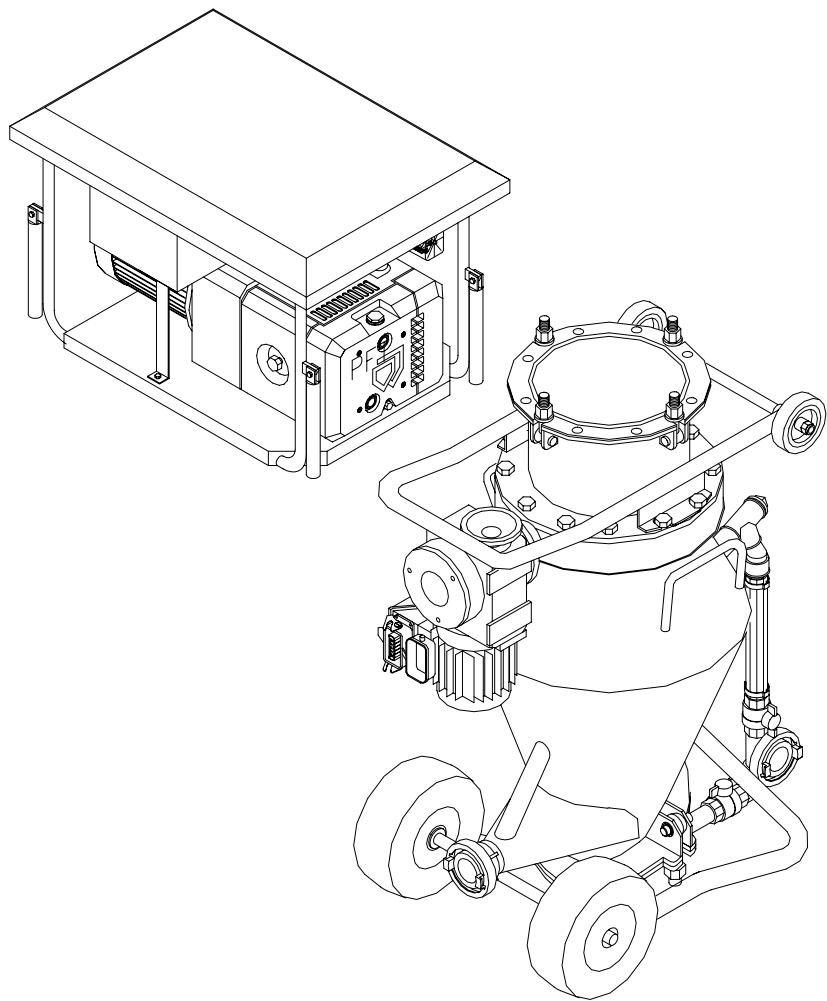


OPERATING INSTRUCTIONS

(Item number of the operating instructions 00 07 36 12)

(Item number of the machine 00 04 40 86)

PNEUMATIC CONVEYING SYSTEM PFT SILOMAT E



WE KEEP THINGS MOVING



Dear PFT Customer,

Congratulations on your purchase. You have made a wise choice, because you appreciate the quality of a brand from a company with a name that has exemplified quality.

The Pneumatic Conveying System **PFT SILOMAT E** uses state-of-the-art technology. It was designed in a task-optimized way so that it can be a trustworthy aid for rough construction site conditions.

These operating instructions should always be stored and kept at hand at the machine's application site. They give you information on the various functions of the system. Study the operating instructions thoroughly before starting up the machine, as we claim no responsibility for accidents or damage to the machine caused by incorrect operation.

The Pneumatic Conveying System **PFT SILOMAT E** will be a trustworthy aid, if it is operated correctly and handled with care.

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Two versions of the Pneumatic Conveying System **PFT SILOMAT E** are available: a carryable and a rollable version.

They comply with the strict safety regulations of the German Builder's Guild (BBG) and were technically approved, which is confirmed by the respective test symbol.

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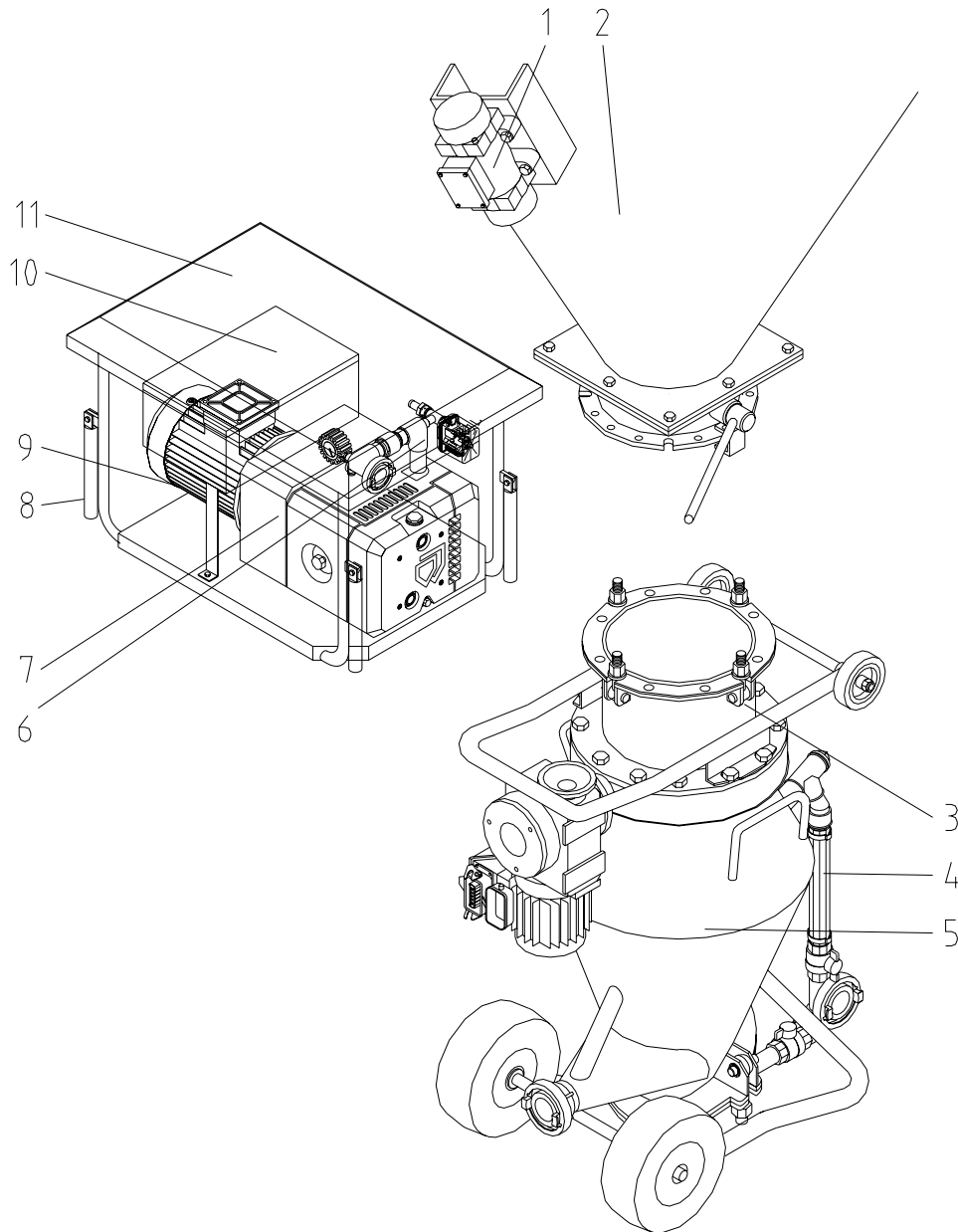
Initial inspection after delivery

An indispensable task of all technicians delivering the Pneumatic Conveying system **PFT SILOMAT E** is the inspection of the machine settings at the end of the first conveying cycle. The factory settings can be changed during the first operation. If these changes are not corrected in time, immediately after run-in, then operating trouble can be expected.

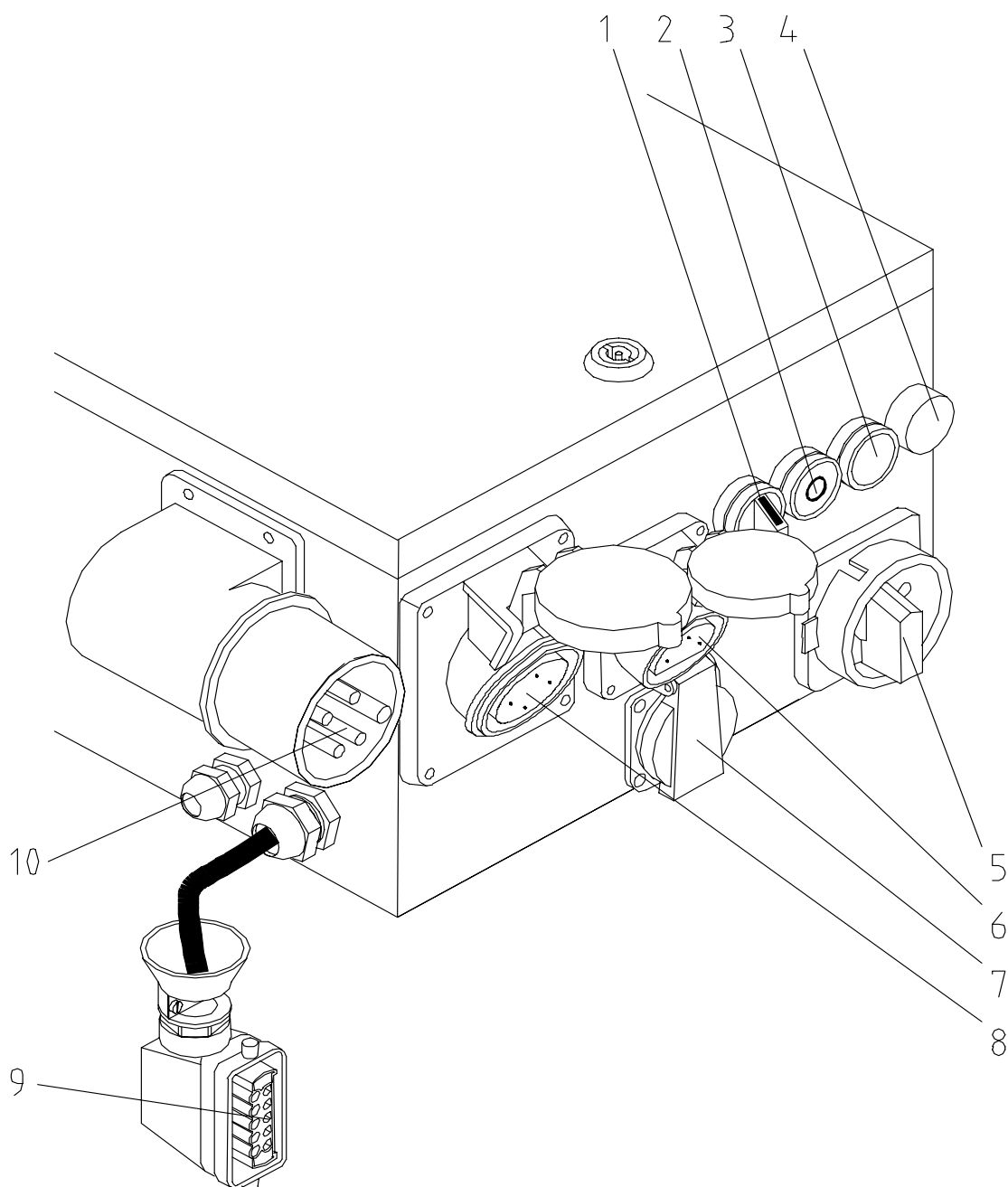
After putting the Pneumatic Conveying System **PFT SILOMAT E** into service and giving appropriate instructions, after about two hours, the technician must always carry out the following checks / settings:

