	with manometer	-	cap	50	940	462 Ø outside, 460 Ø inside, useable height of cover 586, total height 640	472	20	1.32 64 01.2

(\*) 2,25 m Filling hose and ball valve

The 200 kg-charging press (1.32 54 01.2) can be extended with the following equipment:

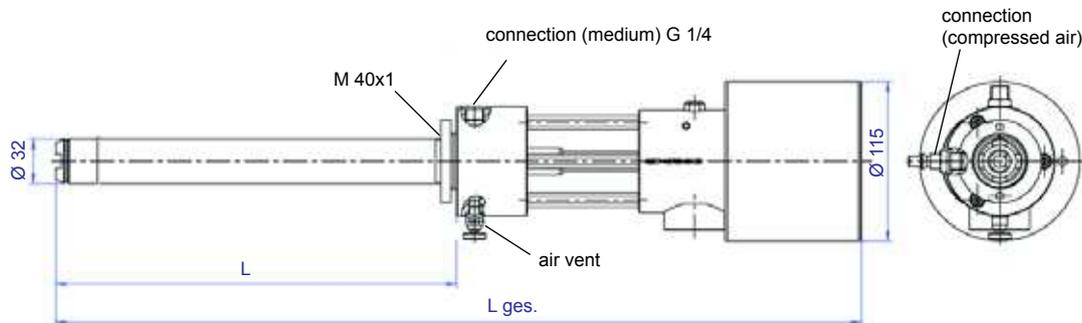
Remarks	Pressure reduce	(*)	Other equipment	for containers up to [kg]	total height [mm]	roundly sheet metal-covering [mm]	cap, outside [mm]	Mass [kg]	Item No.
Equipment for the dispensing with pipe-distributor	with manometer	+	cap	200	1295	-	641	14	1.32 65 01.2

(\*) 2,25 m Filling hose and ball valve

The air-operated grease-supply-systems are ideal for feeding lubricants (also silicone grease) of class NLGI 3.

## Technical Data

pressure transformation	25 : 1
input pressure (min./max.)	2 / 10 bar
output pressure (6 bar on the engine)	140 bar
max. air consumption	217 l/min.
max. discharge flow	17 cm <sup>3</sup> / double stroke
max. flow ate on the engine	1295 cm <sup>3</sup> /min.
Ø suction pipe	32 mm
Min./Max. temperature	10° C / 40° C
all connection threads	G 1/4



Denomination	Weight	for container	L [mm]	L ges. [mm]	Item no.
pneumatic medium pressure press 25:1	2,5 kg	1 - 5 kg	288	579	on request
	3,2 kg	1 - 5 kg	402	693	on request
	3,5 kg	14 - 18 kg	370	661	1.51 70.1
	4,0 kg	20 - 25 kg	473	764	1.51 67.1
	4,5 kg	50 kg	620*	911	1.51 54.1*
	5,0 kg	50 kg	720	1011	1.51 70.1
	5,0 kg	180 kg	845	1136	1.51 55.1
pneumatic medium pressure press 25:1 complete with connections	2,5 kg	1 - 5 kg	288	579	on request
	3,2 kg	1 - 5 kg	402	693	on request
	3,5 kg	14 - 18 kg	370	661	1.51 71.1
	4,0 kg	20 - 25 kg	473	764	1.51 68.1
	4,5 kg	50 kg	620*	911	1.51 58.1*
	5,0 kg	50 kg	720	1011	1.51 81.1
	5,0 kg	180 kg	845	1136	1.51 59.1

\* back version - only for replacement and on request.

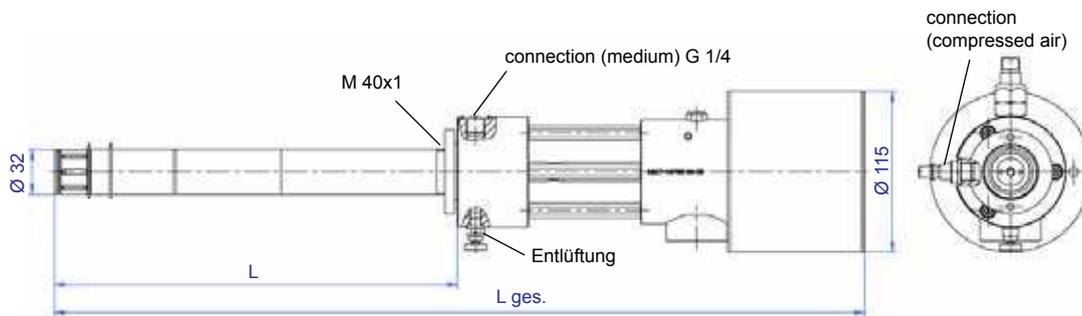
### Other designs on request.

All technical data and picture are for information only and without responsibility. All designs is subject to change without notice.

The air-operated grease-supply-systems are ideal for feeding lubricants (also silicone grease) of class NLGI 3.

## Technical Data

pressure transformation	60 : 1
input pressure (min./max.)	2 / 10 bar
output pressure (6 bar on the engine)	310 bar
max. air consumption	217 l/min.
max. discharge flow	6 cm <sup>3</sup> / Doppelhub
max. flow ate on the engine	465 cm <sup>3</sup> /min.
Ø suction pipe	32 mm
Min./Max. temperature	10° C / 40°C
all connection threads	G 1/4



Denomination	Weigth	for container	L [mm]	L ges. [mm]	Item no.
<b>pneumatic high pressure press 60:1</b>	4,0 kg	1 - 5 kg	288	579	<b>on request</b>
	4,5 kg	1 - 5 kg	402	693	<b>on request</b>
	4,8 kg	14 - 18 kg	370	661	<b>on request</b>
	5,2 kg	20 - 25 kg	473	764	<b>1.51 72.1</b>
	6,2 kg	50 kg	620*	911	<b>1.51 60.1*</b>
	6,5 kg	50 kg	720	1011	<b>1.51 84.1</b>
	6,7 kg	180 kg	845	1136	<b>1.51 61.1</b>
<b>pneumatic high pressure press 60:1 complete with connections</b>	4,0 kg	1 - 5 kg	288	579	<b>on request</b>
	4,5 kg	1 - 5 kg	402	693	<b>on request</b>
	4,8 kg	14 - 18 kg	370	661	<b>1.51 77.1</b>
	5,2 kg	20 - 25 kg	473	764	<b>1.51 73.1</b>
	6,2 kg	50 kg	620*	911	<b>1.51 56.1*</b>
	6,5 kg	50 kg	720	1011	<b>1.51 85.1</b>
	6,7 kg	180 kg	845	1136	<b>1.51 57.1</b>

\* back version - only for replacement and on request.

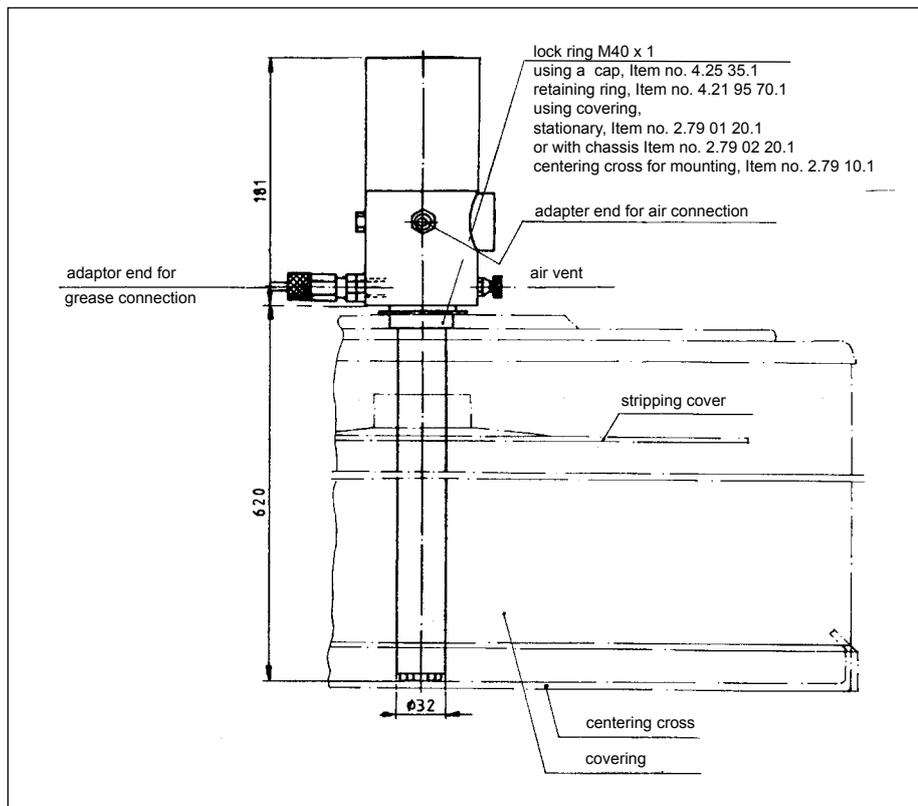
### Other designs on request.

All technical data and picture are for information only and without responsibility. All designs is subject to change without notice.

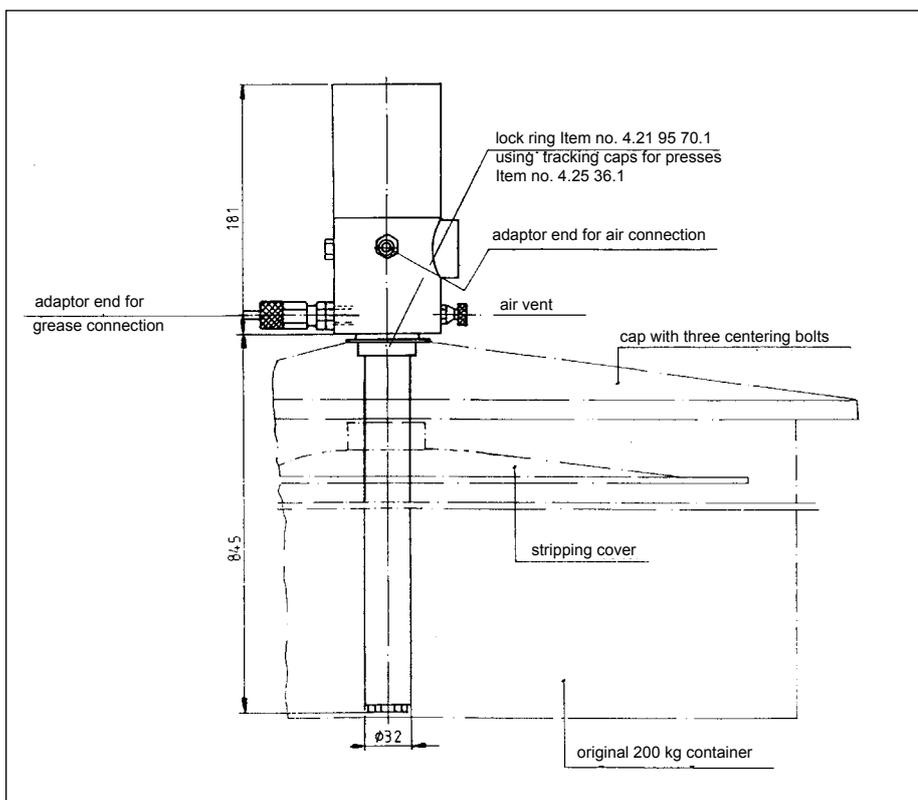
# pneumatic high pressure press 50 kg / 200 kg

Any press from our range of products can be used:

Subsequent 2 examples of use:



model with 50 kg-container



model with 200 kg-container

43e-1030-2

edition: 20.04.11

## General notes

Container lift systems serve the quick and trouble-free change of containers for paste-like media (e.g. grease, oil, adhesive, etc.). The pedantically manual lifting of the stripping cover and the barrel press is effected pneumatically.

The stripping cover on the full container is pneumatically adjusted, so that a sticking of the cap is prevented and specific reliability is ensured. This guarantees that no blebs develop in the container and that the press doesn't draw air.

The version suited for containers in plastic is vested with a holding-down clamp for centering device and fixation.

## Function

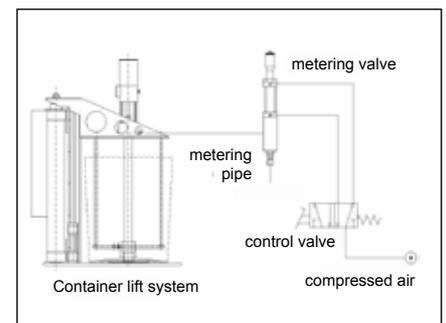
The grease gun is switched on by pressing the "Start"-button, after the stripper is plugged in by the two-hand control. If the container is nearly empty, the system is shut down automatically and an acoustic warning signal alarms temporarily.

The signal has to be switched off by the operator. This way it is warranted that the empty container is recognized consciously by the operator and it is avoided to let the system run empty.

Currently the press can be raised up per mode switch. In this position a full container can be exerted and/or an empty container can be exchanged.



## Example



## Technical Data

	high pressure grease gun	medium pressure grease gun	low pressure grease gun
transmission ratio	1 : 60	1 : 25	1 : 10
discharge flow per double stroke	6 cm <sup>3</sup>	17 cm <sup>3</sup>	20 cm <sup>3</sup>
flow rate without back pressure	467 cm <sup>3</sup> / min.	1296 cm <sup>3</sup> / min.	1722 cm <sup>3</sup> / min.
air consumption	150 L/min.	217 L/min.	217 L/min.
input pressure (min./max.)	2/10 bar		
working pressure of pump on 6 bar	310 bar	140 bar	67 bar
penetration	3		

## Dimensions

Measures in mm	10-30 kg	10-50 kg
base plate (l x b)	620 x 390	715 x 490
height (extended)	ca. 1230	ca. 1730
height (retracted)	ca. 820	ca. 1030

Denomination	for containers	Item-No.
Container lift system single arm for containers 10-30 kg	plastic	<b>1.57 15.1</b>
	metal	<b>1.57 15.2</b>
Container lift system single arm for containers 10-50 kg	plastic	<b>1.57 21.1</b>
	metal	<b>1.57 22.1</b>

# Container lift systems

for containers up to 50 kg up to 200 kg

## General notes

Container lift systems serve the quick and trouble-free change of containers for paste-like media (e.g. grease, oil, adhesive, etc.). The pedantically manual lifting of the stripping cover and the barrel press is effected pneumatically.

The stripping cover on the full container is pneumatically adjusted, so that a sticking of the cap is prevented and specific reliability is ensured. This guarantees that no blebs develop in the container and that the press doesn't draw air.

