

Technical Documentation

HIGH PRESSURE COMPRESSOR UNITS for BREATHING AIR
Model range VERTICUS 5



April 2000

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A

DESCRIPTION

B

INSTALLATION, TAKING INTO OPERATION

C

OPERATION

D

MAINTENANCE, REPAIR

E

STORAGE, PRESERVATION

F

DIAGRAMS, DRAWINGS

G

SPARE PARTS CATALOGUE

Instruction Manual Breathing Air Compressor Units • VERTICUS 5

INTRODUCTION

This manual contains operating instructions and maintenance schedules for the breathing air compressor units of the model range

VERTICUS 5

Model: _____

Serial no.: _____

WARNING

! Pneumatic high pressure system !

The breathing air produced with the compressor units described in this manual is subject to strict quality standards. Ignoring the operating and maintenance instructions can lead to severe injury or death.

The compressors are built in accordance with the EC machine regulations 89/392 EWG. Specifications on the noise level in accordance with the 3rd rule of the machine safety law as of 18.01.91 and the EC machine regulations, chapt. I, section 1.7.4. The machine has been built according to the highest standard of technology and the generally acknowledged safety standards. Nevertheless, operation could still cause danger for the operating personnel or third parties, or result in damage to the machine and other values. The machine may only be used to produce compressed air or gas as specified in this manual. Other use is strictly prohibited. The manufacturer and the supplier void all responsibility for damage or injury resulting from failure to follow these instructions.

INTRODUCTION**NOTICE****Layout and use of instruction manuals**

Working with pneumatic high pressure systems cannot always be considered safe and one should possess a minimum knowledge of how to operate them. For this reason, please read this instruction manual before operating your unit, to get to know the components and processes.

This instruction manual is made up according to the building block principle. It is divided into 7 sections, whose content varies according to the type of unit, standard or special and of course the accustomed extras, which are available for all our units in large numbers. With this kind of subdivision system, all sections should be in existence, in order to give a complete picture. In other words: even if one particular component is not part of the unit, the relative section will still be kept, although only a notice may be printed there. On the other hand, other sections could be represented more than once if certain units require this. In such a case one only has to refer to the applicable section, all superfluous ones can be removed. This is quite simple due to the ring binding system.

Please note that the circuit diagrams in section F, unless otherwise stated, are the standard circuit diagrams for your specific unit. So please always refer to the circuit diagram enclosed in the compressor unit control box, in which any possible changes are registered.

The same thing applies for the spare parts lists in section G. To avoid misunderstanding when ordering spare parts, we advise you to remove the parts that are not applicable. The spare parts lists that apply to the relative unit are listed in the section Index.

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Change notice

Changes which differ from the previous edition are marked with a vertical line.

Change no.	Change date and changes
0	Basic edition April 2000

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We are happy to give you advice on any questions regarding your **BAUER** compressor and help as soon as possible with any arising problems.

You can contact us Mondays to Thursdays from 08⁰⁰ to 16³⁰, Fridays from 08⁰⁰ to 15⁰⁰ on phone no. (089) 78049-0.

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Section A

Description

Section B

Installation, Taking into operation

Section C

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Section D

Maintenance, Repair

Section E

Storage, Preservation

Section F

Diagrams, Drawings

Section G

Spare Parts Catalogue

Instruction Manual Breathing Air Compressor Units • VERTICUS 5

A. DESCRIPTION

1. GENERAL

1.1. PURPOSE AND SHORT DESCRIPTION

This instruction manual describes the breathing air compressor units of the **VERTICUS 5** model range.

The compressor units are complete units for filling tanks in the pressure range 225 bar (3,200 psi) and/or 330 bar (4,700 psi), or 420 bar (6,000 psi), respectively. They are used mainly to compress air for breathing as required in diving and fire fighting applications.

The breathing air compressor units are available in two housing types:

The **KAP** series is mounted in the **open housing**:

KAP 12.14-5.5-5

KAP 12.14-7.5-5

KAP 150-11-5

KAP 180-15-5

KAP 18.1-11-5

KAP 18.1-15-5

The **V** series is mounted in the **Super-Silent housing**:

V 12.14-5.5-5

V 12.14-7.5-5

V 150-11-5

V 180-15-5

V 18.1-11-5

V 18.1-15-5

The open units can be upgraded to a Super-Silent version at any time.

The noise level of the Super-Silent units is 69 dB(A) ± 2 dB(A) in 1 m distance (according to DIN 45635).

All units are equipped as standard with filter system **P61**, TÜV approved final pressure safety valve and manual condensate drain valves.

Optionally, as described in the following chapters, the units can be delivered with an integrated filling panel with four filling hoses, bottle connectors for the specified pressure range and final pressure gauge, or with external filling panels with up to 6 filling hoses for one or two pressure ranges; **filter system P81** for extended cartridge lifetime, **SECURUS** monitoring system for the filter system, **ACD** (automatic condensate drain unit) with 10 l condensate collector tank, optionally 40 ltrs., and with electronic compressor control system **B-CONTROL** with integrated electronic monitoring unit.

1.2. DESIGN AND MODE OF OPERATION

Design

The compressor unit comprises the following major assemblies:

- Compressor block
- Drive motor
- Frame and housing assembly with instrument panel
- Filter set

- Automatic condensate drain^{a)}
- Filling panel^{a)}
- Electric control and electronic monitoring system^{a)}

The design of the compressors is shown in Fig. 1 and Fig. 2. For special equipment according to order see figures and parts lists in the annex.

Mode of operation; flow diagram

The path of the air through the compressor system is shown in the flow diagram. For flow diagram refer to section F of this manual.

a) optional extra according to order



Fig. 1 Compressor unit, V series; front view

- 1 Main switch
- 2 Filling panel 300 bar
- 3 Condensate collector, 10 ltrs.
- 4 Comperssor control unit
- 5 Filling panel 200 bar
- 6 Bottle connectors

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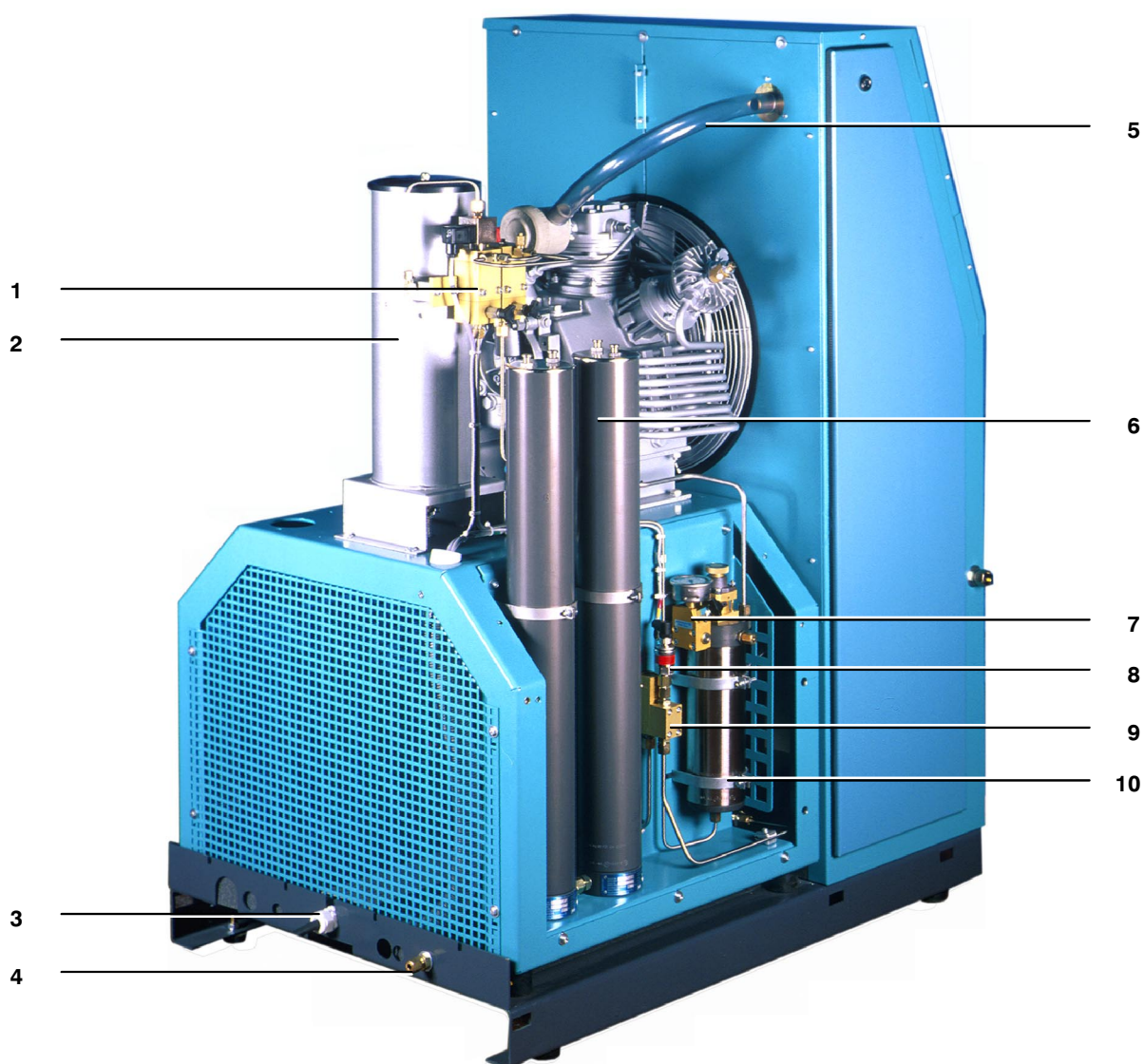


Fig. 2 Compressor unit, KAP series; rear view

- 1 Automatic condensate drain unit
- 2 Condensate separator
- 3 Mains connection
- 4 Air outlet
- 5 Intake hose
- 6 Filter system
- 7 Venting valve with pressure gauge
- 8 Final pressure sensor
- 9 Pressure maintaining/non-return valve
- 10 Final separator with final pressure safety valve

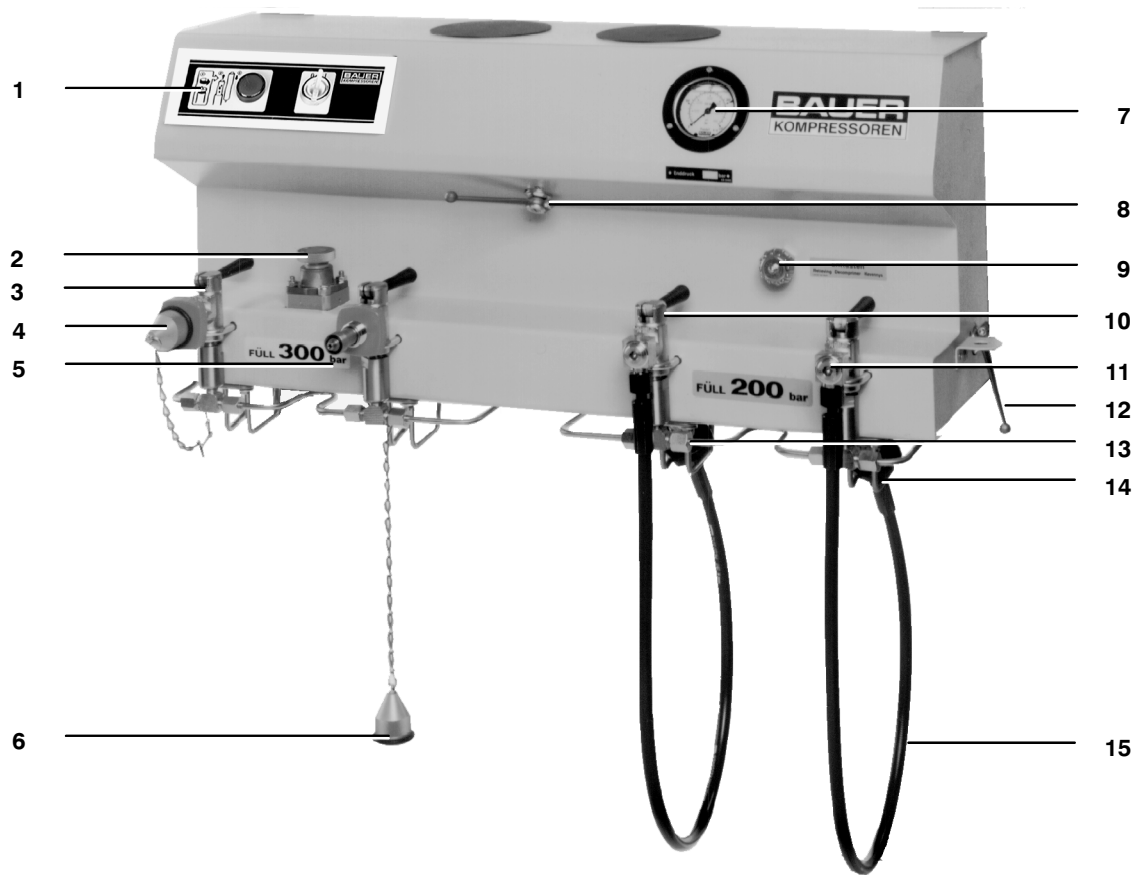


Fig. 3 External filling panel, V version (optional)

- 1 Control unit
- 2 Safety valve, 225 bar
- 3 Filling valve
- 4 Protective cap
- 5 Bottle connector, 300 bar
- 6 Protective cap with chain
- 7 Filling pressure gauge
- 8 Switch-over valve PN 200 - PN 300
- 9 Venting valve
- 10 Filling valve
- 11 Banjo connector
- 12 Shut-off valve, lockable
- 13 Bottle connector, 200 bar
- 14 Filling hose holder
- 15 Filling hose, rotary type



The filling panel shown above is a demonstration model fitted with different options. The standard model is fitted with filling valves and hoses as shown on the right, but direct filling valves as shown on the left can also be mounted optionally.

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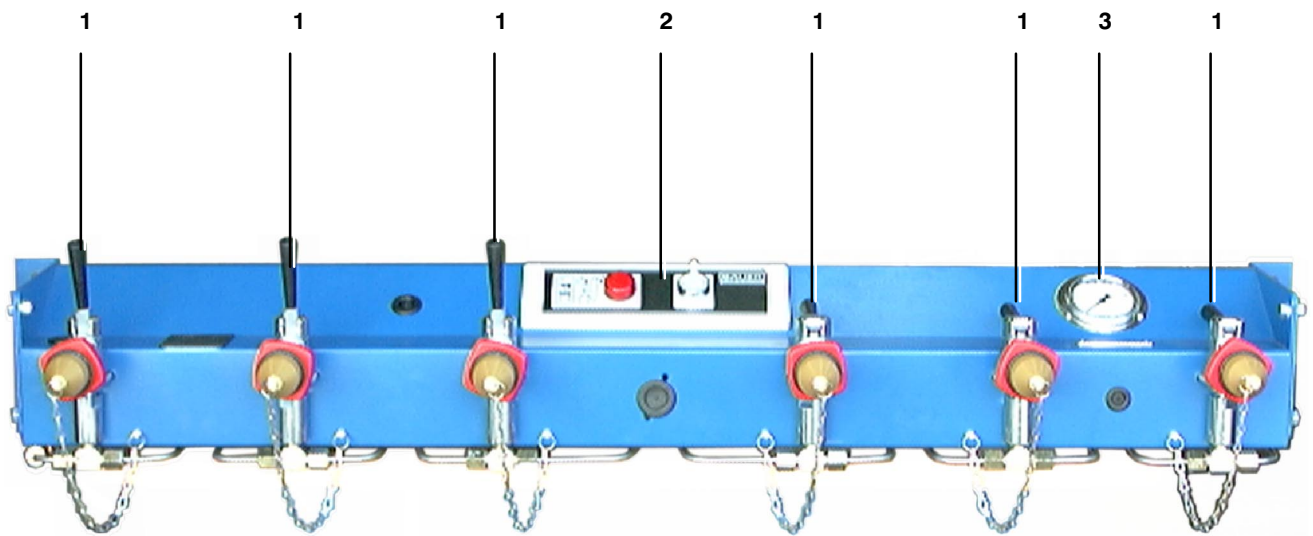


Fig. 4 External filling panel, KAP version (optional)

- 1 Filling valve
- 2 Control unit with SECURUS warning lamp
- 3 Filling pressure gauge

Compressor block

General

The compressor blocks are particularly suitable for continuous operation because of their rugged design and the corrosion resistant intermediate filter and cooler assemblies. Smooth running is a particular feature of this **BAUER** design. The balance of masses of the 1st rank is zero. The moving parts of the driving gear are all equally balanced. This results in a vibration-free running.

The driving gear is fitted with energy saving cylinder roller bearings. The upper and lower connecting rod bearings are also

roller bearings. This allows for an even longer life which lasts at least 30,000 operating hours.

Compressor block IK12.14 II

The compressor block **IK12.14 II** is used to compress air in the high pressure range up to 350 bar (5,000 psi).

The compressor block is of a four stage, three cylinder design. The cylinders are arranged in a W form, the 1st/2nd stage vertical stepped cylinder in the centre, 3rd stage on the right, and 4th stage on the left side looking from the filter side.

The design of the compressor block is shown in Fig. 5. For the mode of operation refer to the flow diagram in sec. F.

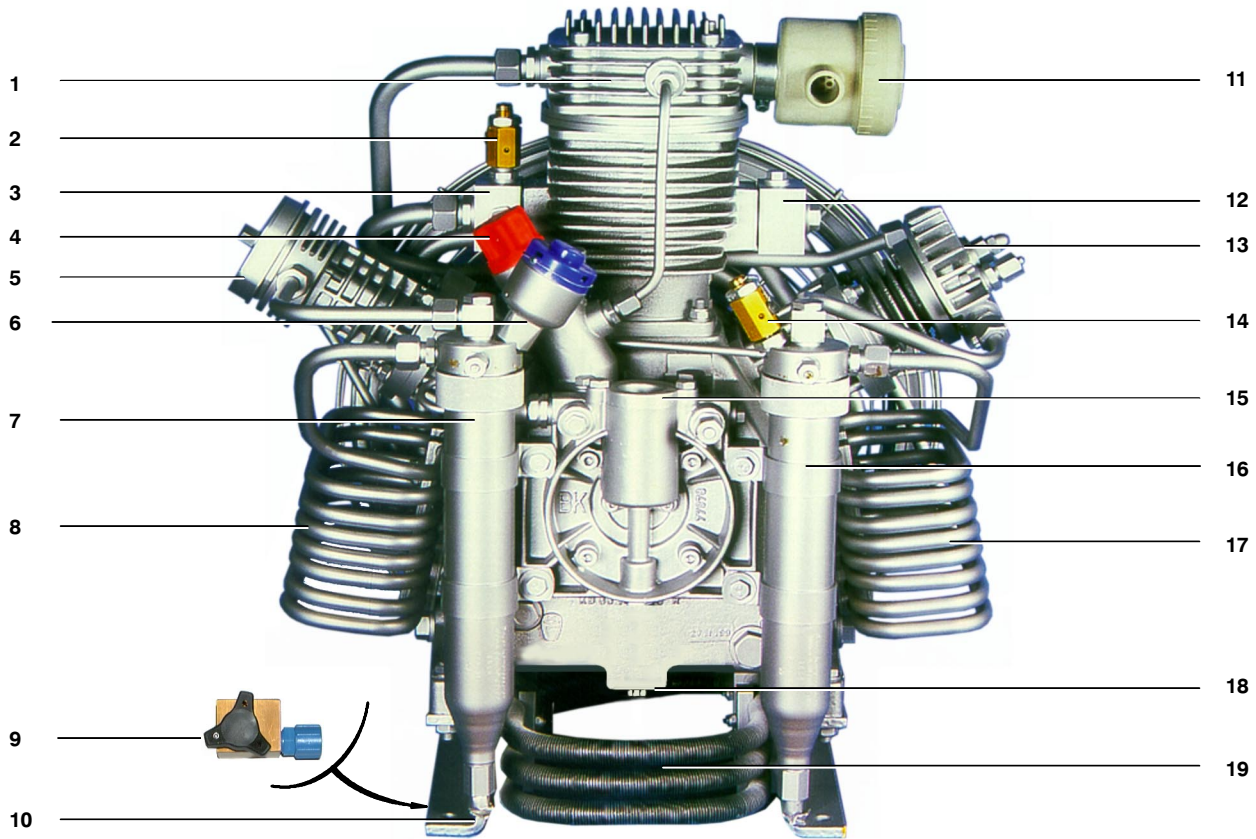


Fig. 5 Compressor block IK12.14 II

- | | |
|---|--------------------------------------|
| 1 Valve head, 1st stage | 16 Intermediate separator, 2nd stage |
| 2 Safety valve, 1st stage | 17 Inter-cooler, 2nd stage |
| 3 Intake manifold, 2nd stage | 18 Oil drain plug |
| 4 Oil filler neck | 19 After-cooler, 4th stage |
| 5 Cylinder, 4th stage | |
| 6 Safety valve, 3rd stage | |
| 7 Intermediate separator, 3rd stage | |
| 8 Inter-cooler, 3rd stage | |
| 9 Condensate drain tap ^{a)} | |
| 10 Condensate drain connector ^{a)} | |
| 11 Intake filter | |
| 12 Outlet manifold, 2nd stage | |
| 13 Cylinder, 3rd stage | |
| 14 Safety valve, 2nd stage | |
| 15 Oil filter housing | |

a) optional

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Compressor blocks IK150 and IK180

The compressor blocks **IK150** and **IK180** are used to compress air in the high pressure range up to 350 bar (5,000 psi). The compressor blocks are of a four stage, four cylinder design. The four cylinders are arranged at an angle of 90° to each other, 1st and 2nd stage, and 3rd and 4th stage opposite to each other.

The 4th stage cylinder is lubricated by means of the forced-

feed lubrication system, the other cylinders are splash-lubricated.

The design of the compressor block is shown in Fig. 6. For the mode of operation refer to the flow diagram in sec. F.

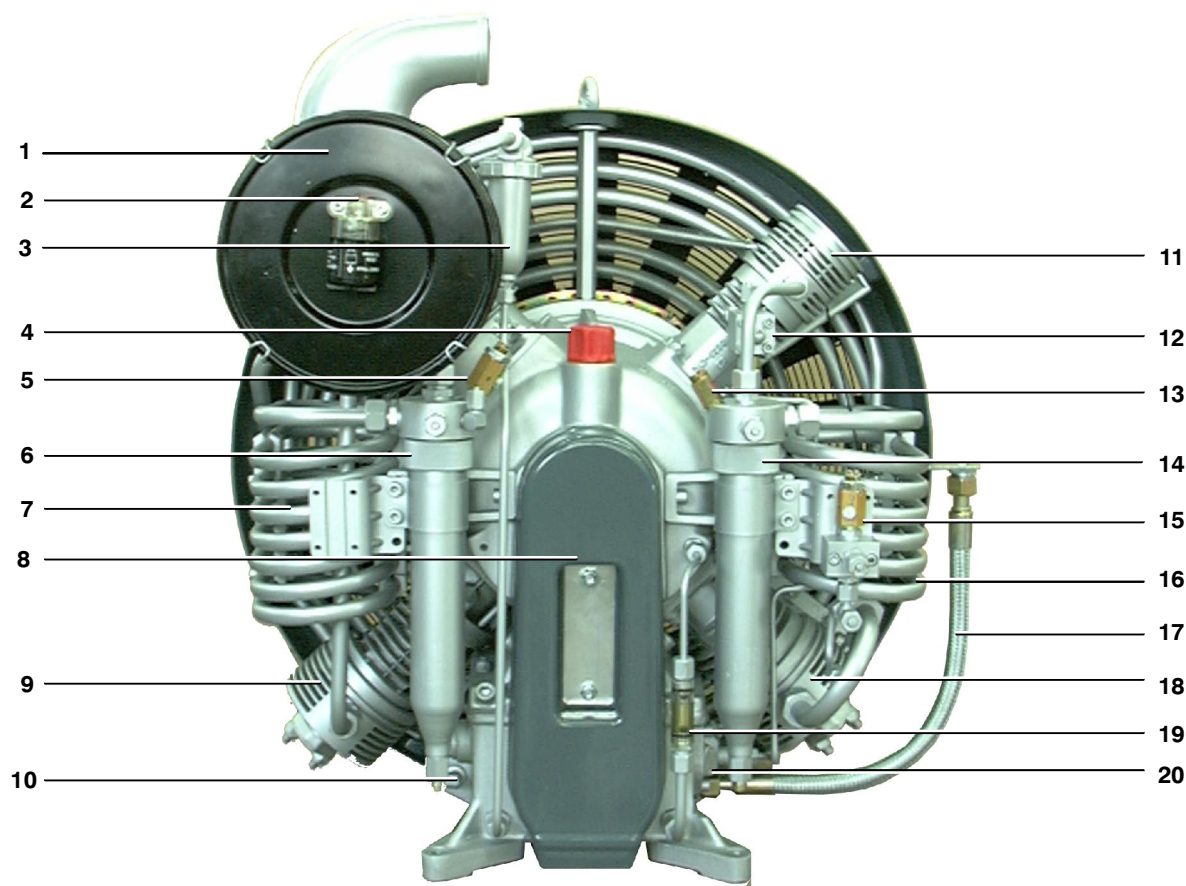


Fig. 6 Four-stage compressor block range: IK150, IK180; shown: IK150

- 1 Intake filter
- 2 Service indicator
- 3 Oil separator, crankcase vent
- 4 Oil filler
- 5 Intermediate pressure safety valve, 2nd stage
- 6 Intermediate separator, 2nd stage
- 7 Inter-cooler, 2nd stage
- 8 V-belt cover
- 9 Cylinder head, 3rd stage
- 10 Air outlet
- 11 Cylinder head, 4th stage
- 12 Oil pressure regulating valve
- 13 Intermediate pressure safety valve, 3rd stage
- 14 Intermediate separator, 3rd stage
- 15 Intermediate pressure safety valve, 1st stage
- 16 Inter-cooler 3rd stage
- 17 Oil drain hose
- 18 Cylinder head, 2nd stage
- 19 Oil sight gauge
- 20 Oil pump

Compressor block IK18.1

The compressor block **IK18.1** is used to compress air in the high pressure range up to 500 bar (7,200 psi).

The compressor block is of a five stage, four cylinder design. 2nd and 4th stage are housed in one common stepped cylinder. The four cylinders are arranged at an angle of 90° to each other,

1st and 3rd stage, and 2nd/4th stage and 5th stage opposite to each other. The 5th stage cylinder is lubricated by means of the forced-feed lubrication system, the other cylinders are splash-lubricated.

The design of the compressor block is shown in Fig. 7.

For the mode of operation refer to the flow diagram in section F.

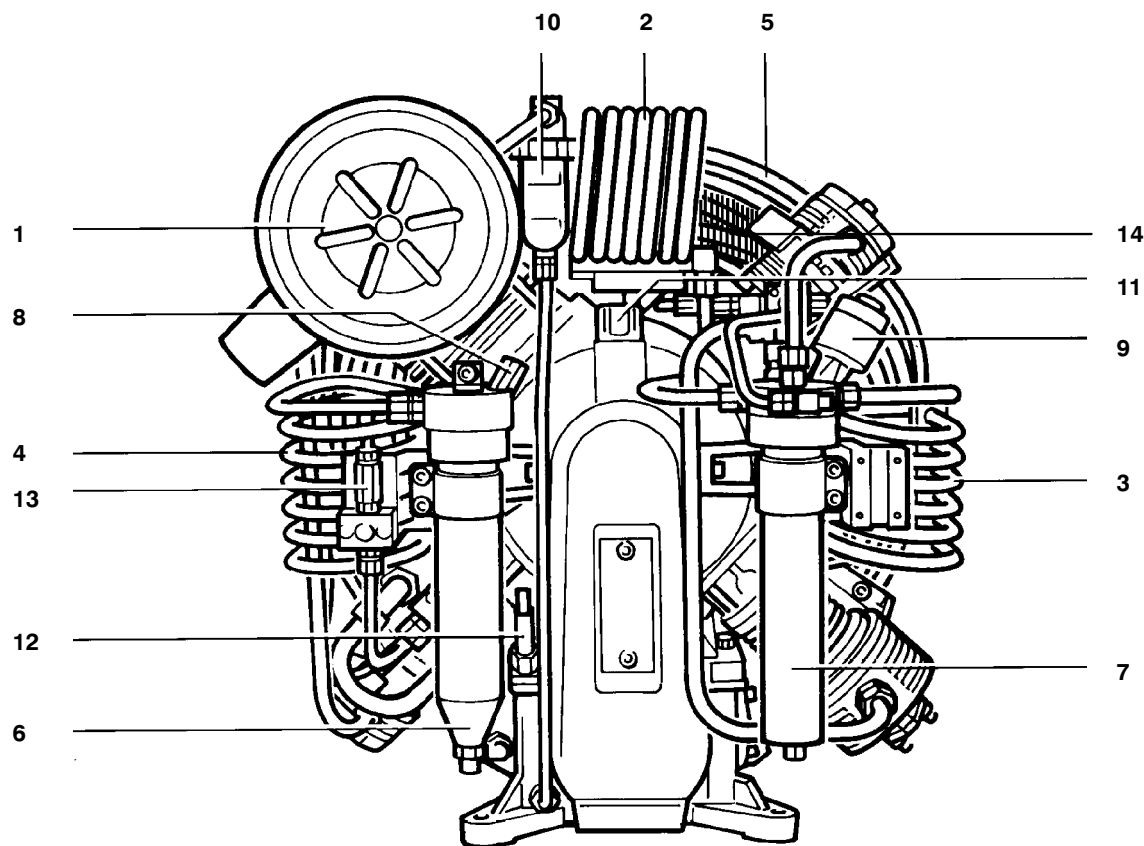


Fig. 7 Five-stage compressor block range: IK18.1

- 1 Intake filter
- 2 Inter-cooler, 4th stage
- 3 Inter-cooler, 2nd stage
- 4 Inter-cooler, 3rd stage
- 5 Inter-cooler, 1st stage
- 6 Intermediate separator, 3rd stage
- 7 Intermediate separator, 4th stage
- 8 Safety valve, 3rd stage
- 9 Safety valve, 4th stage
- 10 Oil separator
- 11 Oil filler neck
- 12 Dipstick
- 13 Safety valve, 1st stage
- 14 After-cooler

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1.3. TECHNICAL DATA

1.3.1. Compressor Units



To minimize multiple quotations, the common features are listed under General, all compressor block and motor data are listed in 1.3.2. and 1.3.3., respectively.