1. Pressure control
2. Level sensor
3. Connection cable
4. Fuses
5. Plug connections

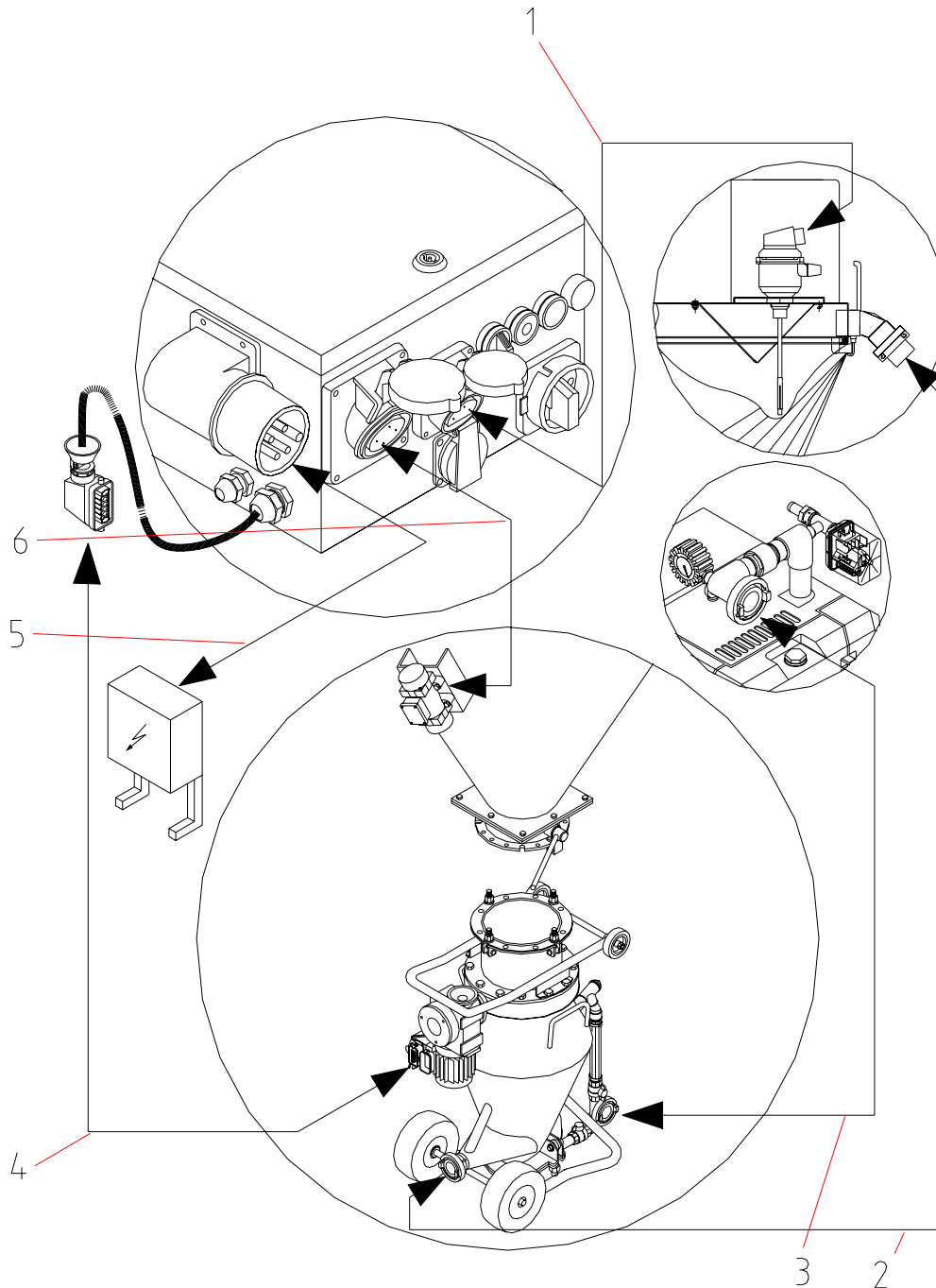
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- | | | | |
|---|--|----|-----------------------------------|
| 1 | Vibrator | 7 | Compressor |
| 2 | Silo / container | 8 | Carrying handle |
| 3 | Intermediate piece for conveying container | 9 | Three phases motor for compressor |
| 4 | Bypass for conveying container | 10 | Control box |
| 5 | Conveying container | 11 | Carryable frame |
| 6 | Air manifold with air safety switch | | |



- | | | | |
|---|--|----|---|
| 1 | Rotary switch hand 0 automatic | 6 | Socket white, CEE 3x16 A for level sensor |
| 2 | Pressure switch red "Operation OFF" | 7 | Earthing outlet continuous current 220 V |
| 3 | Illuminated pressure button green "Operation ON" | 8 | Socket red, CEE 4x16 A for vibrator |
| 4 | Control lamp red "Fault" | 9 | Connection cable with plug 10-pin for motor and drive |
| 5 | Main reversing switch | 10 | Main power supply CEE 5x32 A |



- | | | | |
|---|---|---|--|
| 1 | Connection control box – level sensor | 4 | Connection control box motor and drive |
| 2 | Connection conveying container – cleaning machine | 5 | Connection worksite power control box |
| 3 | Connection compressor – conveying container | 6 | Connection control box – vibrator |

The conveying system **PFT SILOMAT E** is a pneumatic, fully automatic conveying system for transporting ready-mix dry mortar from the silo / container to the cleaning machine.

Please observe the processing guidelines of the material manufacturer.

The machine consists of carryable single components of small, handy dimensions and light weight that allow fast, convenient transport.

The following aspects must be observed for operation:

1. Connection worksite power – control box
2. Connection control box – level sensor
3. Connection control box – motor and drive
4. Connection control box – vibrator
5. Connection compressor – conveying container
6. Connection conveying container – cleaning machine

Operating sequence

When the level sensor of the cleaning machine reports “Empty”, the flap opens (“Open” position) and the conveying container is filled with approx. 55 l of dry mortar while the silo butterfly valve is open. The vibrator runs at the same time, to support the flow of mortar from the silo / container.

When the fill time has passed, the flap closes again (“Closed” position). The conveying container is now sealed pressure-tight to the silo / container.

Now the compressor begins to work and blows air through the emulgator filter into the conveying container. In this way, the mortar is aerated and pressed through the extraction connection of the conveying container into the conveying line and on to the cleaning machine. Pressure is built up in the conveying line that is monitored with a safety switch. If it falls below a set value, that means that conveying container and line are empty. The system completes the conveying cycle and shuts down. As soon as there is a new signal by the level sensor at the control box of the SILOMAT unit, a new conveying cycle is started.

The distribution of air can be controlled by hand using the bypass at the conveying container. In this way the system can be adapted, depending on the mortar (specific weight).

The following terms and symbols are used in this manual for particularly important information:

NOTE:

Special information for running the machine efficiently.



WARNING!

Precautionary information for preventing accidents.



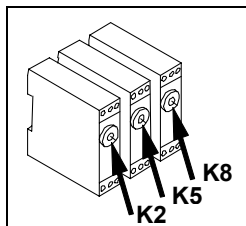
WARNING!

The machine should only be used if it is in technically perfect condition and in compliance with the regulations. Pay attention to safety and the operating instructions. It is especially important to immediately rectify all faults which could impair safety. Proper machine operation includes following the instructions in the operating manual and complying with the inspection and maintenance conditions.

In order to make operating our machines as easy as possible for you, we would like to briefly inform you of the most important safety regulations. Compliance with these instructions will enable you to obtain long-lasting quality service from our machine.

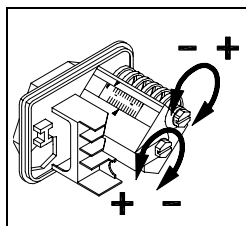
1. Follow all safety instructions on the machine. Ensure that all instructions are legible!
2. Inspect the machine for visible damage and defects at least once every shift! If you notice any safety-threatening alterations to the machine or its operating behavior, stop the machine immediately and notify your supervisor!
3. Do not attempt to modify the machine in any way which may impair its safety without first consulting your machine dealer! This also applies to the installation of unchecked "safety devices"!
4. All spare parts must comply with the technical requirements of the manufacturer. This is guaranteed for all original PFT parts!
5. Only trained or authorized personnel should operate the machine. Clearly define all lines of responsibility for operation, equipping, service and maintenance!
6. Personnel undergoing training should only be allowed to operate the machine under supervision of experienced personnel!
7. All electrical work should be carried out by a qualified electrician or by trained personnel under the supervision of a qualified electrician and should comply with electro-technical regulations.
8. Observe all instructions for turning the machine on and off. Watch control lamps for signals.
9. When the machine is completely switched off for maintenance and repair work, ensure that it cannot be switched back on accidentally (for example, lock the main switch and remove the key, or attach a warning sign to the main switch).
10. Before cleaning the machine with a water jet, seal all openings through which water could enter, thereby impairing the safety and proper functioning of the machine (electric motors and control boxes). After cleaning, remove all covers.
11. Only use original fuses with prescribed amps!
12. If work must be carried out on voltage-carrying parts, a second technician should stand by to switch off the mains in case of emergency.
13. Disconnect the machine from any external energy source before you relocate it, even if you are only moving it a short distance. Reconnect the machine to the mains properly before starting it up again.
14. Set up the machine on stable ground and secure it against unintentional movements.
15. Lay out the conveying lines safely. Do not rest them on sharp edges!
16. Depressurize all conveying systems before opening conveying lines!
17. When unclogging hoses, stand away from the machine to avoid injury through high-pressure discharges of mortar. Always wear safety goggles. No other persons should be near the machine during this procedure!
18. If the permanent noise level exceeds 85 dB(A), appropriate noise protection devices must be provided.
19. If necessary, wear the following protective clothing while spraying: Safety goggles, safety shoes, safety clothing, gloves, protective skin cream and respirator mask.
20. If required, have the machine inspected by a qualified person. This should however happen at least once a year.