## Function

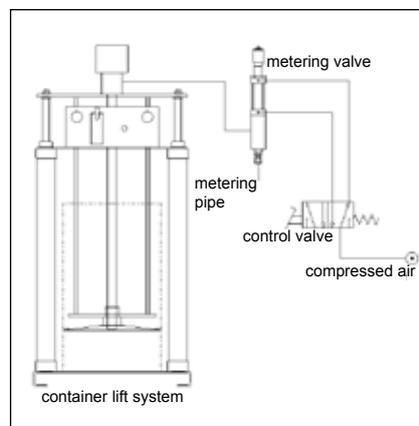
The barrel-press with stripping cover is accelerated with 2 pneumatic lifting cylinders by activating a 5/2-valve. In this position the full container can be inserted and the empty container replaced respectively.

By switching the 5/2-valve, the press and the stripping cover are lowered, so that it bears on the media. The pressure of the stripping cover is determined by a preset pressure regulator.

If the level of the media sinks the cover follows and strips off the inner surface of the container. As soon as the stripping cover arrives the minimum level in the container, the propulsion air for the barrel-press is locked.

By switching the 5/2-valve the press can be accelerated for the next container change.

## Einsatzbeispiel



## Technical Data

	high pressure grease gun	medium pressure grease gun	low pressure grease gun
penetration	3 (250-220)	3 (250-220)	3 (250-220)
transmission ratio	60 : 1	20 : 1	10 : 1
discharge flow per stroke	7,5 cm <sup>3</sup>	5,1 cm <sup>3</sup>	16 cm <sup>3</sup>
flow rate without back pressure	500 cm <sup>3</sup> /min	945 cm <sup>3</sup> /min	1722 cm <sup>3</sup> /min
input pressure (min./max.)	2 - 7 bar	2 - 10 bar	2 - 10 bar
pressure of media on 7 bar	400 bar	115 bar	ca. 66 bar
air consumption	9 Nm <sup>3</sup> /h	13 Nm <sup>3</sup> /h	13 Nm <sup>3</sup> /h
connection thread	G 1/4 i.	G 1/4 i.	G 1/4 i.

## Dimensions

	for containers up to 50 kg	for containers up to 200 kg
base plate	580 x 500 x 56 mm	920 x 640 x 96 mm
height (extended)	1800 mm	2500 mm
height (retracted)	1100 mm	1500 mm
max. container height	700 mm	880 mm
max. container diameter	400 mm	600 mm
<b>Item-No.</b>	<b>1.57 20.2</b>	<b>1.57 30.1</b>

Chassis with two rubber-hooped wheels, holder and dust cover for 50 kg-containers.

High pressure tube (2,25m), with axial- and angle swivel joint, high pressure greasing gun with hydraulic coupling.

### Technical Data

height	935 mm
max. diameter	520 mm
transmission ratio	1 : 70
grease pressure *)	max. 400 bar
necessary air pressure	4 - 7 bar
weight	15 kg
varnishing	white

\*) annotation: The grease pressure has to be reduced to the adequate maximum pressure of the powered systems.  
A pressure reducing valve with appropriate pressure limitation is necessary.



edition: 09.05.11

Denomination	Irem-No.
high pressure barrel press, complete	<b>1.33 50 01.3</b>

Remark:

For this system any press can be used from our assortment.

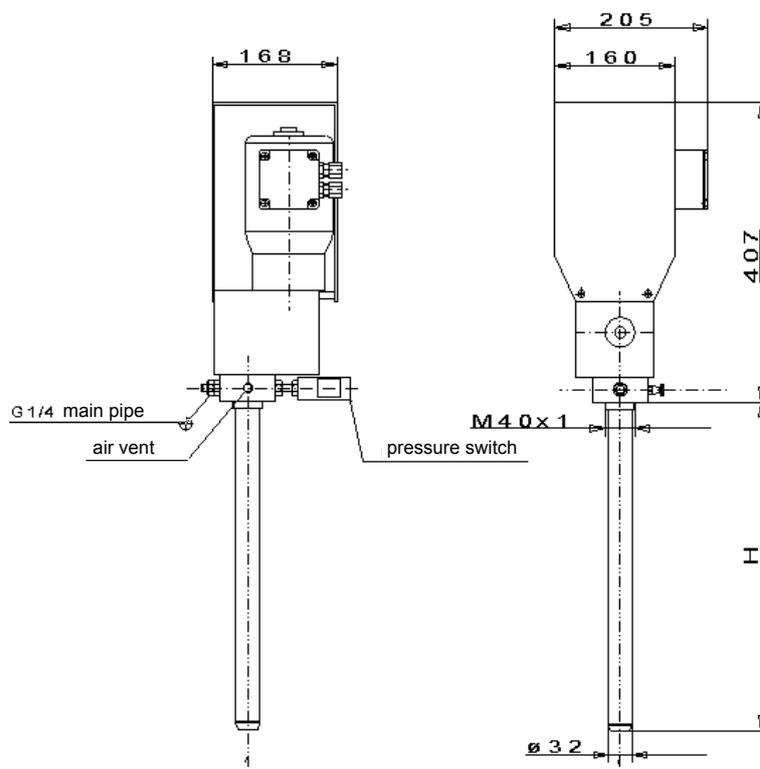
**Other types on request.**

Electric-operated grease supply systems can be used as an alternative to air-operated grease-pumps.  
For lubricants up to NLGI 3.

### Technical data

power	400 W
protective system	IP 55
connection	230 V (50/60 Hz)
gear	worm gear
delivery rate *	ca. 280 cm <sup>3</sup> / min
max. output pressure	200 bar
min. / max. temperature	10°C / 40°C

\* metered at pump outlet (Medium NLGI2) by 200 bar counterpressure and by 20°C ambient temperatur.



Electric operated barrel press	H [mm]	for containers [kg]	Item-No.
AC 230 V 50/60 Hz	374	14 - 18	1.55 10.1
	477	20 - 25	1.55 20.1
	724	50	1.55 30.1
	849	180	on request

**Other tensions, pressures and discharge flows on request.**

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

# Elektric operated grease system AX - 2000

With these electric-operated grease supply systems a reliable and trouble free lubrication is warranted when ever no compressed air ia available.

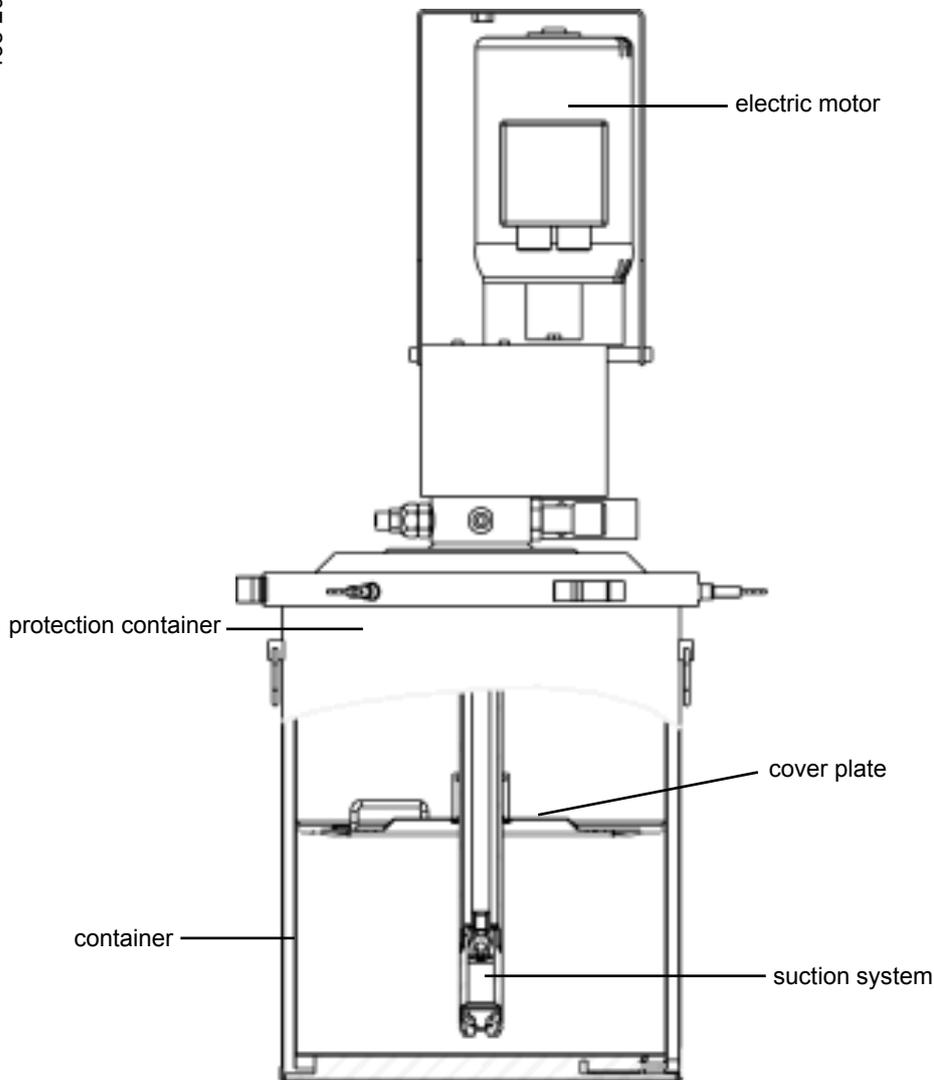
## Customer benefits:

- independent from compressed air
- minimal down time / low maintenance
- low-noise
- economic efficiency
- operator convenience
- high quality standard



grease guns as accessories can be found on the datasheets 43-5010 ff.

## **Example of use:**



**As a combination all air-operated and electric-operated barrel presses are used.**

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

The buffer unit ensures the lubrication and dosage at plants and aggregates without to interrupt the current working process when changing the lubricant bundle .

The plant is suitable excellent for the operation for several lubrication fittings with different quantity output.

The usual interrupt of the production plants due to bundle change is not needed.

For operation a drum-lifting-aggregate is needed.

- "UFV" - uninterruptible power supply
- Working pressure up to 150 bar (at 6 bar air pressure)
- Automatical filling with sensor-technologie
- stably by sturdy baseplate
- Standardcolour of the housing: anthracite - more colours on request



43e-2050-1

#### Technical data:

	High-pressure pump	Medium-pressure pump	Low-pressure pump
Pressure ratio air / grease	1 : 60	1 : 25	1 : 10
Discharge amount per double-stroke	6 cm <sup>3</sup>	17 cm <sup>3</sup>	20 cm <sup>3</sup>
Discharge amount at pump outlet	467 cm <sup>3</sup> / min.	1296 cm <sup>3</sup> / min.	1722 cm <sup>3</sup> / min.
Air amount	150 L/min.	217 L/min.	217 L/min.
Working pressure min./max.	2/10 bar		
Max. NLGI class	3		
Voltage	24 V DC		
Tankage	5 l		

#### Dimensions:

Depth	450 mm
Width	350 mm
Height	approx. 700 mm

Denomination	Item-No.
Grease discharge unit UFV - E 5 with auto-refilling	1.51 15.1

This system is also available as a simple conditioning grease supply system without control valve and manometer.

#### Other designs on request.

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

## Stripping covers with rubber lip

Stripping covers, optional for containers in metal or plastic (conical) for the use of grease barrel presses.

Below the most common stripping covers are listed. Other sizes and designs on request

Please specify the size of the barrel and inner diameter.

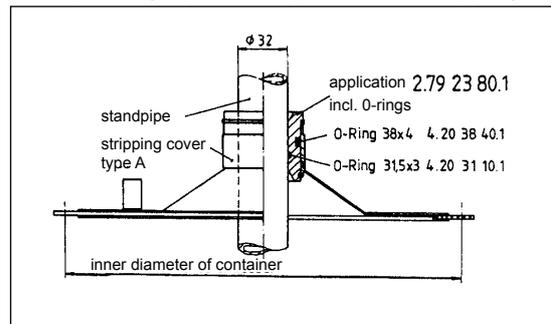


### Typ A

inner diameter	size of trading unit	Item-No.
250-270	15 kg	<b>2.79 22 26.1</b>
255-282*		<b>2.78 24.1*</b>
260-290*		<b>2.79 22 27.1*</b>
275-295		<b>2.79 22 28.1</b>

\* suitable for conically plastic containers

### Example: high-pressure press with stripping cover - type A

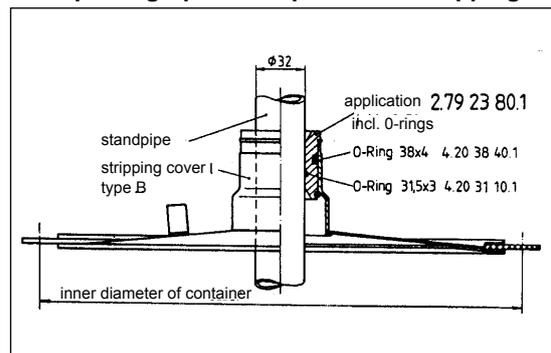


### Typ B

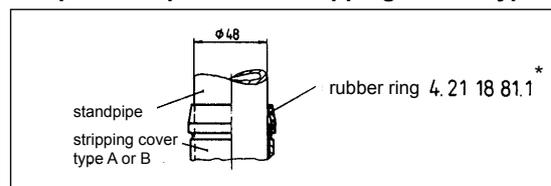
inner diameter	size of trading unit	Item-No.
300-350	25 kg	<b>2.79 22 33.3</b>
300-335*		<b>2.78 32.2*</b>
340-380	50 kg	<b>2.79 22 35.3</b>
353-390		<b>2.79 22 36.3</b>
355-387*		<b>2.78 36.2*</b>
368-404		<b>2.79 22 38.3</b>
378-414		<b>2.79 22 39.3</b>
388-424		<b>2.79 22 40.3</b>
560-574	200 kg	<b>2.79 24 12.2</b>

\* suitable for conically plastic containers

### Example: high-pressure press with stripping cover - type B



### low-pressure press with stripping cover - type A / B



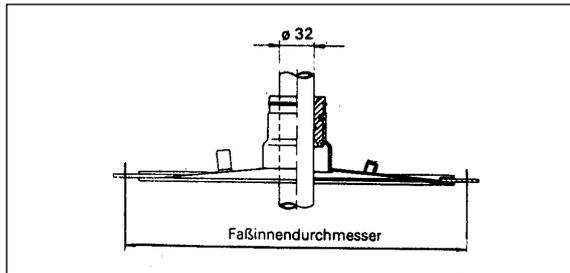
**\*) Advice:** stripping covers are delivered with the application 2.79 23 80.1 for 32-pipes. If the cover is required for low pressure presses with 48-pipes, the application has to be removed and the rubber ring 4.21 18 81.1 has to be reared. (Lubricate it with grease before.)