General:

Medium	air
Intake pressure	atmospheric
Operating pressure KAP 12.14, V 12.14	225 bis 420 bar
Betriebsdruck KAP 150, KAP 180, V 150, V 180	225 bis 330 bar
Adjustment, final pressure safety valve 200 bar units	max. 225 bar
Adjustment, final pressure safety valve 300 bar units	max. 330 bar
Adjustment, final pressure safety valve 420 bar units	max. 450 bar
Max. ambient temperature	+5 ... +45 °C
Allowable altitude	0 ... 2000 m above sea level
Max. inclination of compressor ^{a)}	15°
Sound pressure level, Super-Silent unit	72 ±2 dB(A)
Oil type	refer to oil list
Operating voltage	380-440 V, 50-60 Hz
Control voltage	24 V, 50-60 Hz
Type of motor	3 phase squirrel cage motor
Type of construction	B3
Protection class	IP54

Compressor unit V 12.14-5.5-5 V 12.14-7.5-5 V 150-11-5 V 180-15-5

Compressor unit KAP 12.14-5.5-5 . KAP 12.14-7.5-5 . KAP 150-11-5 KAP 180-15-5

Compressor block	IK12.14 II	IK12.14 II	IK150	IK180
Delivery ^{b)}	260 l/min	320 l/min	520 l/min	630 l/min
.....	9.1 cfm	11.2 cfm	18.2 cfm	22.1 cfm
Pressure setting, pressure switch	according to order			
Pressure setting, final pressure safety valve	according to order			
Speed	1,120 min ⁻¹	1,390 min ⁻¹	1,320 min ⁻¹	1,320 min ⁻¹
Drive input	5.3 kW	6.9 kW	10.3 kW	14.5 kW
Drive motor power	5.5 kW	7.5 kW	11 kW	15 kW
Weight ^{c)} , approx.	375 kg	380 kg	420 kg	435 kg

Compressor unit V 18.1-11-5 V 18.1-15-5

Compressor unit KAP 18.1-11-5 ... KAP 18.1-15-5

Compressor block	IK18.1	IK18.1
Delivery ^{b)}	520 l/min	600 l/min
.....	18.2 cfm	21 cfm
Pressure setting, pressure switch	according to order	
Pressure setting, final pressure safety valve	according to order	
Speed	1,150 min ⁻¹	1,320 min ⁻¹
Drive input	10.4 kW	12 kW
Drive motor power	11 kW	15 kW
Weight ^{c)} , approx.	420 kg	435 kg

a) These values are valid only if the oil level of the compressor in normal position corresponds to the upper mark of the oil sight glass and may not be exceeded.

b) Free air delivered at tank filling from 0 to 200 bar +/- 5%.

c) Standard unit

Subject to change without prior notice

TECHNICAL DATA (Cont.)**1.3.2. Compressor blocks****Compressor block IK12.14 II, mod. 1**

No. of stages	4
No. of cylinders	3
Cylinder bore 1st stage	105 mm
Cylinder bore 2nd stage	105/88 mm
Cylinder bore 3rd stage	28 mm
Cylinder bore 4th stage	12 mm
Piston stroke	40 mm
Intermediate pressure 1st stage	2,5 ... 3 bar
Intermediate pressure 2nd stage	14 ... 18 bar
Intermediate pressure 3rd stage	55 ... 85 bar
Compressor block oil capacity	2.8 l
Oil pressure	approx. 5 bar
Direction of rotation (viewing at flywheel)	counter-clockwise

Compressor block IK150, mod. 9

No. of stages	4
No. of cylinders	4
Cylinder bore 1st stage	120 mm
Cylinder bore 2nd stage	60 mm
Cylinder bore 3rd stage	32 mm
Cylinder bore 4th stage	14 mm
Piston stroke	50 mm
Intermediate pressure 1st stage	2 ... 3 bar
Intermediate pressure 2nd stage	14 ... 16 bar
Intermediate pressure 3rd stage	65 ... 70 bar
Compressor block oil capacity	4 l
Oil pressure	approx. 60 bar
Direction of rotation (viewing at flywheel)	counter-clockwise

Compressor block IK180, mod. 4

No. of stages	4
No. of cylinders	4
Cylinder bore 1st stage	130 mm
Cylinder bore 2nd stage	60 mm
Cylinder bore 3rd stage	32 mm
Cylinder bore 4th stage	14 mm
Piston stroke	50 mm
Intermediate pressure 1st stage	2,5 ... 4 bar
Intermediate pressure 2nd stage	16 ... 18 bar
Intermediate pressure 3rd stage	70 ... 80 bar
Compressor block oil capacity	4 l
Oil pressure	approx. 60 bar
Direction of rotation (viewing at flywheel)	counter-clockwise

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TECHNICAL DATA (Cont.)

Compressor block IK18.1, mod. 3

No. of stages	5
No. of cylinders	4
Cylinder bore 1st stage	130 mm
Cylinder bore 2nd stage	88/60 mm
Cylinder bore 3rd stage	32 mm
Cylinder bore 4th stage	18 mm
Cylinder bore 5th stage	10 mm
Piston stroke	50 mm
Intermediate pressure 1st stage	3 ... 4 bar
Intermediate pressure 2nd stage	14 ... 15 bar
Intermediate pressure 3rd stage	42 ... 45 bar
Intermediate pressure 4th stage	110 ... 155 bar
Compressor block oil capacity	4 l
Oil pressure	approx. 115 bar
Direction of rotation (viewing at flywheel)	counter-clockwise

1.3.3. Drive motors

All motors:

Model	3 phase squirrel cage motor
Operating voltage	380-440 V, 50-60 Hz
Control voltage	24 V, 50-60 Hz
Type of construction	B3
Protection class	IP54

Drive motor 5.5 kW

Power	5.5 kW
Speed	2,850 min ⁻¹
Size	112 M

Drive motor 7.5 kW

Power	7.5 kW
Speed	2,850 min ⁻¹
Size	132 M

Drive motor 11 kW

Power	11 kW
Speed	1,450 min ⁻¹
Size	160 M

Drive motor 15 kW

Power	15 kW
Speed	2,900 min ⁻¹
Size	160 M

2. LUBRICATION SYSTEM

2.1. FUNCTIONAL DESCRIPTION

2.1.1. Compressor Block IK12.14 II

The compressor is provided with a low pressure lubrication system. The oil pressure is produced by a low revving gear pump. The oil pressure is approximately **5 bar**.

The oil pump (1, Fig. 8) is coupled to and driven by the crankshaft. It pumps oil from the oil sump (5) through the oil fine filter (2) and a minimum pressure valve (3) to the 4th stage cylinder. The oil is then distributed by the guide piston of the 4th stage (4) and lubricates all moving parts of the compressor block.

The minimum pressure valve allows for oil pressure indication at a pressure gauge and electronic oil pressure monitoring.

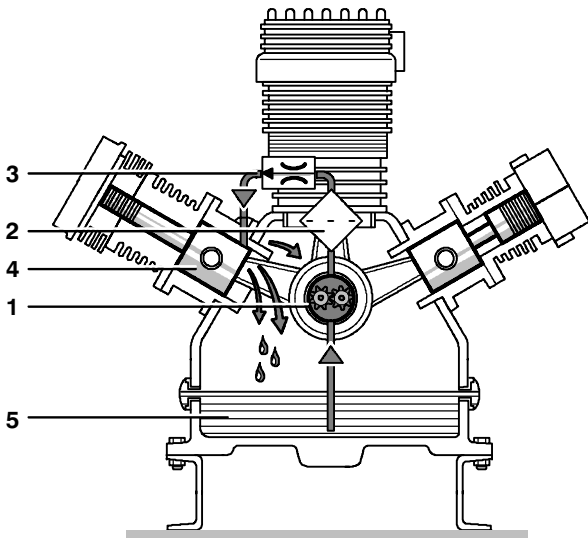


Fig. 8 Lube oil circuit, IK12.14 II

2.1.2. Compressor Blocks IK150, IK180

The compressor is provided with a forced-feed lubrication for the 4th stage (Fig. 9).

Injection pump (6) is driven by a camshaft via a V-belt. It pumps oil through pressure line (5) into the pressure regulator (3) at the 4th stage. The oil pressure regulator doses the oil quantity and is adjusted to the respective oil pressure. Through holes in the piston liner (1) the oil is injected and lubricates the free-floating piston. It then flows through holes in the guide piston (2) into the crankcase. This oil is atomized by the drive gear and lubricates the other moving parts, such as crankshaft, connecting rods, cylinders and pistons and finally returns into the oil sump (7).

Surplus oil from the pressure regulator flows back into the crankcase through feedback tube (5). This line is routed to the opposite side of the 4th stage cylinder (Fig. 9).

Cylinder and piston of the 1st stage are additionally lubricated by oil vapours from the crankcase vent feedback line.

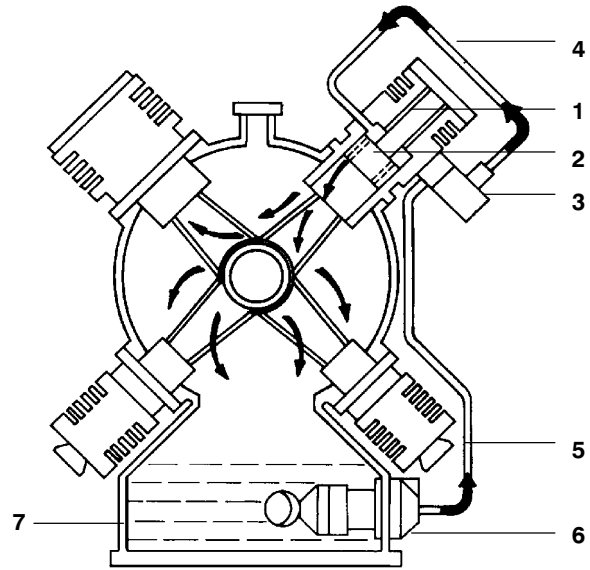


Fig. 9 Lube oil circuit, IK150, IK180

2.1.3. Compressor Block IK18.1

The compressor is provided with a forced-feed lubrication system for the 5th stage (Fig. 10).

The injection pump (4) is driven by a camshaft via a V-belt. It pumps oil from the crankcase oil sump into the pressure regulator (2) at the 5th stage. The oil pressure regulator doses the oil quantity and is adjusted to the required oil pressure by the inter-pressure of the 4th stage through line (5). The oil not needed flows back to the crankcase through feedback tube (3) via 5th stage cylinder. This oil is atomized by the drive gear and lubricates the other moving parts, such as crankshaft, connecting rods, cylinders and pistons and returns to the oil sump (1).

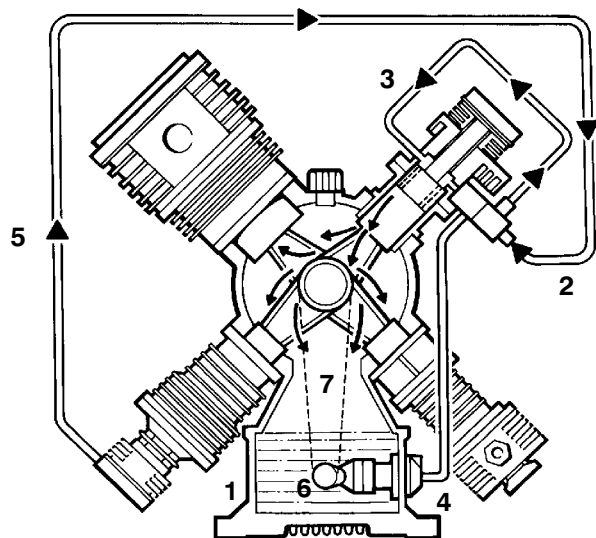


Fig. 10 Lube oil circuit, IK18.1

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2.2. TYPE OF OIL

For proper care and maintenance of the compressor, using the correct oil is of vital importance. Depending on the application of the compressor the requirements placed on the oil are:

- low deposits
- no carbonizing effect, especially in the valves
- good anti-corrosive properties
- emulsification of the condensate in the crankcase
- for breathing air application, also physiological and toxicological suitability.

Due to the thermal load on the compressor only high quality oil should be used. You are recommended to restrict oils to those which have been approved by us and are listed in our lubricating oil list.



The current oil list is provided in section F. Order this list regularly through the BAUER Technical Service Department.

For operation under difficult conditions such as continuous running and/or high ambient temperatures we recommend the use of BAUER high performance compressor oils, only, according to the oil list. These oils are tested in our compressors and have proved excellent quality under ambient temperatures between +5 °C (41 °F) and +45 °C (113 °F). For lower temperatures, a heating device is required which is capable of pre-heating the crankcase up to +5 °C (41 °F).



All our compressor units are delivered ex-works with lubricating oil N22138 (filled into the crankcase or as consignment, depending on the model).

For operation under less severe conditions we can also recommend mineral compressor oils which are suitable for operation under ambient temperatures between +5 °C (41 °F) and +35 °C (95 °F). Here also, pre-heating is required for lower temperatures.

2.2.1. Changing the oil type



To avoid severe damage to the compressor unit when changing the oil type, follow the measures given in section D-2.

3. INTAKE FILTER

3.1. FUNCTIONAL DESCRIPTION

3.1.1. IK12.14 II

A dry micronic filter is used to filter intake air, see Fig. 11. It is fitted with a replaceable filter cartridge (1). The intake pipe (2) is connected to a plastic hose drawing the air from the cooling air duct.

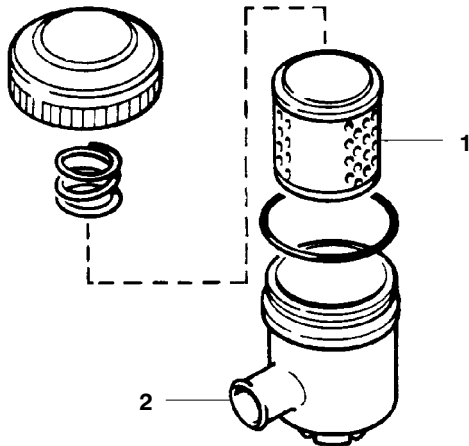
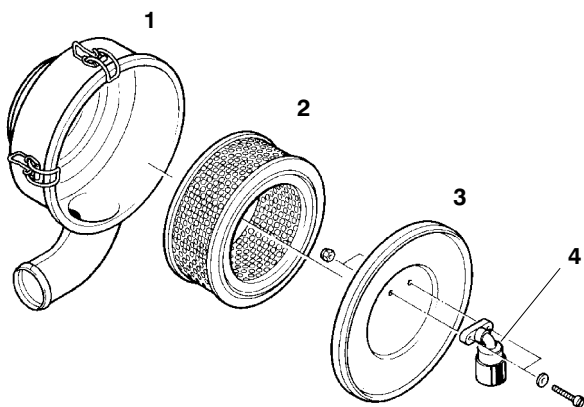


Fig. 11 Intake filter, IK12.14 II

3.1.2. IK150, IK180, IK18.1

A dry micronic filter as shown in Fig. 12 is used to filter intake air. It is fitted with a replaceable filter cartridge. The service indicator changes colour from green to red when the cartridge is clogged.



- 1 Filter housing
- 2 Filter element
- 3 Cover
- 4 Service indicator

Fig. 12 Intake filter, IK150, IK180, IK18.1

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4. INTERMEDIATE SEPARATORS

4.1. FUNCTIONAL DESCRIPTION

Intermediate separators are mounted after 2nd and 3rd stage and at five stage compressor IK18.1 also after the 4th stage. The separators are designed to remove water and oil accumulating due to cooling the air down after the compression process. Separation is achieved by means of centrifugal action provided by a vortex plate (3). A sintered metal filter (5) is provided additionally to remove dirt contamination, see Fig. 13.

Separation is achieved by means of a jet pipe (intermediate separator after 2nd stage) or by means of centrifugal action provided by a vortex plate (3). A sintered metal filter (5) is provided additionally in the separators after 3rd and 4th stage to remove dirt contamination, see Fig. 13.

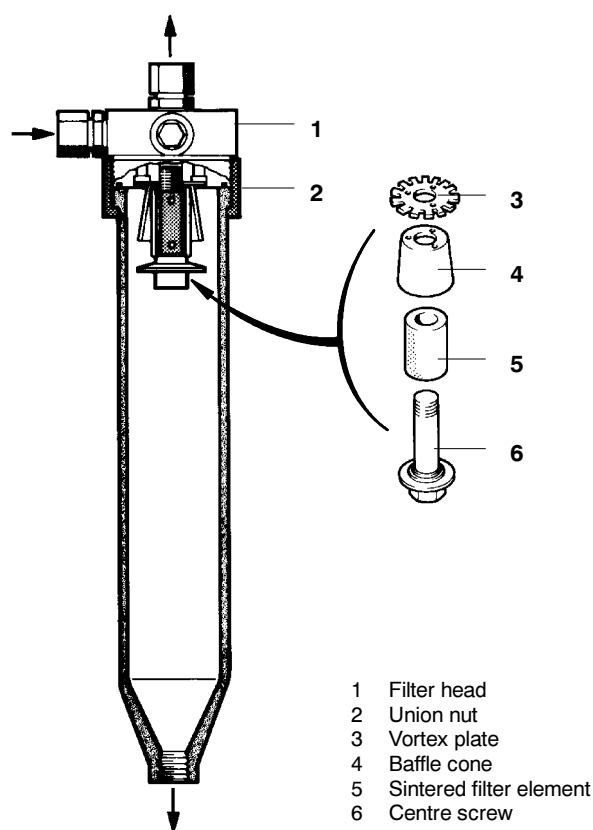


Fig. 13 Intermediate separator

4.2. 1ST STAGE SEPARATOR (OPTION)

For severe environmental conditions, especially high temperatures and humidity, an additional separator after the 1st stage can be provided. Refer to flow diagram in chapter F. This separator is similar to the 2nd stage separator.

5. FINAL SEPARATOR / FILTER SYSTEM

5.1. GENERAL

Breathing air compressor units are fitted as standard with an air purification system: filter system P61. As an option, filter system P81 for increased filter cartridge lifetime is available.

Unlike other filter systems the **SECURUS** filter system ensures continuous monitoring of the breathing air purification parameters while the air is still in the regeneration process. The influences of

- ambient temperature
- ambient humidity
- temperatures of the compressor and regeneration system are taken into consideration.

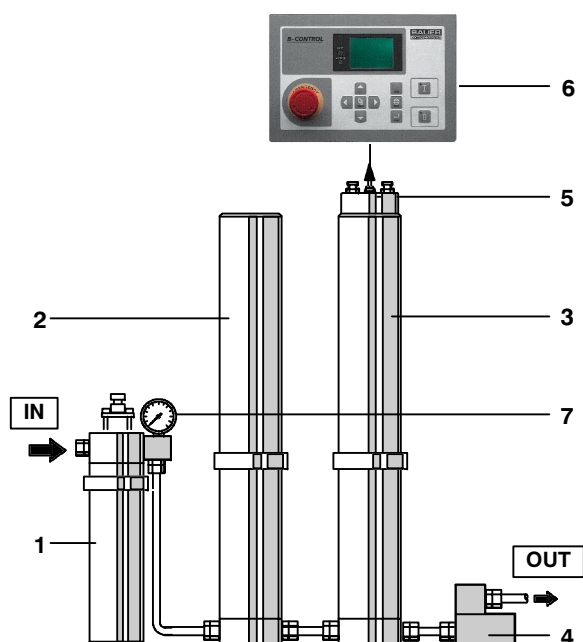


Fig. 14 Filter system with SECURUS monitoring

- 1 Oil and water separator w/ final pressure safety valve
- 2 Dryer (P81, only)
- 3 Purifier
- 4 Pressure maintaining/non-return valve
- 5 **SECURUS** sensor head^{a)}
- 6 B-CONTROL control unit^{a)}
- 7 Non-return valve with venting valve and pressure gauge

The exchangeable **SECURUS** cartridges are designed for

- drying of air
- adsorption of aromatic components (aerosols)
- partial conversion of CO into CO₂
- partial adsorption of CO₂

The quality of the breathing air produced conforms to the national and international

- DIN EN 12021

- STANAG 1079 MW
- British Standard 4001
- US CGA Spec. G.7.1
- Canada CSA Standard Z 180.1
- Australian Army Standard 5017

It is impossible to exceed the cartridge utilization time since a preliminary warning message indicates the approaching saturation of the cartridge. Depending on the size of compressor used, the prewarning message will appear between 1 and 7 hours prior to cartridge saturation. If the cartridge is not replaced after indication of the preliminary warning message, the **B-CONTROL** compressor control will automatically shut down the compressor as soon as the cartridge has been exhausted. The compressor cannot be turned on as long as no cartridge has been inserted.

The **SECURUS** filter system operates in the FAIL-SAFE mode: the compressor will be shut down if the circuit between the control unit and the sensor is interrupted.



As soon as the preliminary warning message appears or, at the latest, after the **B-CONTROL** unit has shut down the system, the cartridges of all filters within the systems must be changed according to D-5.2.2. For description and operation of the **B-CONTROL** system see chapter A-11.

5.2. APPLICATION AND SUMMARY DESCRIPTION

The filter system (Fig. 14) consists of:

- Oil and water separator
- Non-return valve between separator and purifier
- Drying filter (filter system P81 only)
- High pressure purifier
- **SECURUS** sensor head^{a)}
- Venting valve with pressure gauge
- Pressure maintaining/non-return valve

The system is integrated into the compressor unit, i.e. the filters and other components are mounted on the frame, the pressure gauges are situated at the filling panel. If the **SECURUS** monitoring system is provided, the breathing air regeneration process and the degree of dryness of the air are continuously monitored during the regeneration process by measuring the cartridge saturation within the filter cartridge.

5.3. OIL AND WATER SEPARATOR

5.3.1. Description

The air leaving the final stage is cooled in the after-cooler to approx. 10 to 15 °C (18-27 °F) above ambient temperature and then enters the oil and water separator (Fig. 15). The oil and water separator is standard for all industrial compressors and part of the breathing air purification system of the breathing air compressor units. It works by means of a sintered filter micro-cartridge (1), reliably separating liquid oil and water particles from the compressed air.

a) optional extra

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The oil and water separator is subject to dynamic load. It is designed to withstand a certain no. of load cycles. (1 load cycle = 1 pressurization, 1 depressurization.) The oil and water separator must be replaced when the maximum permissible no. of load cycles has been reached.

The maximum recommended amount of four load cycles per hour should not be exceeded.

If it is possible to regulate the operation of the unit to such a degree as to achieve four load cycles per hour, in our opinion this would be an optimum between usage and actual life.

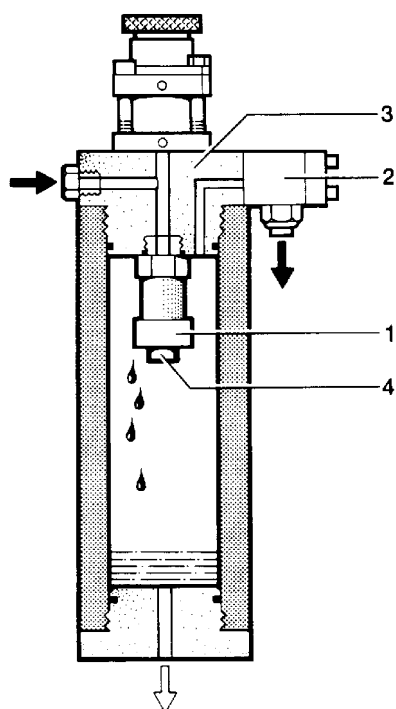


Fig. 15 Oil and water separator

5.3.2. Specifications

a. General

Service pressure, standard	225/330/420 bar (3,200/4,500/6,000 psi)
Service pressure, max.	420 bar (6,000 psi)
Flow rate	P61: max. 600 l/min P81: max. 1,000 l/min
Regenerated volume of air, referenced to 1 bar abs, 20°C, flow rate 200 l/min against p = 200 bar (2,900 psi)	P61: 2,200 m ³ ; (1,700 m ³ with CO cartridge) P81: 4,400 m ³
Operating temperature range	+5 ... +50°C (41 ... 122°F)
Residual water contents	< 25 mg/m ³
Residual oil vapour contents	< 0.5 mg/m ³
Residual CO contents	< 15 ppm _v
Residual CO ₂ contents	< 500 ppm _v
Pressure dew point	-20 °C, 3 mg/m ³ at 300 bar

b. High pressure filter assemblies

Oil and water separator:

	220/330 bar units (3,100/4,500 psi)	420 bar units (6,000 psi)
External diameter	95 mm	98 mm
Length	300 mm	306 mm
Water volume	0.57 l	0.57 l
Weight	4.5 kg	5.5 kg
Tube connections (intake and outlet)	G 1/4"	G 1/4"
Max. load cycle number	refer to chapter D.5.	refer to chapter D.5.

Purifier:

	220/330 bar units (3,100/4,500 psi)	420 bar units (6,000 psi)
External diameter	100 mm	115 mm
Length	835 mm	835 mm
Water volume	2.85 l	2.85 l
Weight	10,6 kg	14 kg
Tube connections (intake and outlet)	G 3/8"	G 3/8"

c. Filter cartridges for filter system P61 and P81

BAUER part no.	Cartridge contents ^{a)}	SECURUS sensor	Length mm	Capacity MS (g) ^{a)}	Capacity AC (g) ^{a)}
061860	SM	---	77	---	---
058825	MS	---	705	1445	---
058826	MS/MS/AC/MS	---	695	1275	113
060036	MS/MS/AC/MS	●	705	1224	113
060037	MS/MS/AC/MS/HP	●	705	1002	115

a) SM = Sintered metal cartridge, MS = Molecular sieve, AC = Activated charcoal, HP = Hopcalite

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6. PRESSURE MAINTAINING / NON-RETURN VALVE

6.1. FUNCTIONAL DESCRIPTION

A pressure maintaining and a non-return valve are provided downstream of the filter system. Refer to flow diagram in section F. Depending on the model, the combined pressure maintaining/non-return valve is mounted between final separator and purifier on the filter console (refer to Fig. 2.).

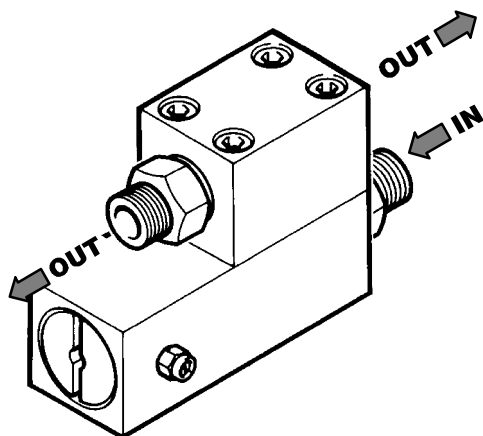


Fig. 16 Pressure maintaining/non-return valve

The pressure maintaining valve ensures that pressure is built up in the filters even from the start of delivery, thus achieving a constant, optimum filtration. It will also guarantee proper working conditions for the final stage cylinder.

The adjustment of the pressure maintaining valve is approx. 150 bar.

An additional non-return valve is mounted after the oil and water separator – flanged directly to the filter head. It prevents already filtered medium from flowing back from the downstream filters when draining condensate from the oil and water separator.

7. SAFETY VALVES

All compressor stages are protected by safety valves.

The adjustment of the safety valves is as follows:

Compressor block	1st stage	2nd stage	3rd stage	4th stage	5th stage
IK12.14 II	5.5 bar	24 bar	95 bar	450 bar	---
IK150	5.5 bar	24 bar	80 bar	350 bar	---
IK180	5.5 bar	24 bar	90 bar	350 bar	---
IK18.1	5.5 bar	24 bar	80 bar	180 bar	500 bar

The safety valves are adjusted to the corresponding pressure and sealed at the factory.

The safety valve for protection of the **last stage** is adjusted according to order, see 1.3, Technical Data, but maximally to the values given above.

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8. PRESSURE GAUGES

The pressure in the final compressor stage can be monitored by means of the **B-CONTROL** display. See chapter 11. Pressure gauges in the instrument panel are optional extras for all Verticus 5 units. If provided, the gauges should indicate the correct pressures during operation.

8.1. INTERMEDIATE PRESSURE GAUGES

The correct values given in chapter A-1.3., Technical Data.

8.2. FINAL PRESSURE GAUGE

The final pressure gauge shows a mark indicating the maximum operating pressure.



For digital final pressure indication see chapter A-11.