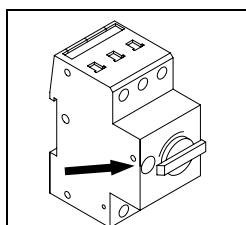
Relay

Function	Designation	Setting value
Requirement	K2	3 sec.
Fill time	K5	6 sec.
Transport time	K8	18 sec.



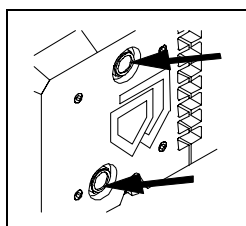
Air pressure safety switches

- 0.8 bar switch on machine
- 0.5 bar switch off machine



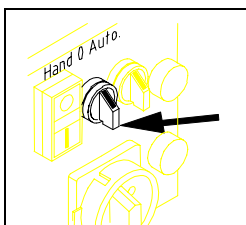
Motor safety switch compressor motor

- 5.5 kW motor 400 V, 11.5 A
- 7.5 kW motor 400 V; 16 A



Oil level compressor

The oil level of the compressor must be between the two oil control glasses.

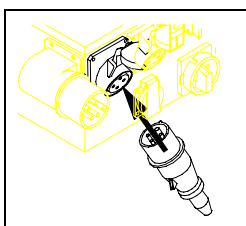


Hand 0 automatic switch

Hand in this position, the compressor runs continuously and can be used for blowing out the conveying line and for venting the silo.

0 System isn't running.

Automatic in this position, the system runs automatically.



Vibrator socket

The vibrator runs automatically in the course of filling.

Before starting up

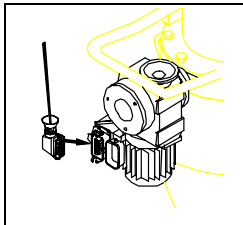


WARNING!

The functionality of the pressure relief unit of the silo / container must be checked each time before work is started.

SILOMAT systems for free fall silos may only be connected to unpressurized silos / containers. The dust removal lines of the silo / container must be open und unclogged.

Starting up

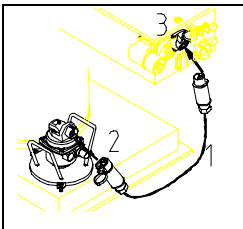


Set up compressor horizontally.

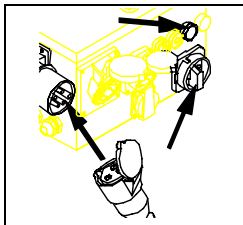
Check oil level.

Connect conveying container to silo outlet valve.

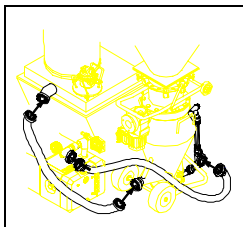
Connect the 10-pin control cable of the control box to the servo motor of the flap.



The level sensor (2) is connected to the panel mounted socket of the control box (3) with the control cable (1).



Now connect the SILOMAT system with a PFT power cable 5 x 4 mm² item no. 20 42 39 00 or 20 42 39 20 to a worksite switchgear assembly as per VDE with approved FI safety switch 30 mA.



To avoid condensation water in the system, prior to starting work:

- Disconnect air hose from the compressor at the conveying container.
- Switch on compressor, in doing so observe direction of rotation: Air must escape at the fast coupling (remove rubber hose). If the direction of rotation is incorrect, turn the main reversing switch to zero position. Push the direction plate to the opposite side and set the main switch for the other direction.
- You have now changed the direction of rotation. Let it run for approx. 5-10 minutes. While this is happening, kink the hose several times, relieving it again after a short pressure build-up.
- Repeat the procedure until no more water spray emerges from the hose.
- Switch off the system using the red pressure switch "OFF".

Now connect the rubber air hose to compressor and conveying container and lay out the conveying line between cleaning machine and conveying container outlet.

To ensure an optimum working procedure of the system for long transport distances, the conveying line should not only be laid out flatly.

We therefore recommend that you create raises, e.g. at the hose coupling e.g. by pallets set up on edge.

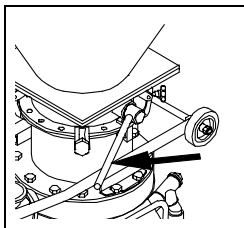


WARNING!

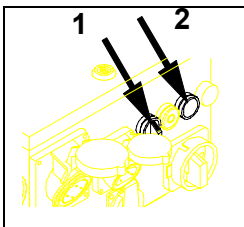
In the case of a power failure, the system must be re-started.

WARNING!

When Silomat systems are in operation, the dust removal lines of the silo / container must be open.



Now open silo outlet valve.



Turn Hand-0 automatic switch (1) to automatic position and press green operating switch "ON" (2).

As soon as the level sensor reports "EMPTY":

- the locking flap opens and during the set fill time
- the conveying container is filled with approx. 55 l dry mortar.
- the vibrator runs at the same time if the cable connection is established.
- the locking flap closes after the fill time has passed and the compressor starts
- after the transport time has passed and when the pressure has dropped to below 0.6 bar (if the hose is empty) it shuts down by itself.
- The system waits for a new signal to repeat the conveying cycle for the fully automatic supply of the cleaning machine

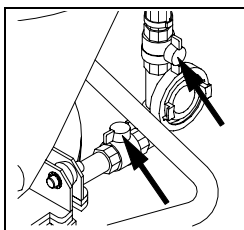
NOTE

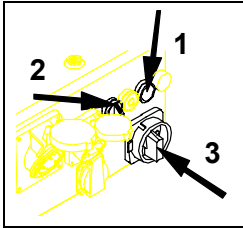
For material that is not easy to transport (e.g. external plaster), the conveying air must be set to an optimum using the taps.

By slightly opening the tap leading upwards, part of the air is guided to the outlet of the conveying container (bypass system) and supports the transport of the mortar.

Rule of thumb:

The heavier the material, the more the tap leading upwards must be opened.





Measures at the end of work or during interruptions

- Switch off the system by pressing the red pressure switch (1) "OFF".
- Turn hand-0 automatic switch (2) to position "0".
- Turn main reversing switch (3) to position "0".
- Disconnect electrical cables and hoses.

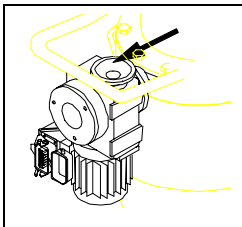
Clearing hose blocks



WARNING!

Prior to all work on the SILOMAT E system, the system must first be depressurized and free of voltage.

Depressurizing



- a) Turn the main reversing switch (2) to position "0".
- b) By turning the hand wheel, the locking flap of motor and drive is opened slightly so that the silo / container is relieved of pressure.
- c) Close locking flap again.

Freeing the system of voltage

Turn the main reversing switch (2) to position "0".

For work on the control box, the power supply must be interrupted by removing the connection cable.



WARNING!

In accordance with the safety regulations of the Builder's Guild, all personnel clearing hoses should wear safety goggles and should position themselves in such a way as to avoid injury through discharged material. No other persons should be near the machine.

Clearing hose blocks:

- Depressurize system and free system of voltage (see above).
- Disconnect conveying hoses in the vicinity the blocked part.
- Shake the hose and hit the coupling on a soft surface (wood or similar) to loosen the blocking material and remove it from the hose.
- Then reconnect the conveying hoses and make the system ready for operation.
- Start system at position **HAND** and let compressor run until the hose is blown free
- Then switch back to automatic operation.

How can problems with the PFT SILOMAT E be avoided or quickly rectified?

Fault	Cause	Remedy
High pressure valve blows down	Fault in the air / conveying line Clogging	Check line See page 13 Clean emulgator filter Check K5 Check locking flap Check pressure control
Fault in sequence program	Motor, Motor cable, Motor protection switch or end switch at motor and drive defective	Replace defective parts
Clogging	Fill time set too high Conveying line laid out incorrectly End switch misadjusted Pressure control misadjusted Locking flap defective Locking flap doesn't close	Check K5 See description of pressure control Replace Observe display, readjust control disc
Program is running, compressor is not	Cable, motor protection switch, motor defective End switch at motor and drive defective	Replace end switch, readjust
Compressor is always running	Hand-0 automatic switch is at hand position Emulgator filter is clogged Conveying line kinked, clogged Conveying relay defective Material clumps in conveying container outlet Cable defective End switch at motor and drive defective Filter hoses at the cleaning machine dirty or stuck	Switch to automatic See page 16 Cleaning Replace conveyor relay K8 See page 16 Clean emulgator filter Replace end switch Beat filter, if required replace
Program isn't running	Fine fuse on transformer defective Control cable level sensor Hand-0 automatic switch defective Fill time (K5), conveying time (K8) or retardment (K2) defective End switch at motor and drive defective or misadjusted	Replace fine fuse Replace Replace Check parts, if required replace Replace end switch or readjust

Compressor gets too hot	Fan for compressor clotted, air wheel defective, air intake blocked	Clean
	Contaminated oil	Oil level see page 18
	Air filter clotted	Clean see page 18

Fault	Cause	Remedy
Flap opens and doesn't close any more	End switch at motor and drive defective or misadjusted	Replace or readjust end switch
	Automatic plumb level (K6) FLAP CLOSED defective	Replace end K6
	Fill time (K5) faulty	Replace K5
Not enough material in the machine	Material does not flow out of the silo	Connect vibrator
	Container flap is closed	Open container flap
	Level sensor too long	Attach rotating wing at higher position
	Fill time set too short	Check K5
	Emulgator filter clogged	Clean see page 18
	Fault in sequence program	
Red fault lamp lights up	Fault in sequence program, possibly due to foreign body at or near the flap	Relieve motor and drive
	Motor safety switch activated	Remove foreign body
		Press motor safety switch
		Motor and drive possibly overloaded

MAINTENANCE



WARNING!