# Stripping covers

with reinforced lip

## Stripping cover with reinforced lip (8 mm)

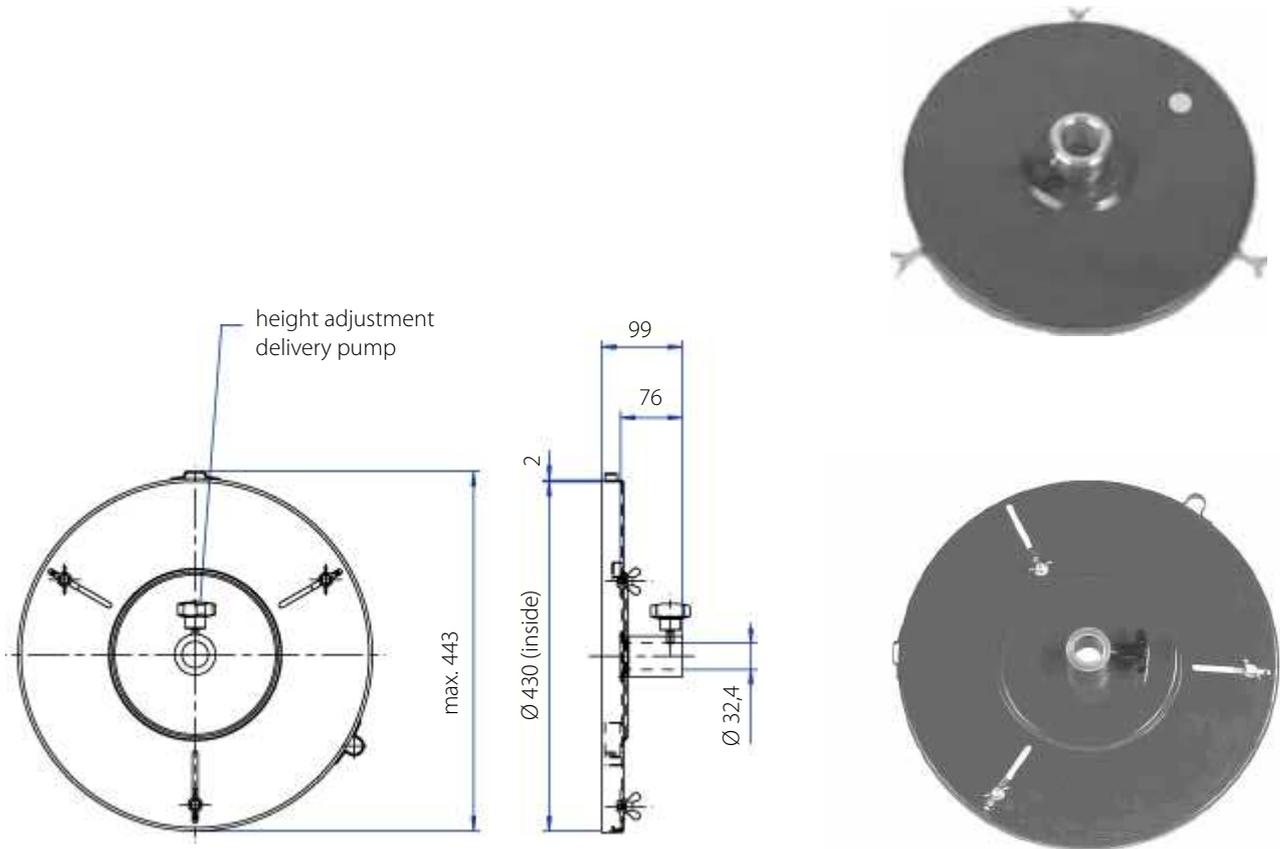
Stabilised design - suitable for rigid grease.  
Other types and sizes on request.  
Please specify the size of the barrel and inner diameter.



43e-4010-2

inner diameter	size of trading unit	Item-No.
300-325	25 kg	on request

**Cover for 15 kg-, 25 kg- and 50 kg-containers**



**fig.: Cover for 50 kg - container**

Denomination	suitable for containers	adjustable from	Item-No.
<b>Cover for 15 kg-container</b>	14-18 kg	280 - 320 mm	<b>4.25 28.1</b>
		240 - 300 mm	<b>4.25 26.1</b>
<b>Cover for 25 kg-container</b>	20-25 kg	355 - 395 mm	<b>4.25 30.2</b>
		312 - 350 mm	<b>4.25 30.1</b>
<b>Cover for 50 kg-container</b>	50 kg	315 - 420 mm	<b>4.25 35.1</b>
<b>Stripping cover</b>	suitable for conically plastic containers	240 - 280 mm	<b>2.78 24.1</b>
		300 - 340 mm	<b>2.78 32.1</b>
		355 - 387 mm	<b>2.78 36.1</b>

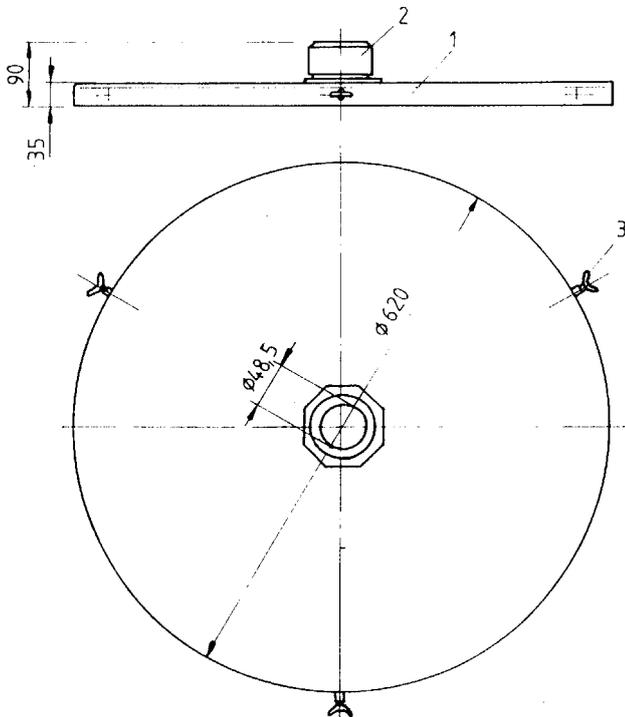
edition: 09.05.11

**Other types and sizes on request.**

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

# Cover plates

for 200 kg-containers



- Pos. 1 plate
- Pos. 2 track
- Pos. 3 wing screw

43e-4050-2

Denomination	adjustable from	Item-No.
Cover for 200 kg-container	560 - 600 mm	4.25 36.1

## High pressure gun: accessory for the high pressure barrel pump

### measures:

height: 137 mm  
width: 150 mm

Denomination	Item-No.
High pressure gun PN 400 with sieve	2.72 34 41.1

Pos. 1 pistol  
Pos. 2 die  
Pos. 3 release lever



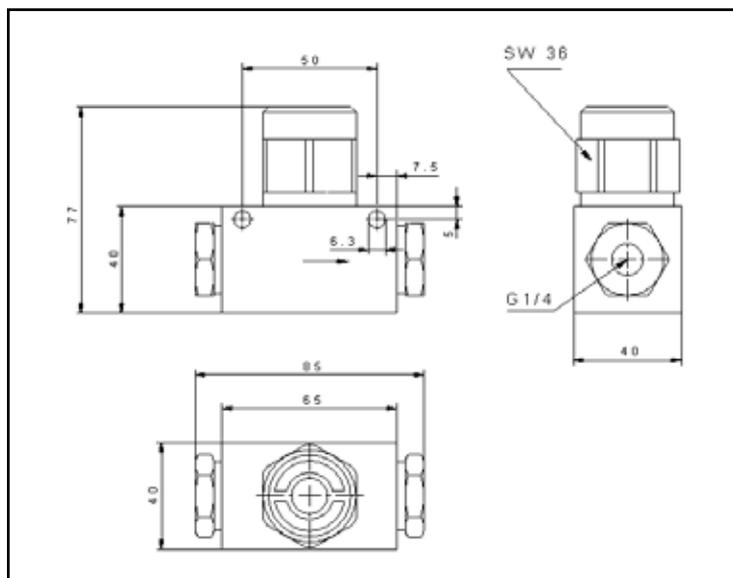
## Grease filter

With the installation of a lubrication system impurities and pollutions can get in the piping system. The grease filter serves the purpose to catch these impurities and not let through in sensitive ranges.

The differential pressure between inlet and outlet may not be larger than 20 bar; otherwise the filter element can be destroyed. Therefore it should be regularly examined for impurities and if necessary cleaned and/or replaced.

### Technical data:

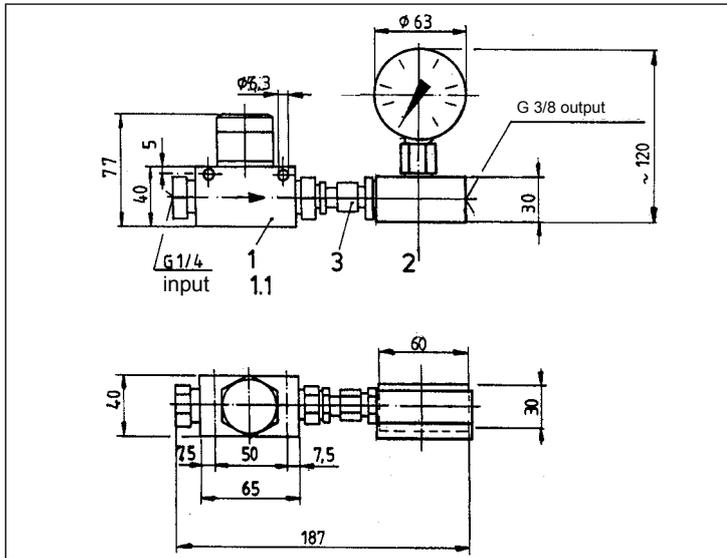
Max. pressure range 500 bar  
Connection thread G 1/4



Denomination	Item-No.
Grease filter 60 µm	2.77 10 90.1
Grease filter 150 µm	2.77 10 91.1
Strainer 60 µm	4.59 70.1
Strainer 150 µm	4.59 71.1

# Grease filter with connection block and manometer

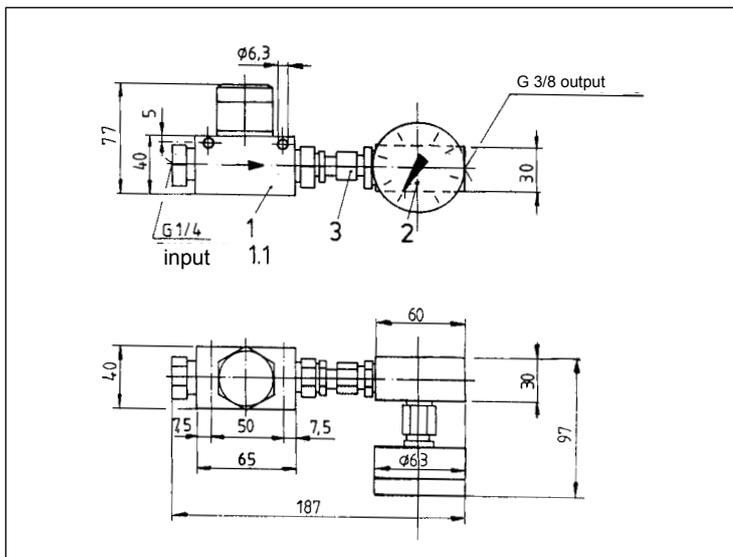
43e-5010-2



ill. 1



- Pos. 1 grease filter 150  $\mu$  (2.77 10 90.2)
- Pos. 1.1 replacement filter cartridge 4.59 71.1
- Pos. 2 manometer with connection block with glycerine filling, range 0 - ... bar
- Pos. 3 connection (GE 12-LR - Item-No. 2.75 01 36.6X and EVGE 12-LR shortened - Item-No. 3.72 85.4)



ill. 2

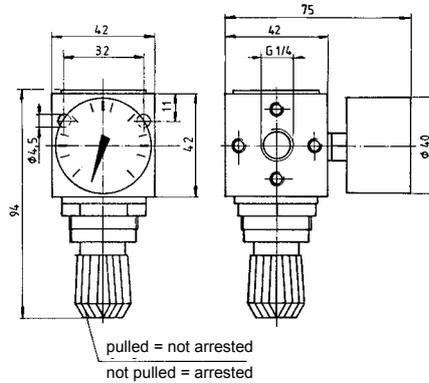
- Pos. 1 grease filter 150  $\mu$  (2.77 10 90.2)
- Pos. 1.1 replacement filter cartridge 4.59 71.1
- Pos. 2 manometer with connection block with glycerine filling, range 0 - ... bar
- Pos. 3 connection (GE 12-LR - Item-No. 2.75 01 36.6X and EVGE 12-LR shortened - Item-No. 3.72 85.4)

Denomination	$\varnothing$	connection	Item-No. manometer	with connection block	ill.	Item-No.
grease filter with connection block and manometer 250 bar, glycerine filling	63	behind	1.00 63.1	G 3/8	2	<b>1.00 89.1</b>
		below	1.00 64.1		1	<b>1.00 90.1</b>
grease filter with connection block and manometer 150 bar, glycerine filling		behind	1.00 73.1		2	<b>1.00 91.1</b>
		below	1.00 74.1		1	<b>1.00 92.1</b>
grease filter with connection block and manometer 60 bar, glycerine filling		below	1.00 61.1		2	<b>1.00 93.1</b>
		behind	1.00 67.1		1	<b>1.00 94.1</b>
grease filter with connection block and manometer 100 bar, glycerine filling		below	1.00 68.1		2	<b>1.00 95.1</b>
		behind	1.00 69.1		1	<b>1.00 96.1</b>

edition: 25.05.12

### Pressure reducing valve

To control the grease pressure in barrel presses and the steering pressure.



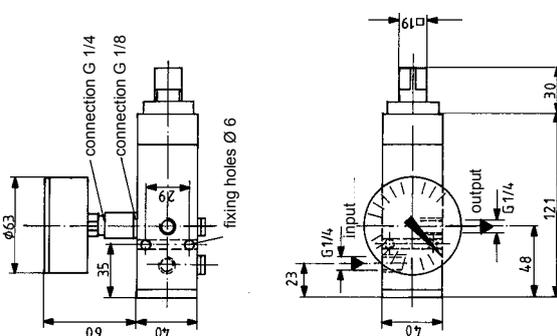
Denomination	limited to	Item-No.
pressure reducing valve G 1/4	2,8 bar	1.31 82.1
	4,0 bar	1.31 84.1
	6,0 bar	1.31 86.1
	8,0 bar	1.31 88.1

The pressure reducing valves are completely featured with manometer 0-10 bar.