8.3. OIL PRESSURE GAUGE

Correct oil pressure indication should read approx. **5 bar (70 psi)** for compressor block IK12.14 II, and approx. **60 bar (870 psi)** for compressor blocks IK150 and IK180. For compressor block **IK18.1** the oil pressure regulator is controlled by and identical to the intermediate pressure of the 4th stage, i.e. approx. **115 bar**.

If not, check the lube oil circuit or adjust the oil pressure. See chapter D-2.

For oil pressure monitoring, see chapter A-11.

9. VALVES

The valve heads of the individual stages form the top part of the cylinders. The intake and pressure valves are fitted inside the valve heads.

Note that the valves are operated by the flow of the medium. On the suction stroke, the intake valves open and the medium flows into the cylinders. At the start of the compression stroke the intake valve closes and the medium opens the pressure valve, Fig. 17.

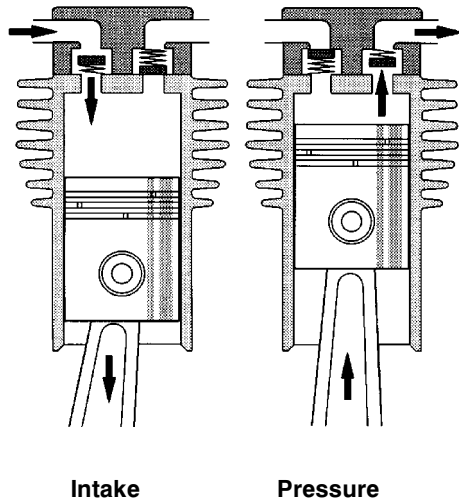


Fig. 17 Valve operation

Intake and pressure valve of the 1st stage of the compressor block IK12.14 II is a combined plate valve under the valve head (Fig. 18).

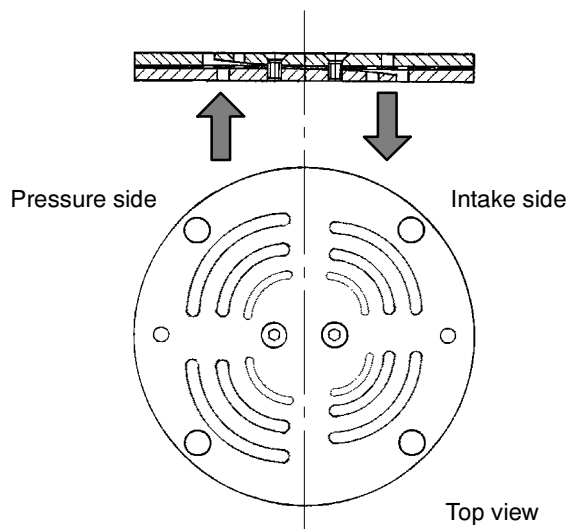


Fig. 18 Valve head 1st stage, IK12.14 II

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10. AUTOMATIC CONDENSATE DRAIN

10.1. COMPRESSOR BLOCKS IK12.14 II, IK150, IK180

The automatic condensate drain unit (Fig. 19) drains the intermediate separators after the 2nd and 3rd stage, and the final separator after the 4th stage every 15 minutes during operation.

In addition, the automatic condensate drain is designed to drain these filters after shut-down of the compressor unit, and to unload the compressor during the starting phase, see paras. 10.3. and 10.4.

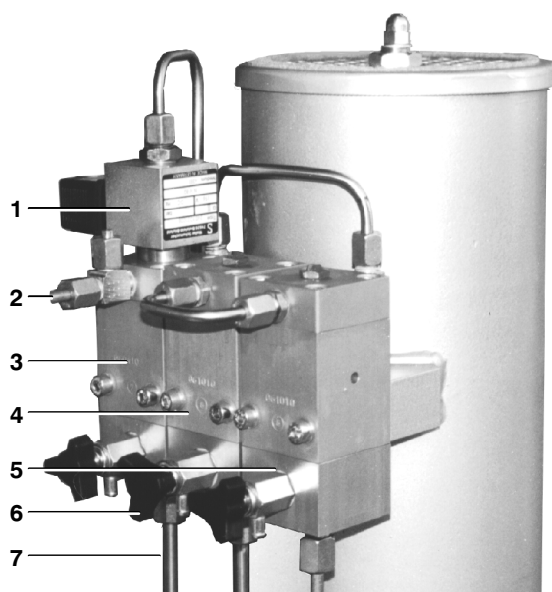


Fig. 19 Automatic condensate drain unit

- 1 3/2-way solenoid valve
- 2 Control medium connection
- 3 Condensate drain valve 2nd stage
- 4 Condensate drain valve 3rd stage
- 5 Condensate drain valve, oil and water separator 4th stage
- 6 Manual condensate drain tap
- 7 Condensate inlet connection (tube connector)

The automatic condensate drain system operates electropneumatically and comprises the following main items:

- Three pneumatically operated condensate drain valves, one each for the intermediate separators after 2nd and 3rd stage and one for the oil and water separator after the last stage. The condensate drain valves are of the normally open type, i.e. they are closed by applying control pressure.
- A solenoid valve for control air, normally closed type, mounted on top of the condensate drain valve for the 2nd stage.
- A condensate manifold.
- A condensate separator/silencer.
- A condensate tank.
- A bracket for mounting the drain unit on the compressor block or on the unit.

- An electrical timer. The timer is mounted in the compressor control box on all units fitted with this optional extra, or in a housing mounted on the unit or delivered separately with bare compressor blocks.

Operation

The condensate drain valves are operated pneumatically via a normally closed 3-way solenoid valve by an electrical signal.

The required control air applied to the solenoid valve is taken from the intermediate separator after the second stage.

At compressor start, condensate drain valves (5), (6) and (7) are open.

At start-up of the compressor, 3/2-way solenoid valve (4) is energized and opens. Now control pressure is applied to the condensate drain valves. The servo-pistons (8) are pressed onto valve seats (9) and the condensate drain valves close.

The compressor delivers compressed medium to the connected systems.

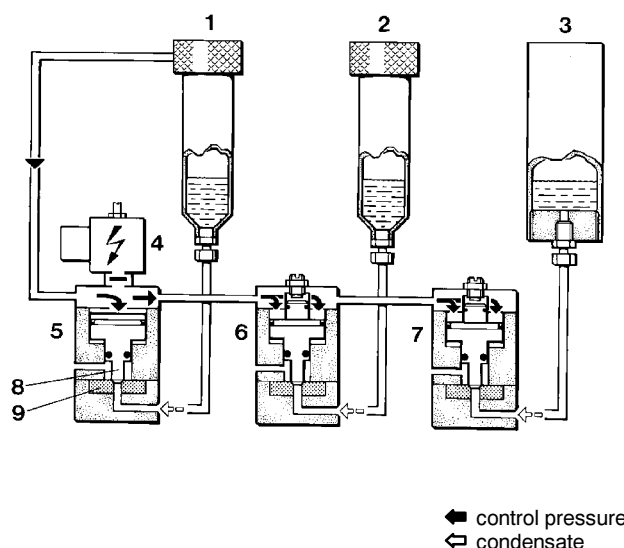


Fig. 20 Normal operation

- 1 Intermediate separator 2nd/3rd stage
- 2 Intermediate separator 3rd/4th stage
- 3 Oil and water separator after 4th stage
- 4 3/2-way solenoid valve
- 5 Condensate drain valve 2nd stage
- 6 Condensate drain valve 3rd stage
- 7 Condensate drain valve 4th stage
- 8 Servo piston
- 9 Valve seat

Condensate drain

Every 15 minutes, 3/2-way solenoid valve (4) is deenergized for approx. 6 seconds by the timer and closes. The control pressure is relieved from the servo-pistons (8) of the condensate drain valves and the pistons are raised from the valve seats (9) by the 2nd stage pressure. The condensate from the separators is drained.

After 6 seconds, the solenoid valve opens again and opens the control air path from the 2nd stage separator again. The servo-pistons of the condensate drain valves are pressed down again and the valves close.

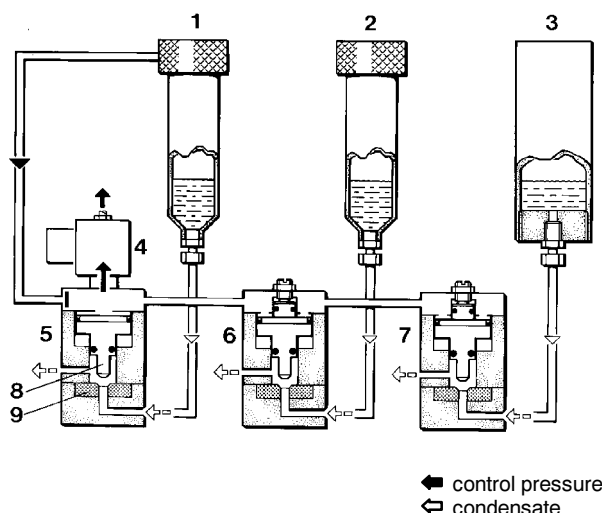


Fig. 21 Condensate drain

- 1 Intermediate separator 2nd/3rd stage
- 2 Intermediate separator 3rd/4th stage
- 3 Oil and water separator after 4th stage
- 4 3/2-way solenoid valve
- 5 Condensate drain valve 2nd stage
- 6 Condensate drain valve 3rd stage
- 7 Condensate drain valve 4th stage
- 8 Servo piston
- 9 Valve seat

10.2. COMPRESSOR BLOCK IK18.1

The automatic condensate drain unit (Fig. 22) drains the intermediate separators after the 2nd, 3rd and 4th stages and the oil and water separator after the 5th stage every 15 minutes during operation. In addition, the automatic condensate drain is designed to drain these separators after shut-down of the compressor unit, and to unload the compressor during the starting phase, see paras. 10.3. and 10.4.

The automatic condensate drain system operates electropneumatically and comprises the following main items:

- Four pneumatically operated condensate drain valves, one each for the intermediate separators after 2nd, 3rd and 4th stages and one for the oil and water separator after the fifth stage. The condensate drain valve for the intermediate separators after the 2nd and 3rd stage are the normally open type and those for the intermediate separator after the 4th stage and for the oil and water separator after the last stage are closed without control medium being applied.
- Two solenoid valves for control medium, normally closed type, mounted on top of the condensate drain valves for the 2nd and 4th stage drain valves.
- A condensate manifold.
- A condensate separator/silencer.
- A condensate tank.
- A bracket for mounting the drain unit on the compressor block or on the unit.
- Two electrical timers (part of the compressor control or built in a separate housing for units without compressor control).

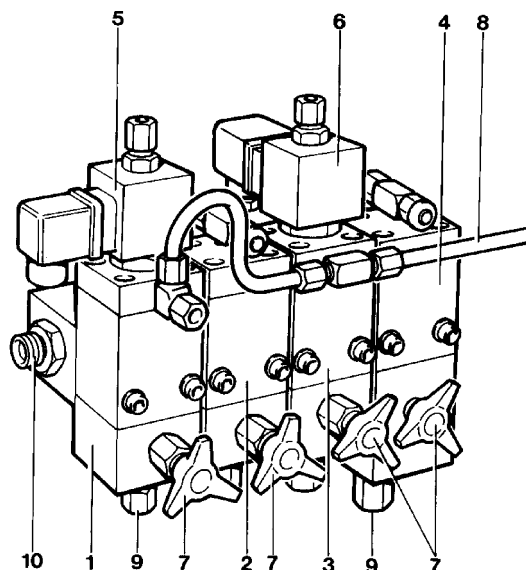


Fig. 22 Automatic condensate drain unit IK18.1

- 1 Condensate drain valve 2nd stage
- 2 Condensate drain valve 3rd stage
- 3 Condensate drain valve 4th stage
- 4 Condensate drain valve 5th stage
- 5 3/2-way solenoid valve for 2nd and 3rd stage
- 6 3/2-way solenoid valve for 4th and 5th stage
- 7 Manual drain valve
- 8 Control pressure inlet
- 9 Condensate inlet
- 10 Condensate outlet

Operation

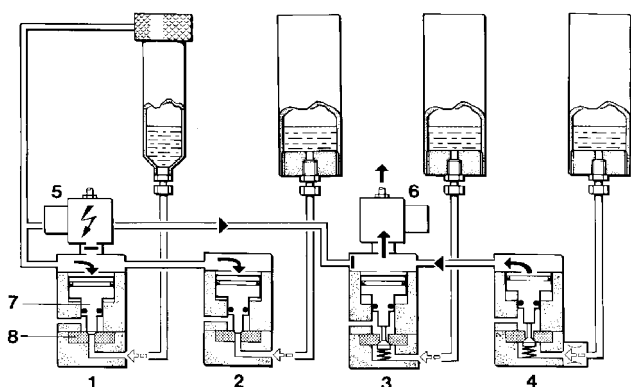
The condensate drain valves are operated pneumatically via a normally closed 3-way solenoid valve by an electrical signal. The required control medium applied to the solenoid valve is taken from the intermediate separator after the second stage.

Before compressor start, condensate drain valves (1) and (2) are open, (3) and (4) are closed by spring pressure.

At start-up of the compressor, 3/2-way solenoid valve (5) is energized and opens, 3/2-way solenoid valve (6) is not energized and remains closed. So the control medium is applied to condensate drain valves (1) and (2), only. The servo-pistons (7) are pressed onto valve seats (8) and the condensate drain valves close.

The condensate drain valves (3) and (4) are not pressurized by the control medium and remain closed by spring pressure and the pressure build-up of the compressor. The compressor delivers compressed medium to the connected systems.

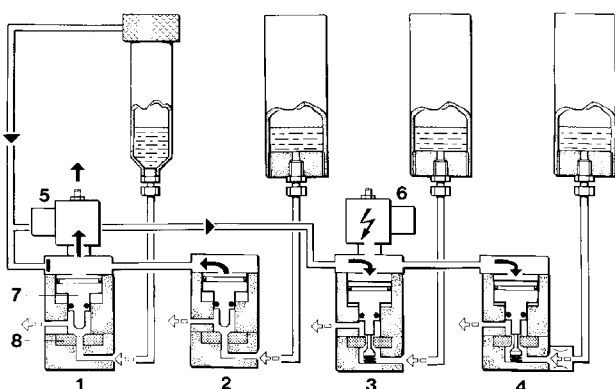
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◀ control pressure
 ⇐ condensate

Fig. 23 Normal operation

- 1 Condensate drain valve 2nd stage
- 2 Condensate drain valve 3rd stage
- 3 Condensate drain valve 4th stage
- 4 Condensate drain valve 5th stage
- 5 3/2-way solenoid valve
- 6 3/2-way solenoid valve
- 7 Servo piston
- 8 Valve seat



◀ control pressure
 ⇐ condensate

Fig. 24 Condensate drain

Condensate drain

Every 15 minutes, 3/2-way solenoid valve (5) is deenergized for approx. 6 seconds by the timer and closes. The control pressure is relieved from the servo-pistons (7) of the condensate drain valves (1) and (2) and the pistons are raised from the valve seats (8) by the 2nd stage pressure. The condensate from the

intermediate separators after 2nd and 3rd stage is drained. After 6 seconds, solenoid valve (5) opens again and opens the control medium path from the 2nd stage separator again. The servo-pistons of the condensate drain valves are pressed down again and the valves close.

Also every 15 minutes, but independently from solenoid valve (5), 3/2-way solenoid valve (6) is energized for approx. 3 seconds by the second timer and opens. The control pressure pushes down the servo-pistons of the condensate drain valves (3) and (4), the pistons are raised from the valve seats (8) and the condensate from the intermediate separators after the 4th stage (3) and from the oil and water separator (4) after last stage is drained. After 3 seconds, the solenoid valve closes again and shuts off the control medium path from the 2nd stage separator and the valves close due to spring pressure and the pressure build-up of the compressor.

10.3. START UNLOADING

The unloading during the starting phase of the compressor is effected due to the lack of control air/gas immediately after switching on the unit. After the compressor has attained nominal speed, control air/gas flows to the condensate drain valves which close and the compressor starts delivering to the consuming device.

10.4. STANDSTILL DRAINAGE

At compressor shut-down, solenoid valves are deenergized and open.

The servo pistons are raised by the residual pressure within the separators. The valves open, and the separators are drained at standstill of the compressor unit.

10.5. CONDENSATE COLLECTOR 10 ltrs.

BAUER Verticus 5 units are equipped as standard with a 10 liter condensate collector which can be mounted at the front or the left side as required.

10.6. CONDENSATE COLLECTOR 40 ltrs. (OPTIONAL)

Optionally, **BAUER** Verticus 5 units can be fitted with a 40 liter condensate collecting system (Fig. 25). It serves as a central collector of the accumulated condensate and separates the condensate from the air.

The condensate collecting tank is equipped with a mechanical level indicator for optical pre-warning for exchange when due. In addition, the compressor can be automatically switched off by a max. level contact, or an alarm system provided by the customer can be activated. The separated air is passed through activated charcoal so that only clean and odourless air is delivered, in accordance with TRG regulations.

The system comprises 2 collecting tanks: One is in use. When it is full, the 2nd tank is connected so that the 1st can be emptied.

The condensate tank is fitted to the condensate outlet connector through by hose. The G 3/4" inlet connector is used for Verticus compressor units. Refer to drawing in the annex.

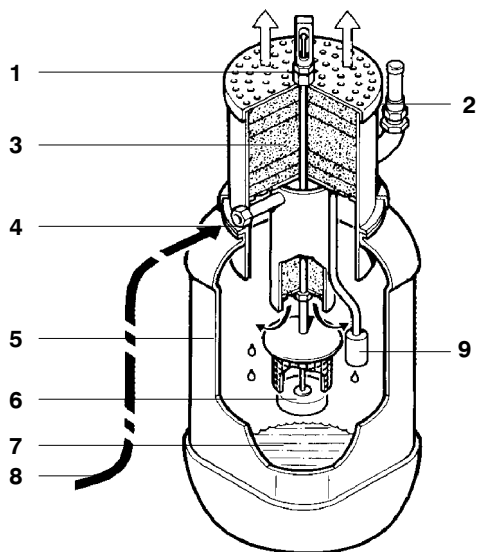


Fig. 25 Condensate collector, 40 litres.

- 1 Level indicator
- 2 Safety valve
- 3 Activated charcoal filling
- 4 Condensate inlet
- 5 Plastic tank
- 6 Float
- 7 Condensate
- 8 Hose from compressor unit
- 9 Level switch

Electrical connection

If the **BAUER** compressor unit is fitted with a compressor control system including a BC2 electronic monitoring unit, the level indicator cable must be connected to the BC2 oil pressure monitoring contact. For all compressor units fitted with the **B-CONTROL** compressor control system, the switch cable is connected to channel 2 of the digital inputs.

Pin 1: signal input
 Pin 2: power supply +5 V

When mounting the switch coil (1, Fig. 26), observe the symbols on the upper and lower switch surfaces. On one side there is an open switch symbol (3), on the other side a closed one (2). On all **BAUER** compressor control systems, the switch operates with a normally closed contact (empty container = switch closed). In this case the closed switch symbol must be on the upper side, see Fig. 26.

Contact function can be changed by mounting the switch coil upside down.

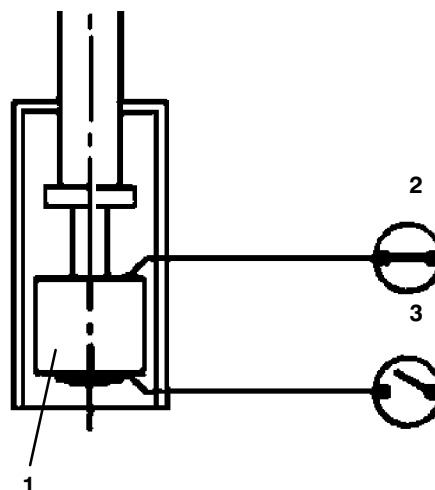


Fig. 26 Float switch orientation

Function

The condensate is drained by the automatic condensate drain unit and passed to the outlet connector at the frame. The hose of the collecting system is connected there.

The condensate enters the system at connector (1, Fig. 27) and is routed through pipe (2) down into the collecting vessel (3). This pipe is filled with steel wool (4). The air entering together with the condensate, passes through the activated charcoal filling (5) in filter head (6) into the open air. The charcoal is covered with layers of fleece (7). Tank and filter head are connected to each other by a clamp (8). The system is protected by a safety valve (9) if pressure rises above 0.2 bar for any reason. The condensate level is indicated by a sight gauge (11) and monitored electrically by float switch (10).

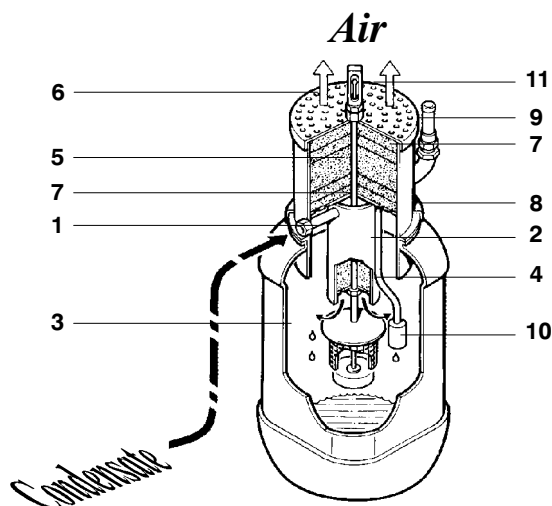


Fig. 27 Condensate collector, function

Technical data

Tank capacity:	approx. 60 litres
Condensate capacity:	approx. 40 litres
Activated charcoal contents:	3,700 g
Connecting hose length:	1,150 mm
Dimensions:	approx. 410 mm x 330 mm
x 1,000 mm (W x D x H)	

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For details refer to drawing 072288-342.

10.7. CONDENSATE DISPOSAL



Condensate must be disposed of according to applicable regulations (in Germany: special waste disposal no. 54405).

Due care must be taken to ensure that any oil which may be drained with the condensate will not pollute the environment. For example, the drain pipe can be directed into a collecting vessel or into drain facilities incorporating oil separators.

10.8. ELECTRICAL CONNECTION

For electrical connection of the automatic condensate drain system refer to the schematic diagrams in section F, if applicable.



On compressor units with B-CONTROL compressor control system the intervals are adjusted at the control and monitoring unit, refer to chapter A-11.

11. ELECTRICAL SYSTEM

11.1. GENERAL

This section describes the standard electric control and electronic monitoring system of the compressor unit. The electric control unit is an optional extra for all compressor units, i.e. the amount of built-in components varies depending on order.



For schematic diagrams, see section F.

The electrical equipment of the compressor unit consists of:

- drive motor M1
- electric control system

To start the electric motor and enable the functioning of the controls as well as the monitors, the following components are essential:

- main switch Q1 and
- main fuse, both to be installed by the customer.

11.2. EMERGENCY SHUTDOWN

Every unit has an "Emergency Shutdown" push button. Pressing this push button interrupts the control voltage and the unit shuts down.

11.3. COMPRESSOR CONTROLLER B-CONTROL (OPTIONAL)

11.3.1. General

BAUER B-CONTROL is a free-programmable electronic compressor control system with a modern display. The control system is specially designed for **BAUER** compressors, and can be set and configured for all **BAUER** compressor models.

This manual contains the information necessary for correct operation of the unit. It is applicable for the basic version only, i.e. without any extension modules. For the extended version refer to the special manual.

11.3.2. Hardware and connections

For reference to the hardware and connections refer to drawing nos. 78149 and 78160 in section F.

From these result the following fixed allocations of the input channels, which cannot be changed, independently from the actually connected sensors. As usual in digital technology, numbering starts with 0 and not with 1.

Analog inputs:

- Channel 0: Final pressure sensor 1
- Channel 1: Final pressure 2 or intake pressure sensor
- Channel 2: Oil pressure sensor
- Channel 3: Temperature sensor cooling air
- Channel 4: Temperature sensor final compressor stage
- Channel 5: SECURUS sensor

Digital inputs:

- Channel 0: Emergency OFF switch (N/C)
- Channel 1: Motor protection relay, signalling contact (N/C)
- Channel 2: Level switch, condensate collector (N/C)
- Channel 3: Remote ON switch (N/O)
- Channel 4: Remote OFF switch (N/C)
- Channel 5: SECCANT error (N/C)

Please note that digital inputs marked N/C which are not used, have to be jumpered to enable the B-CONTROL to be taken into operation. This is especially important, if no condensate collector or no remote OFF key should be connected.

Analog inputs which are not used may be left open but should be removed in the configuration file. Otherwise, an UDR indication would be shown on the display instead of the measured value, and an entry would occur in the fault window and possibly in the fault logbook.

11.3.3. Configuration data

The configuration of the software with respect to the hardware is performed in the configuration file. This file is automatically generated at factory start-up, and normally does not need any further modification. If a change should become necessary due to modifications on the compressor unit, please contact the BAUER after-sales service dept.



Fig. 28 B-CONTROL

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11.3.4. Control and monitoring elements

The control and monitoring panel features a display, 2 indicating lamps (LED's), an EMERGENCY OFF key, as well as 10 soft touch keys to control the compressor and the display.

The function of the control keys is as follows:

- O** Shuts the compressor off. On a higher menu level, returns you to the main menu.
- I** Starts the compressor, provided there are no failure messages present or maintenance work due. On a higher menu level, returns you to the main menu.
- ▲** Moves the cursor up. If already in the top line, jumps to the bottom line.
- ▼** Moves the cursor down. If already in the bottom line, jumps to the top line.
- ◀** Decreases a selected value. Press and hold will decrease the value increasingly faster.
- ▶** Increases a selected value. Press and hold will increase the value increasingly faster.
- menu** change to the next page of the same menu level
- enter** accept the new value and refresh page
- reset** change to next higher menu level without storing the changed values.
- code** combination key to start initialization routines (setting "restore defaults" in combination with reset key).

General notes on the use of the keys

Please do not be impatient. Allow some seconds for the windows to build up, the time will depend on the amount of information. In the meantime, please do not press any keys, even if you know how to proceed.

The red and yellow LED's next to the display indicate fault and warning messages. The details for the message are shown on the display. The red LED indicates a compressor failure, and the unit will be shut down automatically. The yellow LED indicates a warning, e.g. imminent maintenance work, the compressor will not be shut down.

For new faults or warnings the respective LED will flash quickly until the message is acknowledged with the "reset" key. If the message is still present after pressing the reset key, the LED will change to slow flashing, and would extinguish if the cause of the message would not be present any more. After that, the compressor can be switched on again.

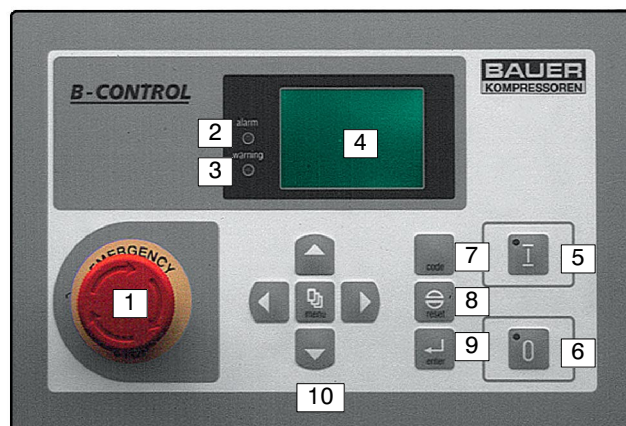


Fig. 29 Controls and monitors

- 1 Emergency OFF button
- 2 Alarm indicator (Shut-off)
- 3 Warning indicator
- 4 8 line, 21 char. display
- 5 ON-key with indicator
- 6 OFF key with indicator
- 7 Code key
- 8 Reset key
- 9 Enter key
- 10 Cursor keys with menu key in the centre

11.3.5. Menu and navigation

The 8 line, 21 character display contains all the important information on the present condition of your **BAUER** compressor. Normally, the start page (homepage) is displayed. This page shows the most important general data in a very clear presentation. With just a glimpse you can find out the actual compressor status.

According to the operating requirements the menu is split into four levels:

- Level 0:** Start page and survey
- Level 1:** Operation level
- Level 2:** Maintenance level
- Level 3:** Configuration level

Each menu level again consists of several windows or pages which can be paged through comfortably, finally leading back to the start page (roundabout system). In all higher levels consisting of a larger number of pages, direct access to the desired pages from the select menu is possible.

Due to different access codes, changing between operation, maintenance, and config levels is allowed only from the main menu. Within one level, you have free movement without being asked for an access code again. If a higher level has been accessed by entering the required code, the yellow LED will start flashing slowly to indicate that you are staying in a protected area.

The following describes the pages in each level.

LEVEL 0: START PAGE AND SURVEYS

This level consists of four windows or pages giving a quick survey on the status of your **BAUER** compressor. At compressor start, and also when a signal is received the following page will be displayed showing the most important data at a glance.

By pressing the *menu* key repeatedly, the following three pages of this level are displayed in the order shown below.

By each pressing of the *reset* key the respective previous page will be shown, until finally the main page is reached again.

At the bottom of the main menu page you find the data important and required by the **BAUER** service dept. At the left you find the serial no. of the compressor unit, at the right in brackets the installed software version.

From the maintenance page pressing the *menu* key will get you back to the start page, pressing the *reset* key takes you back to the Main Menu page.

HIGHER MENU LEVEL BRANCHING AND CODE REQUEST

In order to divert into the next higher menu lever you have to select the MAIN MENU page (Fig. 32). Select the desired level using the ▲ and ▼ keys.

Before you can select pages at this level, you are requested to enter the access code. There are different codes for each level which cannot be overridden.

As long as the compressor is operating, access to the adjustments of the maintenance and configuration levels is disabled. A respective note will show up in the code window and the display will automatically change back to the main menu page.