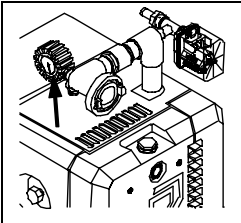
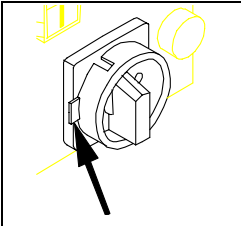
Do not clean system with steam sprayer or high-pressure cleaner.

Clean emulgator filter

The emulgator filters must be cleaned every 14 days.

To clean the emulgator filters, proceed as follows:

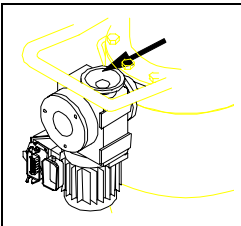
Cut off power to the system by turning the main reversing switch to “0”.



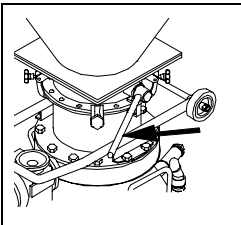
Observe the pressure display at the compressor!

Check if pressure hose is without pressure.

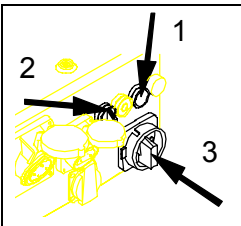
Pressure display is at “0”.



Motor and drive by turning hand wheel to position “**FLAP CLOSED**”



Close silo/container flap.



Turn hand-0 automatic switch (2) to position “**HAND**”

Turn main reversing switch (3) to position “I”.

Press operating switch (1) “**ON**”.

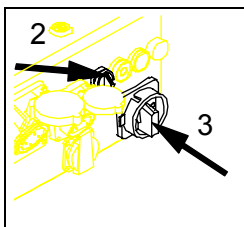
Blow conveying container empty.

Turn main reversing switch (3) to position “0”.

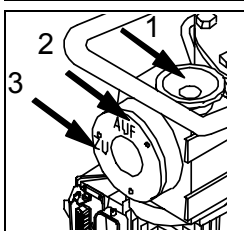
Clean emulgator filter

Pressure display indicates pressure.

Depressurize SILOMAT system (see page 13) .



Turn main reversing switch (3) and hand-0 automatic switch (2) to **position "0"**.

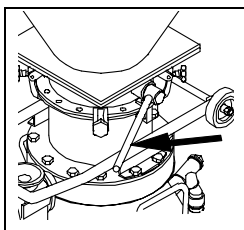


Motor and drive in direction "**FLAP OPEN**" (2) by turning **hand wheel (1)**, until the pressure in the conveying container or silo / container is relieved.

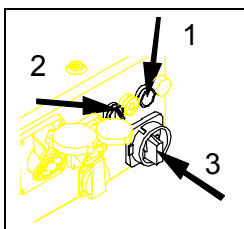
(Observe the pressure display at the compressor.)

Clean conveying hoses by shaking them.

Motor and drive in direction "**FLAP CLOSED**" (3) by turning **hand wheel (1)**.



Close silo/container flap.



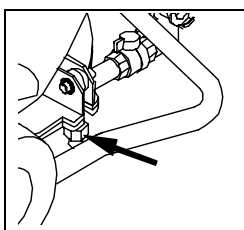
Turn hand-0 automatic switch (2) to position "**HAND**".

Turn main reversing switch (3) to position "**I**".

Press operating switch (1) "**ON**".

Blow conveying container empty.

Turn the main reversing switch (3) to position "**0**".



Remove emulgator cleaning cover by opening both eye screws (M20x100 key width 30).

Separate emulgator filters (1) by removing gasket (2) .

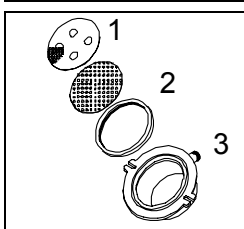
Clean emulgator filters (1), replace if required.

Assemble emulgator filters (1) with gasket (2), coarse filter bottom.

In doing so, observe that due to the bulge at the fine filter, there is a clearance between both filters.

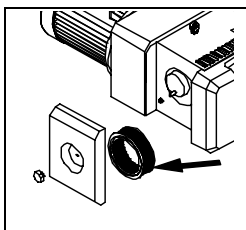
Place emulgator filters (1) in cleaning cover (3) and attach to the conveying container.

The **SILOMAT E -Anlage** is now ready for operation once more.



Cleaning air filter

Clean filter once a week.



Screw off filter bowl cap.

Blow out cartridge with compressed air from the inside to the outside.

Replace damaged or dirty filter cartridge.

If the filter is too dirty, the air output is reduced and the compressor overheats.

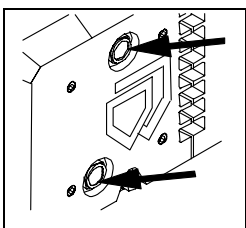
Oil check/oil change

WARNING!



Oil can cause skin rash and other damage to one's health. Avoid prolonged skin contact. Protect the environment: The handling and disposal of mineral oils is subject to legal regulations. Dispense with your old oil by handing it to an authorized acceptance point. According to the current disposal regulations for old oil, PFT synthetic oil is classified under the 1st category. This means that it can be disposed of together with mineral oil products of the same category. For exact information, contact the responsible administrative authority (water resources office or industrial inspection board). Take care not to spill any oil. Take precautions for catching spilling oil. (Oil-tight canvas, collector pan, absorbing material).

Compressor:



Check the oil level on a daily basis. Top up oil, if the oil level is at the middle of the lower control glass. Top up to the upper control glass. Change oil for the first time after 100 operating hours, and then every 500 to 1000 operating hours. Synthetic oils are changed (after the first time) on an annual basis. Oil quantity approx. 4.7 l.

Oil type PFT-SILOMAT – synthetic oil 4 L (item no. 20 56 31 01)

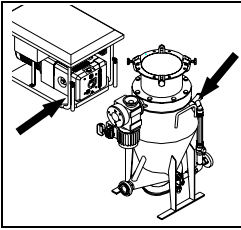
WARNING!



Do not mix mineral oil with synthetic oil!

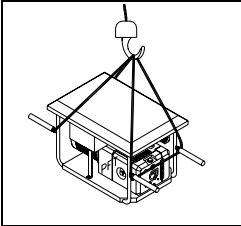
If the compressor is stationary for longer periods, intake and exhaust lines must be sealed to avoid moisture penetrating that would swell the slides.

Transport



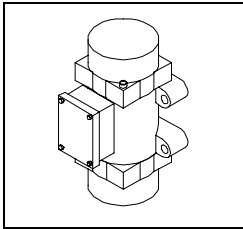
The conveying system SILOMAT E can be transported by several persons by hand to the construction sight.

The conveying container can be carried to the silo / container using the two handles. To attach it to the butterfly valve, it is raised a little, hung onto the assembly aids (claws) and then attached to the flange using the quick-release fasteners / eye screws. Disassembly is done in reverse order.

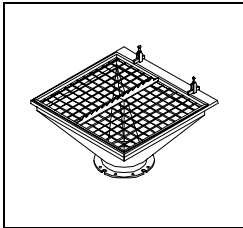


The carryable frame with compressor and control box has 4 carrying handles to align the system on the ground at the silo / container.

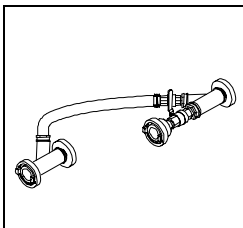
We recommend the use of a construction site crane or loading crane to load it on to or off trucks or trailers. The carryable frame can be safely picked up and transported at the carrying handles using 2 round slings (see illustration).

**PFT external vibrator (item no. 20 70 80 00)**

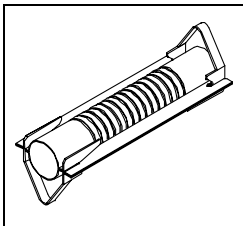
The external vibrator is screwed on to the silo / container and connected to the control box. The vibrator's control is installed in the control box.

**PFT bag filling hopper (item no. 20 70 61 00)**

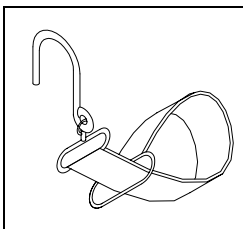
The bag filling hopper is screwed on to the conveying container. It is for filling the system with bagged material.

**PFT bypass for conveying air (item no. 20 56 61 00)**

The bypass helps to improve the flow of material that is not easy to convey. It is connected in the pressure line between conveying container and cleaning machine.

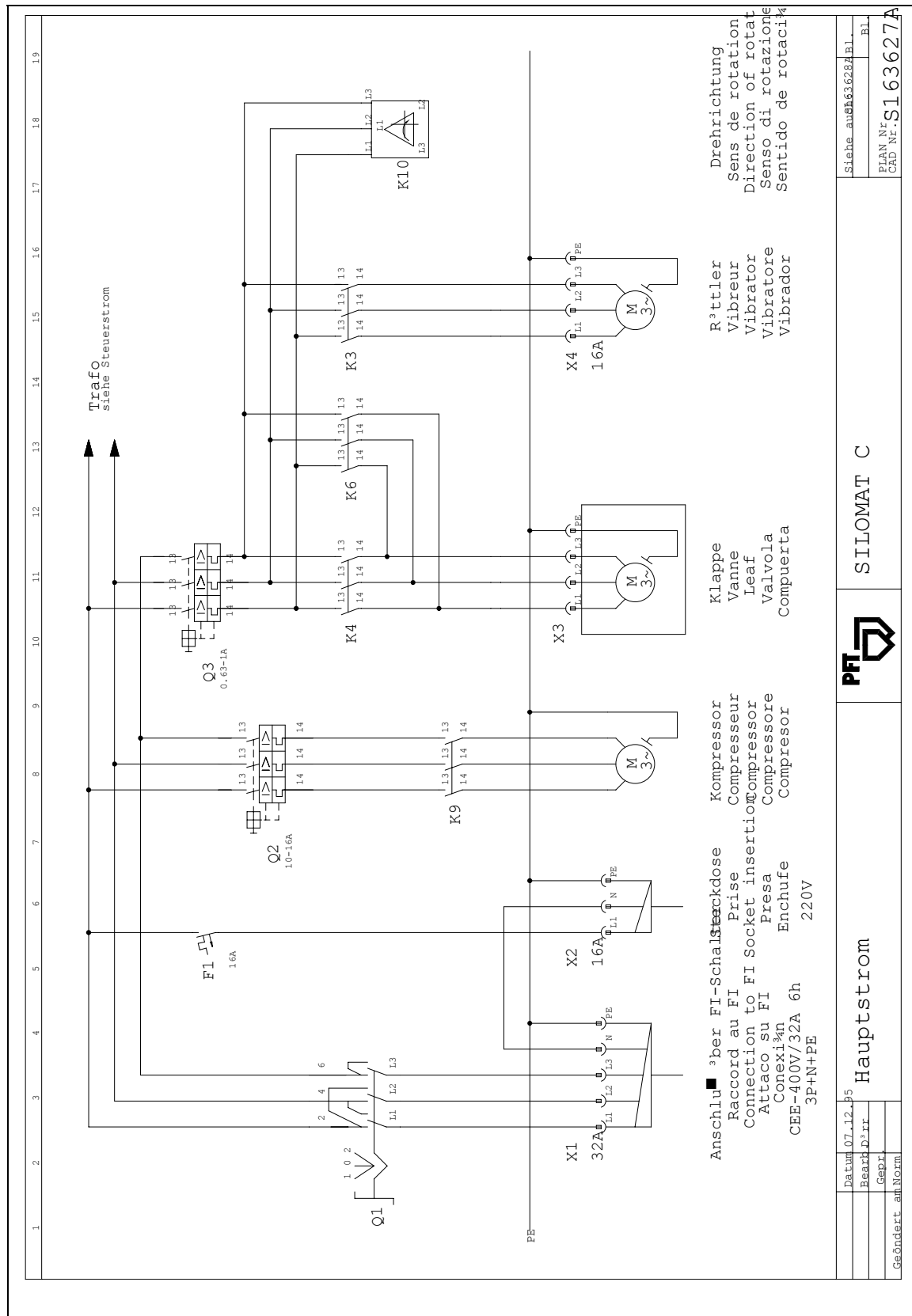
**PFT hose kink eliminator (item no. 20 65 84 10)**