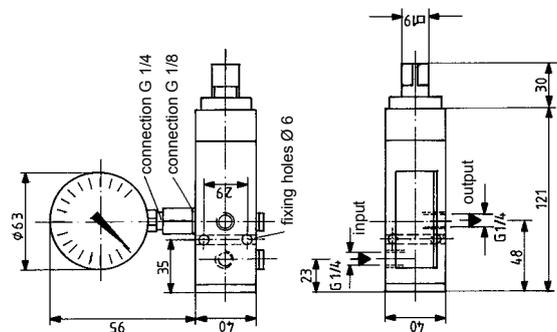
### Pressure regulating valve for grease

#### Technical Data

diameter material input	4 mm
gear transmission ratio	25 : 1
connection / input	G 1/4
connection / output	G 1/4
adjustment range	3 - 50 bar
input pressure	max. 250 bar
manometer	0 - 100 bar



Denomination	connection	Item-No.
pressure regulating valve	below	4.85 23.1



Denomination	connection	Item-No.
pressure regulating valve	behind	4.85 24.1

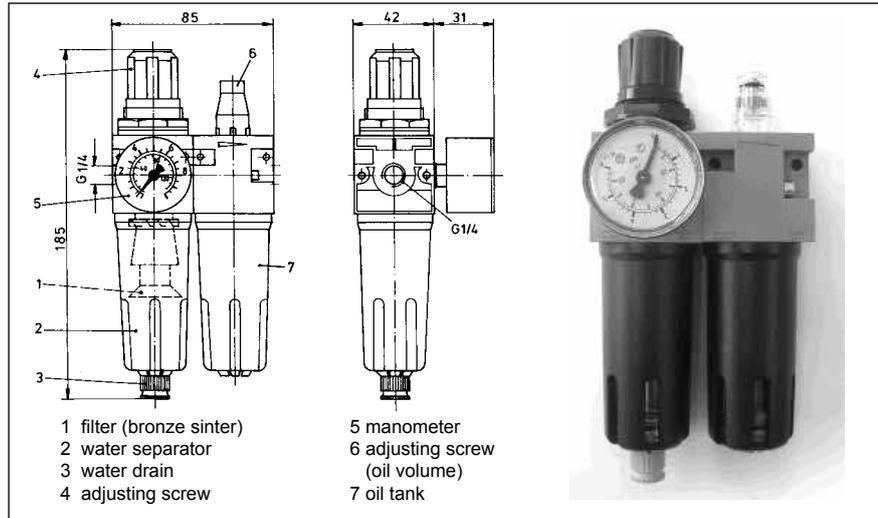
## Service unit

with water separator, filter, air line lubricator, reducing valve and manometer

### technical data

temperature, max. 70° C  
 flow rate, max. 50 m³/h  
 flow rate, min. 6 m³/h  
 air pressure, max. 15 bar

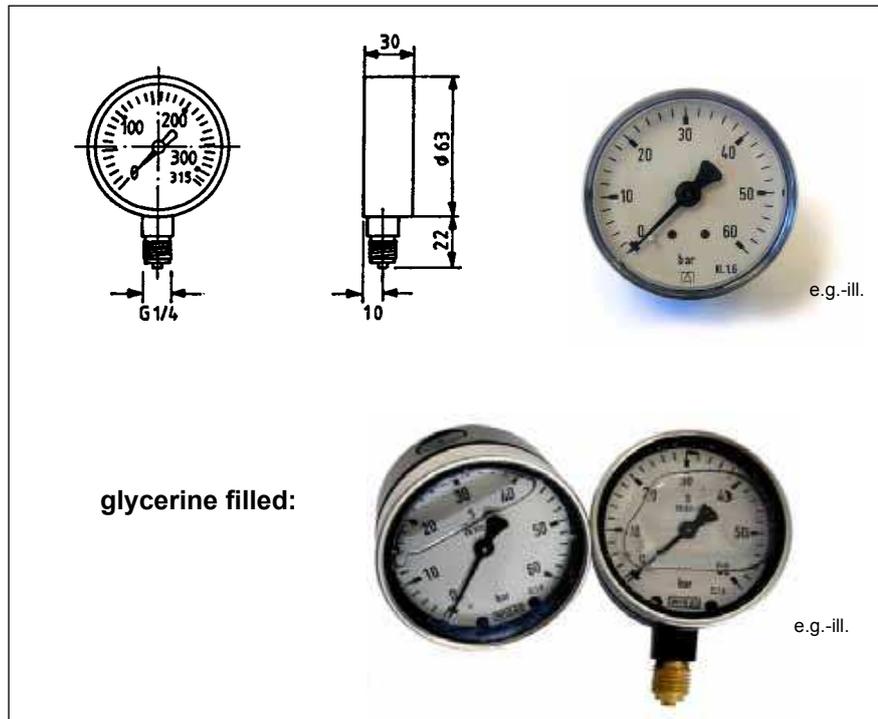
Denomination	Item-No.
service unit	2.71 10 10.3



## manometer for grease pressure

connection G 1/4

Denomination	Anschl.	Item-No.
manometer Ø63 250 bar	below	2.63 31.1
manometer Ø63 0-60 bar, glycerine filled	behind	2.63 08.5
	below	2.63 06.5
manometer Ø63 0-100 bar, glycerine filled	behind	2.63 11.1
	below	2.63 10.1
manometer Ø63 0-150 bar, glycerine filled	behind	2.63 15.1
	below	2.63 16.1
manometer Ø63 0-250 bar, glycerine filled	behind	2.63 25.5
	below	2.63 26.5
manometer Ø63 0-400 bar, glycerine filled	behind	2.63 41.5
	below	2.63 40.5

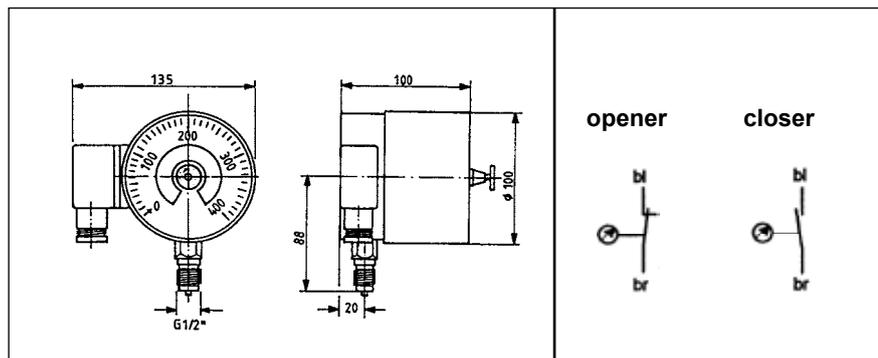


## contact manometer

### technical data

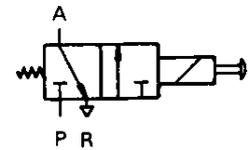
pressure range 0 - 400 bar  
 nominal size 100  
 voltage max. 380 V  
 breaking capacity 50 VA

Item-No.	
2.71 80 65.2	2.71 80 66.2
max. contact as	
opener	closer



### 3/2 - magnetic valve

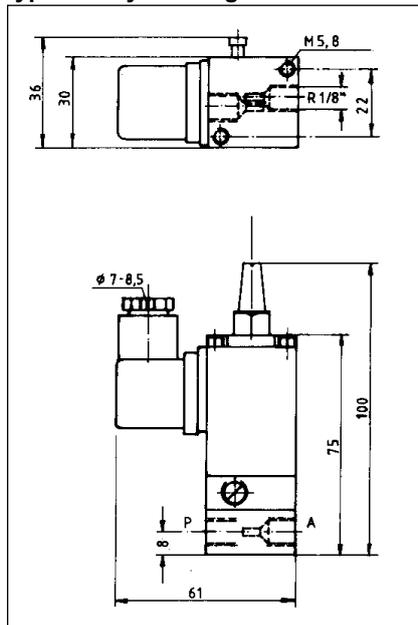
with cable end to control pneumatic central lubrication pumps.



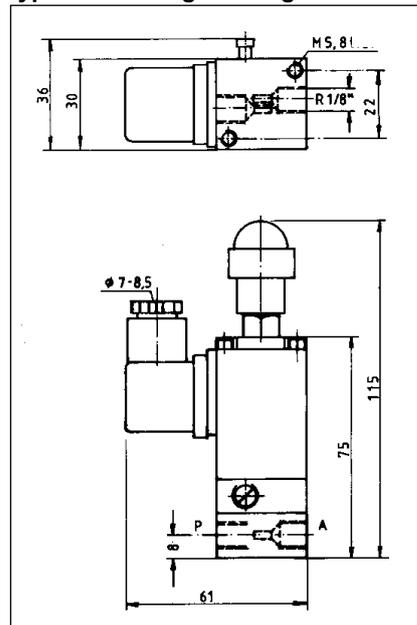
#### Technical data

fluid	compressed air
type	to drop out, closed
material from the case	brass / cast aluminium
fitting position	any
relative duty factor	100 % DF
utensil socket	DIN 43650
tolerance of voltage	± 10 %
nominal diameter	Ø 2
pressure range	0 - 10 bar
contact rating	7,5 W
protection class	IP 65
working temperature	-20 °C bis +80 °C
capacity	Q <sub>n</sub> 120 l/min
spoolle adjustable	4 x 90°

#### type for dry working



#### type for soaking working



denomination	voltage (V)		frequency (Hz)	application	item no.
	DC	AC			
3/2 - magnetic valve	-	24	50	dry working	2.81 20 31.3
	24	-	-	soaking working	2.81 20 32.3
	24	-	-	dry working	2.81 20 34.3
	-	220	50	dry working	2.81 20 42.3
	-	220	50	soaking working	2.81 20 45.3

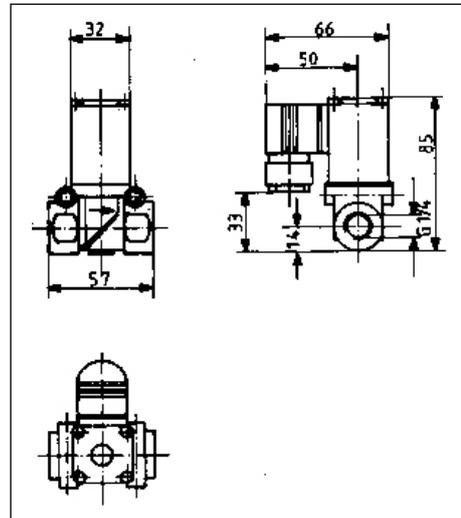
edition: 09.03.11

43e-5510-3

## 2/2 - Magnetic valve

### Technical data

medium	compressed air
type	currentless closed
case material	brass
installation position	optional
rel. switch-on time	100 % ED
connector	DIN 43650
voltage tolerance	+/- 10 %
nominal diameter	DC Ø 8
pressure range	AC 0,2 - 16 bar DC 0,2 - 6 bar
contact rating	8 W
protection class	IP 65 (with connector)
working temperature	-10° C bis + 80° C
capacity	Q <sub>n</sub> 1700 l/min
spoole adjustable	continuously 360°



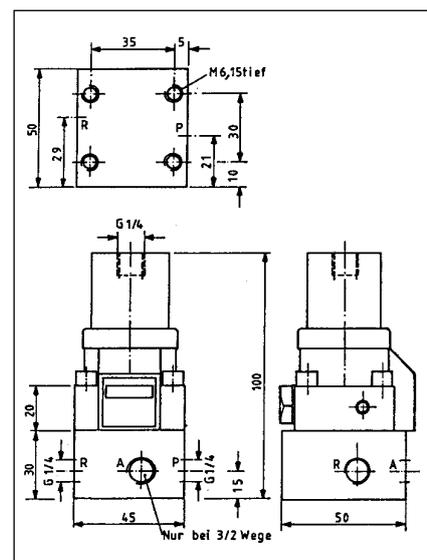
denomination	voltage (V)		frequency (Hz)	item no.
	DC	AC		
2/2 - magnetic valve	24	-	-	2.81 20 51.3
	-	24	50	2.81 20 50.3
	-	220	50	2.81 20 52.3

## 2/2 - Ball valve, pneumatic with blockade of the charge line of a metering system

### Technical data

nominal diameter Ø	5 mm
pressure range, pneumatic	3 to 15 bar
hydraulic	220 bar
connection, pneumatic	G 1/4
hydraulic	G 1/4
working temperature	-20° C to +70° C
installation position	optional
weight	1,05 kg

denomination	weight	item no.
pneumatic 2/2 - ball valve	1,05 kg	2.71 33 18.1



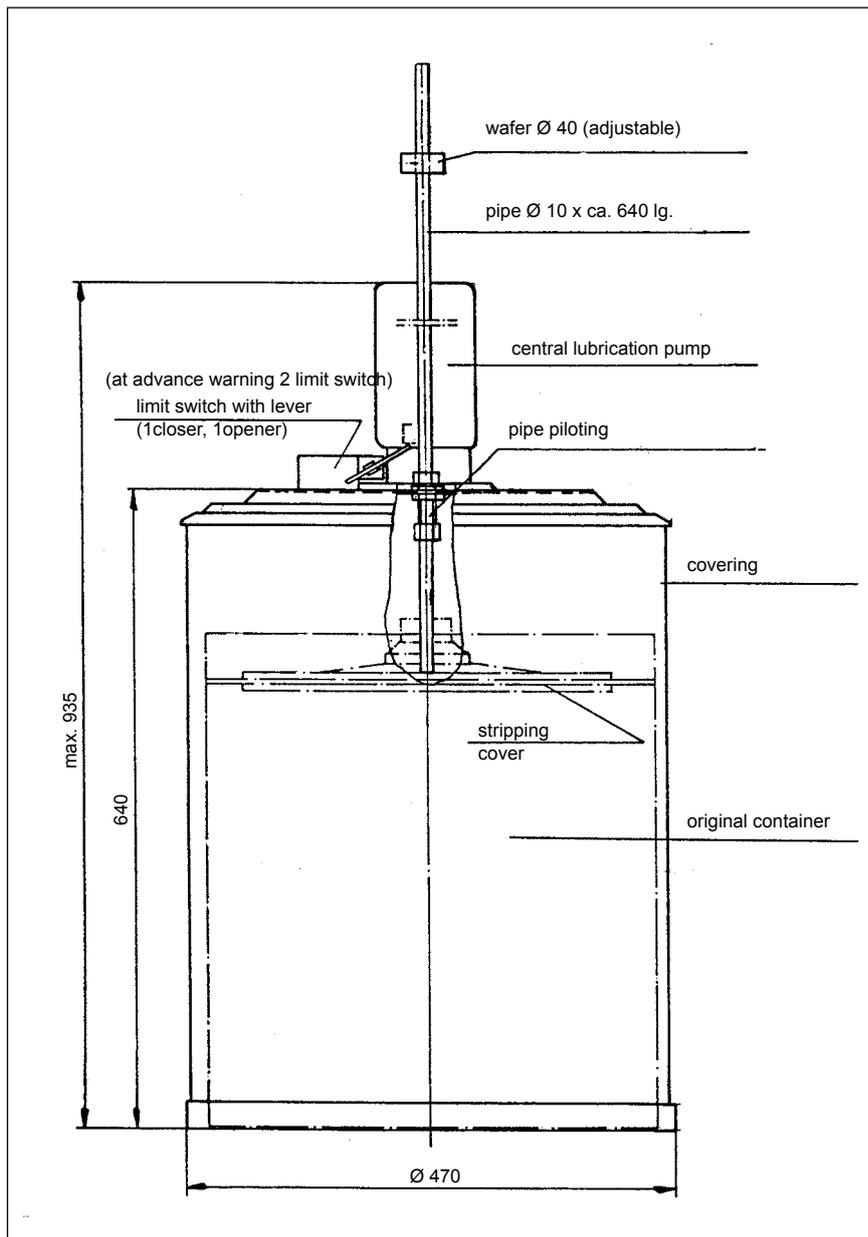
edition: 09.03.11

43e-5510-4

**Grease level controlling for 50 kg - barrels**  
with limit switch (intermitted feed)

The limit switch is operated if the minimum level of grease is reached (changeover contact).