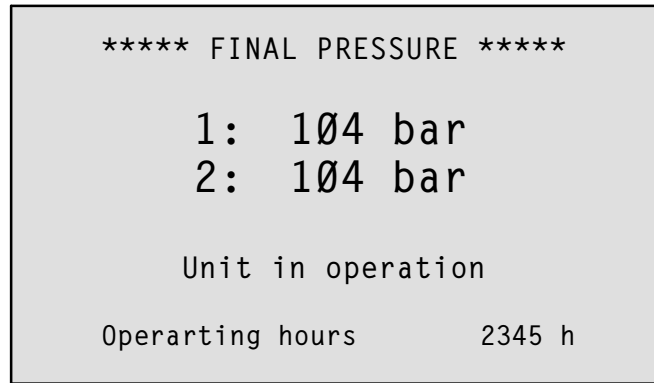


Fig. 30 Start page

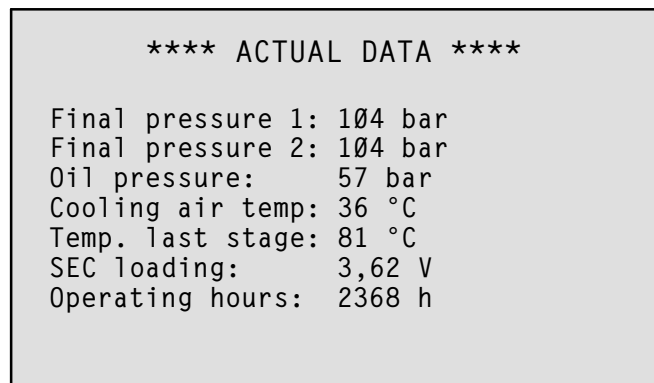


Fig. 31 Actual data page

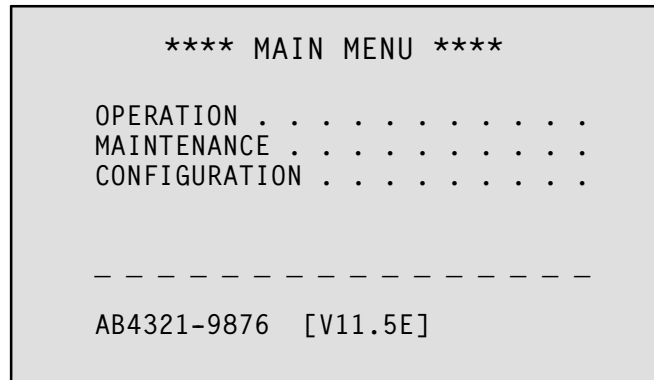


Fig. 32 Main menu page

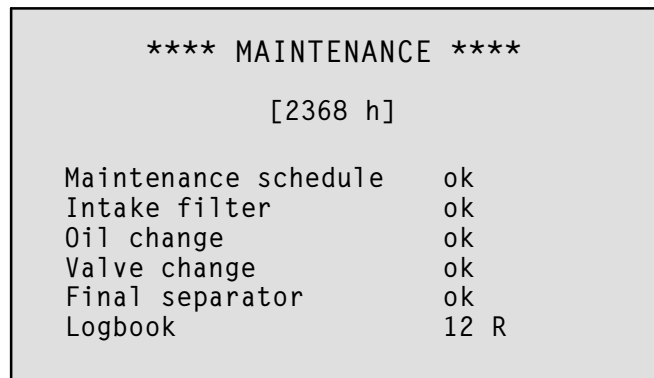


Fig. 33 Maintenance page

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Different from the legend to Fig. 29 the cursor (i.e. the highlighted figure) will move to the left or right using the ◀ or ▶ key, respectively. With the ▲ and ▼ keys the highlighted value can be increased or decreased by one. By finishing the code input with the enter key, you will get access to the selected level.

If a wrong code should have been entered, a respective note will be displayed, then the menu returns to automatically to the main menu. A new entry may be tried now. The number of attempts is not limited.

With higher priority (level) codes you will automatically get access to all lower priority levels, also, e.g. with the code for the configuration level you will have access to all levels, whereas with the operation code you would have access to the operation level, only.

OPERATION LEVEL

Entering the operation level, a survey menu will be opened at first (Fig. 34).

The desired parameter can be selected with the ▲ and ▼ keys. By pressing the *enter* key the selected adjustment page will be shown. As an alternative, after having selected a menu point, you may browse through the rest of the pages with the *menu* key.

Pressure setting

With the ◀ or ▶ key the adjusted value will be decreased or increased. Press and hold will change the value increasingly faster. Depending where the cursor is placed, e.g. the final pressure, or the respective hysteresis is adjusted (Fig. 35).

Operation mode

On the Operation modes page (Fig. 36) you can select between different operation modes:

- Fully or semi-automatic operation mode
- Timer mode
- Leak test mode
- Safety valve test mode

Fully automatic operation

After manual start of the compressor unit, the operation is controlled by the adjusted final pressure. As soon as the final pressure is reached, the compressor will be switched to standby. Automatic restart is effected if the pressure decreases below the adjusted switch-on pressure (i.e. final pressure minus adjusted hysteresis). If 2 final pressure sensors are fitted, a logical AND or OR operation of the two ON-OFF criteria will be factory set. With an AND gate, both final pressures must have been reached to switch off the compressor. With an OR gate, final pressure 1 or 2 is sufficient to switch the compressor to standby. Restart condition for dual sensor operation will be the same as described above. The process will continue until the compressor is switched off manually.

Semi automatic operation

After manual start of the compressor unit, the operation is controlled by the adjusted final pressure. When one or both final pressures (depending on the configuration setting) is reached, the compressor will be switched off. Restarting is performed manually.

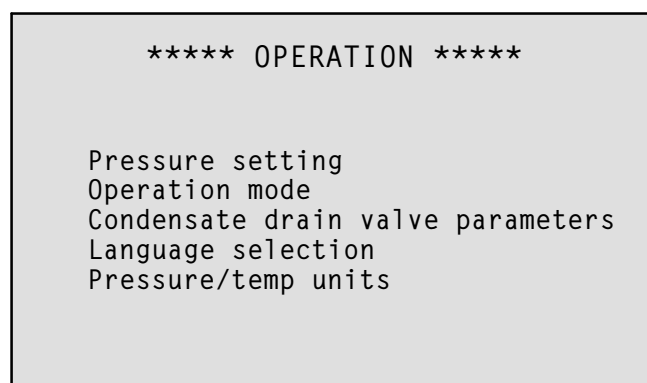


Fig. 34 Operation menu

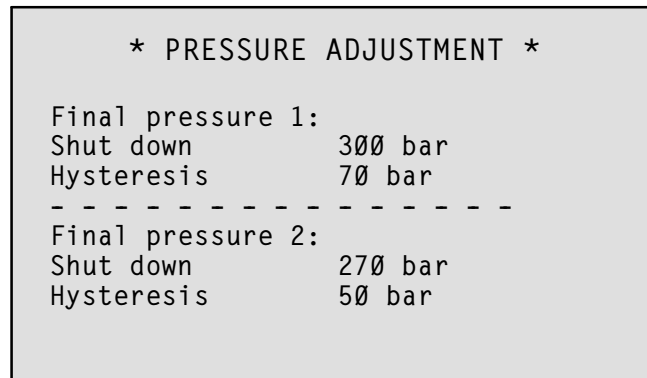


Fig. 35 Pressure adjustment

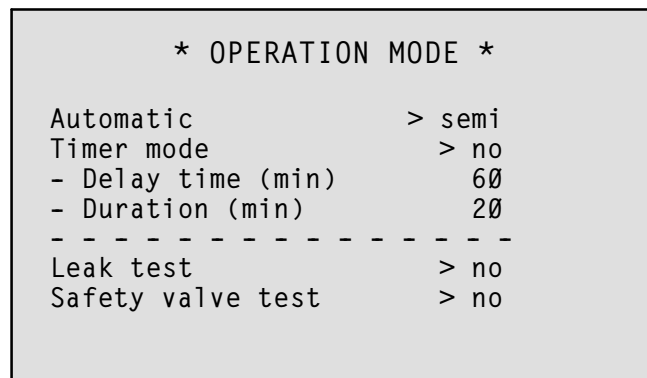


Fig. 36 Pressure adjustment

Timer operation

After having set the delay time and duration, timer operation is started by pressing the "I" key on the control unit. The green LED in the I key will start flashing, the display will show "TIMER OPERATION" plus the remaining delay time. After expiration of the delay time the compressor will start automatically, run for the adjusted duration (or until the adjusted final pressure is reached), and then stop. Restarting is performed manually. Timer operation is not available in fully automatic mode.



Make sure that no safety hazard for personnel and equipment will be caused by the automatic start of the compressor.

Leak test mode

In the leak test mode, the compressor is started manually and will switch off automatically after having reached the final pressure. During this mode, venting of the condensate drain valves is disabled. The compressor remains under pressure after pressing the "0" key. By this an air tightness or leak test can be performed in a simple way.

After the final pressure is reached, the green LED in the "0" key starts flashing to remind you that the unit is still under pressure. After the test press the "0" key to open the condensate drain valves and to release the pressure. The green "0" LED will then stop flashing.

Safety valve test mode

The compressor is started manually and will not be switched off until the "0" key is pressed. The final pressure sensors are disabled and the compressor will operate against the safety valves. By this a safety valve blow off test can be performed in a simple way.



In this mode never let the compressor run without surveillance !

Start-up and shut-down phase

Besides the above listed primary operation modes there are two transitorial modes existing: the start-up and the shut-down phase. As determined by the name, they exist only when starting or stopping the compressor. The start-up phase begins with the switch-on command (manually by pressing the "I" key or automatically by the B-Control) and ends with the initialization of the oil pressure monitoring, normally 40 seconds after the start.

The shut-down phase begins with the stop command (manually by pushing the "0" key or automatically by the B-Control) and ends with the closing of the intake shut-off valve (if provided).

Condensate drain valve parameters

Pushing the *menu* key again will lead you to the adjustment of the 1st condensate drain valve. Consecutive pressing then leads to the adjustment of the other condensate drain valves and the intake shut-off valve.

Please note that the intake shut-off valve is shown similar to the condensate drain valves, although the function differs completely from the drain valves. Therefore, instead of the interval and drain times in minutes and seconds, the start delay and the run up times, both in seconds are given.

*** PARAMETERS ***

Drain valve no. 1:
N/C

Drain interval 15 min
Drain time 6 sec

Fig. 37 Condensate drain valve parameters

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If there is no intake shut-off valve in your compressor unit, or if you do not have all of the condensate drain valves, there will be a note on the respective page and you will not be able to change the parameters.

Language selection

Pushing the *menu* key again or by directly selecting in the operation menu will lead you to the language selection page.

Pressure and temperature units

Pushing the *menu* key again or by directly selecting in the operation menu will lead you to the pressure and temperature units page.

With the ▲ and ▼ keys and the *enter* key you can select between the different pressure units.



If you are still using bar or psi units please note that MPa is the only internationally valid pressure unit !

Pushing the *menu* key again will lead you to the temperature units page.

With the ▲ and ▼ keys and the *enter* key you can select between the different temperature units.



If you are still using °C or °F units please note that K is the only internationally valid temperature unit !

* PARAMETERS *

Intake shut-off valve:
N/C

Start delay 3 sec
Run up 6 sec

Fig. 38 Intake shut-off valve parameters

***** LANGUAGE *****

German	(D)
English	(GB)
French	(F)
Spanish	(E)
Italian	(I)
Swedish	(S)
Dutch	(NL)

Fig. 39 Language selection

**** PRESSURE UNITS ****

Megapascal	(MPa)
Bar relativ	(bar)
Pounds per sq. in.	(psi)
Psi relativ	(psig)

Fig. 40 Pressure units selection

*** TEMPERATURE UNITS ***

Deg. Celsius	(°C)
Deg. Fahrenheit	(°F)
Kelvin	(K)

Fig. 41 Temperature units selection

MAINTENANCE LEVEL

The maintenance level is accessible after prompting the correct access code. At first you will come upon the already well-known maintenance data window:

The difference now is that there will be a cursor which enables you to jump to additional pages.

For the maintenance data of the first five criteria a similar window will appear where you can see the expired operating time since the last service, and also the allowed interval time in between two services. As soon as the actual time period reaches 90 % of the max. allowed time, the status indication changes from "ok" to "warn" to point out that a service will be due in foreseeable time.

If still no service should be accomplished, indication would then change to "crit", when the compressor reaches 100% of the allowed operationg hours.

Always keep an eye on the maintenance interval display and service your compressor in time! This will not only extend the lifetime of your BAUER compressor significantly, but also save you expensive repairs at the most unfavourable point of time.

When the necessary service has been done, then (and only then) you quit the reset by selecting "yes" on the lower right hand side of the display by pressing the ◀ or ▶ key. Consider this step well, because it is not reversible!

**** MAINTENANCE ****	
[2368 h]	
Maintenance schedule	ok
Intake filter	ok
Oil change	ok
Valve change	ok
Final separator	ok
logbook	12 R

Fig. 42 Maintenance data page

* MAINTENANCE INTERVAL*	
Main service	
Actual runtime:	2345 h
Target runtime	4000 h
Reset	> no

Fig. 43 Main service data page

* MAINTENANCE INTERVAL*	
Intake filter	
Actual runtime:	2345 h
Target runtime	4000 h
Reset	> no

Fig. 44 Intake filter service data page

* MAINTENANCE INTERVAL*	
Oil filter	
Actual runtime:	2345 h
Target runtime	4000 h
Reset	> no

Fig. 45 Oil filter service data page

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By consecutively pressing the menu key, you can browse through the different maintenance pages:

Direct selection from the maintenance menu is also possible.

Finally you will get to the logbook page:

After selection of the Display option you enter another window showing the entries in the logbook. This page could look as shown in the example below.

Don't get confused by the cryptical figures, it is quite simple ...

The upper four lines below the headline show the last four entries in the logbook (if there are as many). The last (most recent) entry is on the top and marked with an arrow. The respective explanation is shown in the lower two lines in plain text as shown on the start page. In case of an error message, it will be displayed in two line and highlighted, an operating message would be displayed in one line with a heading line.

Back to the "cryptical table": the left column contains the operating hours of the appearance of the respective message. The centre column contains the fault code, the right column the unit code of the message. At first this may appear really cryptically, but looking closer it reveals itself as the hex code of a bitmap where each bit stands for a certain fault condition. If \$0A07 does not mean anything to you, just read the clear text message in the lower two lines.

With the ▲ and ▼ keys you move the arrow up or down to select the desired message. The text will always be displayed in the lower two lines.

The print function is not activated for customer's use. It allows the logbook to be printed at BAUER service dept. with a special service printer.

* MAINTENANCE INTERVAL*	
Valve change	
Actual runtime:	2345 h
Target runtime	4000 h
Reset	> no

Fig. 46 Valve change service data page

* MAINTENANCE INTERVAL*	
Final separator	
Actual runtime:	4480 x10 cycles
Target runtime	8500 x10 cycles
Reset	> no

Fig. 47 Final separator service data page

***** LOGBOOK *****	
Display	
Print	
- - - - -	
no. records	29
operation filter (\$H)	\$FFFF
error filter(\$H)	\$FFFF

Fig. 48 Logbook page

```
***** LOGBOOK *****
```

	Hrs.	E-Code	A-Code
->	1234	\$0000	\$1001
	1233	\$0000	\$2000
	1232	\$F000	\$0000
	1231	\$A000	\$0000
- - -	Oper. message - - -		
Safety valve test			

Fig. 49 Logbook display page

CONFIGURATION LEVEL

The configuration level allows basic adjustments to be changed. Because of the possibility to change also values concerning the warning and safety adjustments, this level is accessible only with a special code.

The following menu pages can then be selected.

Sensor calibration

The sensor calibration is performed in the same way for all six possible sensors. Under "actual value" the present, uncorrected raw value is displayed. With "offset" the sensor characteristic can be shifted up or down, with "factor" the slope of the characteristic can be changed. With all BAUER sensors, this should be necessary in very special applications, only.

For both adjustments a reference instrument to measure the actual value is necessary. By changing the "offset" and "factor" values with the ◀ or ▶ keys you can adapt the calculated characteristics to your specific requirements. The resulting, corrected actual value will displayed in the 4th line. Only this value will be shown in all the other windows.

Sensor limits

The sensor limits adjustment is performed in the same way for all six possible sensors. Four values can be adjusted for each sensor.

The following table shows which values are actually processed for each sensor. Adjustment is performed as usual by selecting the value which you want to change with the ▲ and ▼ keys and increasing or decreasing the values with the ◀ and ▶ keys. After all values have been changed as desired, press the *enter* key to accept and store the new values. Now this new values are active throughout the program.

Sensor function	lower alarm	lower shut off	upper alarm	upper shut off
Intake pressure		X		X
Oil pressure		X		
Cooling air temp		X		X
Temp last stage				X
SECURUS filter	X	X		

Please note that the limit values can only be adjusted in "bar" regardless of the pressure units you have selected for being displayed.

Logbook settings

To open the logbook page, push menu key to pass through the sensor cal. and sensor limits pages or select it directly from the configuration menu.

The option "Clear logbook" is self-explaining. Place the cursor on this line, select "yes" with the ◀ or ▶ key and push the *enter* key. Before the entries in the logbook will be deleted, you have to quit another safety question. Before that you can still return to the page without clearing the logbook using the *reset* key.

To adjust the filter settings, some binary knowledge is necessary now. The filter words which are used here, consist of 16 bits each, one bit standing for one record. If you want a record represented by one of those bits to be stored in the logbook, set this bit to 1, if you don't want the record to be stored, it should be set to 0. Complete this procedure for each of the 16 possible records (bits) and note down the 16 numbers, starting with the LSB (least significant bit) at the right, to the MSB (most significant bit) at the left.

*** CONFIGURATION ***

```

Sensor calibration . . . . . #
Sensor limits . . . . . #
Logbook . . . . . #
Combi operation . . . . . #

```

Fig. 50 Configuration page

*** SENSOR CALIBRATION ***

Final pressure sensor 1:

```

Actual raw value      213 bar
* factor              1000 %
+ offset              2 bar
= act. value          215 bar

```

Fig. 51 Sensor calibration page

*** SENSOR LIMITS ***

Oil pressure sensor:

```

Shut-off    >>      100 bar
Warning     >       90 bar
-----
Warning     <       35 bar
Shut-off    <<      30 bar

```

Fig. 52 Sensor limits page

***** LOGBOOK *****

Filter settings:

```

Oper. records      $FFFF
Error records      $0FFF
Clear logbook      no

```

Fig. 53 Logbook page

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The following table shows the record allocation to the 16 bits of the operation filter (\$XXXX).

MSB	LSB	bit	Record
0	0	0	Unit = basic
0	0	1	Unit in operation
0	0	2	Unit in starting phase
0	0	3	Unit in shut down phase
0	0	4	Unit in slave operation (N/A)
0	0	5	Final pressure reached
0	0	6	Maint or Config code entered
0	0	7	Maintenance overrun
0	0	8	Automatic operation FULL
0	0	9	Timer operation ON
0	0	10	Leak test ON
0	0	11	Safety valve test ON
0	0	12	Cond drain valve 1 venting
0	0	13	Cond drain valve 2 venting
0	0	14	Cond drain valve 3 venting
0	0	15	Cond drain valve 4 venting

The following is an example for setting the logbook entries:

You want the following operating data to be recorded in the logbook:

- Motor running
- Maintenance or Configuration code entered
- Maintenance interval overrun
- Leaktest active

According to the table above, you set bits 1, 6, 7, and 10 to “1” in order to be recorded in the logbook. All the other bits remain at 0, because they should not be recorded. Therefore, the operation filter will be as follows:

(MSB) 0 0 0 0 0 1 0 0 1 1 0 0 0 0 1 0 (LSB)

Again, please note that bit 0 is on the right, bit 15 on the left.

Now look for the applicable bitmaps in the following table to convert the four groups of 4 bits each as shown above into a hex code.

bitmap	hex code	bitmap	hex code
0000	0	1000	8
0001	1	1001	9
0010	2	1010	A
0011	3	1011	B
0100	4	1100	C
0101	5	1101	D
0110	6	1110	E
0111	7	1111	F

According to this, the hex code for the desired operation filter will be: **\$04C2**

The \$ sign in front of the hex code is only an indication that the number is written in hex code, when setting the filter at the B-Control, you don't have to care about this.

For the error filter you would proceed in the same way.

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The following table shows the record allocation to the 16 bits of the error filter (\$XXXX).

MSB 1 1 1 1 1 1 1 1 0 1 1 1 1 0 0 0	LSB	bit	Record
		0	Fail final press sensor 1 2, or int press
		1	Fail oil press sensor
		2	Fail temp sens cool air or last st.
		3	Fail SECURUS sensor
		4	Shutoff SECCANT
		5	Shutoff intake pressure low
		6	Shutoff intake pressure high
		7	Pre-warn SECURUS sensor
		8	Shutoff oil press low
		9	Shutoff cooling air temp low
		10	Shutoff cooling air temp high
		11	Shutoff temp last stage high
		12	Shutoff motor protection relay
		13	Shutoff condensate collector full
		14	Shutoff SECURUS sensor satur.
		15	Shutoff emergency OFF button

To set the records for e.g.:

- SECURUS sensor defective
- SECURUS sensor pre-warning
- All shut down records except emergency shutoff button

you would have to set the bits according to the table above as follows:

(MSB) 0 1 1 1 1 1 1 1 1 1 1 1 1 0 0 0 (LSB)

According to this, the hex code for the desired error filter would read: **\$7FF8**

11.3.6. Initialization

RESETTING THE DEFAULT VALUES

To reset the B-Control to the default settings, press and hold the *code* and *reset* keys while switching on the main switch.

After a short period, while still pressing the *code* and *reset* keys, you will be asked if you want to select the default settings. With the ▲ or I key you select “yes”, with the ▼ or O key you select “no”. Accept the selection with the *enter* key. The start page of the selected menu will appear. With the exception of the maintenance data which of course will be carried on, you will find the original factory installed settings of your BAUER compressor.

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12. COMPRESSOR DRIVE SYSTEM

As standard, the compressor is driven by the drive motor through V-belts. Direction of rotation is left, looking at the cooling fan, i.e. clockwise standing in front of the unit. Observe arrow on compressor.

V-belt tension is adjusted automatically by the weight of the motor. The motor is mounted on a hinged motor plate.

13. COOLING SYSTEM

The cylinders of the compressor block, the intermediate coolers and the after-cooler are air-cooled. For this purpose, the compressor is equipped with a fanwheel which draws the cooling air through the fanwheel cover from the surroundings. The fanwheel is driven by the drive motor V-belt and is also used as the flywheel.

The cooling air outlet can be selected by removing and re-mounting the cover plate as required.

For installation of the unit ensure sufficient cooling air supply. Refer to section B.

For maximum ambient temperature, see Technical Data, chapter 1.3.

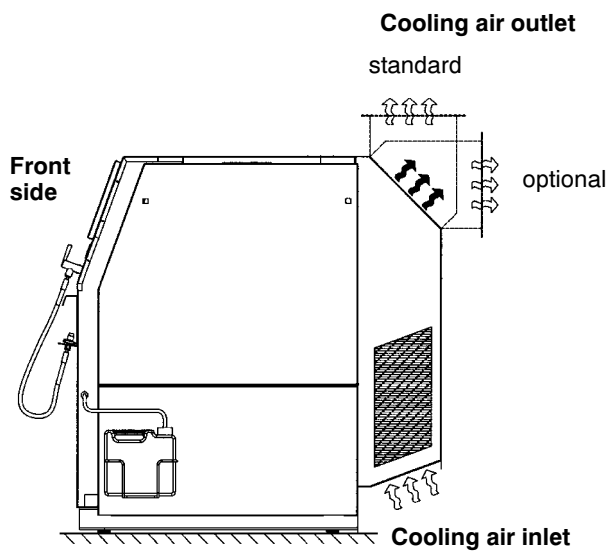


Fig. 54 Cooling air flow

Section A

Description

Section B

Installation, Taking into operation

Section C

Operation

Section D

Maintenance, Repair

Section E

Storage, Preservation

Section F

Diagrams, Drawings

Section G

Spare Parts Catalogue

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B. INSTALLATION, OPERATION

1. INSTALLATION

The compressor frame is isolated with regard to the base frame of the compressor unit by anti-vibration mounts and thus a machine base or special means of securing the compressor are not necessary.

For installation observe the following:

1.1. COMPRESSOR ROOM CONDITIONS

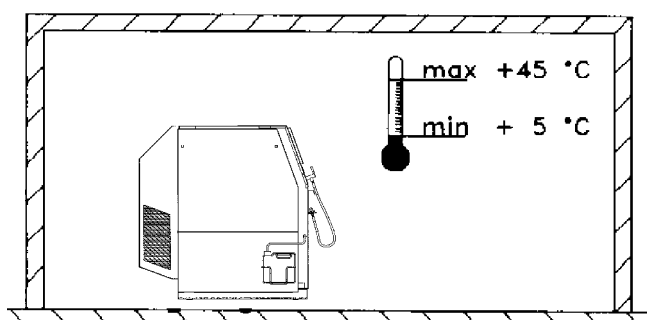


Fig. 55 Room temperature

- The compressor room must be clean, dust-free, dry and as cool as possible.
- Avoid direct exposure to sunlight; if possible, choose north side of building.
- Additional heat producing units or line systems should not be installed in the same room or should be well isolated.
- The floor must be capable of taking the load of the system weight.
- Locate the unit level; refer to technical data for max. allowable inclination.
- Ensure adequate ventilation. Remember: room temperature = cooling air temperature ! Min. = +5 °C, max. = +45 °C. Fig. 55.

1.2. LOCATING THE UNIT

- If possible install unit in such a manner that the compressor fan can draw fresh air from outside, for instance through an opening in the wall as low as possible.
- Ensure that an adequate exhaust air opening is provided, as high as possible.
- Locate compressor as close to the air intake opening as possible.
- Locate unit so as to absolutely avoid intake of warm or hot cooling air.
- Observe the minimum distances as listed in the table overleaf.

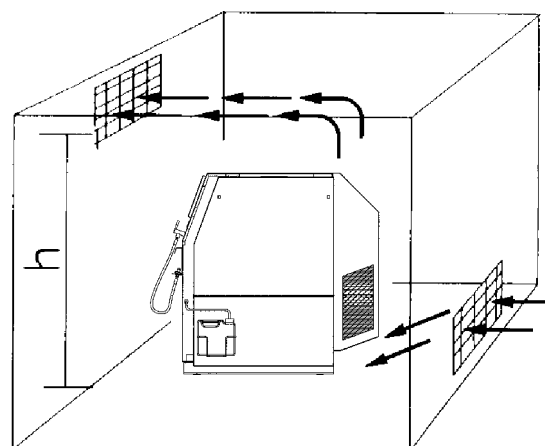


Fig. 56 Locating the unit

1.3. COOLING AIR DUCT INSTALLATION

On all Verticus 5 units the cooling air outlet can be installed as standard in two different ways. By simply removing the air outlet cover and grid and mounting them in the desired position, the air outlet can either be on top or on the back of the unit (Fig. 54).

If the outlet on the top is selected, the unit can be positioned close to a wall, provided a correct air intake according to the following paragraphs is ensured.

1.4. AIR BAFFLE CONTROL (Option)

See drawing 073733 in section F, if applicable. The air circulating baffles ensure optimal temperature in the compressor room or at least that the temperature stays within the permissible range of +5 to +45°C when the outside temperature is low.

The recommended controller thermostat setting is +15 to 18°C. Adjustment takes place at 4°C above or below the set value.

A temperature sensor in the cooling air intake channel transmits to the control unit the temperature of the air taken in. This activates the actuator of the air circulating baffles. According to requirements, one of the two baffles in the cooling air exhaust channel is opened. One guides the warm cooling air to the outside, the other recirculates the warm cooling air back into the room. The procedure is continuous and therefore the amount of warm air being recirculated is continually being adjusted as necessary.

The cooling air exhaust channel with baffle unit can be connected to the top or the rear of the VERTICUS 5 unit.



For further information on the installation of air cooled compressors, see our Installation Manual which can be obtained from BAUER Customer Services, P.O. 710260, D-81452 Munich

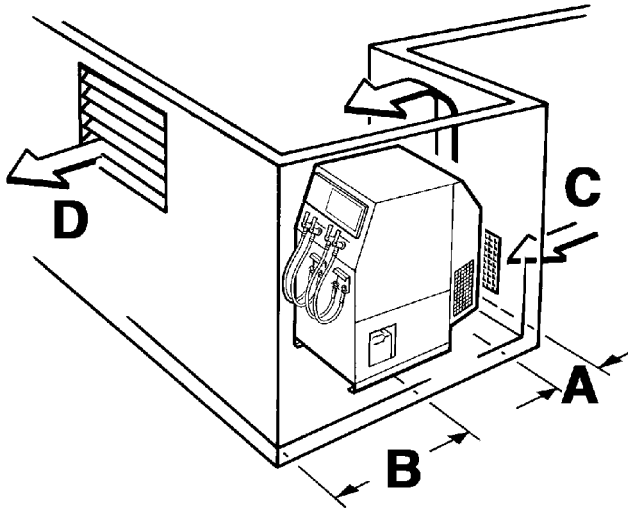
1.5. NATURAL VENTILATION

Natural ventilation is the most simple and commonly used. It is created by convection and is sufficient if no thermal overload is expected, i.e. for units with small drive motors, for intermittent operation or in moderate climates this is the ideal method of cooling the compressor unit.