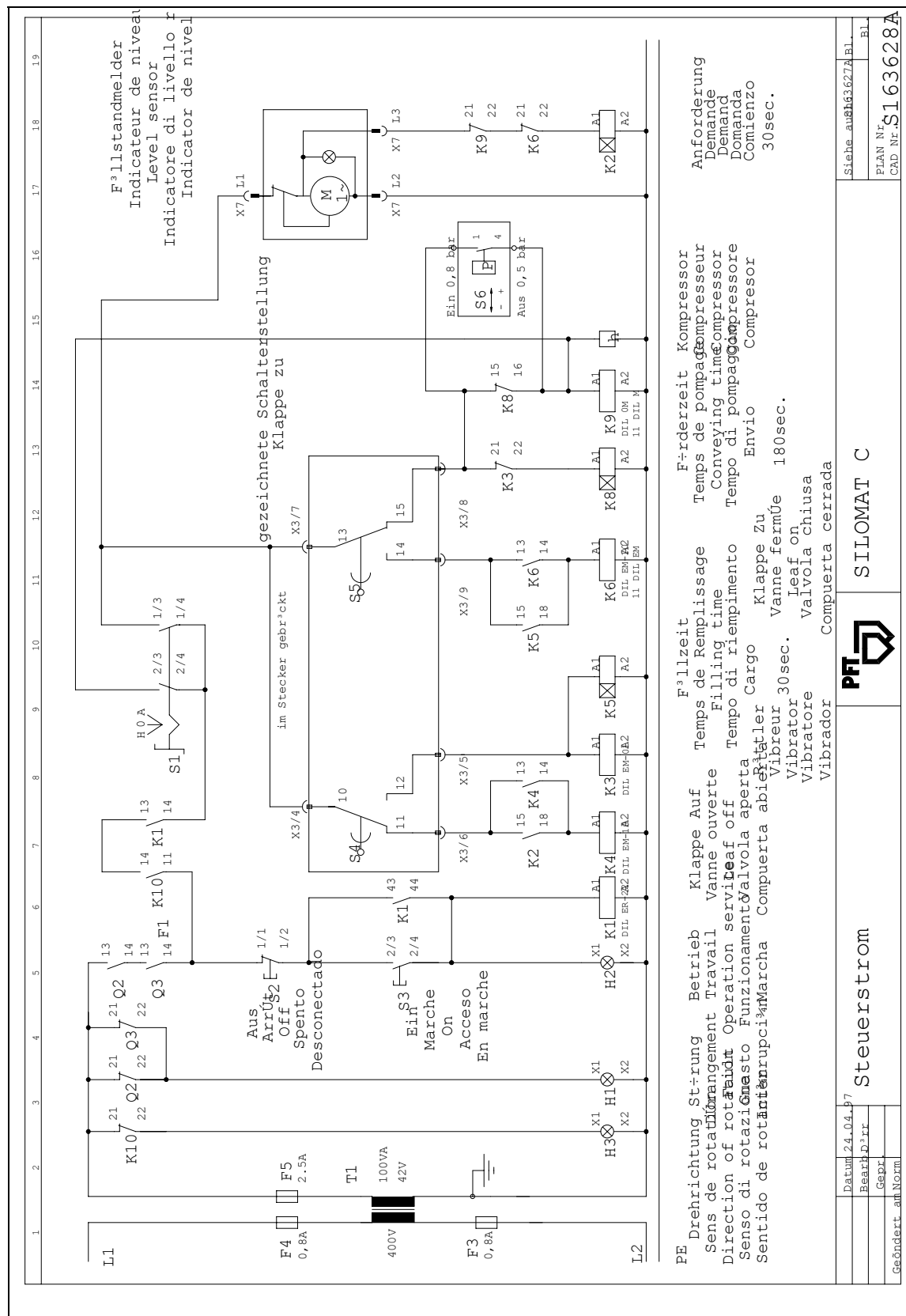
The hose kink eliminator helps to prevent hose kinks when the line is laid out.

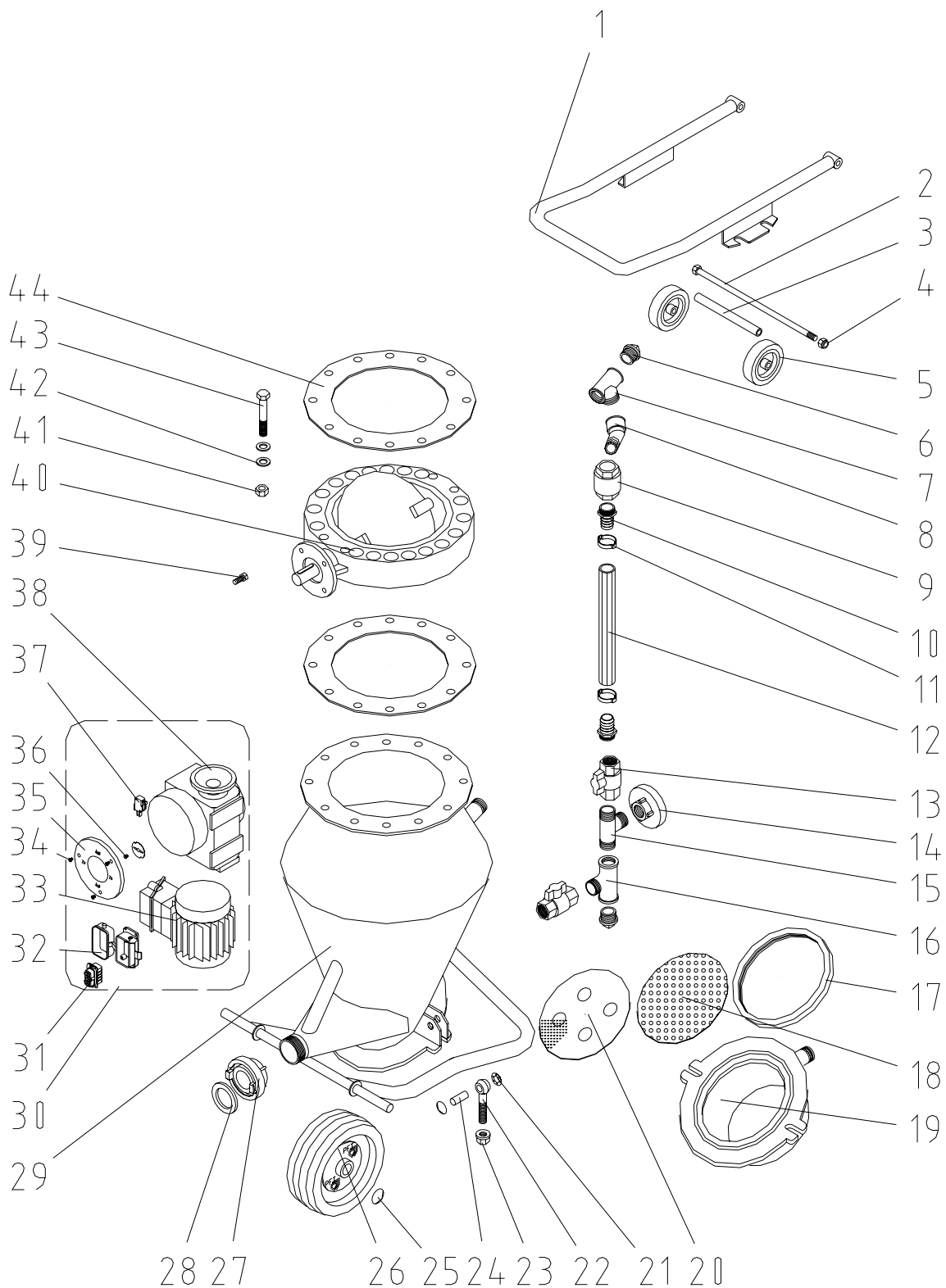
**PFT hose attachment turning band (item no. 20 65 40 00)**

The turning band relieves the conveying hose of pulling force and attaches it e.g. to the frame, when being laid out vertically.