At construction with 2 limit switches the advance warning takes place by the first switch-key and a main warning by the second switch-key.



ill. 50 kg-container

Denomination	for containers up to	Item-No.
grease level control unit with limit switch (intermittend feed)	50 kg	1.05 13.1
	200 kg	1.05.15.1
grease level control unit with limit switch and advance warning (intermittend feed)	50 kg	1.05 14.1
	200 kg	1.05 19.1

edition: 09.03.11

43e-6010-1

# Control sensor for metering systems

The control sensor for metering systems allows a comfortable and clear identification, if the grease, which was delivered by the metering valve, was pumped to the lubrication point. Every dose - yet from a quantity of 5 mm<sup>3</sup> - is indicated by a light emitting diode. In addition to that the impulse can be relayed to the control unit of the machine as a handshaking signal. The sensor reacts apart from metering control to interferences, e.g. breakage of the lubrication line, trapped air or plugging.

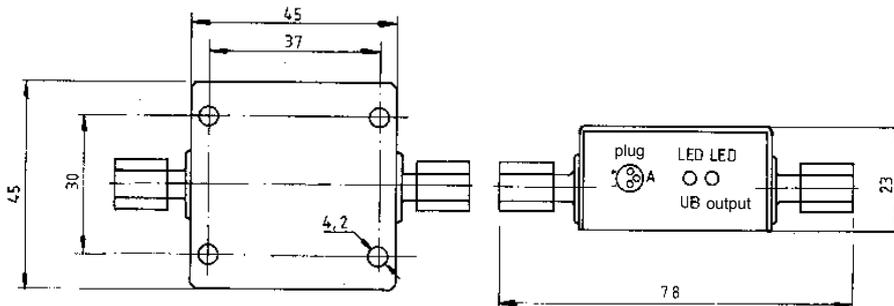


## Technical Data

ascertainable doses  $\geq 5 \text{ mm}^3$   
 pulse frequency max. 1 impulse/sec.  
 media oil/soft grease/NLGI-greases  
 working pressure max. 50 bar  
 working temperature range -20 to +70°C (dependent on the media)

case measures h=23 / w=45 / d=45 mm  
 case material anodized aluminium  
 fitting 4 drilling for screws M 4  
 pipe connection tube fitting  $\varnothing 6 \text{ mm}$   
 installation directly on the output of the metering valve  
 fitting position optional, for small outputs particularly vertical in flow direction  
 protection class IP 67 with cable coupling

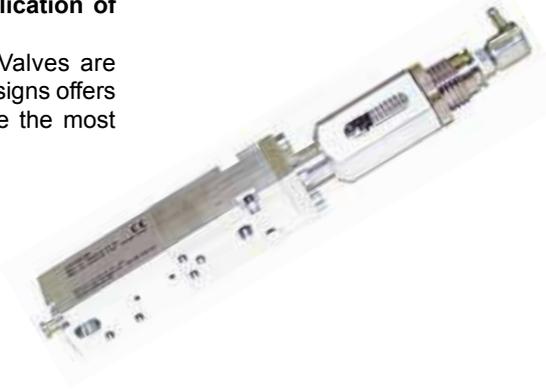
power supply 10 ... 36 V DC  
 rated voltage 24 V DC  
 switching function PNP - shutter  
 output current max. 200 mA short circuit proof  
 output pulse extension  $\geq 50 / \leq 60 \text{ ms}$   
 current consumption ca. 15 mA on 24 V  
 funktion indicator LED green = operating voltage  
 LED yellow = lube impulse  
 connection connector M 8x1  
 connector pin assignment 1 (br) + / 3 (bl) - / 2 (sw) output



Denomination		Item-No.
control sensor for metering systems		2.15 25.1
<b>Accessories:</b>		
cable coupling with splashed line and engaging sleeve nut	with angular connector with 5,0m of cable	2.15 18.1
	with straight connector with 5,0m of cable	2.15 19.1

**Metering valves are used in all areas of the industry for the application of low- to high-viscosity media.**

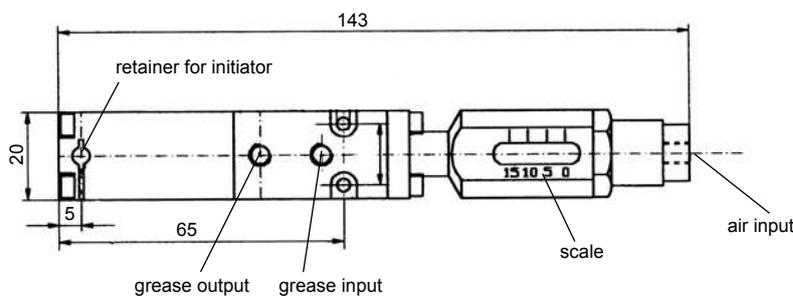
Here, high precision and accurate applied quantities are required. Valves are available in different variants and different sizes. The variety of valve designs offers the opportunity for the respective individual application always to use the most appropriate valve.



## Metering valve micro 0,5 - 12 mm<sup>3</sup>

### Technical data

connection / compressed air	max. 6 bar
operating media	oil-free and condensate-free compressed air
activation	3/2 - distributing valve
connection / input	M5, max. 5-25 bar
connection / output	M5
dose volume	0,5 to 14 mm <sup>3</sup> /stroke
accessory	initiator for metering scan / connection plate

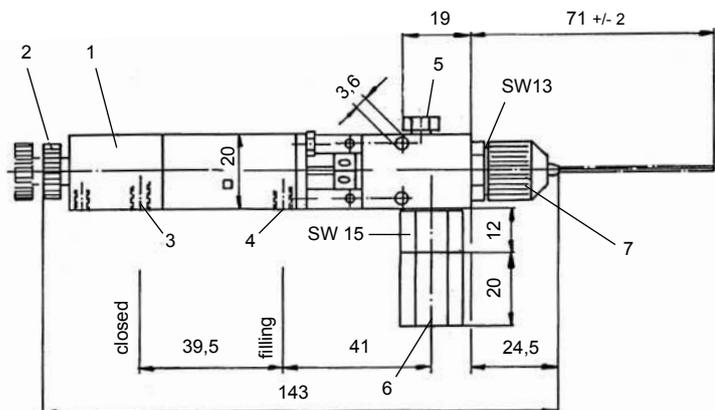


Denomination	Item-No.
Metering valve 0,5 - 12 mm <sup>3</sup>	<b>1.15 07.1</b>

## Metering valve micro 1 - 10 mm<sup>3</sup>

### Technical Data

input pressure	3 - 30 bar
operating air pressure	3 - 10 bar
output pressure	150 bar
activation	5/2 - distributing valve
needle diameter	1,5 mm
dosing volume	adjustable 1 - 10 mm <sup>3</sup>



- Pos. 1 case
- Pos. 2 knurled nut for metering doses
- Pos. 3 steering air, metering (M5)
- Pos. 4 steering air, filling (M5)
- Pos. 5 bleeder screw
- Pos. 6 media input G1/8 i
- Pos. 7 media output with nozzle Ø 16

Denomination	Item-No.
Metering valve 1 - 10 mm <sup>3</sup>	<b>1.05 07.1</b>

# Mini-metering valve

## 5 - 100 mm<sup>3</sup>

with metering needle / with spraying attachment



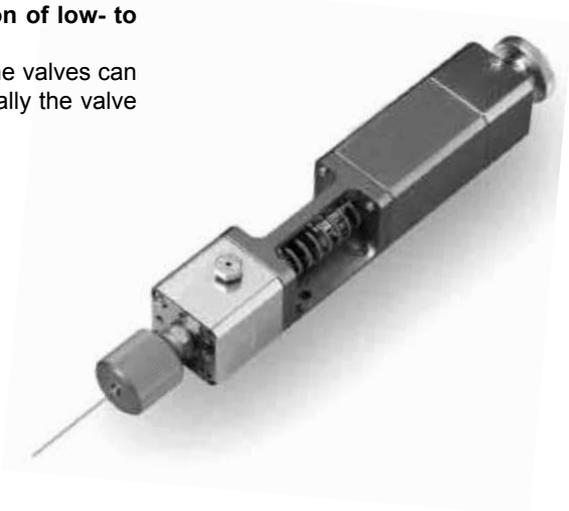
Tribo- und Industrietechnik GmbH

**Needle- or spraying metering valves are used for the application of low- to high-viscosity media.**

The metering volume can be regulated infinitely by knurled screw. The valves can be activated electrically or pneumatically. For abrasive media optionally the valve seat and valve needle are made of hard metal.

### Technical Data

input pressure	3 - 30 bar
operating air pressure	3 - 10 bar
output pressure	150 bar
metered volume	adjustable 5 - 100 mm <sup>3</sup>



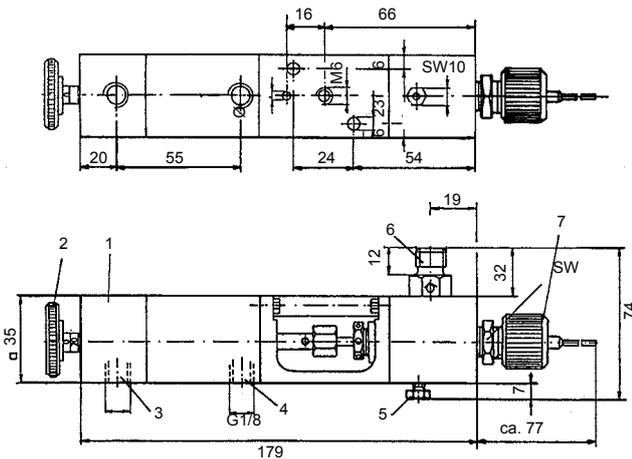
### Metering valve mini with metering needle

metering needle: Ø 1,5 mm

The sealing of the valve needle is adjustable by a special seal.

The maximum possible metering progression depends on the material viscosity and material pressure.

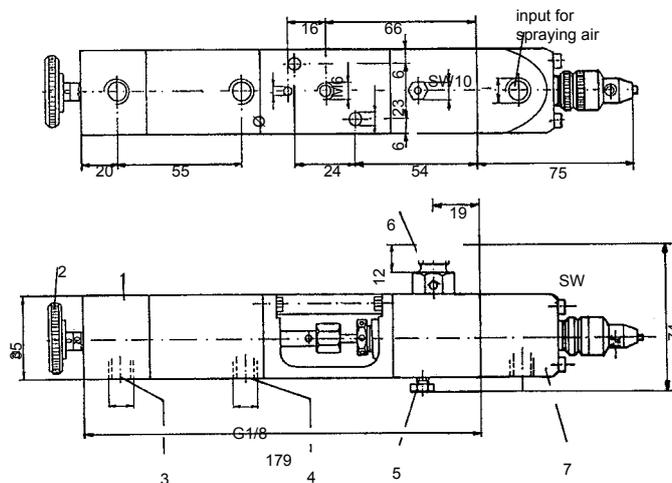
43e-7010-2



- Pos. 1 case
- Pos. 2 knurled nut for metering doses
- Pos. 3 steering air, metering (M5)
- Pos. 4 steering air, filling (M5)
- Pos. 5 bleeder screw
- Pos. 6 media input G1/4 i
- Pos. 7 media output with nozzle

Denomination	Item-No.
Metering valve mini 5 - 100 mm <sup>3</sup> with metering needle	<b>1.05 08.1</b>

### Metering valve mini with spraying attachment



- Pos. 1 case
- Pos. 2 knurled nut for metering doses
- Pos. 3 steering air, metering (M5)
- Pos. 4 steering air, filling (M5)
- Pos. 5 bleeder screw
- Pos. 6 media input G1/4 i
- Pos. 7 media output with spraying attachment

Denomination	Item-No.
Metering valve mini 5 - 100 mm <sup>3</sup> with spraying attachment	<b>1.05 09.1</b>

**Other types and sizes on request.**

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

edition: 09.03.11

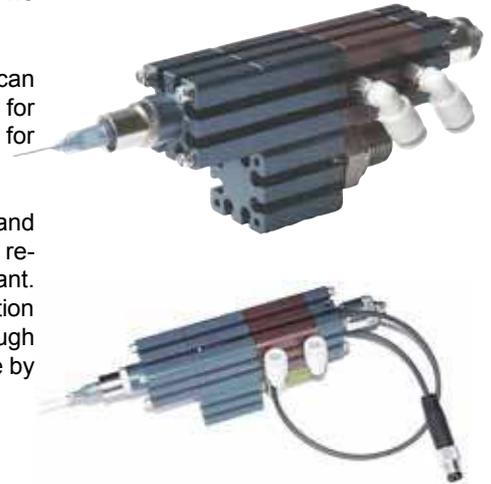
Volumetric metering valves comprises an adjustable dosage chamber for the medium and an integrated pneumatic cylinder serving as actuator. The metering valve is controlled by means of a 5/2-way valve.

Thanks to the precise and clean application with the highest repeatability you can save on each dosage expensive lubricant. By means of anytime retrofit sensor for the metering piston, you now make your production- and assembly-process for greasing more effectiveness and reliability!

Metering valves with sensor (hydraulic and/or pneumatic) present a low cost and hence frequently used solution for monitoring the dosage process. The sensor registers the movement of the metering piston and thus the ejection of the lubricant. The initial signal confirms that the dispensing occurred. This dispensing interrogation facilitates an optimal process supervision and guarantees a high service life through his robust construction. The dosage chamber volume is continuously adjustable by a screw adjustment.