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The inlet and outlet air openings are dependent on:

- the power of the electric motor
- the height difference between air intake and outlet openings
- the air volume of the compressor room.



A Minimum distance from wall, intake side:

Standard unit (KAP): 0.5 m

Super silent unit (V-): 0 m

B Minimum distance from wall, exhaust side: 0.75 m (may be ignored if locating the unit in front of an opening)

C Intake opening: refer to Tab. 1

D Exhaust opening: refer to Tab. 1

Table 1 shows some significant values. If the indicated values cannot be obtained, artificial ventilation will be necessary, see chapter 1.6.

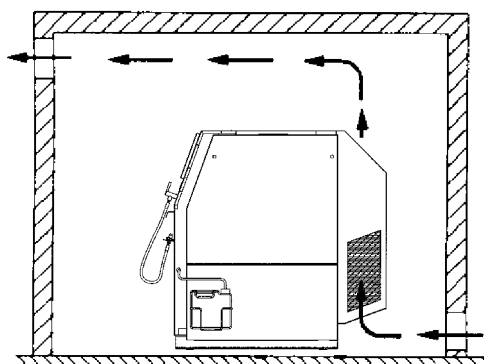
Fig. 57 Installation (natural ventilation)

Power (kW)	Room volume / Height difference					
	V = 50 m ³ Δh = 2 m		V = 100 m ³ Δh = 3 m		V = 200 m ³ Δh = 4 m	
	Intake	Outlet	Intake	Outlet	Intake	Outlet
5.5	0.42 m ²	0.35 m ²	0.24 m ²	0.20 m ²	0.12 m ²	0.10 m ²
7.5	0.90 m ²	0.75 m ²	0.60 m ²	0.50 m ²	0.24 m ²	0.20 m ²
11	1.38 m ²	1.15 m ²	0.90 m ²	0.75 m ²	0.54 m ²	0.45 m ²
15	1.92 m ²	1.60 m ²	1.45 m ²	1.20 m ²	0.90 m ²	0.75 m ²

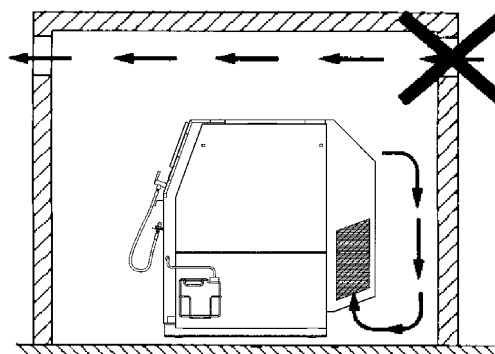
Tab. 1 Air intake and outlet openings

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Fig. 58 to Fig. 60 show installation examples with natural ventilation:

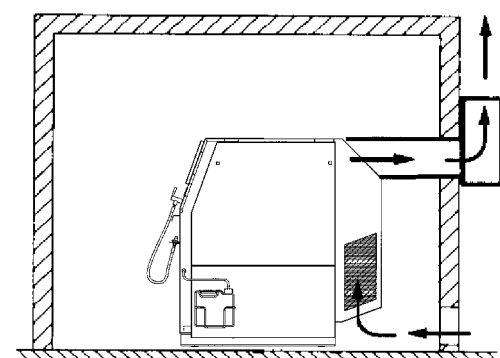


Correct: Air intake low, cooling air flows through unit

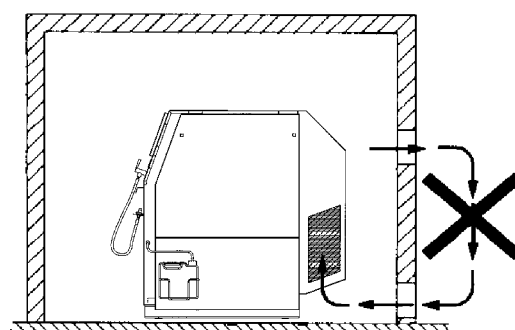


Incorrect: Air intake high, cooling air does not reach unit

Fig. 58 Installation with natural ventilation, example 1

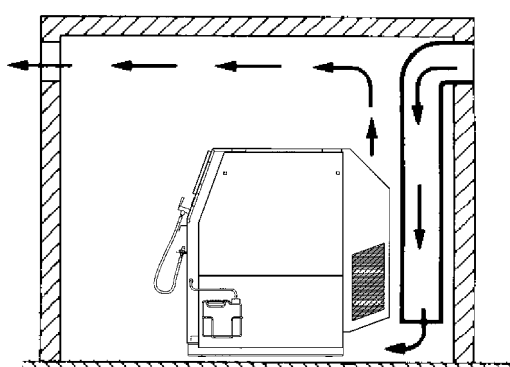


Correct: Air outlet duct upwards, cooling air circulation impossible

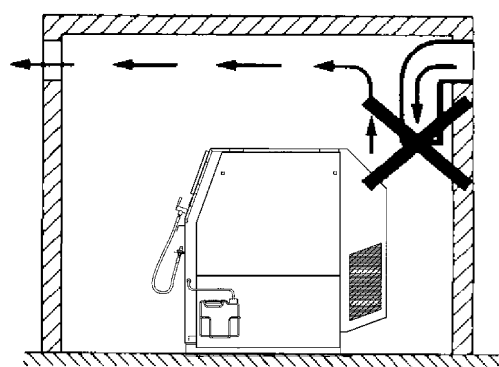


Incorrect: Warm air is not taken away, but circulates and will be taken in again

Fig. 59 Installation with natural ventilation, example 2



Correct: Cooling air led directly to unit



Incorrect: Cooling air does not reach intake opening, intake air duct too short

Fig. 60 Installation with natural ventilation, example 3

1.6. ARTIFICIAL VENTILATION

For drive powers above 11 kW natural ventilation may not be sufficient. Under certain circumstances this can also apply for smaller power ratings, e.g.:

- when locating the compressor in small rooms,
- if ventilation openings cannot be large enough,
- when other systems with high heat radiation are operating in the same room or
- when two or more compressors are operating in the same room.

The principle is: forced ventilation is obligatory if room temperature exceeds the allowed ambient temperature stated in the Technical Data section, A-1.3.

If it is not possible to follow the recommended guide lines for natural ventilation (e.g. installation of several compressor blocks within a very small operating room), the operating room must be ventilated artificially.

Cooling air flow

The necessary cooling air flow is calculated to an approximate value by using the following formula:

$$\text{Required min. cooling air volume [m}^3/\text{h]} = 300 \times \text{drive power [kW]}$$

For calculation of the cooling air duct cross section the following formula can be used:

$$\text{Cooling air duct [m}^2\text{]} = \frac{\text{Cooling air volume [m}^3/\text{h]}}{\text{Cooling air flow [m/s]} \times 3,600}$$

The recommended cooling air flow is approx. 3 to 5 m/s, but max. 10 m/s.

Example: Verticus 5, drive power 11 kW:

$$\begin{aligned} \text{Cooling air volume} &= 300 \times 11 = 3,300 \text{ m}^3/\text{h} \\ \text{Cross section} &= 3300 / (5 \times 3,600) = \underline{0.18 \text{ m}^2} \end{aligned}$$

Ventilation methods

There are several types of artificial ventilation:

- Free air flow effected by a blower
- ventilation by means of an air channel with or without additional blower^{a)}
- ventilation by means of an air circulating flap with or without additional blower^{a)}

If installed correctly, the free air flow cooling method should be sufficient for all VERTICUS compressor units.

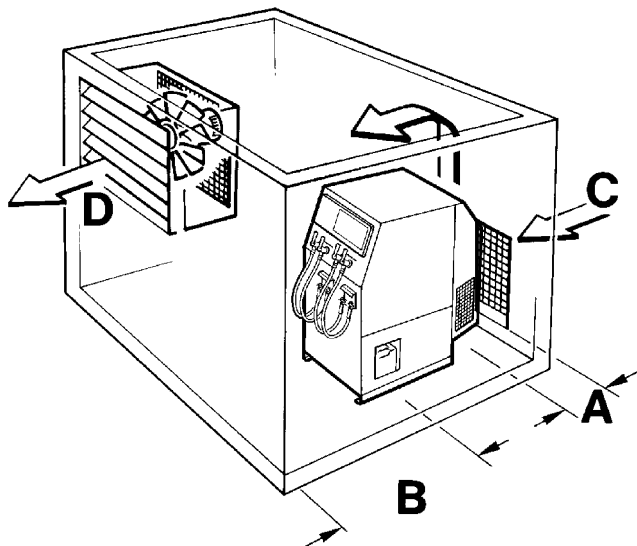
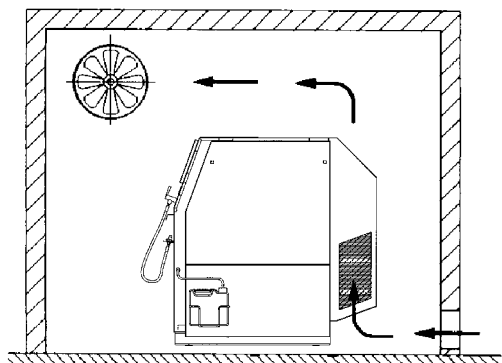


Fig. 61 Installation (artificial ventilation)

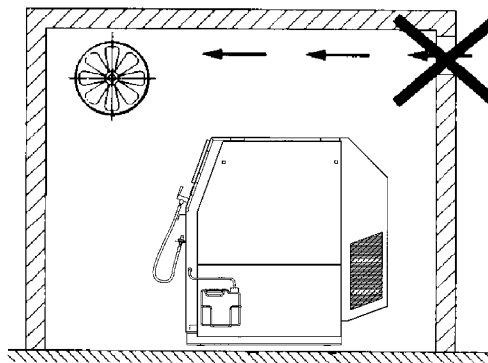
- A Minimum distance from wall, intake side:
Standard unit (KAP): 0.5 m
Super silent unit (V-): 0 m
- B Minimum distance from wall, exhaust side: 0.75 m (may be ignored if locating the unit in front of an opening)
- C Intake opening
- D Exhaust opening

Fig. 62 and Fig. 63 show installation examples with artificial ventilation:



Correct: Air flows along an imaginary streamline through the compressor

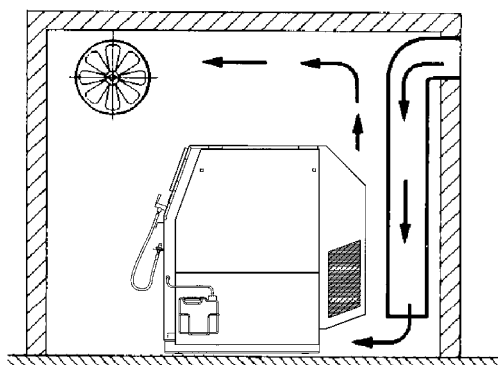
Fig. 62 Installation with artificial ventilation, example 1



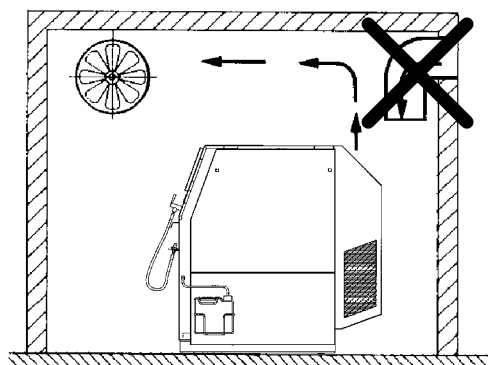
Incorrect: Cooling air does not reach unit

a) **ATTENTION:** Ensure that the max. counter-pressure in the intake and outlet channels $\Delta p = 0.5 \text{ mbar} = 5 \text{ mm W.G.}$ (measured at a distance of 1 m) is not exceeded.

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Correct: cooling air led directly to unit



Incorrect: cooling air duct does not reach intake opening, intake duct too short

Fig. 63 Installation with artificial ventilation, example 2

2. ELECTRICAL INSTALLATION

For installation of electrical equipment observe the following:

- In section F. you will find the standard schematic diagrams valid for the respective compressor unit. To connect the compressor control system, use only the diagram contained in the control box of the unit, because any deviations from the standard diagrams according to order are marked there.
- Observe regulations of local electricity supply company.
- Connection should be carried out by an expert only.
- Ensure correct installation of protective conductor.
- Check conformity of motor and control device tension and frequency with those of electric network.
- The necessary cabling, main fuse and a main switch (load-break switch) are to be provided by the customer. Ensure that the main switch is for one unit only and is clearly and immediately recognizable. Fusing must be according to the electricity supply company's regulations. For units not connected through a plug, but permanently installed, a main switch must be provided which has a contact gap of 3 mm minimum on each pole.
- Adjust motor protection, thermal overload relay. For start over contactor adjust to motor amperage rating. For start via star-delta contactor adjust to motor amperage rating x 0.58. For example: motor amperage rating = 10 Amp.: Adjust relay to $10 \times 0.58 = 5.8$ Amp.
- Fuse motor correctly (see table below; use slow-blow fuses, only).

FUSE TABLE

Motor type	V	125	230	240	400	415	440	500	600	660
3-phase, 5,5 kW (star-delta starting)	A	50	25	25	16	16	16	10	10	10
3-phase, 5,5 kW (direct starting)	A	63	35	35	20	20	20	16	16	16
3-phase, 7,5 kW (star-delta starting)	A	50	35	35	20	16	16	16	16	10
3-phase, 7,5 kW (direct starting)	A	63	35	35	25	25	25	20	16	16
3-phase, 11 kW (star-delta starting)	A	--	50	50	25	25	25	20	20	16
3-phase, 11 kW (direct starting)	A	--	63	50	35	35	35	25	25	25
3-phase, 15 kW (star-delta starting)	A	--	63	63	35	35	35	25	25	20
3-phase, 15 kW (direct starting)	A	--	80	80	50	35	35	35	35	25

3. CONNECTING EXTERNAL FILLING PANELS (OPTIONAL)

Breathing air compressor units can be delivered optionally with separate filling panels, see Fig. 3. For connection of those observe the following.

Refer to air flow diagram and schematic diagram in section F. for connecting the filling panel to the compressor unit. One pneumatic line and, depending on the model, one or two electrical lines have to be installed on site.

- A pneumatic line (stainless steel pipe 8 x 1 mm dia.) connects the compressor unit outlet shut-off valve to the inlet connector on the filling panel.
- The electric cable from the control box is connected to the B-CONTROL (S1 and S2, i.e. remote ON and OFF)
- The electric cable from the pressure transmitter (-HU filling panels, i.e. with two pressure ranges, only) is connected to the B-CONTROL (F16.2, refer to schematic diagram).

4. CONNECTING STORAGE BOTTLES (OPTIONAL)

Compressor units with factory installed storage bottle(s) on a common base frame (see drawing 073314 or 073791, respectively in section F.). The pressure outlet of the compressor unit is already routed to the storage bottle. The customer's pressure system will then be connected directly to the storage bottle.

The pressure connection is situated on the upper bottle connector at the T connector suitable to connect tubes with an outer diameter of 10 mm. A detachable adaptor $\varnothing$ 8/10 mm enables connection of either $\varnothing$ 8mm as well as $\varnothing$ 10 mm tubes. The adaptor is standard delivery scope.

Note that the upper tube connectors are sealed for transportation with plugs to protect the storage bottles from humidity and soil. Remove the plugs to connect the pressure line system to either connector.

The storage bottles are fitted with a condensate drain valve mounted at the lower console.



Do not connect the lower bottle connection (condensate drain outlet) to the pressure line system! This connector is not suitable for high pressure and severe damage or injuries may occur if connected to the high pressure system.

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5. TAKING INTO OPERATION

5.1. PREPARATION FOR OPERATION



All compressor units are tested prior to delivery to the customer, so after correct installation of the unit there should be no problem putting it into operation, observing the following points:

- Prior to **first** operation read Instruction Manual carefully. Make sure that all persons handling the compressor and the filling station are familiar with the function of all controls and monitors. Observe the WARNINGS in chapter C-1.1.
- Depending on the model range, some compressor units are delivered **without** oil in the crankcase. In this case, the first filling quantity is delivered separately in the consignment. Prior to **first** operation fill with oil according to chapter D-2. After taking unit into operation after a standstill period of 2 years or more change compressor oil. When using a mineral oil change oil after one year.
- Prior to **each** operation check the oil level according to chapter D-2 and determine whether maintenance is necessary in accordance with chapter D-1.
- Prior to **first** operation or operation subsequent to maintenance or repairwork, turn the compressor manually using the flywheel to ensure that all parts are turning free. Check that all fastening bolts and threaded pipes are secure and sealed, if necessary tighten them to the correct torque value.
- **Immediately** after switching on the system for the first time check the direction of rotation of the motor for compliance with the arrow on the unit. If motor turns in the wrong direction, the phases are not connected properly. Shut down unit immediately and interchange two of the three phase leads in the switch box. **Never** change leads at the **motor** terminal board.
- Prior to **first** operation or operation subsequent to repair work operate unit for at least 10 minutes with open condensate valves (pressureless) to ensure proper lubrication of all parts before pressure is built up. To keep drain valves open, loosen screw (3, Fig. 64) on coil (1) and pull plug (2) from solenoid valve.

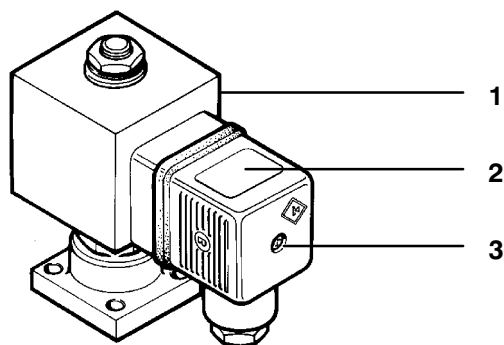


Fig. 64 Solenoid valve plug

- Open the outlet valve, this must be open during operation. Close only for servicing the compressor to avoid gas escaping from connected receivers.

- **Every time** the unit is started up check all systems for proper operation. If any malfunction is observed stop unit **immediately** and find the cause of the fault or call the service department.

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NOTES

Section A

Description

Section B

Installation, Taking into operation

Section C

Operation

Section D

Maintenance, Repair

Section E

Storage, Preservation

Section F

Diagrams, Drawings

Section G

Spare Parts Catalogue

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C. OPERATION

1. SAFETY MEASURES

1.1. NOTES AND WARNING SIGNS

Notes and warning signs displayed on compressors according to model, application or equipment.



WARNING

Hot surfaces. do not touch!

Danger of burning by touching cylinders, cylinder heads and pressure lines of individual compressor stages.



WARNING

High voltage!

Life threatening danger of electric shock. Maintenance work on electric units or operating equipment may only be carried out by a qualified electrician or by a person instructed and supervised by a qualified electrician according to electrical regulations.



WARNING

Automatic compressor control. unit may start-up without warning!

Before carrying out maintenance and repair work, switch off at the main switch or disconnect from the mains and ensure unit will not restart.



MANDATORY

Instructions must be read by persons operating the machinery!

The instruction manual supplied and all other applicable instructions, regulations etc. must be read and understood by operating personnel before using the machine.



MANDATORY

Hearing protectors must be worn!

Hearing protectors must be worn when working on a machine which is running.

NOTE



Ensure correct direction of rotation!

When switching on the machine, check the arrow to ensure correct direction of rotation of the drive motor.

1.2. IDENTIFYING THE SAFETY NOTICES

Important instructions concerning the endangerment of personnel, technical safety and operating safety will be specially emphasized by placing the following signs before the instructions.

WARNING

This notice is used with maintenance work and operating procedures and must be adhered to exactly in order to avoid endangering personnel.



This notice must be complied with in order to avoid damage to or destruction of the machine or its equipment.



This notice advises of technical requirements which the operator must take particular note of.

1.3. FUNDAMENTAL SAFETY NOTICES

1.3.1. Authorized use

- The machine / unit is built according to state of the art technology and established safety technical regulations. Nevertheless, its use can cause danger to life and limb of the operator or third parties or damage to the machine and other equipment.
- Operate the machine / unit only in technically perfect condition in accordance with regulations and safety and danger notices detailed in the instruction manual! In particular, immediately correct faults (or have them corrected) which can impair safety!
- The machine / unit is exclusively for the compression of mediums (air/gas) specified in section A, chapter 1.3. "Technical data". Any other medium or use outside that specified is not authorized. The manufacturer / supplier is not liable for damage resulting from this. The user alone is responsible for this risk. Authorization for use is also under the condition that the instruction manual is complied with and inspection and maintenance requirements are enforced.

1.3.2. Organizational measures

- Keep the instruction manual to hand near the machine / unit at all times in the relevant holder.
- In addition to the instruction manual, observe and comply with universally valid legal and other obligatory regulations regarding accident prevention and environment protection. See chapter 1.4. This can involve, for example, contact with hazardous substances or the provision / wearing of personal protective equipment.
- In addition to the instruction manual, provide supplementary instructions for supervision and monitoring duties taking into consideration exceptional factors e.g. with regard to organization of work, production, personnel employed.
- Personnel engaged to operate the machine must have read the instruction manual before beginning work, especially the safety notices chapter. When work is already underway it is too late. This is particularly relevant for temporary personnel, e.g. maintenance personnel.

- At the very least, supervise temporary personnel's work in accordance with the instruction manual, taking into account safety and danger factors.
- Personnel may not wear long hair loose, loose clothing or jewellery, including rings. There is a danger of injury through, for example, these getting caught or being pulled into the equipment.
- As far as necessary or according to regulations, use personal protective equipment.
- Observe all safety and danger notices on the machine / unit.
- Keep all safety and danger notices on the machine / unit complete and in readable condition.
- If there are any modifications to the machine / unit or operating conditions which may affect safety, stop the machine / unit immediately and inform the department / person responsible of the fault.
- No modifications may be made to the machine / unit which could impair safety without first obtaining permission from the suppliers. This is also the case with regard to installation and adjustment of safety devices and valves as well as welding of piping and reservoirs.
- Spare parts must always comply with the technical requirements specified by the manufacturer. This is always guaranteed with original spare parts.
- Do not carry out programme changes (software) to the programmable control system.
- Piping must be thoroughly checked (pressure and visual inspection) by the operator at appropriate time intervals, even if no safety related faults have been noticed.
- Intervals stipulated or given in the instruction manual for recurring checks / inspections must be adhered to.
- It is absolutely essential that the workplace is appropriately equipped for maintenance measures.
- Make sure location and operation of fire extinguishers is known.
- Pay attention to fire warning and fire fighting procedures.

1.3.3. Qualifications, fundamental duties

- Work on / with the machine / unit may only be carried out by reliable personnel. Observe the legal minimum age permissible.
- Only employ trained personnel, clearly establish responsibility of personnel for operation, maintenance and repair work.
- Ensure that only trained personnel work with the machine.
- Establish the responsibilities of the machine operator and establish a procedure for him to inform a third person of unfavourable safety conditions.
- People who are being trained or introduced to the job should only be allowed to work with the machine / unit under constant supervision of an experienced person.
- Work on the electrical equipment of the machine / unit may only be carried out by a qualified electrician or by an instructed person under the direction and supervision of a qualified electrician according to electrotechnical regulations.

- Work on gas equipment may only be carried out by qualified personnel.

1.3.4. Safety notices for operation

- Do not carry out any work if safety is questionable.
- Meet all requirements demanding that the machine / unit is only operated in safe and good working order. Only operate the machine if all protective and safety equipment, e.g. all detachable protective equipment, emergency shut-down devices, soundproofing is provided and in good working order.
- At least once every day, check the machine / unit externally for damage and faults. Inform the department / person responsible immediately if anything is not as it should be (including operation). If necessary, shut the machine down immediately and make it safe.
- If there are any malfunctions, shut the machine / unit down immediately and make it safe. Correct faults immediately (or have them corrected).
- Observe switching on and off processes and monitoring indications according to the instruction manual.
- Before switching on / starting up the machine / unit, ensure that no one can be put at risk through running the machine / unit.
- Carry out the setting, maintenance and inspection processes at the intervals specified in the instruction manual, including replacement of parts / equipment. This work may only be carried out by qualified personnel.
- Before carrying out any exceptional work or repairwork, operating personnel should be informed. Call the supervisor.
- For all work concerning operation, change in production, conversion or regulating of the machine / unit and its safety measures such as inspection, maintenance and repairwork, observe the switching on and off processes in the instruction manual and the notices for maintenance work.
- Clear and make the maintenance area safe as far as necessary.
- If the machine / unit is completely switched off for maintenance and repairwork, ensure that it is protected from unexpected start-up. Turn off main control device and remove the key and / or display a warning sign on the main switch.
- When replacing individual parts and larger assembly groups, they must be carefully fastened to the lifting device so that there is no risk of danger. Use only suitable and technically perfect lifting devices and equipment with sufficient lifting power and strength. Do not linger or work under suspended loads.
- Only entrust an experienced person with the fixing of loads and guiding of crane drivers. The person guiding must remain within sight or in contact with the operator.
- For assembly work above body height, use appropriate safety approved equipment, e.g. ladders and platforms. Do not climb on machine parts. For maintenance work at high levels, wear a safety harness.
- Clean oil, fuel or care products from the machine, in particular the connections and screw joints, before carrying out maintenance / repairwork. Do not use aggressive cleaning fluid. Use a fibre-free cleaning cloth.

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- Before cleaning the machine with water or jet of steam (high pressure cleaner) or detergent, cover / seal all openings which for safety and/or operating reasons no water / steam / detergent may penetrate. Electric motor and switch cabinets are particularly at risk.
 - When cleaning the operating room, ensure that the temperature sensors of the fire alarm and sprinkler system do not come into contact with hot cleaning fluid, in order to avoid triggering the sprinkler system.
 - Completely remove all covers / seals after cleaning.
 - After cleaning, check all pressure lines for leaks, loose connections, wear and damage. Immediately eliminate any faults.
 - Always retighten any screw connections loosened for maintenance or repairwork.
 - If it is necessary to remove safety devices for maintenance and repairwork, these must be replaced and checked immediately after completion of the maintenance or repairwork.
 - Ensure safe and environmentally friendly disposal of consumables and old parts.
- 1.3.5. Particular areas of danger**
- Use only original fuses with specified current rating. If there is a failure in the electric energy supply, shut the machine / unit down immediately.
 - Work on electric units or operating equipment may only be carried out by a qualified electrician or by a person under the instruction and supervision of a qualified electrician according to electric technical regulations.
 - Machines and unit parts which must undergo inspection, maintenance and repairwork, must be disconnected from the mains supply, if specified. Parts which have been disconnected must first be checked for voltage, then earthed and short-circuited and isolated from live neighbouring parts.
 - The electrical equipment of a machine / unit must be regularly checked. Defects, such as loose screw connections or burnt wires, must be rectified immediately.
 - If work is to be carried out on live parts, work with a second person who can operate the emergency off switch or the main switch in the case of an emergency. Close off the work area with a red and white safety chain and a warning sign. Only use voltage isolated tools.
 - Only carry out welding, burning and grinding work on the machine / unit when specifically approved. There can, for example, be a risk of fire or explosion.
 - Before carrying out welding, burning or grinding work, clean the machine / unit and surrounding area from dust and flammable material and ensure there is adequate ventilation (danger of explosion!).
 - When working in small rooms, observe any national regulations.
 - Only personnel with particular knowledge and experience with pneumatics may carry out work on pneumatic equipment.
 - Check all pressure lines, hoses and screw connections regularly for leaks and visible damage. Immediately repair any damage. Escaping air or gas under pressure can cause injury and fire.
 - Depressurize system and pressure lines before commencing repairwork.
 - Pressurized air lines must be laid and mounted by qualified personnel. Connections must not be mixed up. Fittings, length and quality of the piping must correspond to requirements.
 - Soundproofing equipment on the machine / unit must be in place and functional during operation.
 - The stipulated hearing protectors must be worn.
 - With regard to oil, grease and other chemical substances, observe the relevant safety regulations for the product.
 - For loading, only use lifting device and equipment with sufficient lifting power and strength.
 - Appoint trained guide personnel for lifting operations.
 - Machines may only be lifted with a lifting device and by trained personnel according to instructions in the instruction manual (fixing points for fixing equipment etc.).
 - Use only suitable transporters with sufficient carrying power.
- Secure the load properly. Use suitable fixing points.
- If necessary, provide machine / unit with transportation brackets. Display the appropriate notice. Remove transportation brackets in the correct manner before taking into operation.
 - Parts which need to be dismantled for transport purposes must be carefully replaced and secured before taking into operation.
 - Even when moving the machine / unit only slightly, the machine / unit must be disconnected from all external energy sources. Before putting into use again, reconnect the machine to the mains according to regulations.
 - When taking back into operation, proceed according to the instruction manual.

1.3.6. Notices of danger regarding pressure vessels

- Never open or loosen pressure vessel lids or pipe connection parts under pressure; always depressurise the vessel or the unit.
- Never exceed the permissible operating pressure of the vessels!
- Never heat the vessels or any of their parts above the stated, maximum operating pressure.
- Always exchange damaged pressure vessels completely. Individual parts that are subject to pressure loads cannot be purchased as spare parts, since the vessels are tested as a complete part and the documentation considers them as a whole (see pressure vessel documentation, serial-numbers!).
- Always pay attention to the permissible operating mode of the pressure vessels.

We differentiate:

- vessels for static load
- vessels for dynamic load

Vessels for static load:

These pressure vessels are permanently under virtually constant operating pressure; the fluctuations of pressure are very small.

Vessels for this type of load are not marked in a particular way and may be used as long as the vessel inspections, carried out regularly, do not uncover any safety-relevant deficiencies.