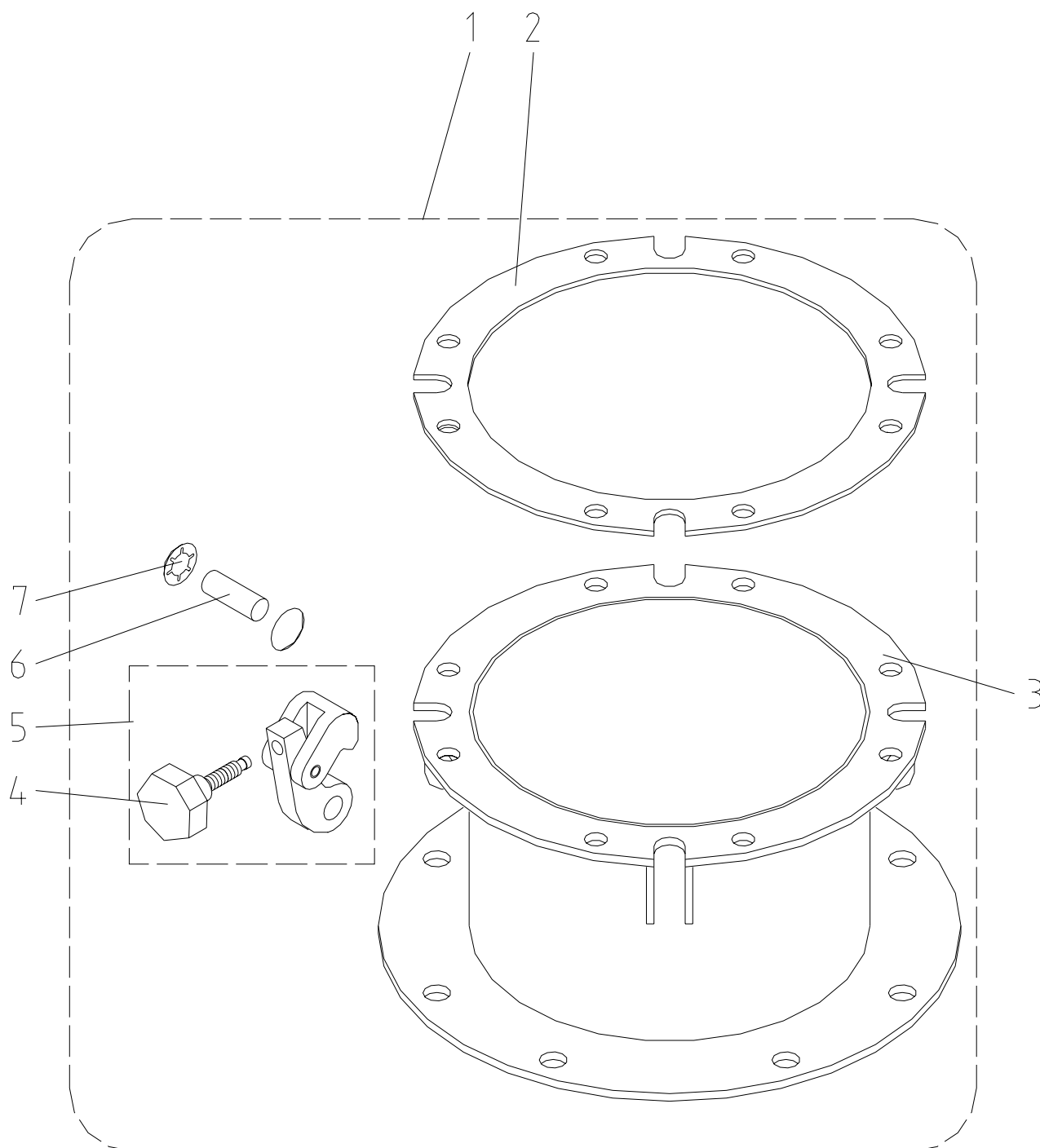
Circuit diagram main power.....	22
Circuit diagram controlling current.....	23
Spare parts list conveying container assembly	24
Spare parts list intermediate piece assembly.....	26
Spare parts list compressor with pressure release	28
Spare parts list carryable frame assembly	30
Spare parts list control box assembly.....	32