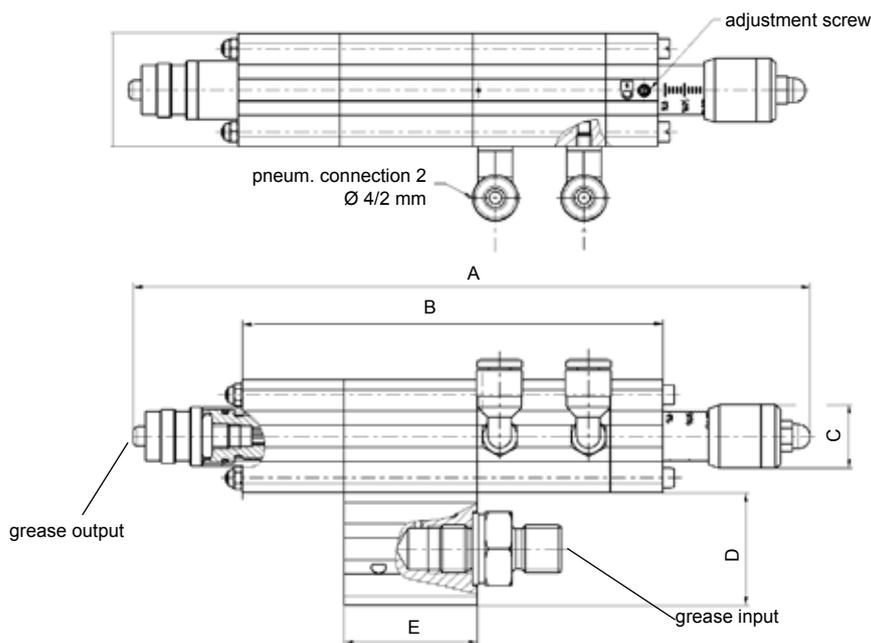
### Technical data

operating air pressure min./max. 5 / 7 bar (opt.: 6 bar)  
specification of operation medium NLGI-Klasse 3



**new model!**

43e-7030-1



Denomination	metering range [cm <sup>3</sup> ]	material pressure (min. / max.) [bar]	connection input / output	A	B	C	D	E	F [□]	weight [g]	Item-No.
Metering valve with assembling unit	0,05 - 0,45	200 bar / 80 bar	G 1/8 / G 1/8							425	2.05 60.1*
	0,001 - 0,02	20 / 200	G 1/8 / M5	137	85	Ø13	23	27	23x23	169	on request
	0,01 - 0,2								23x24		on request
	0,1 - 2,0		G 1/4 / G 1/8	224	156	Ø20	36	52	36x36	773	2.05 73.1
	1,0 - 6,0									802	2.05 83.1

\*) discontinued model

**Other types and sizes on request.**

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

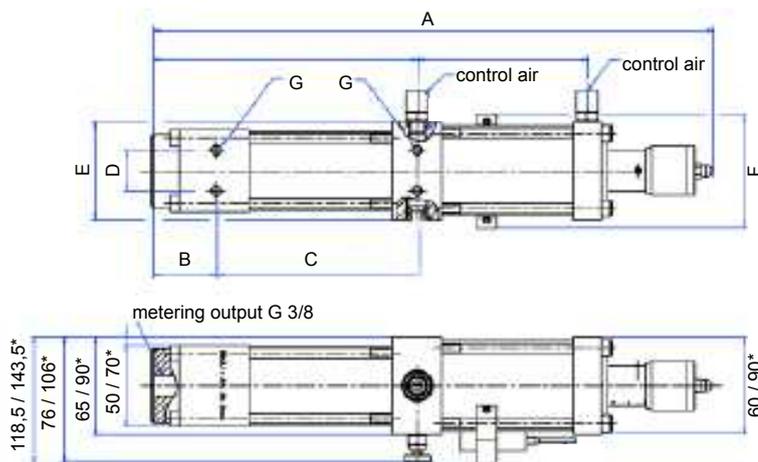
These metering valves can be attached to the base block easily and quick. To activate a 5/2-way valve is required. The output can be adjusted continuously by a screw adjustment.

Metering valves with sensor (hydraulic or pneumatic) present a low cost and hence frequently used solution for monitoring the dosage process.



### Technical data

Max. input pressure	200 bar
output pressure	80 bar
operating air pressure min./max.	5 bar / 7 bar (opt.: 6 bar)
specification for operation medium	bis NLGI 3
G = fastening thread	M6 / M8*



Denomina- tion	dispen- sing range [cm <sup>3</sup> ]	medium pressure in / out	connec- tion in / out	connec- tion control air	dimensions						weight [g]	Item-No.
					A	B	C	D	E	F		
Metering valve for direct mounting (without sensor)	2,0 - 26,0	200 bar / 80 bar	G 1/4 / G 1/4	G 1/8	340	39	122	25	60	161	2087	2.06 60.1
	5,0 - 54,0				463	69	140	25	65	209	2560	2.06 70.1
	10 - 133*		560		72	191	35	90	263	6570	2.06 80.1	

With the standard nozzles we construct specific customized application nozzles which can be directly screwed to metering valve.

**Other models on request.** All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

Metering valves series equipped with ergonomic handle is especially suited for easy and handy operation. Handling of this valve may be further facilitated by using counterbalance suspended directly above the assembly area. The connection for the material supply and for the air supply can be used optionally at the drag or at the backside of the handgrip. The dosage chamber inlet and outlet are alternatively shut and opened by means of a pin valve with pneumatic control. The dosage chamber volume is continuously adjustable by a screw adjustment.

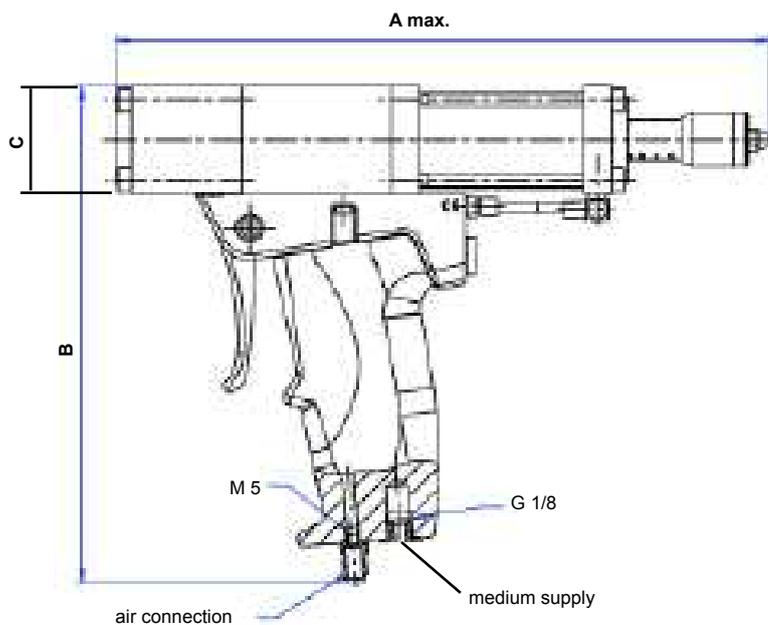


## Function

The pneumatic part of the metering valve is controlled by a 5/2-way valve which is located inside the handle. Pressing the trigger initiates ejection of the metered medium. The output pressure depends on the lubricant feed pressure (media). The pneumatic system is separated from the grease chamber.

## Technical data

operating air pressure min./max. 5 bar / 7 bar (opt.: 6 bar)



Denomination	dispensing range [cm <sup>3</sup> ]	medium pressure in / out	connection in / out	connection control air	A	B	C	weight [g]	Item-No.
metering valve with handgrip horizontal	0,05 - 0,45	200 bar / 80 bar	G 1/8 / G 1/8	M5	194	176	30	967	2.06 20.1
	0,2 - 2,0				194	176	30	977	2.06 30.1
	1,0 - 6,0		G 1/8 / G 1/4		244	186	40	1567	2.06 40.1

**Other models on request.** All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

# Metering valve with handgrip vertical (also available with sensor)

These metering valves are suitable for vertically accessible lubrication points. The ergonomic handle with modern and optimised metering activator is especially suited for easy and handy operation. Handling of these metering valves may be further facilitated by using a counterbalance suspended directly above the assembly area.

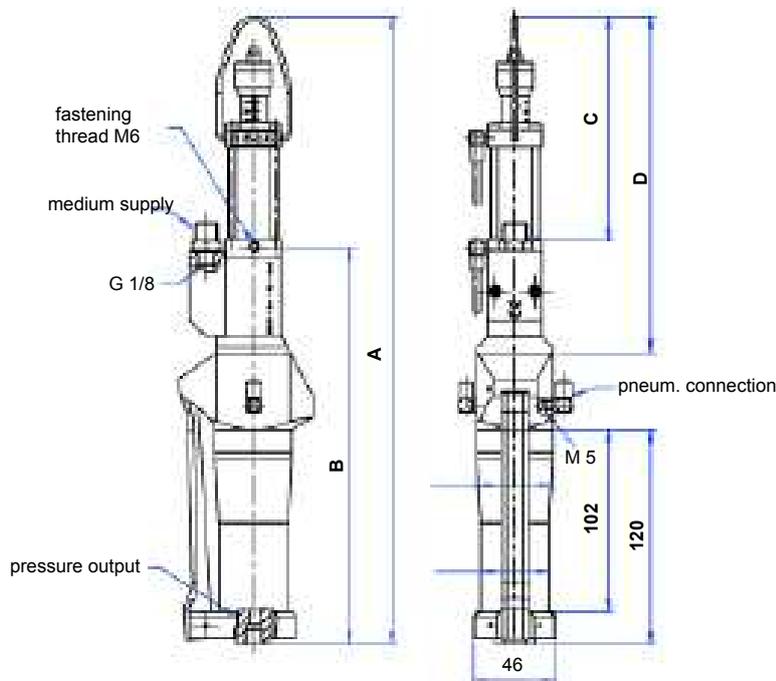
The metering tolerance is maintained to better than  $\pm 2\%$  in the middle range of dosage volume. The output can be adjusted continuously.

Metering valves with sensor (hydraulic or pneumatic) present a low cost and hence frequently used solution for monitoring the dosage process.



## Technical data

operating air pressure min./max. 5 bar / 7 bar (opt.: 6 bar)



Denomination	dispensing range [cm <sup>3</sup> ]	medium pressure in / out	connec- tion in / out	connec- tion control air	A	B	C	D	weight [g]	Item-No.
metering valve with handgrip vertical	0,05 - 0,45	200 bar / 80 bar	G 1/8 / G 1/8	M5	350	221	125	187	1196	on request
	0,2 - 2,0				350	220	125	187	1202	on request
	1,0 - 6,0				391	233	152	227	1657	on request

**Other models on request.** All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

## General notes

The metering valve can be employed with a low-pressure press or a medium pressure press.

The media is delivered from a original container e.g. 25, 50 or 180 kg.

The metered volume is continuously adjustable from 100 up to 1000 cm<sup>3</sup>.

## Function

The metering unit works double-acting or hand-operated.

By switching the pneumatically or hand-operated 4-way-ball valve, the media is placed in the metering chamber on one side and simultaneously pressed to the metering point on the other side. With every activation of the pneumatic drive this process is repeated.

*Advice:* The operating pressure on the input of the metering valve must not exceed **150 bar**.

## Adjustment of metered volume

The favoured metered volume is adjustable with a star handle in a very simple and exact way. This is effected with a locked compressed air input on the filling press.

The appropriate default setting can be read off on a scale.

## Technical Data

metering range	100 - 1000 cm <sup>3</sup>
input pressure of the media	up to 150 bar/150 bar
connection input/output	G 3/8
steering air pressure	5-6 bar
steering air connection	G 1/4



Denomination	Item-No.
metering valve for major quantities, pneumatically operated	<b>1.12 30.1</b>
metering valve for major quantities, hand-operated	<b>1.12 31.1</b>

## Cartridge metering unit 0-2 cm<sup>3</sup>

Application for small and middle machines with an automatically central lubrication. The cartridge metering unit is a pneumatically working aggregate, which can supply the lubricant in intervals at the bearing- and friction places, in a multiplicity of applications, in the desired adjustable quantity.

Continuous adjustable grease metering unit ( 0...2 cm<sup>3</sup> ) with pneumatical cylinder, mounting elbow and reservoir for the admission of grease cartridges with max. 400 gram and/or loose grease for filling in with max. 500 gram contents.

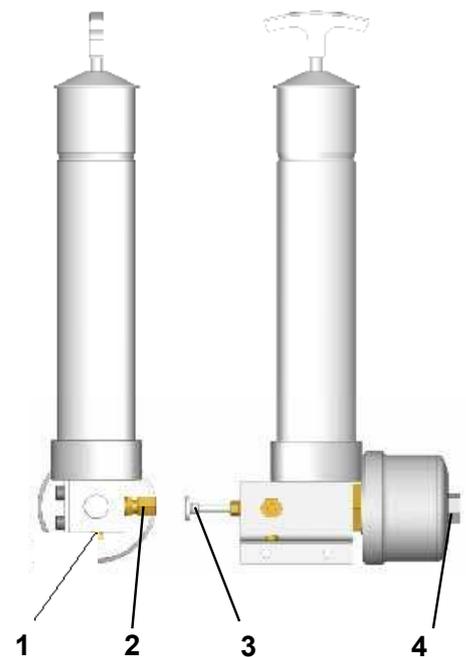
The install-position with grease is unimportant. With oil it should be paid attention for vertically installation. The pneumatic cylinder is released by means of a 3/2-way-valve (optional) with compressed air. The equipment must be aired out before start-up.