We recommend that aluminium vessels should be exchanged after 15 years at the latest.

Vessels for dynamic load:

These pressure vessels may also be used under conditions of changing operating pressure. The pressure may vary between the atmospheric and the maximum admissible operating pressure.

The pressure vessel documentation and the appropriate notes in the operating manual particularly characterise vessels of this type as being adequate for dynamic loads. In the technical information for these vessels you will find specifications concerning their permissible operating period.

Due to the variation of the operating pressure, these vessels are subject to a so-called dynamic load, which puts the vessels under great stress. The change between two different pressures is called a load change or cycle. In the technical information for these vessels you will find specifications concerning the permissible number of cycles depending on the fluctuation of the operating pressure.

Having reached half the permissible number of cycles, the vessel has to be submitted to an internal check, in which the critically stressed areas of the vessels are examined by means of suitable testing methods, in order to ensure the operating safety.

After having reached the total permissible number of load cycles, the vessel must be exchanged and scrapped.

Record the number of load cycles in writing if you do not have an automatic cycle-counter.

We recommend that aluminium vessels should be exchanged after 15 years at the latest.

Please pay attention to and follow these measures, for your own safety and that of you employees and customers!

In order not to unnecessarily load the pressure vessels additionally, the non-return valves, that are meant to avoid a drop in pressure, and also the pressure maintaining valves, which should reduce big pressure fluctuations as well, should be checked regularly for internal and external tightness and functionality.

- Check the pressure vessels regularly on the inside and outside for damage from corrosion.
- Be particularly careful with second-hand pressure vessels, when their previous operating mode is not specifically clarified.

1.4. SAFETY REGULATIONS (Germany only)

A compressor is identified by German law as being a filling system if pressure cylinders are filled by the system, especially when these cylinders are made available for third parties. The start-up and operation of compressor systems for use as filling stations is governed in Germany by the following regulations:

a- Pressure vessels regulations (DruckbehV) of 27 February 1980, in the present version.

b- Technical regulations for pressure gases (TRG 400, 401, 402, 730).

If a high pressure compressor is used for filling pressure vessels or for the supply of pneumatic systems, the following regulations apply:

c- Accident Prevention Regulations (UVV):

- UVV compressors (VBG 16),

Copies of the above regulations are available through the usual outlets, e.g. in Germany from:

Carl Heymanns Verlag
Luxemburger Str. 449
50939 Köln

Beuth-Vertrieb GmbH
Burggrafenstr. 4 - 7
10787 Berlin

The manufacturer has complied with all applicable regulations and the unit is prepared accordingly. If desired, we offer at our Munich site a TÜV acceptance test according to paragraph 28 (1). Please contact our Technical Service Department with regard to this. They can also supply our leaflet **"IMPORTANT NOTES FOR TÜV CERTIFICATION"**.

According to paragraph 26 of the pressure vessel regulations (DruckbehV), all compressor units which will be used as filling stations must undergo an acceptance test by a professional at their location before bringing them into service. If pressure vessels (bottles) are to be filled by the compressor for a third party then the appropriate permission must be obtained from the responsible authority before the acceptance test. As a rule, this is the factory inspectorate. The procedure for obtaining permission is according to TRG 730, guidelines for permission to set up and operate filling stations. The test certificates and documents delivered with the compressor are important and may be requested during the procedure for obtaining permission. In

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In addition, the documents belonging to the unit are important for recurrent inspections and should therefore be carefully kept.

Inspections in accordance with the regulations for prevention of accidents will be carried out by the manufacturer or by a specialist.

No guarantees whatsoever are valid for damage caused or favoured by the non-consideration of these directions for use.

Excerpts from the above regulations are given below. We strongly recommend that they are observed.

- According to item 10 of the regulations concerning pressure vessels, pressure vessels shall undergo regular inspection:

- (1) *Vessels from groups IV and VII^{a)} shall undergo regular inspection carried out by a qualified inspector at intervals stated in paragraphs 4 and 9.*
- (2) *Vessels from group 1, which are used for combustible, corrosive or toxic gas, vapours or liquids, as well as vessels from groups II, III and IV shall undergo regular inspection carried out by a qualified inspector on a date set by the operator according to the mode of operation and the medium compressed.*
- (3) *Regular inspection shall include the inspection of interiors and pressure testing. Interior inspection (according to section 1) shall be carried out by pressure testing, if this cannot be done in its entirety, other equivalent inspection shall be carried out. Pressure inspection (ref. section 1) must be replaced by non-destructive inspection if pressure inspection is not possible due to the construction of the vessel or the mode of operation.*
- (4) *Interior inspection of pressure vessels from groups IV and VII^{a)} shall take place every 5 years, pressure inspection every 10 years and exterior inspection every 2 years.*
The supervising authority is authorized in particular cases to:
 1. *lengthen inspection intervals, providing safety is guaranteed*
 2. *shorten inspection intervals, if this is necessary to protect employees or other persons.*
- (5) *If inspection intervals for pressure vessels are included in traffic regulations concerning internal transport, these supersede intervals stated in paragraph 4 section 1.*
- (6) *Interior and pressure inspection intervals commence after the first inspection on reception and following relocation after the new reception inspection.*
Inspections must be carried out, at the latest, 6 months after the renewal date. Contrary to section 1, the intervals begin:
 1. *after the construction inspection, if this took place 2 years before the first reception inspection*
 2. *after the last interior examination, if this took place 2 years before the new reception inspection.*
- (7) *The inspection interval is considered completed if the inspection takes place during the calendar year in which it is due.*

- a) BAUER compressor units include pressure vessels from test groups II, III and IV, only.
- b) For diving bottles (labelled Druckluft-TG or Preßluft-TG) the inspection intervals are governed by TRG 102, enclosure 1, group 1.1. According to this, the inspection interval is 2 years. For breathing apparatus (labelled Druckluft-AG or Preßluft-AG) the inspection interval is 6 years.
- c) See this instruction manual.

- (8) *If the pressure vessel is not in use on the day of inspection, the inspection due should be carried out before it is used again.*
- (9) *If an additional inspection is carried out, the interval for the following inspection begins after the additional inspection, as long as the additional inspection corresponds with the scheduled inspection.*
- (10) *Pressure vessels from groups IV or VII shall only be used again, after the inspection is due, if the inspection has already taken place within the stated period and if the authorized inspector has certified the vessel satisfactory according to inspection guidelines.*
- (11) *If the authorized inspector has not declared the pressure vessel to be in perfect condition, the supervising authority shall decide on the outcome.*
- (12) *§9, para. 9 will be applied accordingly.*

- **Regulations governing the handling of pressure vessels (DruckbehV). Paragraph 15 of these regulations requires that a mobile pressurized tank - in this case a compressed air cylinder - shall only be filled with gas or air under pressure if:**

- a) the cylinder is identified with the mark and date of inspectorate approval together with the inspection interval;
- b) the inspection interval has not expired^{b)} ;
- c) the cylinder or tank in question exhibits no defects which could result in a hazard to those concerned or third parties (e.g. faulty valve).

Only compressed air cylinders shall be filled with the system - never oxygen cylinders. The connecting screw thread (DIN 477) shall be designed to make direct connection of oxygen cylinders impossible. The use of adapters is prohibited.

- **TRG 402, operating filling systems**

2. *Personnel and personnel instruction*
- 2.1 *Filling systems shall only be operated and maintained by persons who:*
 1. *are more than 18 years of age*
 2. *are competent and trained in the use of the system*
 3. *can be expected to do their job satisfactorily.*
- 2.2 *Supervised operations can also be executed by persons who do not fulfil requirements stated in 2.1. items 1 and 2.*
- 2.3 *Prior to starting their job and periodically in reasonable intervals, however at least once a year, operating personnel are to be instructed regarding the following subjects:*
 1. *the particular hazards involved in handling compressed gases*
 2. *safety regulations, especially those of the TRG*
 3. *what to do in case of fault, damage and accident*
 4. *how to use fire extinguishers and other safety equipment*
 5. *operation and maintenance of the filling systems according to the instruction manual^{c)}*
- 2.4 *A written record shall be kept with regard to the instructions of 2.3 requiring the signature of the employee as acknowledgement of instruction.*

2.5 Items 2.3 and 2.4 also apply to persons who are only temporarily involved.

3. Operation

3.1 An operating manual^{c)} in plain, understandable language must be provided for each and every filling system and must detail procedures to ensure correct operation and to avoid hazards and accidents.

Copies of these instructions and translations thereof must be available to the operating and maintenance personnel at all times.

3.2 High risk work (in conjunction with the maintenance of such systems) which cannot be carried out according to item 3.1 in the instruction manual must only be carried out according to separate, written instructions by the contractor or his representative in which the responsibility for supervision activities is clearly stated^{a)}.

3.6 If pressurized gases can be isolated in sections of a filling system which can be closed so that the pressure can become hazardous under the effects of heat, measures must be taken to ensure that the pressure is relieved immediately after isolating the section, unless means are already provided for eliminating the occurrence of a hazardous pressure^{b)}.

3.7 Empty cylinders or tanks must be filled as quickly as possible and filled cylinders or tanks shall be removed from the premises as quickly as possible (see TRG 401 item 3.2, sentence 2, No. 2). Empty or filled cylinders and tanks shall not be placed where they obstruct an escape route, it is therefore prohibited to place tanks or cylinders in passageways and stairways of any kind.

5. Filling procedure

5.1 A pressurized gas tank or cylinder shall be filled only with the pressurized gas as identified on the tank or cylinder and only to the amount stated on the tank resulting from the corresponding pressure, weight or volume (see para. 15, section 2, DruckbehV).

6. Procedure after filling

6.3 Defects on filled tanks

Should a filled pressurized gas cylinder or tank prove to leak on inspection in a way which does not permit immediate remedy or should the filled cylinder or tank exhibit a defect of any kind which could result in a hazard to the handling personnel or third parties, said cylinders or tanks shall be immediately rendered harmless by emptying (see para. 21, section 1, DruckbehV).

9. Testing and servicing filling systems

9.1 Testing filling system leakage

9.1.1 Filling systems and selection of such systems shall only be put into operation for the first time after a major modification or after repair when they have been checked for leakage by an authorized technician or on order of the contractor by an inspector. Testing by the technician shall only be carried out under supervision of the contractor or his representative.

9.1.2 For the purpose of testing, a pressurized gas shall be used which is available in gaseous form under the condition of testing^{c)}.

9.1.3 The pressure shall be elevated gradually in increments until the highest operating pressure of the system is attained.

9.1.4 Testing shall be documented and the documents duly held in a safe place. The documentation shall identify:

1. date of testing
2. persons responsible for supervision
3. persons responsible for inspection
4. description of the system or subsystem being tested
5. test gas
6. description of the method of testing
7. any defect noted and how these defects were remedied.

9.2 Testing flexible piping

9.2.1 Flexible piping (i.e. hose pipes and articulated pipes)^{d)} must be tested prior to first time operation and at least once a year according to actual requirements to ensure satisfactory condition (i.e. no wear and tear or leakage). This shall be carried out by the manufacturer or the persons responsible for the filling operation.

9.2.2 Testing as per item 9.2.1 shall include the following individual tests:

1. visual inspection inside and outside to the extent possible to ascertain general conditions.
2. pressure testing to 1.5 times the highest service pressure.

9.2.3 Pressure testing hoses shall be carried out with water^{e)}. The test pressure shall be maintained for at least 10 minutes. Hoses shall be first tested when extended and then when rolled up (drum diameter approx. 30 times hose diameter).

9.2.4 The results of testing shall be certified by the manufacturer prior to first time operation and later testing shall be documented by the filling inspector. These certificates shall be filed in a safe place. The certificate shall identify:

1. date of testing
2. persons responsible for testing
3. nature and identification of the pipe tested
4. test medium
5. description of test method
6. any defects established and how they were remedied.

In addition, the manufacturer's test certificate shall identify the material and rated pressure. The certificate relating to the hose pipes shall state that the hose is suitable for the pressurized gas.

9.3 Maintenance

9.3.1 Infrequently used closing devices shall be checked at suitable intervals.

9.3.2 Parts coming into contact with oxidizing pressurized gases shall be inspected for signs of oil and grease in suitable intervals and cleaned as required.

10. Shutting down the system, reporting accidents and damage.

10.1 Should a filling system not be in proper condition, thus constituting a hazard for operating personnel or third

a) Notices for maintenance and repair work can be found in section D of this instruction manual.

b) Does not apply to the compressor itself but to the pressure vessels filled.

c) For compressor units use only compressed air which has been compressed by the compressor itself.

d) On breathing air units: filling hoses.

e) Filling hoses must be thoroughly dried inside and out after pressure testing.

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parties, the system shall be shut down immediately (see para. 30, section 3, DruckbehV).

- 10.2 Any person operating a filling system is obliged to report any accident to do with the operation of the system in which a person has been killed or health damaged and shall file the details with the supervising authorities and the responsible accident insurer without delay (see para. 34., DruckbehV).*
- 10.3 Item 10.2 also applies when a pressurized gas container having a capacity in excess of 1 litre (1.05 quarts) is split open or explodes inside or outside the filling system (see para. 34, DruckbehV).*

2. OPERATION

2.1. PREPARATION FOR OPERATION

WARNING

The compressors described in this manual are not suitable for compression of oxygen. **EXPLOSION** occurs if an oil lubricated compressor is operated with pure oxygen or gases with an oxygen content of more than 21%!

- Make sure that all persons handling the compressor and the filling station are familiar with the function of all controls and monitors. In particular, observe the safety warnings in chapter C-1.
- Prior to **each** operation check the oil level according to chapter D-2 and determine whether additional maintenance is necessary in accordance with section D.
- **Every time** the unit is started up check all systems for proper operation. If any malfunction is observed stop unit **immediately** and find the cause of the fault or call the service department.

During operation the shut-off valve must be open. Close valve only for maintenance work on the unit to avoid loss of air or gas from connected systems.

2.2. STARTING THE UNIT



Knocking, audible when starting, is due to the last stage floating piston. This knocking disappears as soon as there is pressure between the stages, and the piston is running synchronous with the other pistons. Therefore, this knocking can be ignored.



The following steps describe the action taken by the operator, only. Description, function and adjustments for the B-CONTROL compressor control system are found in chapter A-11.



For all alarm and warning indications of the B-CONTROL compressor control system refer also to chapter A-11.

In order to start the compressor unit, the customer provided main switch must be on.

Place main switch at the compressor unit (1, Fig. 1) to 1. This activates the B-CONTROL compressor control unit.

The green LED in the 0 key will illuminate.

The following indication should now be shown at the display, provided there is no fault message present and the emergency OFF button is not pressed. If the emergency OFF button has been pressed, it would have to be reset and then acknowledge the message by pressing the reset key.

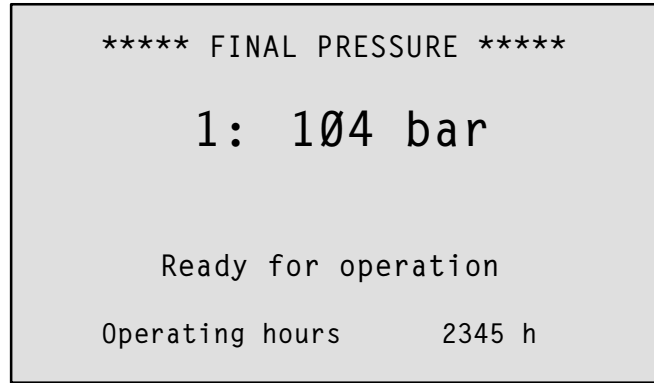


Fig. 65 Start page, unit ready for operation

To start the compressor, press the I key. The green LED in the I key will illuminate. The following indication should now be shown at the display:

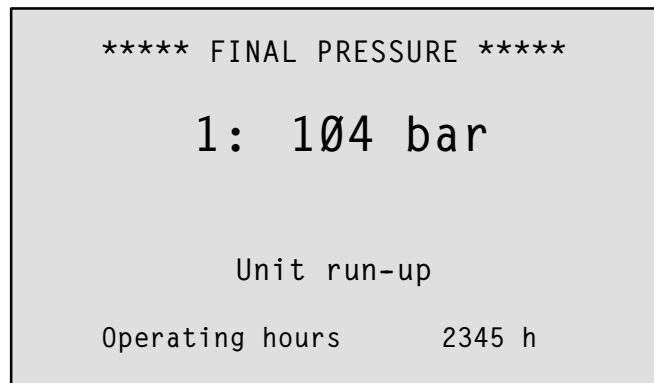


Fig. 66 Start page, unit starting

After the preset run-up time to compensate for oil pressure, normally 40 seconds, the display shows the following message:

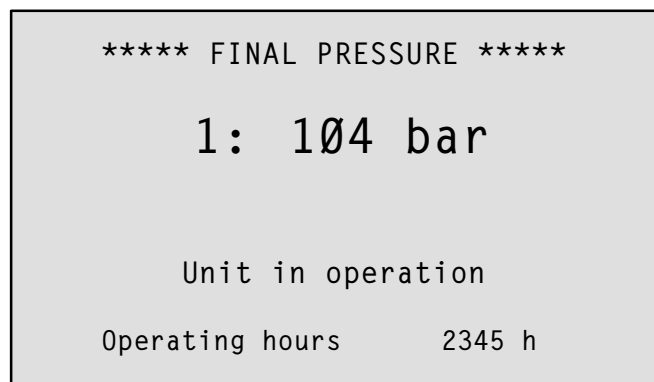


Fig. 67 Start page, unit in operation

For all further messages, settings, and operation instructions refer to chapter A.11.

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2.3. FILLING PROCEDURE (Breathing Air Compressors with Integrated or External Filling Panel)

2.3.1. General

WARNING

Always ensure intake air is free from noxious gas, exhaust fumes and solvent vapour. On units with an internal combustion engine, it is essential to use an intake hose and make sure that it is positioned so that no harmful substances can be taken in. On units with an electric motor, an intake hose is also recommended.

WARNING

Filling hoses must be in satisfactory condition and threads undamaged. Pay particular attention to damage on the interface from hose fitting to hose. If the rubber is scored, hose must be discarded otherwise water can enter and attack wire gauze causing it to rust and thus endangering pressure tightness.

The filling valve connection is of the manual type and permits connection to air tanks without using tools. An O-ring is provided for self-sealing by internal overpressure.

Compressed air tank filling valves for a pressure in excess of 200 bar are standardized (DIN 477, sheet 5) and connectors for 200 and 300 bar are different and cannot be mixed up. **The use of adapters is not allowed!** To ensure safe air tank removal after filling, the valve has an integral venting bore. Therefore always close tank valve first before closing filling valve.

During filling procedure bottles will warm up due to recompression. After removing, allow to cool down, bottles may then be reconnected and topped up to the appropriate maximum filling pressure.

WARNING

To meet the CO₂ maximum rating value in breathing air bottles, please observe the two following chapters "Intake air quality" and "Scavenging the compressor unit".

2.3.2. Intake air quality

At routine tests, CO₂ values beyond the permissible values are noted from time to time. Closer investigations often show that the compressed air is taken from rooms in which one or more persons are working. At insufficient ventilation, the CO₂ value in the surrounding air can increase quite fast because of the exhaling of CO₂. CO₂ values from 1,000 to 5,000 ppm_v in workrooms are not unusual (MAK-value (max. workroom concentration) is 5,000 ppm_v). Another additional increase is caused by cigarette smoking, producing approx. 2g CO₂ (≈ 2,000 ppm_v) per cigarette. These pollutions add up to the basic pollution of approx. 400 ppm_v. The technically caused excessive increase of CO₂ during the filling process and the CO₂ peak at taking the unit into operation. **Because of the reasons stated above and for your own security, the filling of breathing air bottles is not allowed in rooms used as workrooms.**

2.3.3. Scavenging the compressor unit

CO₂ is present in the atmosphere with a natural amount of 350 – 400 ppm_v. The molecular sieve used in the purifiers for drying the breathing air is, as well as other capabilities, able to adsorb CO₂ which is accumulated in the cartridge. After shutdown of the compressor, adsorbed CO₂ may be desorbed again due to the partial pressure decrease. The now free CO₂ gets washed out of the cartridge when the compressor is started again.

To avoid increased CO₂ contents in the compressed breathing air, we recommend scavenging the compressor unit **before connecting** and filling the air bottles, i.e. let the compressed air escape into the open air by opening the filling valves for about 1 to 2 minutes.

2.3.4. Switch-over valve

Filling panels for 2 pressure ranges (PN 200 / PN 300) and with a switch-over valve, with which it is possible to switch between two pressure ranges, can only be used for one pressure range at a time. The 200 bar side is opened by means of the shut-off valve. The 300 bar filling valves remain pressurized but can only be used up to a pressure of 200 bar. It is impossible to connect 200 bar bottles to the 300 bar filling connections (right hand side).



Before switching from 300 bar to 200 bar, i.e. to the lower pressure range, it is essential to open the venting valve and to reduce the 300 bar line to at least 200 bar. Otherwise, the pressure gauge could be damaged or destroyed.

WARNING

Open the switch-over valve slowly in order to avoid a pressure surge! Filling hoses which are not in use must be hung in the holders on the bottom of the filling panel, so that should a filling valve be inadvertently opened, the pressurized air outstream cannot cause the hose to whip and cause serious injury.

2.3.5. Pressure reducer

Filling panels for 2 pressure ranges (PN 200 / PN 300) and with a pressure reducer, can be used for filling bottles simultaneously at two pressures, i.e. simultaneous filling of 200 bar and 300 bar bottles is possible!

The pressure reducer used in the filling panel is adjustable to a high precision.

Max. inlet pressure	420 bar
Secondary pressure (range of adjustment)	0.1 to 280 bar
Temperature range	-10 °C to +100 °C
Normal delivery	32 m ³
A 20 µm particle filter is installed at the pressure reducer inlet.	

2.3.6. Connecting the bottles

- Connect air bottle to filling valve (see Fig. 68).



On models of 300 bar rated filling pressure do not attach bottles unless rated for this pressure (note pressure stamped on tank neck).

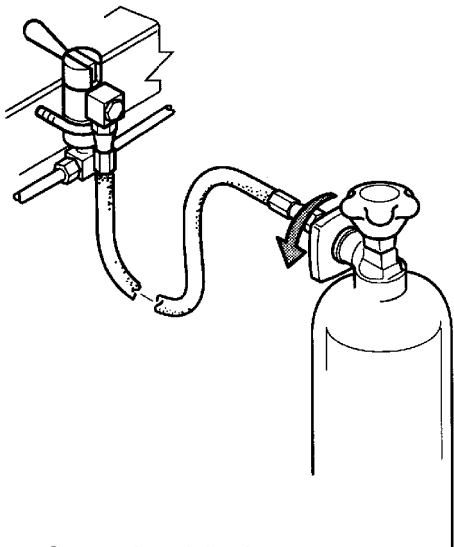


Fig. 68 Connecting air bottle

- Air bottles with international filling connector can be connected with filling adaptor (PN 08487-635) to the German filling connector or with filling adaptor (PN 03147-635) directly to the filling hose (see Fig. 69).

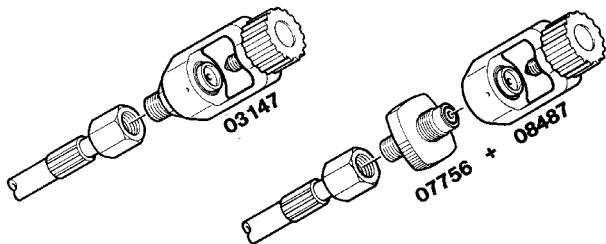


Fig. 69 International filling connector



The international connector is not permitted in Germany. In other countries it is allowed only for pressures up to 200 bar (2,850 psi). This filling connector cannot be used on 300 bar (4,350 psi) models due to constructive measures.

2.3.7. Filling the bottles

- Set filling valve handle to filling position (1, Fig. 70).
- Open bottle valve (2) - bottle will be filled. Drain condensate regularly during filling. On units with automatic condensate drain check that condensate is drained regularly.

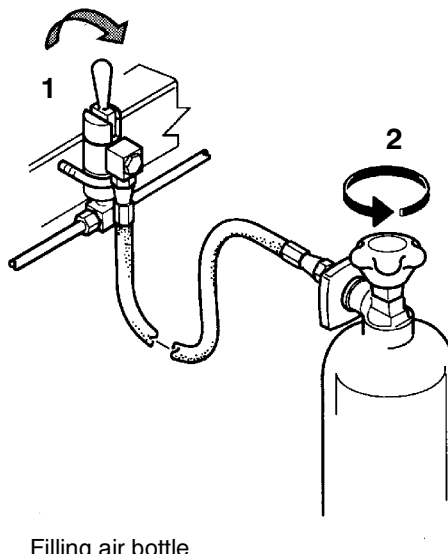


Fig. 70 Filling air bottle

2.3.8. Removing the bottles

- Upon reaching final bottle pressure **close bottle valve first, then filling valve** by returning handle to closed position (see Fig. 71).
- Remove compressed air bottle.

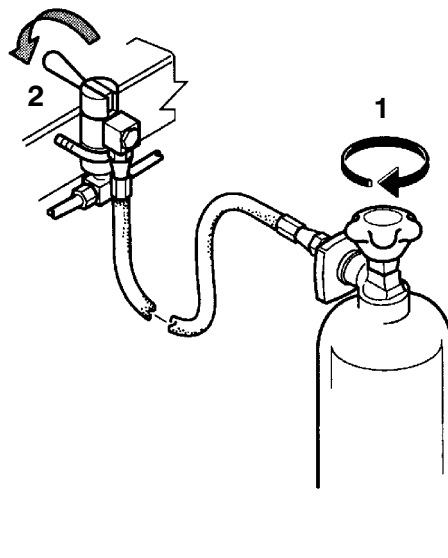


Fig. 71 Removing air bottle

Section A

Description

Section B

Installation, Taking into operation

Section C

Operation

Section D

Maintenance, Repair

Section E

Storage, Preservation

Section F

Diagrams, Drawings

Section G

Spare Parts Catalogue

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D. MAINTENANCE, REPAIR

1. MAINTENANCE WORK



For filter cartridge change intervals refer to chapter D-5 !



Check the complete system for leakage from time to time by brushing all fittings and couplings with soapy water or spraying with leak test spray. Repair any leakage.

WARNING

Always shut down and decompress the complete system prior to carrying out any work on the compressor.

WARNING

Always disconnect the system from mains supply prior to carrying out any work on compressor systems with electric drive motor.

WARNING

Never repair pressure lines by soldering or welding.

1.1. MAINTENANCE INTERVALS



All maintenance intervals refer to normal operating conditions. Operating the compressor under extreme conditions like high temperatures, humidity, continuous operation may shorten the intervals significantly. If in doubt, please contact our service dept.

1.1.1. Once after taking into operation or valve maintenance

Interval	Maintenance work	Chapter
1/2 hour after start-up for first time operation or after maintenance work	Check bolts and nuts for tightness, all tube connectors for leakage; tighten if required.	---
25 operating hours after first time operation or maintenance/repair work	Tighten valve head bolts and pressure studs	9.

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1.1.2. Periodically according to calendar

Interval	Maintenance work	Chapter
Daily before taking unit into operation	Check oil level Operate unit to final pressure and check function of final pressure switch	2. 7.
Weekly or as required	Check automatic condensate drain; open manual condensate drain taps	10.
Annually	Mineral oil change, if run for less than 1,000 operating hours Check opening pressure of final safety valve Service micronic intake filter, if run for less than 500 operating hours	2. 7. 3.
Annually or as required	Read cycle counter; replace oil and water separator if required Perform a breathing air quality check with Aerotest Simultan test unit or equivalent	11./5. ---
Biannually	Synthetic oil change, if run for less than 2,000 operating hours	2.

1.1.3. Periodically according to operating hours

Interval	Maintenance work	Chapter
500 operating hours	Check V-belt(s) Service micronic intake filter Check all connections for leakage	2./12. 3. --
1,000 operating hours	Valve check Mineral oil change Clean sintered metal filter element(s) Replace activated charcoal in condensate collector	9. 2. 4./5. 10.
2,000 operating hours	Synthetic oil change Replace valves	2. 9.
3,000 operating hours or as required	Check pistons and piston rings and change if required	QTK ^{a)}

a) by BAUER Technical Service

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1.2. MAINTENANCE RECORD

We recommend that all maintenance work is recorded in a service book, showing the date and details of the work carried out. This will help to avoid expensive repairs caused by missed maintenance work.

If it is necessary to claim against the warranty, it will help to have proof that regular maintenance work has been carried out and that the damage has not been caused by insufficient maintenance. Please refer to section 23 of our general terms and conditions.

For this purpose, the following maintenance control sheet is provided (copy as required). The grey boxes indicate when the maintenance work is due. Please mark the appropriate box(es) to show what maintenance work has been carried out and the number of hours of service, then sign and date.

Operating hours Work to be carried out	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	Annually	Bi-annually
Check drive V-belts														
Service micronic intake filter														
Check connections for leakage														
Valve check														
Oil change; mineral oil														
Clean sintered metal filter elements														
Service condensate collector														
Oil change; synthetic oil														
Replace valves														
Check pistons and piston rings														
Check opening pressure final safety valve														
Check cycle counter														
Check breathing air quality														
Date/ Signature														

2. LUBRICATION SYSTEM

2.1. OIL LEVEL CHECK

Check oil level at oil sight gauge every day prior to putting compressor into operation.

Oil level should be between minimum and maximum notches, see Fig. 72 and Fig. 73. Oil level must not decrease below min. mark but also not exceed max. mark as this will cause excessive lubrication of compressor and result in valves sooting up.