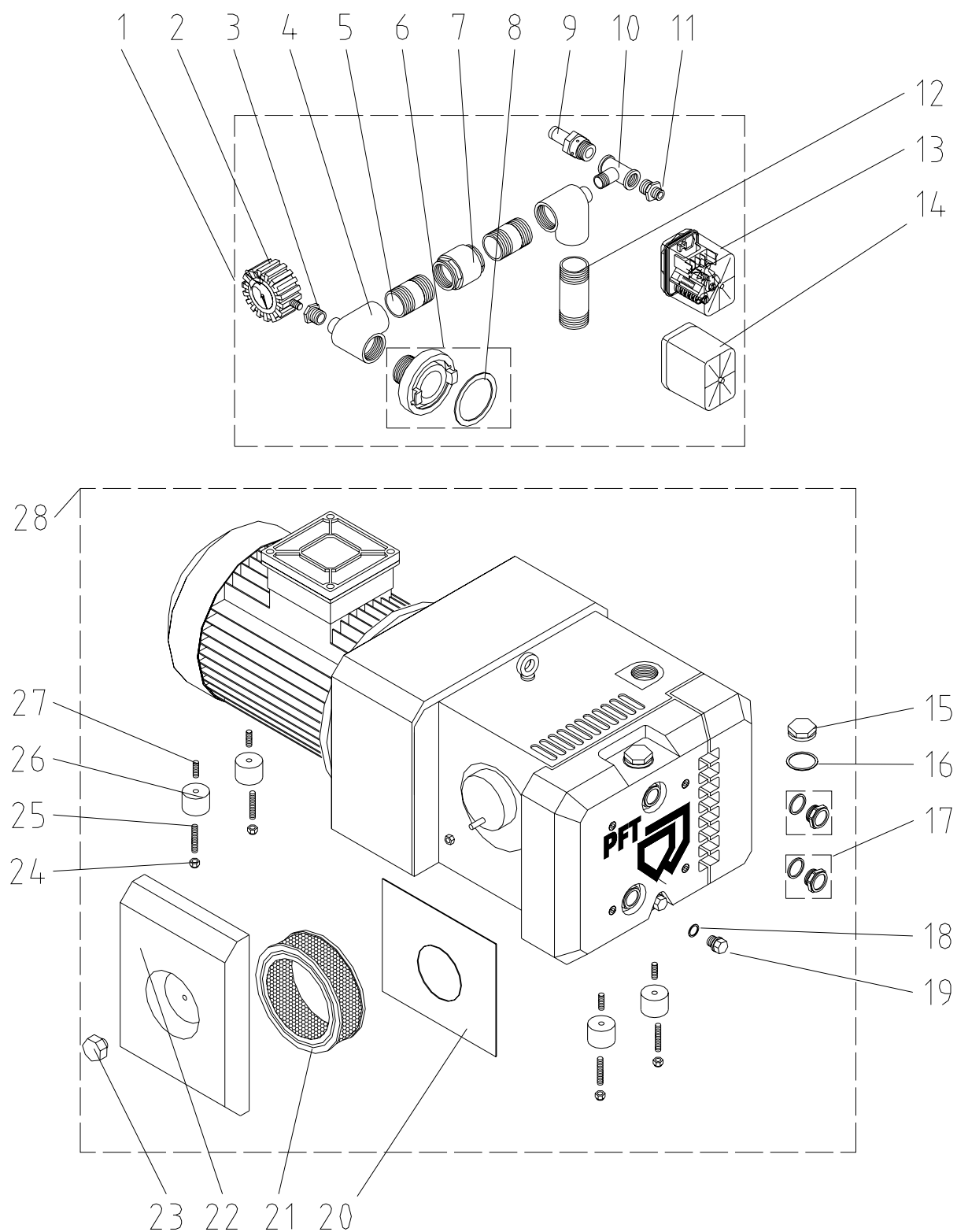




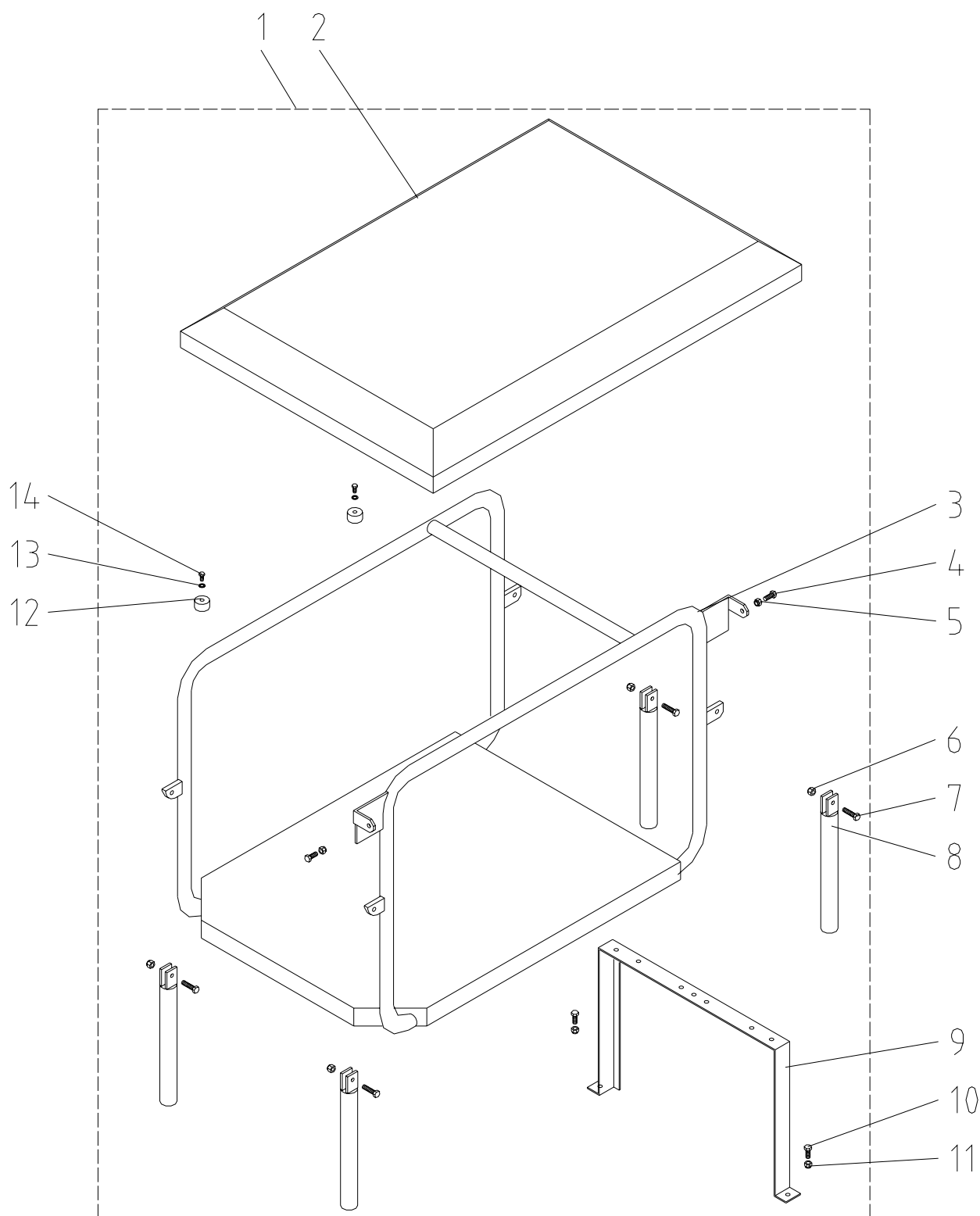
Item	Qty	Item no.:	Article description
1	1	20 56 63 54	Bow for conveying tank rollable RAL2004
2	1	20 20 78 21	Hex. screw M12 x 340 DIN 931 galv.
3	1	20 56 63 55	Spacer tube conveying tank rollable RAL2004
4	1	20 20 89 00	Safety nut M12 DIN 985 galv.
5	2	20 11 93 52	Wheel 100 x 25 x 12
6	2	20 20 58 10	Stopper 1" AG no. 290 zinc-pl.
7	1	00 02 26 57	T-piece 1" int. thread 1" ext. thread 1" int. thread no.133
8	1	20 20 38 60	Curved section 1" 45° IG-AG no. 40 zinc-pl.
9	1	20 21 91 00	Counter flow valve 1" int. thread
10	1	20 20 37 70	Hose screw joint 1" AG socket 1"
11	1	20 20 29 10	Hose clip 34-37 VPE=10ST
12	1	20 65 31 01	Water/air hose 1" x 230 mm
13	2	20 21 51 55	Tap 1" int. thread DIN 2990 PN 35 with knop
14	1	20 65 66 00	Coupling C DIN 1" IG
15	1	20 20 41 50	T-piece 1" AG no. 135 zinc-pl.
16	1	00 02 26 57	T-piece 1" int. thread 1" ext. thread 1" int. thread no.133
17	1	20 56 60 40	Emulgator gasket
18	1	20 56 60 10	Emulgator large hole plate
19	1	20 56 64 03	Emulgator cleaning cover conveying container rollable
20	1	20 56 60 20	Emulgator small hole plate
21	4	20 20 86 04	Fast catch with cap 16s x N 2 7
22	2	20 20 85 00	Screw M16 x 80 DIN 444 zinc-pl.
23	2	20 20 99 21	Nut M16 DIN 6331 zinc-pl.
24	2	20 70 58 02	Bolt A16 H11 x 50 St zinc-pl. 1.5 x 30°
25	2	20 20 86 03	Fastener with cap 20s x N 2 7
26	2	00 00 82 54	Replacement wheel 230x85 cover RAL2004
27	1	20 65 61 00	Coupling C DIN 2" IG
28	1	20 65 82 00	Gasket coupling C-DIN
29	1	20 56 63 53	Conveying tank rollable RAL2004
30	1	20 56 12 02	Motor and drive type 6
31	1	20 43 23 00	Male insert 10-pin HAN 10E
32	1	00 01 20 85	Housing 10-pin motor and drive type 6
33	1	00 08 08 62	Motor for motor and drive Flender CA21 type 6
34	3	20 24 46 00	Cylinder head screw M5 x 12 DIN 84 zinc-pl.
35	1	20 56 19 01	Clear cover motor and drive CA21 D=143
36	1	20 56 19 20	Screw for control disc
37	2	20 45 65 10	Micro-switch to motor and drive new
38	1	20 56 18 00	Hand wheel motor and drive
39	4	20 20 99 31	Skt. screw M10 x 25 DIN 933 zinc-pl.
40	1	20 56 11 00	Locking flap NW 250 without motor and drive
41	8	20 20 99 20	Skt. nut M16 DIN 934 zinc-pl.
42	16	20 20 67 00	U disc B 17 DIN 125 zinc-pl.
43	8	20 20 81 00	Skt. screw M16 x 110 DIN 931 zinc-pl.
44	2	20 56 64 21	Rubber gasket 375/260/335 x 4



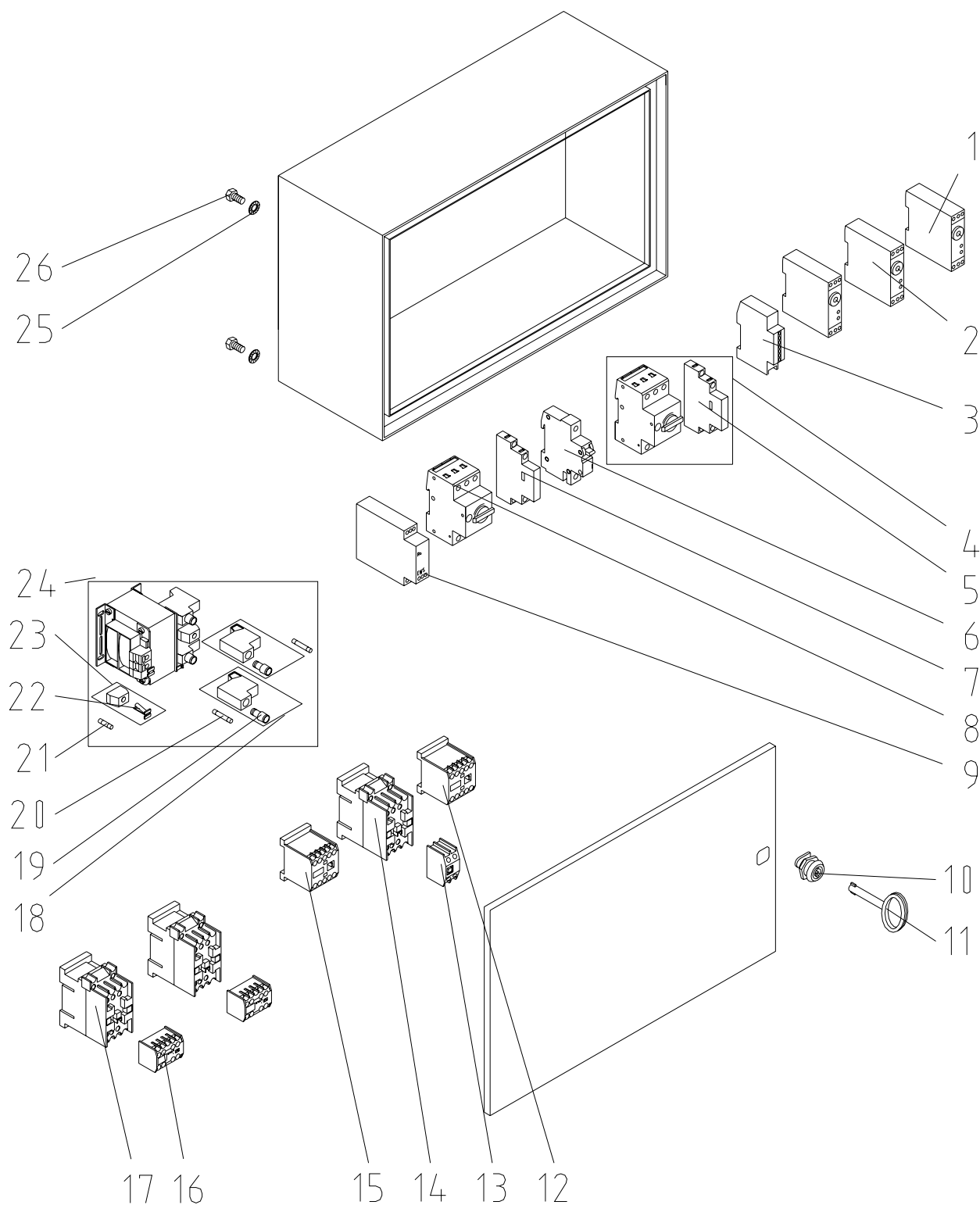
Item	Qty	Item no.:	Article description
1	1	20 56 33 34	Intermediate piece for conveying container cpl.
2	1	20 70 63 00	Rubber seal D 330x260x4
3	1	20 56 63 33	Intermediate piece conveying container
4	4	20 56 63 71	Knurled screw aluminum snap lock
5	4	20 56 63 70	Aluminum snap lock
6	4	20 70 58 02	Bolt A16 H11 x 50 St zinc-pl. 1.5 x 30°
7	8	20 20 86 04	Fast catch with cap 16s x N 2 7