### Technical data:

discharge amount (adjustable):	0...2 cm <sup>3</sup>
recommended working pressure:	200 bar
max. working pressure:	300 bar
recommended pneumatical working pressure:	4 bar
max. pneumatical working pressure:	6 bar
ratio air : grease:	1 : 50
max. metering capacity with 4 bar:	approx. 75 cm <sup>3</sup> / min
grease consistency range:	NLGI 000...3
temperature range:	0° C...+80° C
reservoir content:	Cartridge 400 gr. loose grease 500 gr.
total dimensions:	Height: 415 mm Length: 200 mm Width: 88 mm



example of use



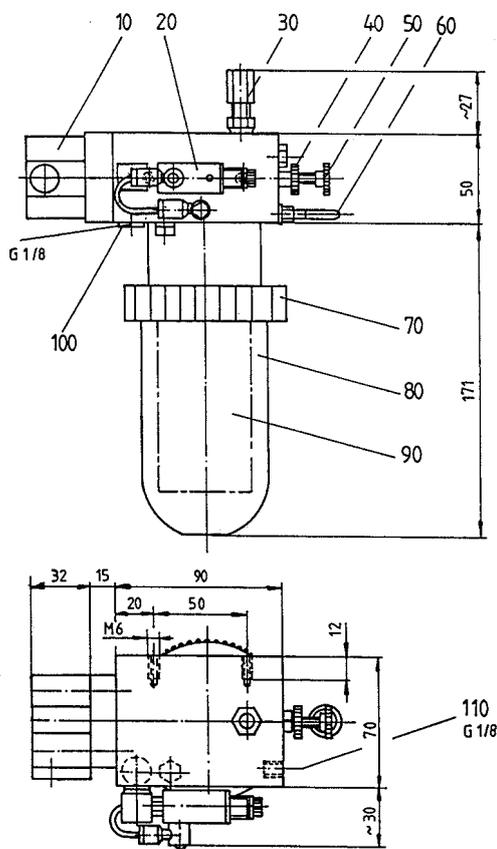
- Pos. 1: aeration screw
- Pos. 2: discharge-non-return-valve pipe-Ø 6 mm
- Pos. 3: proportioning adjustment  
1 turn = 0,08 cm<sup>3</sup>
- Pos. 4: compressed air inlet  
thread M 10x1

Denomination	Item-No.
Cartridge metering unit 0-2 cm <sup>3</sup>	1.12 32.1

**Metering unit with external control by 3/2-way valve and with single-acting, pneumatical cylinder for cartridges Ø 50 x 130.**  
The metering volume is adjustable from 0-300 mm<sup>3</sup> or 0-500 mm<sup>3</sup>.

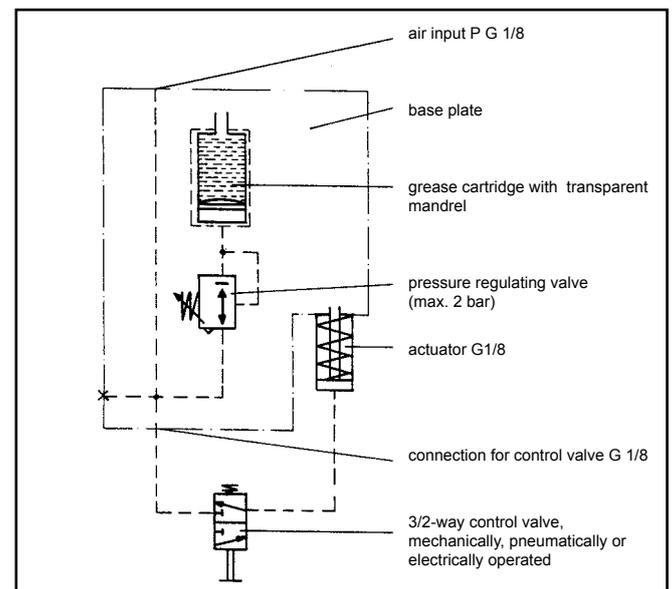
### Technical data:

inlet pressure: 3 - 6 bar  
output medium pressure: max. 170 bar (at 0-300 mm<sup>3</sup>)  
max. 100 bar (at 0-500 mm<sup>3</sup>)



- Pos. 10 actuator, single-acting
- Pos. 20 pressure regulator for filling pressure
- Pos. 30 grease output with return valve for pipes Ø 6
- Pos. 40 counter nut (knurl)
- Pos. 50 metering screw with knurl
- Pos. 60 bleeder screw
- Pos. 70 box nut
- Pos. 80 transparent pressure tank
- Pos. 90 grease cartridge
- Pos. 100 compressed air connection G1/8 (closed)
- Pos. 110 compressed air connection

### pneumatic connection plan



edition: 02.08.11

Denomination	metered volume	Item-No.
metering unit with external control by 3/2-way valve	0 - 300 mm <sup>3</sup>	<b>1.12 21.1</b>
	0 - 500 mm <sup>3</sup>	<b>1.12 26.1</b>

# Metering unit with external control

by 5/2-way valve

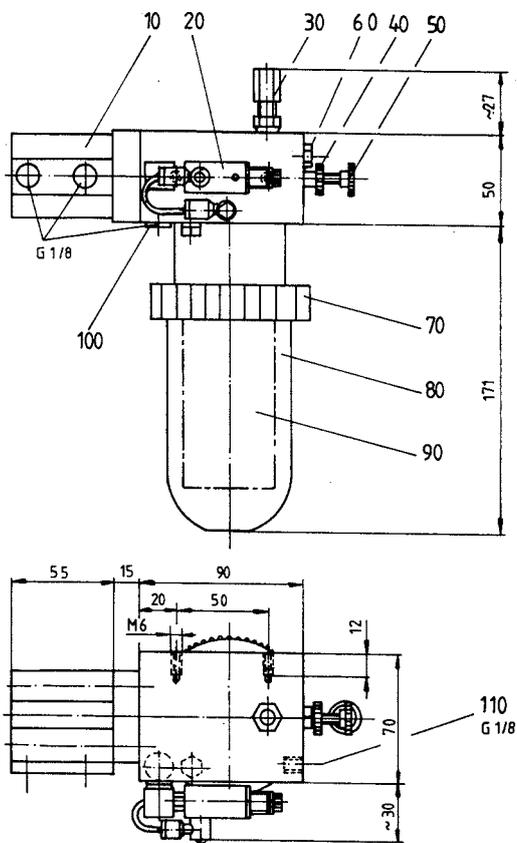
Metering unit with external control by 5/2-way valve and with single-acting, pneumatical cylinder for cartridges Ø 50 x 130.

The metering volume is adjustable from 0-420 mm<sup>3</sup> or 0-750 mm<sup>3</sup>.

## Technical data:

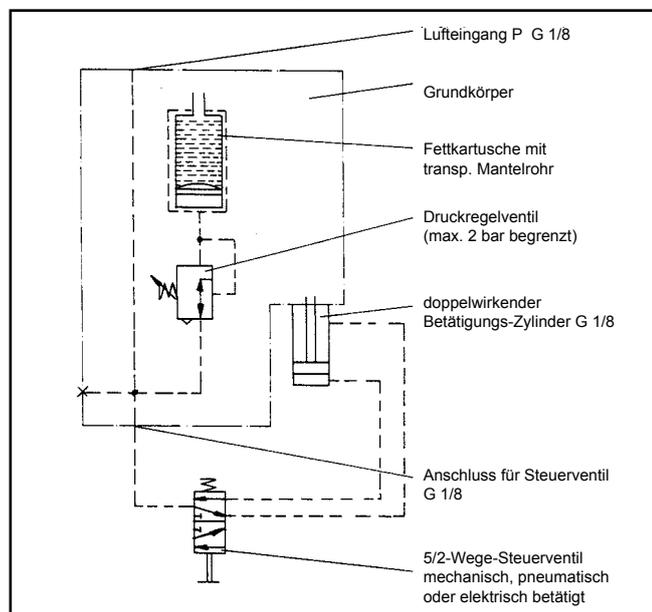
inlet pressure: 3 - 6 bar  
 output medium pressure: max. 170 bar (at 0-420 mm<sup>3</sup>)  
 max. 100 bar (at 0-750 mm<sup>3</sup>)  
 max. 160 bar (at 0-500 mm<sup>3</sup>)

43e-7540-2



- Pos. 10 Betätigungszyylinder, doppelwirkend
- Pos. 20 Druckluftregler für Fülldruck
- Pos. 30 Fettausgang mit Rückschlagventil für Rohr Ø 6
- Pos. 40 Kontermutter (Rändel)
- Pos. 50 Dosierschraube mit Rändel
- Pos. 60 Enlüftungsschraube
- Pos. 70 Überwurfmutter
- Pos. 80 transparenter Druckbehälter
- Pos. 90 Fettkartusche
- Pos. 100 Druckluft-Anschluß G 1/8 (verschlossen)
- Pos. 110 Druckluft-Anschluß

## Pneumatischer Anschlußplan



Denomination	metered volume	Item-No.
metering unit with external control by 5/2-way valve	0 - 420 mm <sup>3</sup>	<b>1.12 20.1</b>
	0 - 750 mm <sup>3</sup>	<b>1.12 25.1</b>

(ehem. 43-7545)

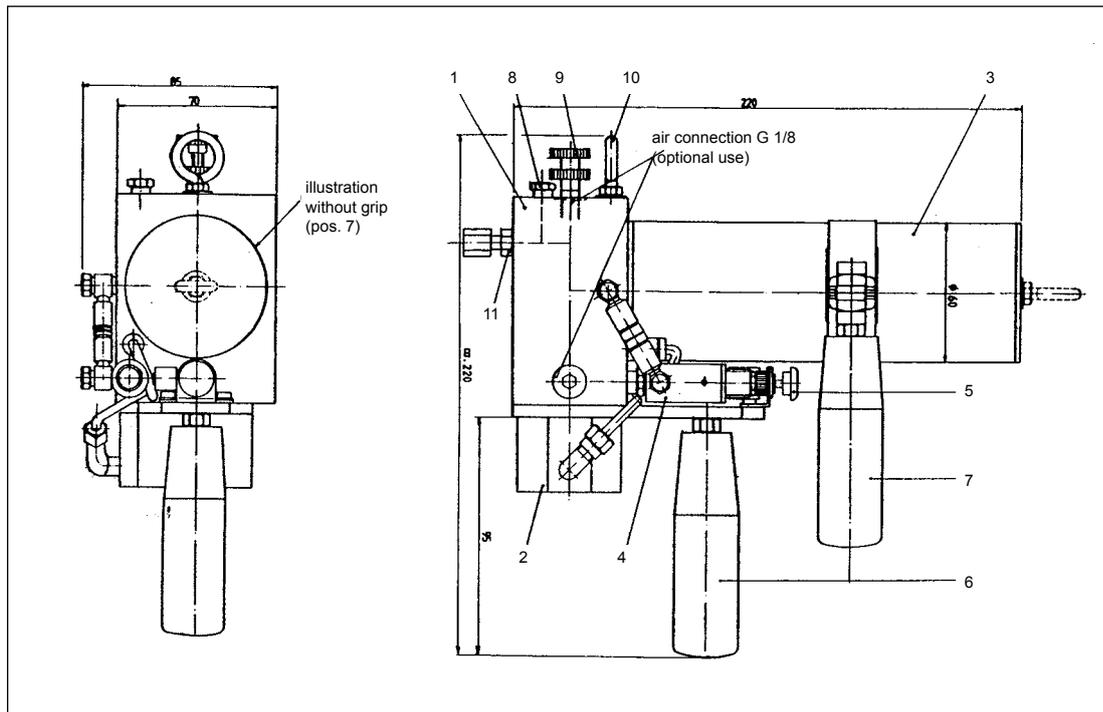
edition: 02.08.11

Pneumatic metering gun for grease-cartridges for the use at hand-work places,  
e.g. for greasing of ABS-sensor holes.  
The metering volume is adjustable from 0-300 mm<sup>3</sup> or 0-500 mm<sup>3</sup>.

For this metering system we design and produce appropriate greasing tools  
according to the workpiece to lubricate.

## Technical data

inlet pressure            3 - 6 bar  
outlet medium pressure    max. 170 bar



- Pos. 1    metering unit
- Pos. 2    metering cylinder
- Pos. 3    cartridge tube
- Pos. 4    pressure reducing valve
- Pos. 5    operating button
- Pos. 6    grip
- Pos. 7    grip with spring clamp
- Pos. 8    bleeder screw
- Pos. 9    metering screw
- Pos. 10   ring picot
- Pos. 11   return valve

edition: 02.08.11

Denomination	metered volume	Item-No.
pneumatic metering gun for grease cartridges Ø 50 x 130 mm	0 - 300 mm <sup>3</sup>	<b>1.12 00.1</b>

43e-7550-1

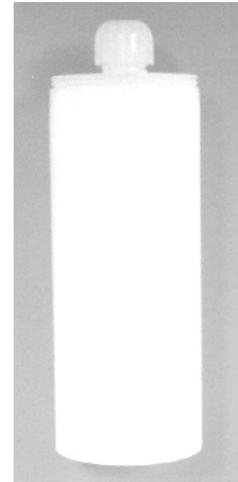
# Grease cartridge empty

Plastic grease cartridge for use with metering systems, e.g. described in leaflet 43e-7540 and 43e-7550.

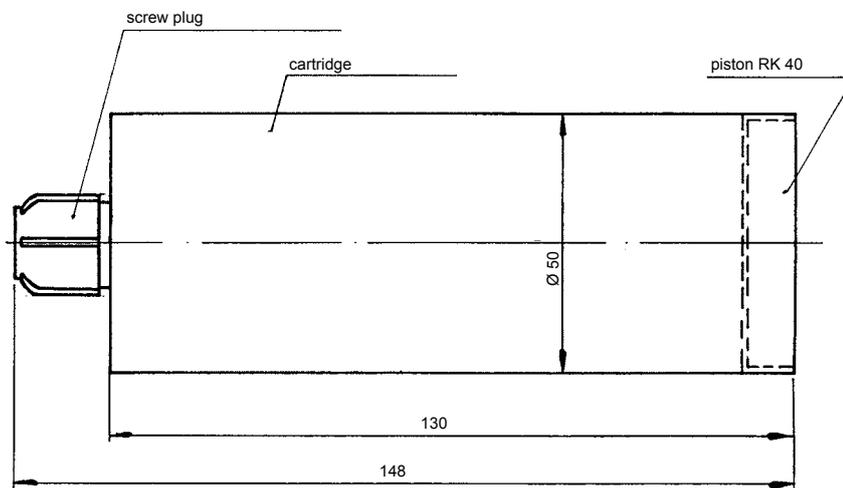
This grease cartridges can be filled with any required grease.

## Technical data

filling quantity 150 ml  
material synthetic material PA



43e-7550-2



Denomination	filling quantity	material	Item-No.
grease cartridge, empty	150 ml	synthetic material PA	<b>3.20 00.1</b>

edition: 02.08.11

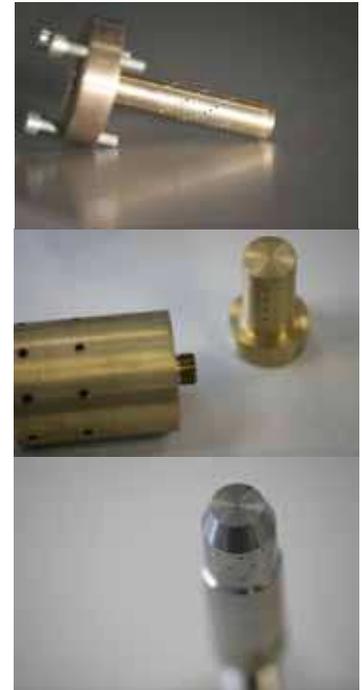
### Greasing tools for the application of grease and other viscous media in combination with our metering units and systems.

For use cases of all kinds, e.g. the greasing of individual surfaces, holes, axles etc., we design and produce special greasing tools and application units.