2.2. OIL CHANGE INTERVALS

Mineral oils	every 1,000 operating hours, at least annually
Synthetic oils	every 2,000 operating hours, at least bi-annually

2.3. OIL CAPACITY

Oil capacity, IK12.14 II	approx. 2.8 liters
Oil capacity, IK150	approx. 4.0 liters
Oil capacity, IK180, IK18.1	approx. 4.0 liters

2.4. OIL PACKAGES

BAUER compressor oil is available in various quantities, refer to oil list in section F.

2.5. CHANGING THE OIL TYPE



To avoid severe damage to the compressor unit when changing the oil type, the following measures should be strictly adhered to:

- Drain oil completely while still warm.
- Check valves, coolers, separators, purifiers, and all pneumatic tubes and hoses for deposits.

If deposits are detected, perform the following:

- Change or clean valves, coolers, separators, purifiers, and all pneumatic tubes and hoses from deposits.
- Fill compressor with the new oil.
- After approx. 100 operating hours check lubricating oil for degree of contamination, and change oil again if necessary.
- Perform subsequent oil changes according to para. 2.2.
- Refill compressor with same oil, only.

2.6. OIL CHANGE IK12.14 II

- Run compressor warm.
- Remove red cap from oil filler neck (1, Fig. 74).
- Drain oil while still warm by means of oil drain plug. On units equipped with oil drain hose remove hose union nut from coupling at hose bracket. Collect oil in a suitable container. Exchange gasket and reinstall plug.



Replace oil filter with every oil change, otherwise the bypass valve would open if filter is clogged, and the oil would circulate without being filtered!

- Remove two screws (1, Fig. 75) with a 13 mm spanner. Remove cover (2).
- Remove oil filter (1, Fig. 76) from rubber gasket at cover.
- Mount a new filter element (P/N N25326) and replace and fasten cover.
- Fill new oil through filler neck to Max.- mark at sight gauge.
- Pour oil in slowly, wait a few minutes, then put unit into operation.

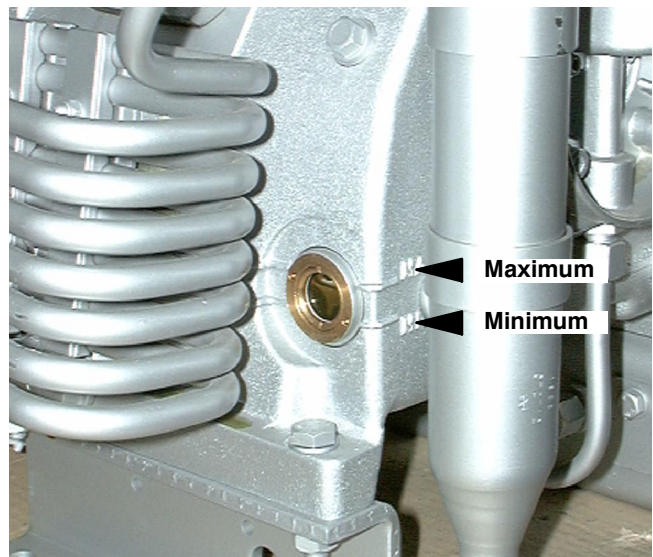


Fig. 72 Oil sight gauge IK12.14 II

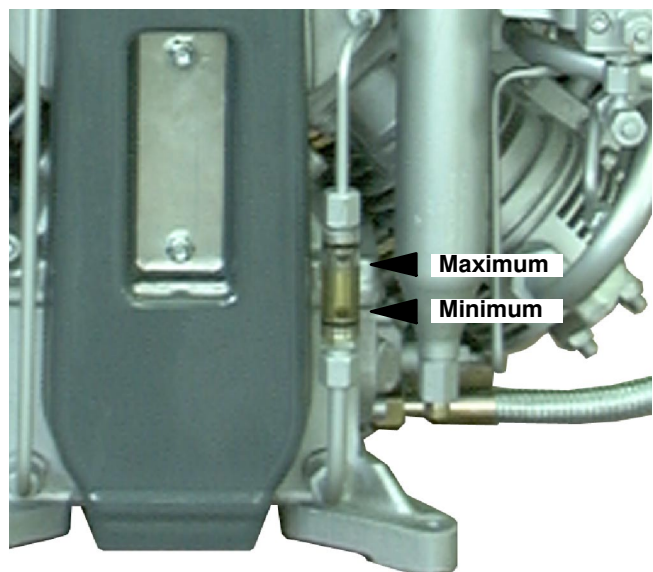


Fig. 73 Oil sight gauge (IK150, IK180, IK18.1)

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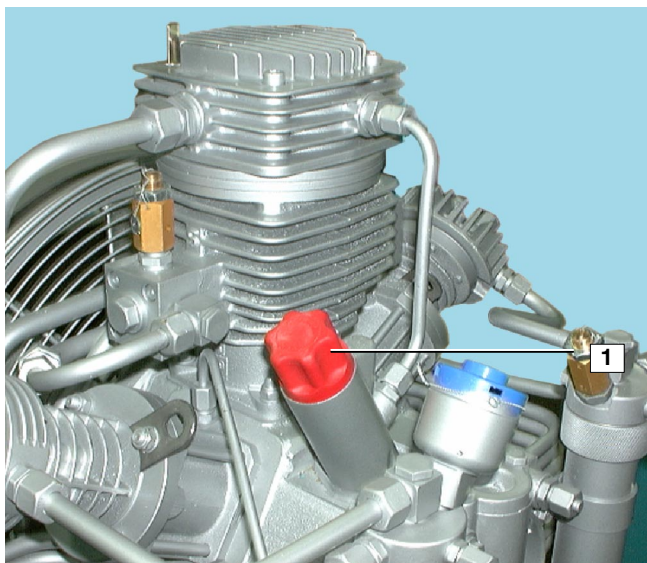


Fig. 74 Oil filler neck, IK12.4 II

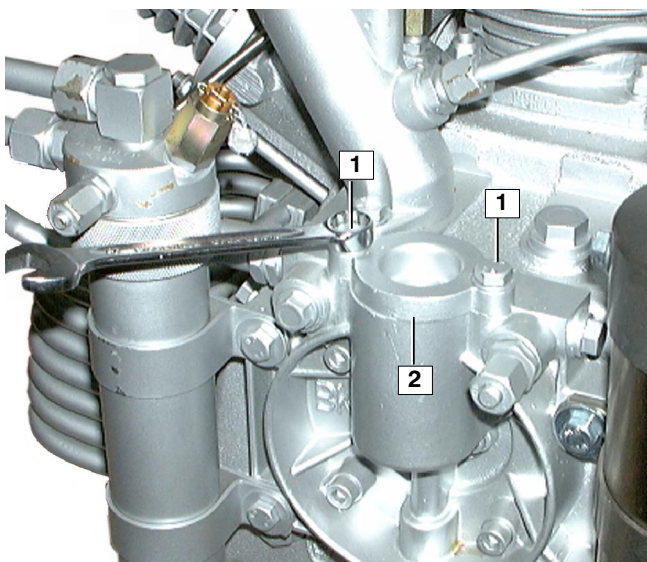


Fig. 75 Removing the cover

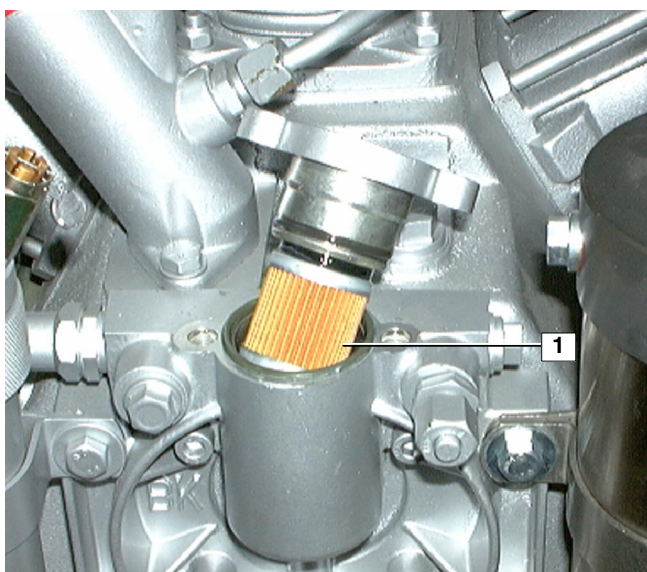


Fig. 76 Replacing the oil filter

2.7. OIL CHANGE IK150, IK180, IK18.1

- Run compressor warm.
- Remove red cap from oil filler neck.
- Drain oil while still warm by means of oil drain plug. On units equipped with oil drain hose remove hose union nut from coupling at hose bracket. Collect oil in a suitable container. Exchange gasket and reinstall plug.
- Fill new oil through filler neck to Max.- mark at sight gauge (Fig. 73).
- Pour oil in slowly, wait a few minutes, then put unit into operation. Check operation of oil pump. It is working properly if no air bubbles are visible in the oil pressure regulating valve sight glass. Vent pump if bubbles are visible, see para. 2.9.

Change oil also prior to storage of the compressor unit.

2.8. OIL PRESSURE REGULATOR

(Only IK150, IK180)



At compressor block IK18.1 the oil pressure regulator doses the oil quantity and is adjusted to the required oil pressure by the inter-pressure of the 4th stage. Therefore an adjustment of the oil pressure is not necessary.

The oil pressure regulator is mounted on the 4th stage cylinder and adjusted to **60 bar (870 psi)**. The valve can be adjusted by removing cap nut (1) and turning the set screw (2) in the oil pressure regulator Fig. 77.

Turning screw clockwise increases pressure.

Turning screw counter-clockwise reduces pressure.

If the compressor unit is not fitted with an oil pressure gauge, read oil pressure from a suitable pressure gauge connected to the then not used oil pressure regulator tube connector sealed with a plug.

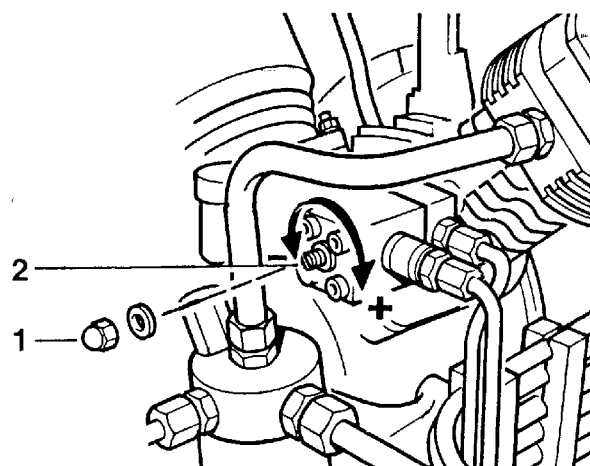


Fig. 77 Oil pressure regulator

2.9. VENTING OIL PUMP

(Only IK150, IK180, IK18.1)

If no or low oil pressure builds up after starting the unit- especially after maintenance or repair work - venting of the oil pump will be necessary. Proceed as follows:

- With the compressor running, unscrew screw plug (1) 2 - 3 turns and wait until the oil runs out free of air bubbles, see Fig. 78. Retighten the screw plug.
- Then, unscrew nut (2) 2 - 3 turns and wait until the oil runs out free of bubbles. Retighten the nut.

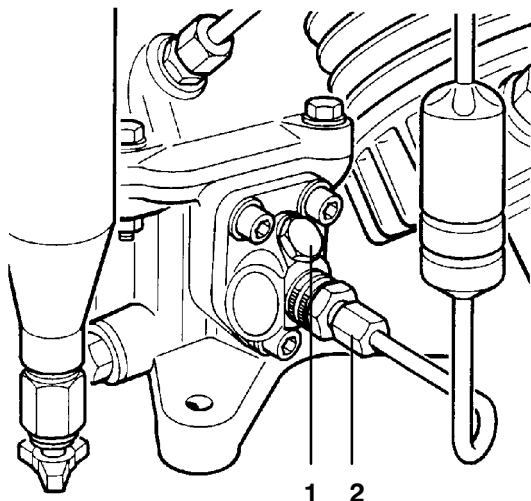


Fig. 78 Venting the oil pump

2.10. OIL PUMP DRIVE

(Only IK150, IK180, IK18.1)

The oil pump is driven by a V-belt.

The V-belt must be checked regularly for condition and tension, refer to chapter D.1. for intervals.



Keep V-belt free from oil, grease, dirt, sand etc. Clean V-belt with dry cloth, do not use cleaning fluids or anything which is hazardous to respiration.

On the compressor block, remove two screws and take off V-belt plastic cover and metal plate.

Check V-belt for wear, especially for cracks.

Check tension of V-belt, which is correct if V-belt can be pushed approx. **5mm** under thumb pressure (Fig. 79). Otherwise adjust tension as follows.

Tension of V-belt is adjusted by the V-belt pulley (1, Fig. 80) mounted on the eccentric shaft.

Remove screws (4) and take off front part (3) of V-belt pulley.

To increase tension, take shims (2) from rear part (1), to decrease, add shims.

Replace front part and tighten screws (4) to a torque value of **10 Nm** (1 mkp).

Run compressor for approx. **5 minutes**, then check tension again. Readjust as described above, if required.

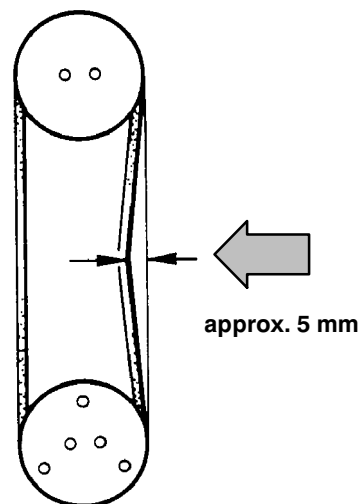


Fig. 79 V-belt tension

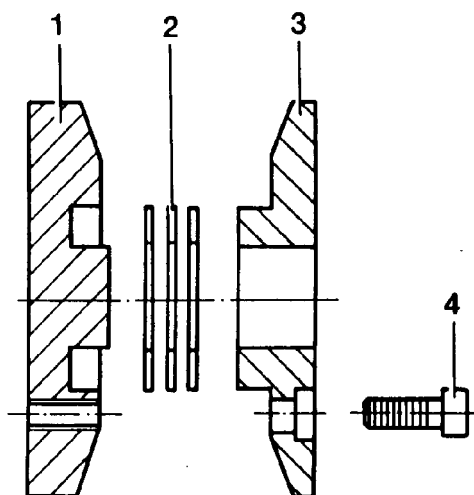


Fig. 80 Oil pump drive

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3. INTAKE FILTER

3.1. MAINTENANCE

The filter cartridge must be cleaned or changed at regular intervals. The intervals depend on the air taken in by the compressor. In heavy dust conditions monthly or even weekly servicing can be necessary. In all conditions, observe the minimum intervals according to maintenance schedule in chapter D-1.

3.1.1. IK12.14 II

To clean, remove cover and spring (1), take out micronic filter cartridge (2) and clean with brush or by blowing air inside out. Turn cartridge through 90° when replacing. Replace dirty cartridge once it has been turned three times and thus used on all sides.

Clean filter housing inside with a damp cloth. Take care to prevent dust from entering intake pipe. Replace O-ring (3) if necessary. When changing cartridge make sure spring (1) on top cover is installed properly.

With cap (4), part no. N18234 the intake filter can be sealed for storage, see section E.

3.1.2. IK150, IK180, IK18.1

The underpressure in the intake filter is monitored by service indicator (4). As soon as the max. allowable underpressure is reached, indication will change from green to red. A clogged filter may also lead to shut-down of the compressor by the min./max. pressure sensors, if provided! Refer to chapter A.11. In this case change filter element (2) as follows:

- Open three clips and remove cover (3).
- Remove filter element (2).
- Clean the inside of the filter housing with a damp cloth, take care to prevent any dust entering the intake manifold.
- Replace the filter element: use **part no. N3029**, only.
- Mount cover and fasten with the clips.
- Reset vacuum gauge by pressing the button.

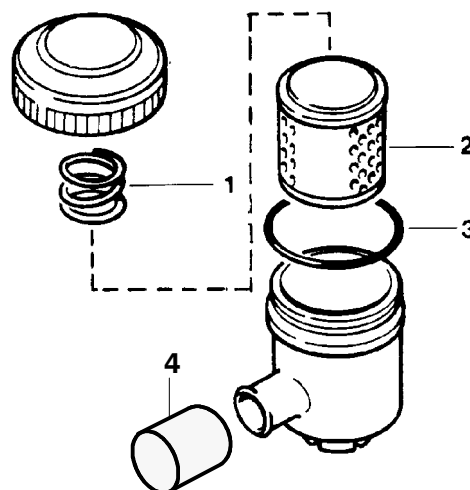


Fig. 81 Intake filter, IK12.14 II

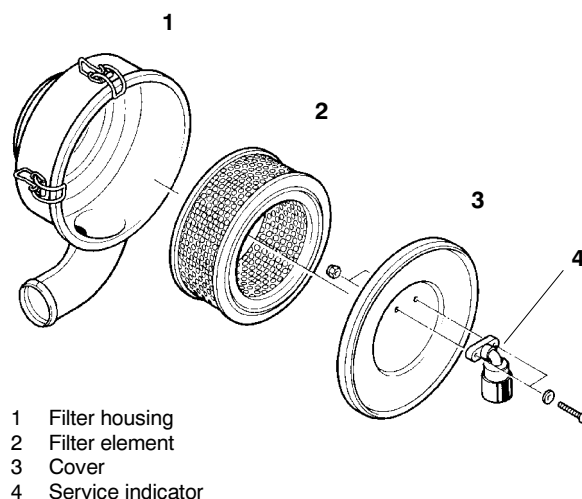


Fig. 82 Intake filter, IK150, IK180, IK18.1

4. INTERMEDIATE SEPARATORS

4.1. MAINTENANCE

Proper operation of the individual compression stages will rely on the intermediate separators being properly serviced.

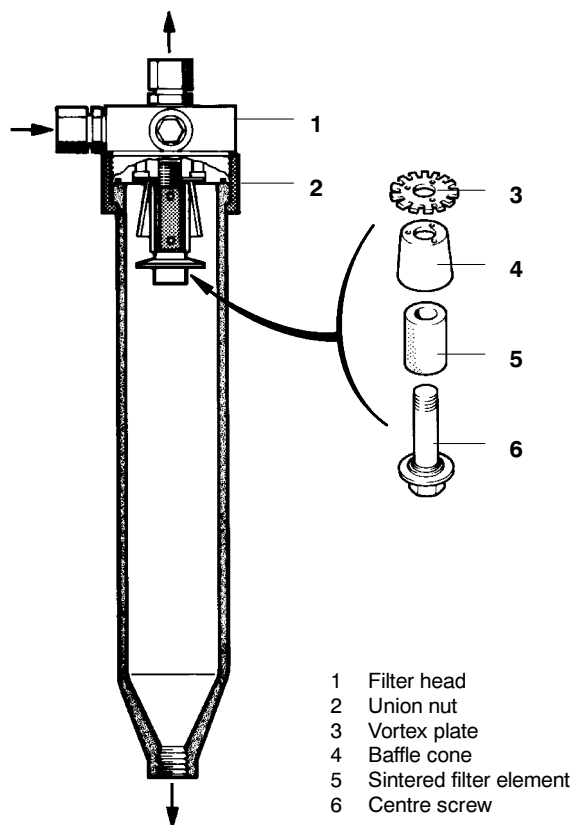


Fig. 83 Intermediate separator

4.1.1. Condensate drain

Drain condensate every 15 to 30 minutes from these separators or ensure that the automatic condensate drain unit drains regularly. See chapter 10.

4.1.2. Sintered metal filter elements

Refer to chapter A-4. for information on which filters are fitted with sintered metal elements. If in doubt refer to compressor parts list.

Clean sintered filter elements as follows (for maintenance intervals refer to chapter D-1.):

- Remove piping connected to filter head. Screw off union nut. Remove filter head (1) along with sintered filter element.
- Remove centre screw (5), and separate sintered filter element (4), baffle (3) and vortex plate (2) from the filter head.
- To clean filter element, the best method is to use hot soapy water and to blow dry with compressed air.

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5. FINAL SEPARATOR / FILTER SYSTEM

5.1. OIL AND WATER SEPARATOR

5.1.1. Lifetime

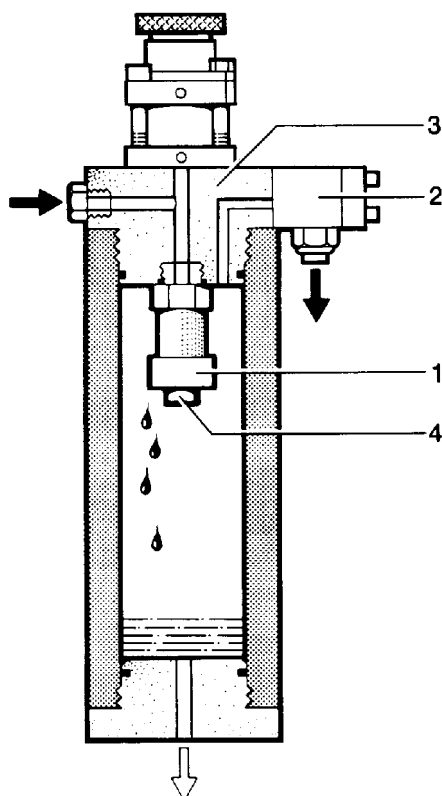


Fig. 84 Oil and water separator



The oil and water separator is subject to dynamic load. It is designed to withstand a certain no. of load cycles. (1 load cycle = 1 pressurization, 1 depressurization.) The oil and water separator must be replaced when the maximum permissible no. of load cycles has been reached.

Determine the max. no. of load cycles from the diagram in Fig. 87.

The cycles are counted by the cycle counter of the compressor control unit. Refer to chapter A-11. After the max. number of load cycles have been reached, the separator must be exchanged.

5.1.2. Sintered metal element

The sintered filter micro-cartridge requires periodic maintenance. For maintenance intervals see section D-1.

- Remove tube connected to non-return valve (2, Fig. 84).

- Screw off filter head (3) and remove.
- Unscrew micro-cartridge (1) from filter head (3).
- Remove centre-screw (4) to remove filter elements.

Clean sintered filter elements using hot soapy water and blow dry with clean compressed air.

5.1.3. Condensate drain

The condensate produced by the re-cooling after the compression process has to be drained regularly by means of the manual condensate drain valves

- before start-up of the compressor unit
- during operation every 30 minutes, at high humidity every 15 minutes.

For units equipped with an automatic condensate drain system refer to chapter D-10.

5.2. PURIFIER

5.2.1. General instructions

- **Depressurize** system before starting any maintenance work. The filter line can be vented manually with the venting valve, wait until the pressure gauge reads zero.
- **Dry** inside of filter housing with a clean cloth before installing new cartridge and check for corrosion.
- **Lubricate** threads and O-rings as well as end of cartridge with both o-rings with white petrolatum. Apply sparingly. See chapter 17.
- **Observe** number of operating hours as indicated on hour meter to ensure exact attention to the maintenance intervals.
- **Change** cartridge before reactivating a compressor unit which has been out of service for more than 6 months.
- **Leave** cartridge in the filter as long as unit is out of service.
- **Keep** all condensate drain valves and shut-off valves closed. Keep a minimum pressure of approx. 50 to 80 bar (700 to 1,100 psig) within the system to prevent moisture entering the compressor piping and filter system.

5.2.2. Cartridge change

- On filter systems with SECURUS monitoring, unscrew nut and pull off cable plug.
- Unscrew the filter head (1) with the special spanner (2) supplied with the unit.
- Pull out used cartridge by means of its clip (3).
- Remove new cartridge from packing and protective caps from both ends of cartridge.
- Insert new cartridge into housing and push down firmly.
- Replace filter head, screw in by hand and tighten with the special spanner.

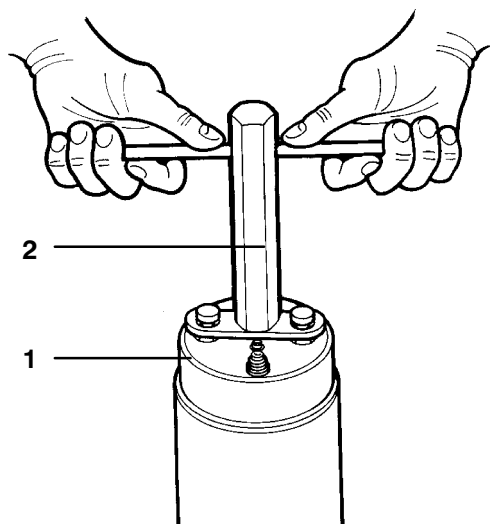


Fig. 85 Removing the filter head

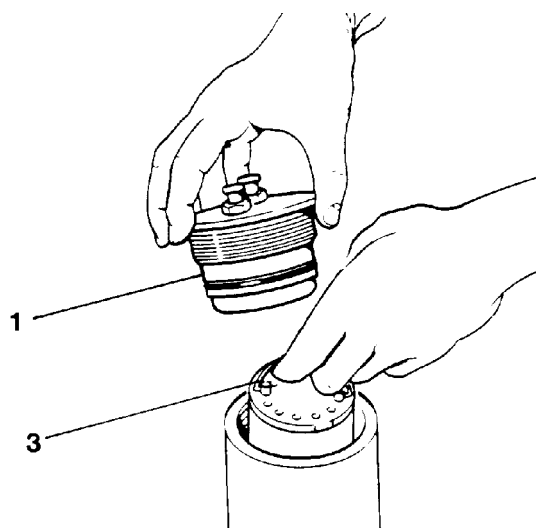


Fig. 86 Extracting the cartridge

Examples:

A. Number of operating hours for a compressor unit with 1000 l/min delivery, operating pressure 200 bar, ambient temperature 20 °C with filter system P121 (see sheet 1/2).

- Choose separator temperature 30 °C for 200 bar (example) on right hand vertical axis.
- Follow the bold horizontal line across the graph to the intersection with the line for the P121 filter system.
- Follow the vertical line down from the intersection point to the 1000 l/min mark.
- Result: approx. 180 operating hours.

B. Number of bottle fillings for a 10 litre bottle with P121 filter system, ambient temperature 20 °C (see sheet 2/2):

- Choose separator temperature 30 °C (example) on right hand vertical axis.
- Follow the bold horizontal line across the graph to the intersection with the line for the P121 filter system.
- Follow the vertical line down from the intersection point to the 10 litre bottle mark.
- Result: approx. 5200 bottle fillings.



Saturated cartridges are classed as special waste and must be disposed of according to applicable federal and national regulations (in Germany: according to DIN safety regulations sheet, point 5.5)

5.2.3. SECURUS filter replacement intervals



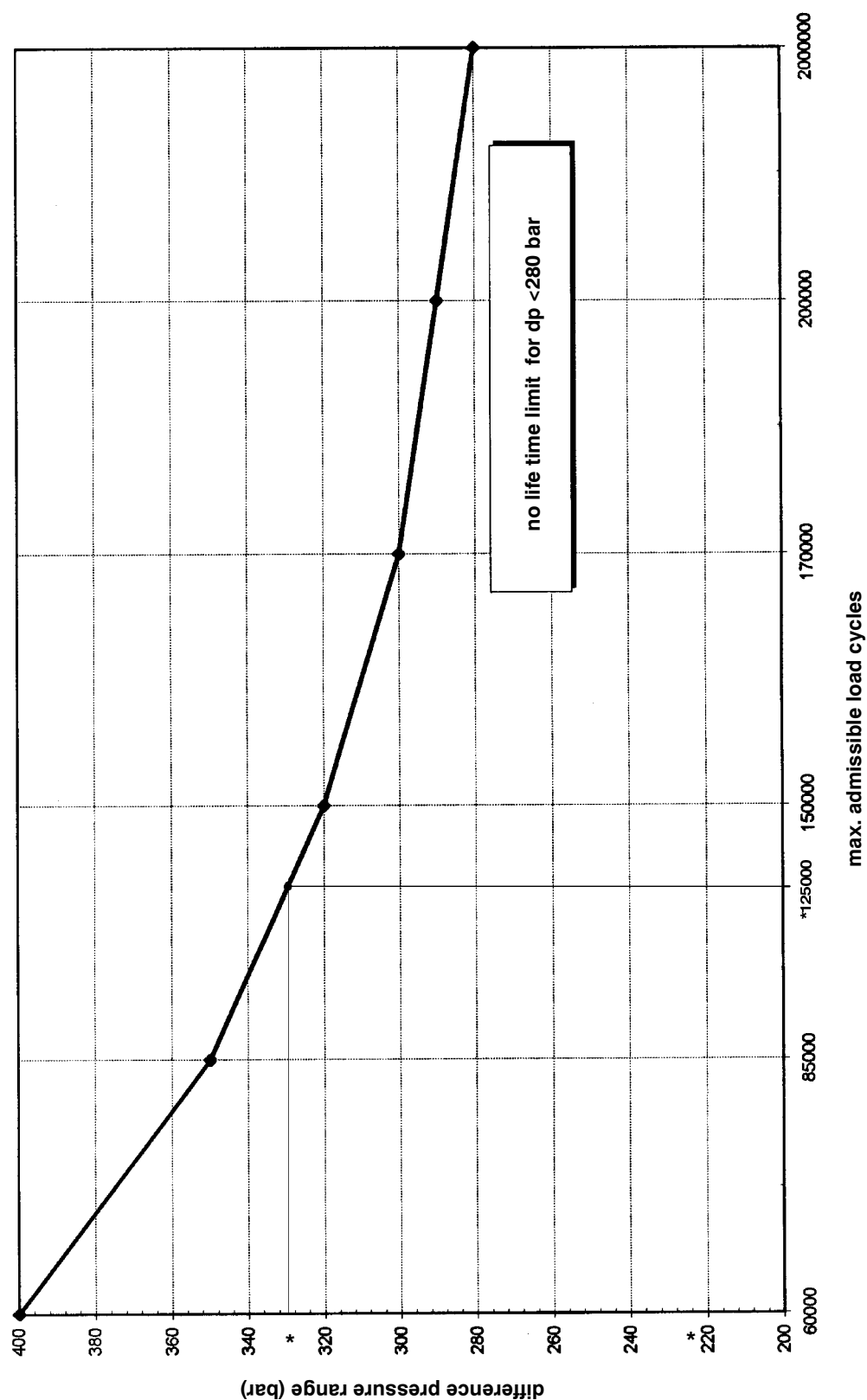
To determine the number of operating hours as well as number of bottle fillings see diagrams on pages D-14 and D-15 and the following examples. Please note that the temperature in the separator is 10 °C higher than ambient temperature.