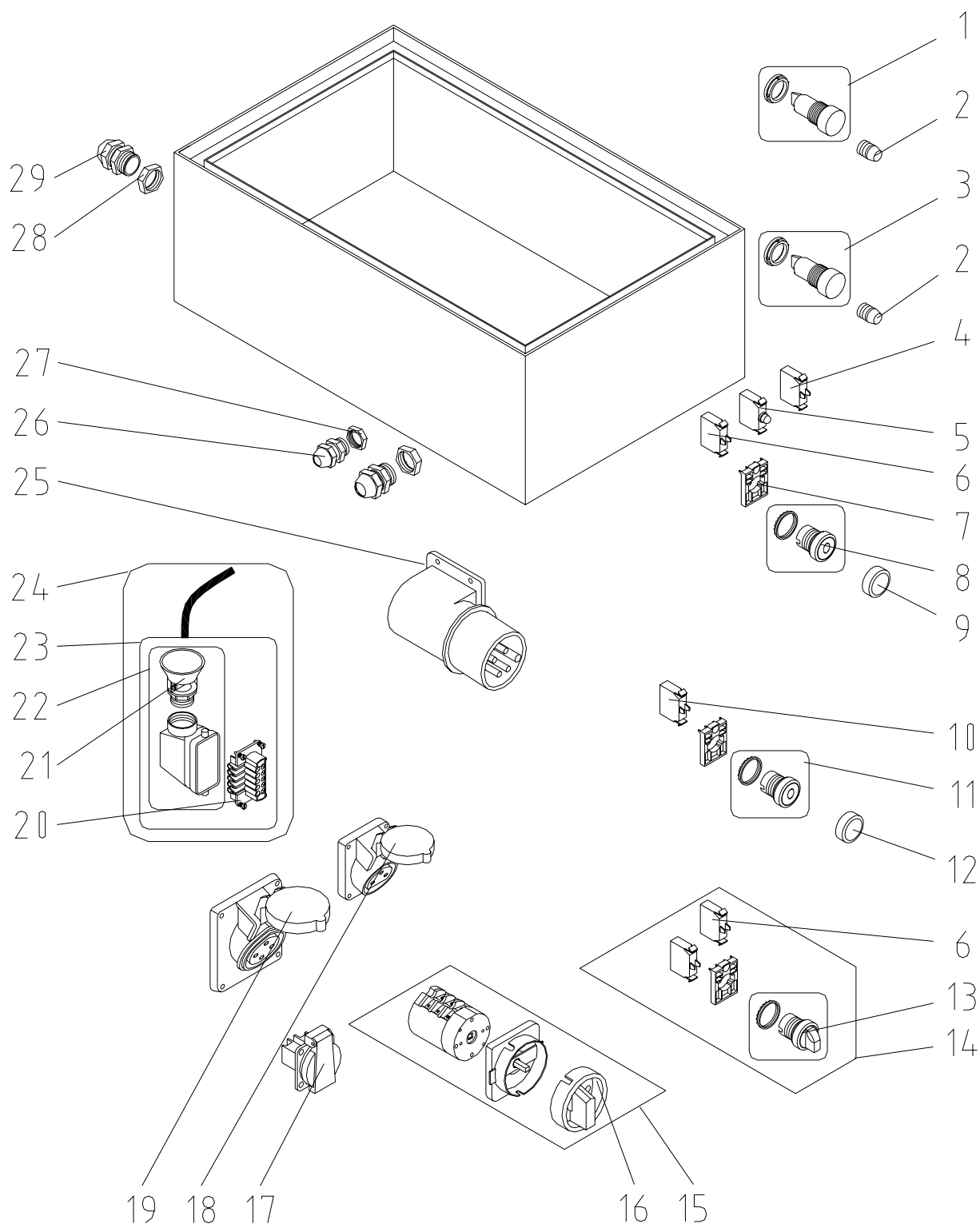
Item	Qty	Item no.:	Article description
1	1	20 56 71 50	Pressure control SILOMAT C and E
2	1	20 21 59 00	Gauge 0-4 bar 1/4" bottom, D = 63 mm
3	1	20 20 52 00	Reduction nipple 1/2" AG 1/4" IG no. 241
4	2	20 20 45 41	T-piece 1 1/4" 1 1/4" 1/2" IG no. 130
5	2	20 20 32 60	Double nipple 1 1/4" x 40 no. 23 zinc-pl.
6	1	20 65 65 10	Coupling C DIN 1 1/4" AG
7	1	20 56 48 00	Counter flow valve 1 1/4" IG
8	1	20 65 82 00	Gasket coupling C-DIN
9	1	20 56 49 03	High-pressure valve 1/2" 2.5 bar
10	1	20 20 42 00	T-piece 1/2" IG 1/2" AG 1/2" IG no. 133
11	1	20 20 32 81	Double nipple reduced 1/2" -3/8" AG no. 245 zinc-pl.
12	1	20 20 32 70	Double nipple 1 1/4" x 80 no. 23 zinc-pl.
13	1	20 44 76 00	Air safety switch type FF4-4 0.22-4 bar
14	1	20 44 86 00	Clear cover for safety switch (20 44 76 00)
15	1	20 56 44 01	Oil cap DP 2.100/2.140
16	1	20 56 44 11	O-ring oil cap DP 2.100/2.140
17	2	20 56 28 34	Oil control glass for compressor 140 type N
18	1	20 56 28 42	Sealing ring A 16 x 22 x 1.5 DIN 7603
19	1	20 56 28 55	Oil drain screw M16 x 16
20	1	20 56 20 51	Gasket cover DP 2.100/2.140
21	1	20 56 46 10	Filter C 1826 (DP 2.100/2.14)
22	1	20 56 45 21	Cap filter bowl DP 2.100
23	1	20 56 28 12	Handle (compressor 140 item 58)
24	4	20 20 72 00	Nut M8 DIN 985 zinc-pl.
25	4	20 20 96 06	Threaded pin with interior skt. M8 x 45 DIN 913 zinc-pl.
26	4	20 44 48 10	Rubber diaphragm D40 x 30, M8 x 10 shape B
27	4	20 20 96 03	Threaded pin with interior skt. M8 x 20 DIN 916 zinc-pl.
28	1	00 01 09 56	Compressor DP 2.140 pivoting



Item	Qty	Item no.:	Article description
1	1	20 56 66 07	Carrying frame electr. units 670 mm cpl.
2	1	20 56 66 14	Cover carrying frame electr. unit 670 mm height
3	1	20 56 66 06	Carrying frame for electr. unit 670 mm
4	2	20 20 61 00	Skt. screw M8 x 20 DIN 933 zinc-pl.
5	2	20 20 72 00	Nut M8 DIN 985 zinc-pl.
6	4	20 20 72 00	Nut M8 DIN 985 zinc-pl.
7	4	20 20 78 00	Skt. screw M8 x 30 DIN 933 zinc-pl.
8	4	20 56 66 15	Carrying handle 250 mm
9	1	20 56 66 54	Bracket control box SILOMAT E
10	2	20 20 61 00	Skt. screw M8 x 20 DIN 933 zinc-pl.
11	2	20 20 72 00	Nut M8 DIN 985 zinc-pl.
12	2	20 44 49 00	Rubber diaphragm D20 x 25, M6 shape E
13	2	20 20 93 10	Washer 6.4 x 18 x 1.5 DIN 9021 zinc-pl.
14	2	20 20 71 02	Skt. screw M6 x 10 DIN 933 zinc-pl.



Item	Qty	Item no.:	Article description
1	1	20 45 26 00	Relay 42 V, 9-180 sec. (K2/K5)
2	2	20 45 27 00	Relay 42 V, 1.5-30 sec. (K8)
3	1	20 45 31 01	Time indicator 42 V (U1)
4	1	00 00 93 71	Motor protection switch 0-16 PKZM 10-16 A (Q2)
5	1	00 02 14 01	Auxiliary contact NHI-11-PKZO
6	1	20 41 93 10	Automatic protection 16 A single-ended (F1)
7	1	00 02 14 01	Auxiliary contact NHI-11-PKZO
8	1	00 04 25 99	Motor protection switch 0.63-1 A PKZM 0-1 (Q3)
9	1	20 45 27 51	Phase sequence relay 200-500 V with 2 change-over contacts (K10)
10	1	00 03 62 49	Lock control box (two-way key bit)
11	1	20 44 45 00	Key for control box 3 mm
12	1	20 44 72 00	Automatic plumb level DIL ER22, 42 V (K1)
13	1	20 44 69 10	Auxiliary contact 11 DIL M (K9)
14	1	20 44 71 00	Automatic plumb level DIL OM 42 V (K9)
15	1	20 44 73 00	Automatic plumb level DIL EM 01, 42 V (K3)
16	2	00 00 25 67	Auxiliary contact 22 DIL M (K6/K4)
17	2	20 44 71 10	Automatic plumb level DIL 00M 42 V (K6/K4)
18	2	20 41 92 50	Safety fuse TRKS 4/1-SI (5x30)
19	2	00 00 73 72	Fuse insert holder / black
20	2	20 41 90 71	Fine fuse 5 x 30, 0.8 A
21	1	20 41 90 20	Fine fuse 5 x 20, 2.5 A, slow-blow
22	1	00 00 73 73	Fuse insert holder angular/orange
23	1	20 41 92 30	Safety fuse gray 20 mm fuse
24	1	20 46 07 00	Transformer unit 230/400 42 V (70 VA) fine fuse 30 mm long (T1)
25	4	20 20 93 14	Washer A 8.4 DIN 6798 zinc-plated
26	4	20 20 87 01	Skt. screw M8 x 16 DIN 933 zinc-pl.



Item	Qty	Item no.:	Article description
1	1	00 00 22 50	Control lamp plug-type socket yellow without light bulb front installation
2	2	20 45 91 01	Light bulb 48 V 2 W plug-type socket BA 9 S
3	1	00 00 22 51	Control lamp plug-type socket red without electric bulb front installation
4	1	00 05 38 86	LED – resistor – series element for 42 V
5	1	00 05 38 80	Illuminated element green 12-30 V
6	3	00 05 38 35	Contact element 1 closer M22
7	3	00 05 38 34	Fixation adapter for switch elements
8	1	00 05 38 33	Illuminated switch green M22
9	1	00 05 38 30	Membranes round for pressure switch IP 67 M22-T-D
10	1	00 05 38 36	Contact element 1 opener M22
11	1	00 05 38 37	Pressure switch red Off M22
12	1	00 05 38 30	Membranes round for pressure switch IP 67 M22-T-D
13	1	00 05 38 76	Selector switch stop for air tap with zero position and 2x engaging
14	1	00 05 38 38	Selector switch, 3 positions with 2 closers complete M22
15	1	20 45 52 00	Main reversing switch
16	1	20 45 52 01	Toggle for main reversing switch item 20455200
17	1	20 42 72 00	Panel mounted socket earthling blue
18	1	20 42 64 00	CEE panel mounted socket 3 x 16 A 12h white no. 1272 (X7)
19	1	20 42 66 00	CEE panel mounted socket 4 x 16 A 6h red no.1467, flange 92 x 100 (X4)
20	1	20 43 22 00	Female insert 10-pin HAN 10E
21	1	20 43 24 00	Strain relief PG 16
22	1	20 43 21 00	Plug 10-pin HAN 10E with strain relief
23	1	20 43 26 00	Plug with female insert 10-pin HAN 10E with strain relief
24	1	20 43 28 00	Control cable 10 m plug 10-pin HAN 10E and wire end sleeves
25	1	20 42 51 00	CEE panel mounted plug 5 x 32 A 6h red no. 391 (X1)
26	1	00 04 11 41	Connector skintop with plug M16 x 1.5
27	1	00 04 11 43	Nut skintop M16 x 1.5
28	2	00 04 11 45	Nut skintop M20 x 1.5
29	2	00 04 11 27	Connector skintop with plug M20 x 1.5

SILOMAT E 100 / 140

Dimensions (carryable frame)

Length	1020 mm
Width	700 mm
Height	680 mm
Material volume conveying container	55 liters

Electrical connection

400 V rotary current

Connection power

6 / 8 kW

Fuse protection

3 x 25 slow-blow A

Connection cable

5 x 4 mm² 32 A

Connection power compressor

5.5 / 7.5 kW

Air output compressor

100 / 140 Nm³/h

Max. operating pressure

2.5 bar

Pumping capacity *

20 kg/min at 80 / 140 m pumping distance

Weights

Conveying container

86 kg

Carrying frame with compressor and control box

200 / 210 kg

Permanent noise pressure level

85±1 dB

* depending on material quality and weight, conveying height and hose diameter

WE KEEP THINGS MOVING



Knauf PFT GmbH & Co. KG
PO Box 60 D-97343 Iphofen
Einersheimer Strasse 53 D-97346 Iphofen

Telephone 0 93 23/31-760
Telefax 0 93 23/31-770
Email info@pft-iphofen.de