In combination with our cartridge metering unit (e.g. leaflet 43e-7540 and 43e-7550) you get a complete metering system, which is matched to your greasing-process.

application types: - punctual  
- linear- or laminar  
- volume filling

### Examples:



43e-7550-3

This bleeder valve is employed for the application of liquid up to paste-like media. It is distinguished by its compact type of construction as well as by its pressure load of up to 250 bar.

High precision and exact metering amounts for individual applications can be achieved.

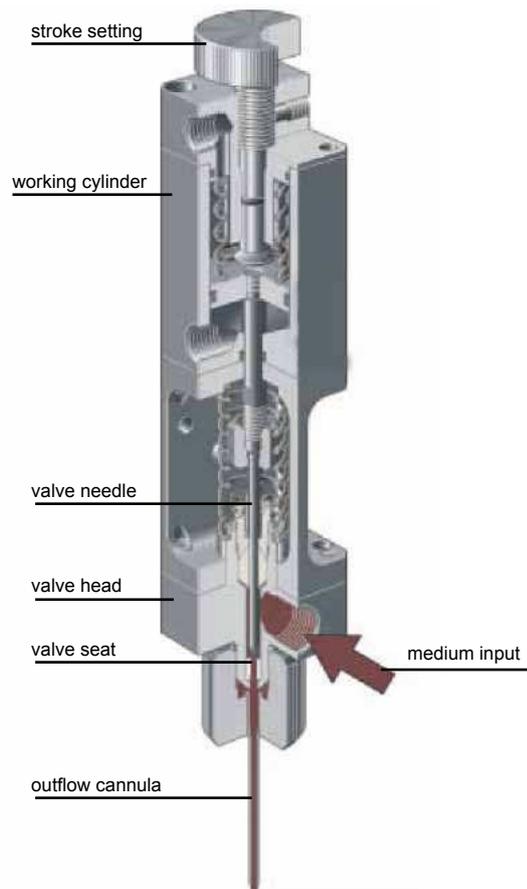
The bore has a width of 2 mm and is constructed for minor output quantities. The metered volume per time unit is continuously variable and adjustable by the use of a knurled screw!

- different series and sizes
- large opening- and closing force
- pneumatic double control
- valve seat and valve needle optional also in hard metal for use of abrasive media
- handle optional with pneumatic or electrical operation



**Technical data**

medium inlet pressure      250 bar  
weight, approx.            0,50 kg



Denomination	Item-No.
bleeder valve, 2 mm possible wide	<b>2.11 20.1</b>

**Other models on request (possible wide, outflow-Ø).**  
All technical data and pictures are for information only and without responsibility.  
All design is subject to change without notice.

edition: 02.08.11

43e-8210-1

## Hand discharge unit in 2 versions "Brush" and "Line"

The hand discharge valve is suitable for proportioning greases and oils during manual processes.

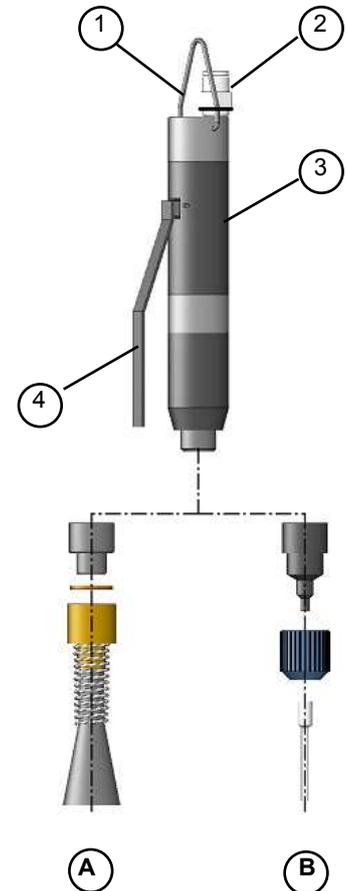
The round construction of the hand metering valve makes a comfortable controlling possible of the hand order. Thus is avoided fatiguing of the hand and the dosing accuracy is increased.

The metering valve is relaxed by means of manual control.

Due to the unique pen-shape and the low weight, the valve is perfectly in the hand.

### Technical data:

Max. working pressure:	10 bar
Nominal width:	2 mm
Consistency range grease:	NLGI 000 ... 2
Oil viscosity range:	10...1500 mm <sup>2</sup> / s
Temperature range:	0°C up to +80°C
Hose connection:	4 mm or 6 mm, pluggable
Handhold diam.:	20 mm
Weight:	approx. 150 gr.



43e-8250-1

### The hand discharge unit is available in two versions:

- A - Brush version "TEKA-brush":**
- Stainless steel applying brush
  - Sealing ring
  - Adapter

The stainless steel applying brush has a not measurable wear and is very resistantly, also with extreme applications and loads.

- B - Nozzle version "TEKA-line":**
- Nozzle needle
  - Adapter

With the cannula it can be made an exact line or crawler-type application.

- Pos. 1: Retainer  
Pos. 2: Hose connection  
Pos. 3: Discharge unit  
Pos. 4: Control lever

# Hand-discharge unit

in 2 versions "Brush" and "Line"

## A - Brush attachment for hand discharge unit

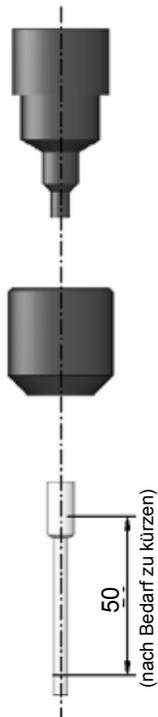


43e-8250-2

Denomination	D [mm]	L[mm]	Item-No.
Connector brush	---	---	<b>9.12 18.1</b>
Sealing ring			<b>4.10 15.1</b>
Subtlest stainless steel brush	ca. 10	25	<b>2.20 09.1</b>

More dimensions and part.-no.'s for the complete set on request.

## B - Nozzle attachment for hand discharge unit



Denomination	Outside-Ø [mm]	Inside-Ø [mm]	Item-No.
Connector cannula	---	---	<b>9.12 15.1</b>
Knurled nut			<b>5.12 04.1</b>
Needle nozzle range	0,9	0,54	<b>5.17 09.1</b>
	1,0	0,62	<b>5.17 10.1</b>
	1,5	0,98	<b>5.17 15.1</b>

Item-No. for the complete set on request.

edition: 02.08.11

- Nozzle-models in many forms and dimensions
- Electrical /pneumactical activating
- variable mounting position
- Rasterregulierung zum einfachen Verstellen der Materialmenge
- materials:     **nozzle: stainless steel**  
                  **needle: hard metal**  
                  **sealing: viton (\*)**  
                  (\*) other material on request

### (Grease-) discharging valves

In many cases of applications a punctual or linear discharging is necessary, e.g. worthwhile.

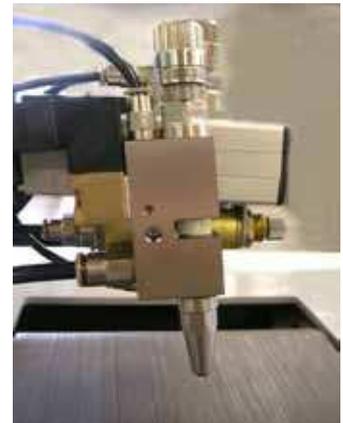
**With our precise discharging valves an even grease application is obtained.** With timing it can exactly proportioned quantities of circle, linear or punctually amounts be laid on.

The highest frequency of timing is 50-60 cycles/sec.

The discharging valve is a pneumatically steered item for processing pasty media (adhesives, seal materials, greases up to NLGI class 2-3).

Extremely short control air ways, which are made possible by the directly flanged on 5/2-way-solenoid valve, bring a very fast and accurate open- and close-motion of the needle.

The max. operating pressure is 10-100 bar depend on model. Discharging can take place either intermittently or continuously.



43e-8270-1

### (Grease-) spraying valves

Often an optimal lubricant supply can be achieved only by spraying of the lubricant.

**The spraying valves offered by us fulfill these widespread demands.** With them its possible to spray greases finely until NLGI class 2-3. (also adhesives)

Spraying can take place both intermittently and continuously. Through the 5/2-way control valve air impulses are routed to the working piston. The air pressure has to be approx. 5-6 bar.

For the cleaning of the nozzle (no pre- or after-dripping) the valve works with pre- and/or after-air-pressure, whereby the duration of the after-air-pressur can be individually adjusted.



Denomination	size of the nozzle / Ø	pressure of medium	pressure of control air	measures [mm]	Item-No. (basic model)
<b>(Grease-) discharging valve</b>	0,2 / 0,3 / 0,4 / 0,5 / 0,6 / 0,7 / 0,8 / 0,9 / 1,0 / 1,2 / 1,5 / 2,0 / 2,5	max. 100 bar	min. 6 bar	162 x 15 x 82	<b>2.11 40.1</b>
<b>(Grease-) spraying valve</b>	0,3 / 0,5 / 0,8 / 1,0 / 1,2 / 1,5 / 2,0	max. 35 bar	min. 5-6 bar	132 x 81 x 22	<b>2.08 21.1</b>

edition: 02.08.11

# Grease discharging valves

## Grease spraying valves

### Additional instructions for use:

The processing of media by means of the discharging valves requires attention from the user regarding to following basic rules:

Before using media it has to be clarify, if:

- it is possible a processing of the medium due to its flow characteristics with the discharge valve
- the medium is corresponding to the desired requirements e.g. like compatibility with seals material

The possibility for spraying of a lubricant depends not alone of the viscosity or penetration, but also is affected to a considerable degree by the additives. In any case, lubricants should be examined of solid or detention material additives before its spraying application.



43e-8270-2

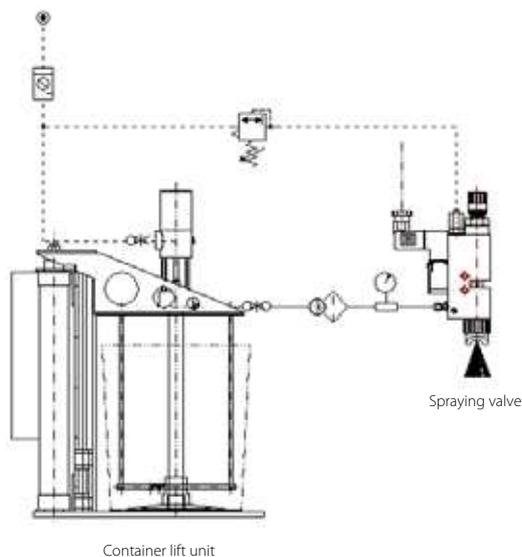
### Grease discharging unit

With the grease discharging unit its possible to charge grease in a safe, filtered and pulsation-free way to the spraying valve or discharging valve. The unit plant consists of grease-station (barrel pump or container lift system), filter, manometers and additional armatures and pipes.

**With the container lift system a fast and problem-free change of material bundles for pasty media is ensured.**

Pedestrian pulling up by hand of the stripping cover and the grease pump takes place here pneumatically.

-> please see our data sheet (43e-1510) about container lift systems



edition: 02.08.11

With this special precise discharging valves an even grease application is obtained.

The hand lever enables a simple handling - the term of dispensing could be effected individual. The hand discharge valve is suitable for hanging on an balancer. The amount of grease can be adjusted with an knurled screw.

**NEW**

### Advantages:

- high reducing of costs
- process safety
- clean environment
- very easy for automation
- micro discharging
- no after-dripping
- high clock cycle
- easy to integrate

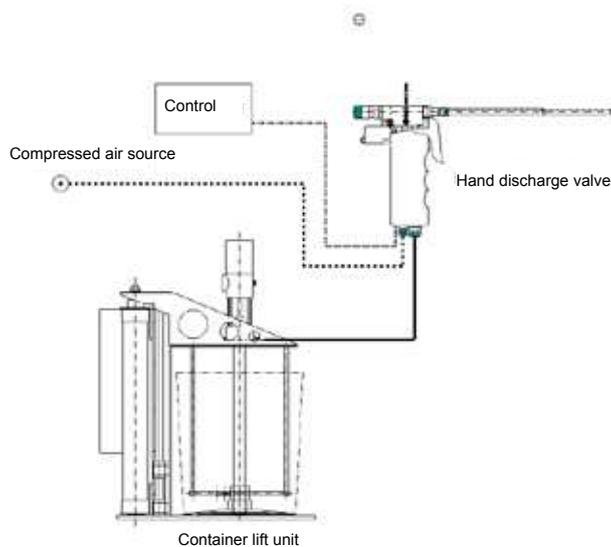
### Technical data:

dimension:	105 x 15 x 150 mm
weight:	approx. 480 g
working pressure:	min. 6 bar
pressure of material:	approx. 20 bar
sealing:	viton-seal



43e-8270-3

### Example:



Denomination	Item-No.
elektropneumatische hand discharge valve	2.11 43.1

### Other models on request.

All technical data and pictures are for information only and without responsibility. All design is subject to change without notice.

Using the TEKAWE spraying device "TEKA exacto Spray" mainly thinny and liquid substances such as water, release agents and oil can be sprayed exactly and precisely timed.

The "TEKA exacto Spray" exactly moistens the planned shapes or surfaces and it can be adjusted to almost every individual client-specific request.

Through a precise spraying (no further flow) of an exactly defined amout at the exactly defined time at the correct place, a high reduction of material can be reached. This leads to a clean working environment and in most cases a costly suction or a complex cleansing can be relinquished.

Furthermore, by using an increased level of automation and an optimized cycle time the output quantity can be increased. Additionally, a high process reliability is guaranteed through pressure, level and volume monitoring.



### Mini-spraying valve

The mini spraying valve illustrated in the given example is the core of the spraying device and it captivates by its compact and robust construction.

In order to cover high requirements and the wide scope of application, the size of the valve and the spraying angle of the air cap may be adjusted individually, so a perfect spray pattern can be generated. Therefore the spray pattern may be designed in a round or oval style.



### Technical data:

material pressure	max. 3 bar
cycle time	max. < 1 sec.
viscosity	0 - 200 mm <sup>2</sup> /s (higher viscosity on request)
control air	min. 5 - 6 bar
spray air	0,5 - 6 bar
spray pattern	round and oval
dimensions	system-dependent
materials	- installation section, pump units: aluminium anodized / stainless steel - mini-spraying valves: stainless steel - seal: viton (special models on request)

We gladly give you our offer for your special case of application or conduct some spraying-tests and demonstrations with the corresponding medium.

## Conception + Realisation

Using systems made by us will profit from our experience and knowledge of more than 30 years. Convince yourself of our reaching and miscellaneous know-how. We would be pleased to advice you on your individual use case and we would be delighted to offer you an appropriate solution.



## Contact

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