The entities in the diagrams on pages D-14 and D-15 are based on estimated filter cartridge lifetime; on systems equipped with SECURUS monitoring unit, the actual saturation of the cartridge is reported by the B-CONTROL compressor controller.

The following examples refer to the diagrams on pages D-14 and D-15.

Life time diagram for KB 090058



* Breathing air compressor units: 330 bar: 125.000 cycles; 225 bar: unlimited

Fig. 87 Life time diagram for oil and water separator 090058

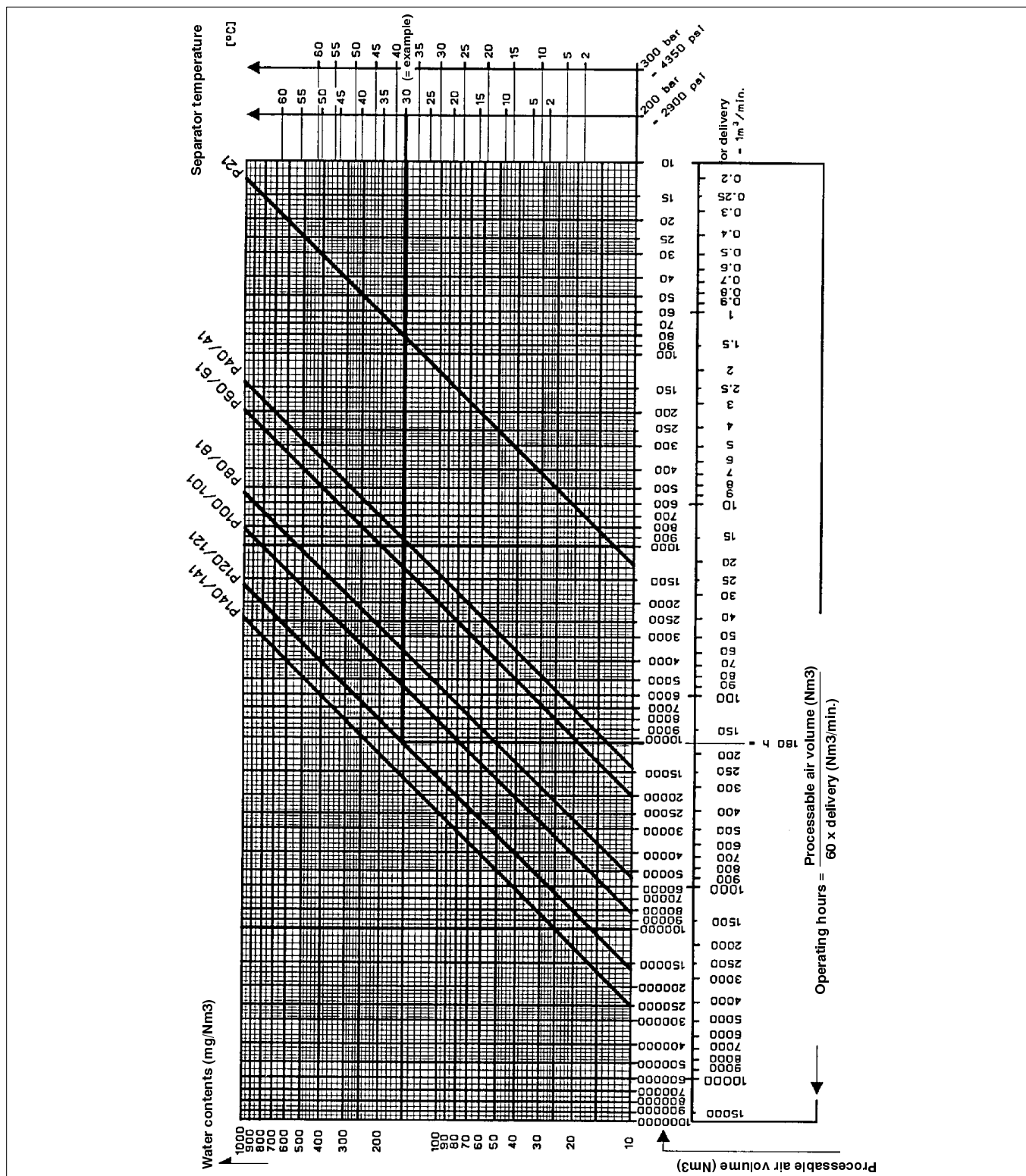


Fig. 88 Processing capacity of P-filter systems (sheet 1 of 2)

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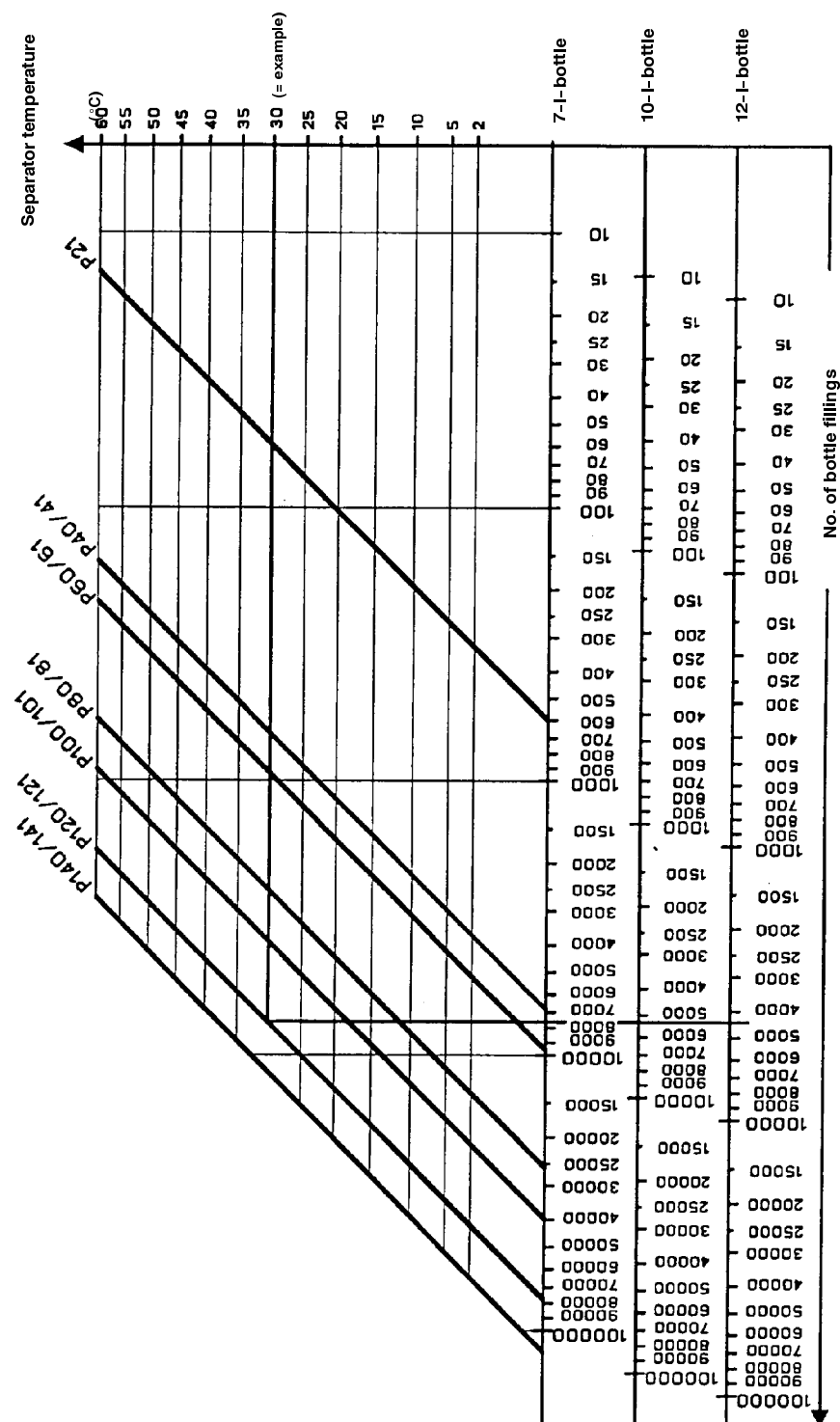


Fig. 89 Processing capacity of P-filter systems (sheet 2 of 2)

6. PRESSURE MAINTAINING / NON-RETURN VALVE

For pressure setting see chapter A-6.

The pressure maintaining valve is adjusted at the factory to the required pressure and normally does not require regular maintenance or readjustment. In case of readjustment becoming necessary, loosen jam nut (2, Fig. 90) and set screw (3). Adjust screw (1) to the required pressure using a suitable screwdriver.

Clockwise = increase pressure

Counter-clockwise = decrease pressure

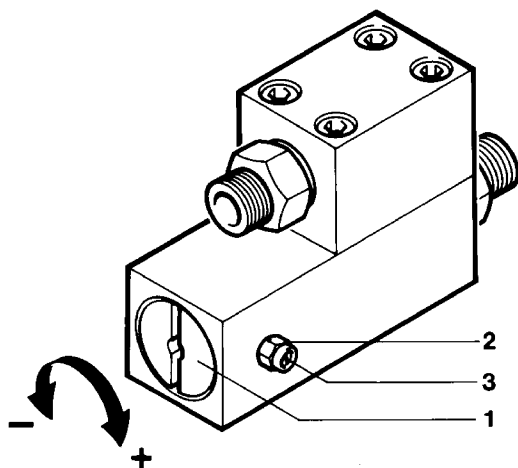


Fig. 90 Pressure maintaining/non-return valve 350 bar

How to determine the opening pressure of the pressure maintaining valve:

As long as the pressure built up by the compressor is below the adjusted opening pressure of the pressure maintaining valve, the final pressure indication remains at zero. But, the pressure building up in front of the pressure maintaining valve can be read from the pressure gauge mounted at the final separator. When the pressure maintaining valve opens, the B-Control display will begin to show the rising pressure. At this moment, read the opening pressure from the pressure gauge at the separator (7, Fig. 2).

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7. SAFETY VALVES

7.1. OPERATING CHECK

The final pressure safety valve has to be checked regularly. See chapter D-1. For this purpose the safety valve can be vented manually.

This just ensures that the valve works and will release pressure in case of a malfunction. To check the blow-off pressure value refer to 7.2.

The safety valve is mounted on top of the final separator. Turn knurled knob on top of the valve clockwise until valve blows off (Fig. 91).

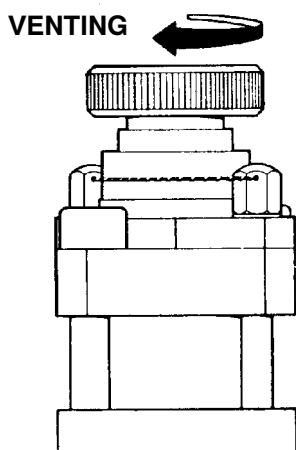


Fig. 91 Venting the final pressure safety valve

7.2. BLOW-OFF PRESSURE CHECK

Check blow-off pressure of the final pressure safety valve regularly, see maintenance schedule chapter D-1. Pump unit to final pressure with shut-off valve closed until safety valve blows off. Check blow-off pressure of safety valve at pressure gauge.

On compressors fitted with a factory-installed B-Control compressor control unit, set unit in menu "operation\operation mode" to "safety valve test = yes" to override pressure switch(es). Refer to chapter A-11.

8. PRESSURE GAUGES

If the values listed in section A are exceeded and the safety valve of the corresponding stage blows off, this is an indication that the downstream compressor stage is not working properly. See section A-9.

We recommend that pressure gauges are checked from time to time. For this purpose we have developed a special test pressure gauge with an adaptor which immediately recognizes any deviations in readings.

See High Pressure Accessories Catalogue no. 8550/7.92.

Slight deviations during operation are normal and can be ignored. Excessive inaccuracy will require the pressure gauge to be replaced.

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9. VALVES

9.1. INITIAL OPERATIONAL CHECK OF VALVES

After roughly half an hour's operation, valves should be checked. Note that intake line to valve heads should be hand warm and outlet piping should be hot. Valves are then operating properly.

Should the intake pipe to the valve head of second stage heat up excessively, and first stage safety valve blow off, this would be an indication that either intake or pressure valve of second stage is malfunctioning. It is, therefore, necessary to remove the valve head and to check and clean these valves, or to replace them.

9.2. GENERAL INSTRUCTIONS FOR CHANGING THE VALVES

- **Always replace** valves as a complete set.
- **Carefully clean** dirty valves. Never use a sharp tool for this purpose. Soak the valves in diesel oil or petroleum and clean with soft brush.
- **Lubricate** valves before installing with Weicon AS 040, or order no. N19753, or equivalent.
- **Observe** the correct sequence when fitting together again.
- **Check** individual components for excessive wear. If the valve seat and valve disks are dented, replace the valves.
- **Valve head screws** must be tightened with a torque wrench (see tightening torque values chapter 17.).
- **Check** the valve space in the valve heads for dirt and clean, if necessary.
- **Use only** satisfactory gaskets and O-rings on reassembly.
- **After finishing** all maintenance work on the valves, turn the compressor manually using the flywheel and check whether all items have been correctly installed.
- **30 minutes after restarting** the compressor unit stop unit, let it cool down to ambient temperature and retighten valve studs and cap nuts. Otherwise valves could work loose due to setting of the gaskets.
- **Remove and check** the valves every **1000 operating hours**.
- **Replace** the valves every **2000 operating hours** to avoid fatigue failure.

9.3. COMPRESSOR BLOCK IK12.14 II

9.3.1. Changing the valves of the 1st stage

Intake and pressure valve of the 1st stage are combined in one plate valve under the valve head. When installing, check that the mark "TOP" is really at the top. The stamped "S" indicates the intake side.

9.3.2. Changing the valves of the 2nd stage

- Unscrew the intake and pressure lines from the intake and outlet manifolds (2, Fig. 92).
- Unscrew 4 allen screws ea. (1) and remove intake and outlet manifolds from cylinder.
- Discard gaskets (3) and replace by new ones.

- Clean intake and pressure valves (4) and check for wear and damage.
- Assembly is performed in the reverse sequence of removal.

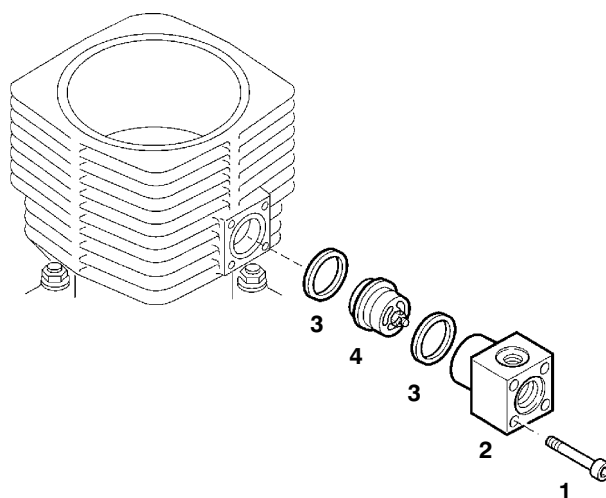


Fig. 92 Valves 2nd stage

9.3.3. Changing the valves of the 3rd stage

- Unscrew the intake and pressure lines from the cylinder head (7, Fig. 93).
- Remove internal hex. screws fixing cylinder head and completely remove the cylinder head from the cylinder.
- Insert two metal pins – 8 mm diameter, any length – in the holes in the cylinder head and secure these in a vice with the cylinder head on top.

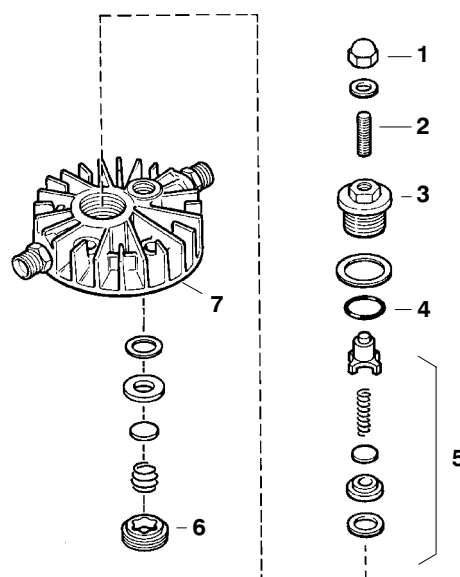


Fig. 93 Valves 3rd stage

- Unscrew the intake valve body with the special tool (part no. 4555-645, part of the tools set delivered with the unit) (Fig. 94).

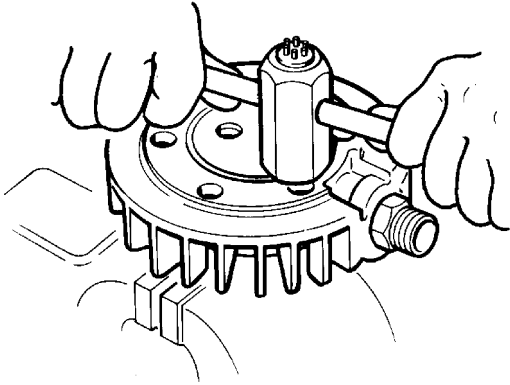


Fig. 94 Removing the intake valve



In order to avoid damaging the special tool or the valve when using the tool, ensure that it is pushed properly and firmly into the valve bore so that it will not tilt when it is turned.

- Turn the cylinder head and replace it on the metal pins.
- Unscrew the cap nut (1, Fig. 93) refer to Fig. 95.

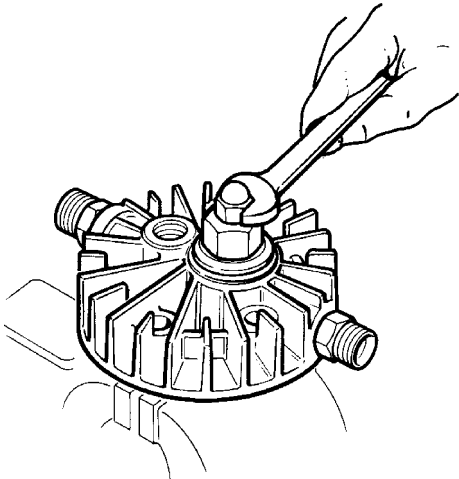


Fig. 95 Unscrewing the cap nut

- Unscrew stud (2) approx. 5 turns.
- Unscrew screw-in pressure plug (3), refer to Fig. 96. Take out the pressure valve parts.
- Clean intake and pressure valves and check for wear.



Valve seats and plate valves must not show any signs of wear or damage. Replace damaged parts.

- Clean and check valve springs. Compare their dimensions with the values in the following table.

Valve stroke	min.	max.
Intake valve	1.0 mm	1.25 mm
Pressure valve	1.0 mm	1.25 mm
Valve spring	Normal length	
Intake valve	9 - 10.5 mm	
Pressure valve	21 - 24 mm	



Replace damaged and worn parts.

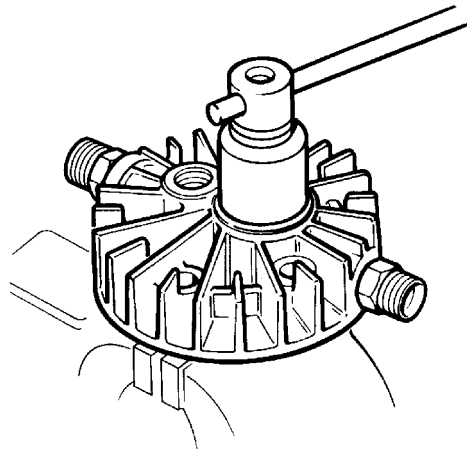


Fig. 96 Removing the screw-in pressure plug

- Check O-ring (4), replace if necessary.
- Clean cylinder head. Check that the intake and pressure valve bores are in perfect condition.
- Check with a precision straightedge that the underside of the cylinder head is flat, if necessary use an emery cloth to smooth out the surface.

Assembly:

- Screw the intake valve in with the special tool and tighten.



Valve spring and valve plate must not be jammed.

Check valve function. To do so, blow compressed air through the valve in the direction of flow.

- Secure the intake valve as follows: Peen the cylinder head aluminium on the screw-in thread of the intake valve in two places opposite one another with a small drift pin, diameter approx. 5 mm (Fig. 97).
- Insert the pressure valve parts and the O-ring.

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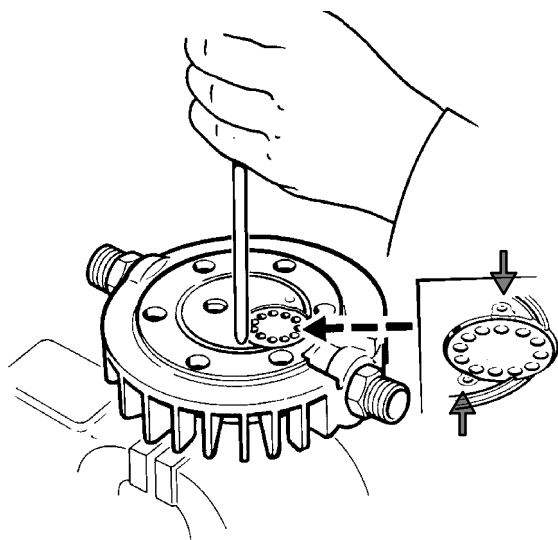


Fig. 97 Securing the intake valve



Check the pressure valve function and stroke by lifting the valve plate.

- Screw in the screw-in pressure plug with a pressure pad and tighten.



Ensure that the stud is unscrewed.

- Screw in the stud firmly, fit a new gasket and secure with the cap nut.
- Put the cylinder head on the cylinder and secure it with the internal hex. screws, for the correct torque value, see chapter D-17.1.
- Reconnect the intake and pressure lines.

9.3.4. Changing the valves of the 4th stage

For removal and installation of the 3rd stage intake valve proceed according to 9.3.2. Pressure valve (5) is merely inserted into valve head (7). It is sealed by O-ring (4) and fixed to the valve head by stud (3).



Change intake and pressure valves of 4th stage together, only.

Removal and reinstallation of 3rd stage pressure valve (Fig. 98).

- Remove acorn nut (1), rewind stud (3) up to three or four turns.
- Remove internal hex. screw (9) fixing valve head (7), take off valve head cover (8).
- Put two screwdrivers into the groove of outlet valve body, see Fig. 99. If necessary loosen valve first by using a 13 mm spanner on the flat surfaces.
- Lift out pressure valve (5) together with O-ring (4).

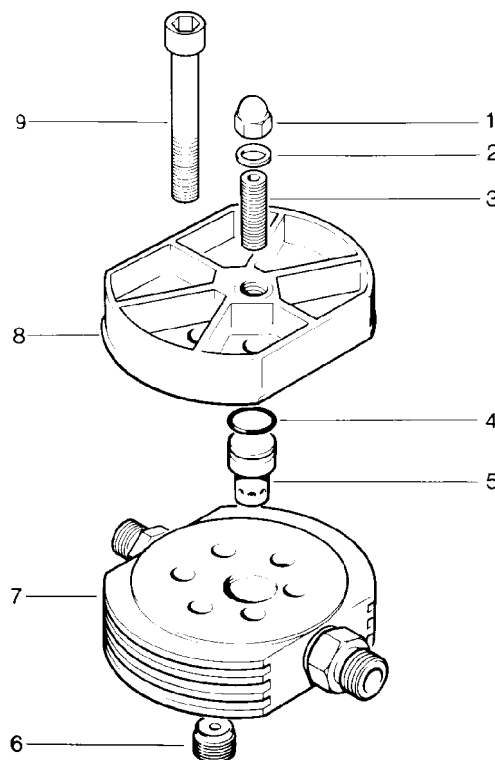


Fig. 98 Valve head 4th stage

Reinstall pressure valve (5) in reverse sequence:

- Put O-ring (4) into valve head (7). Check O-ring for abrasions.
- Insert pressure valve (5). Put on valve head cover (8).

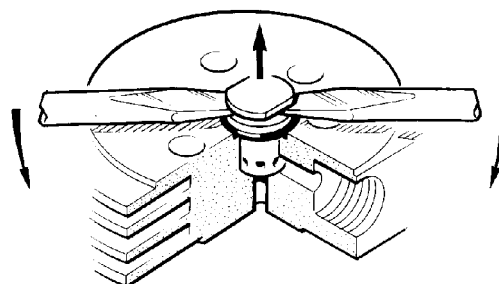


Fig. 99 Removal of 4th stage pressure valve

- Fix valve head (7) with internal hex. screws. See chapter 17.
- Screw in and fasten stud (3).
- Put on gasket (2).
- Screw on acorn nut (1).

9.4. COMPRESSOR BLOCKS K150, K180

9.4.1. Changing the valves of the 1st stage

Remove and reinstall the valves for replacement as follows (see Fig. 100).

Removal procedure

- Unscrew and remove cap nut (1).
- Unscrew stud (3) a number of turns.
- Check, and if required, replace gasket (2).
- Remove valve cover nuts (11) and take off valve cover (4).
- Check O-ring (10) and replace if required.
- Take off valve cap (5) and remove the valve (6) or (8).
- Check gasket (7), replace if necessary.

Installation procedure

- Fit new valve with gasket (7) and position valve cap (5).
- Fit valve cover (4) with O-ring (10) and fasten with self-retaining nuts (11).
- Tighten stud (3) using allen key and screw on cap nut (1).

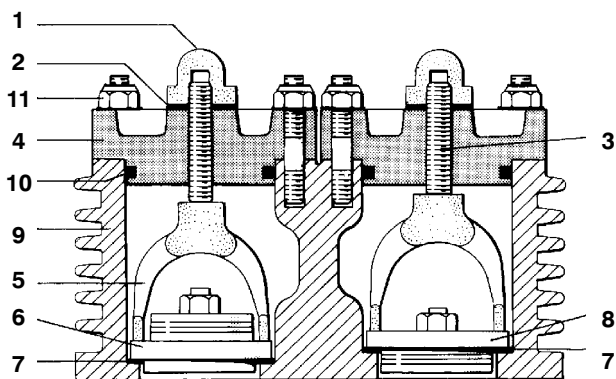


Fig. 100 Valve head and valves, 1st stage

- 1 Cap nut
- 2 Gasket
- 3 Stud
- 4 Valve cover
- 5 Valve cap
- 6 Discharge valve
- 7 Valve gasket
- 8 Inlet valve
- 9 Valve head
- 10 O-ring
- 11 Valve cover nut

9.4.2. Changing the valves of the 2nd and 3rd stages

Remove and reinstall the valves for replacement as follows (see Fig. 101).

Removal procedure

- Unscrew and remove hex. nut (1). Remove cap holder (2).
- Insert two screwdrivers into the groove of the valve cap (3) and lift off valve cap with O-ring (4).
- Check, and if required, replace O-ring (4).

- Take out valves (5) and (6).
- Check valve gasket (7) and replace if required.

Installation procedure

- Fit new valve with gasket (7) and position valve cap (3) with O-ring (4).
- Fit cap holder (2).



The valve cap for the inlet valve protrudes 2.5 mm (.98 in.) out of the valve head more than the valve cap for the discharge valve. (Cap holder is designed accordingly).

- Screw on hex. nut (1) and tighten with torque wrench. Refer to table in para. D-17.

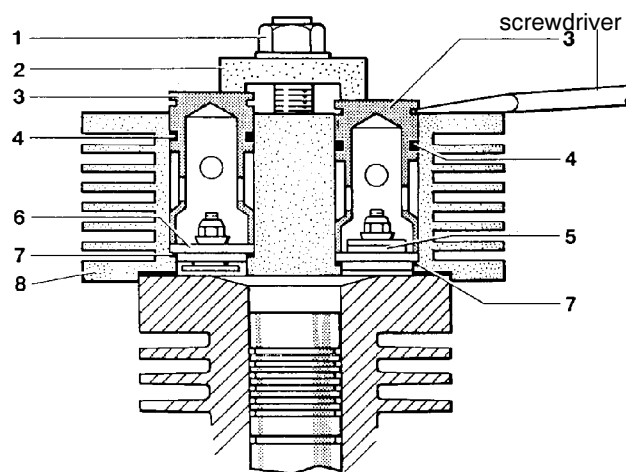


Fig. 101 Valve head and valves, 2nd/3rd stage

- 1 Hex. nut
- 2 Cap holder
- 3 Valve cap
- 4 O-ring
- 5 Discharge valve
- 6 Inlet valve
- 7 Valve gasket
- 8 Valve head

9.4.3. Changing the valves of the 4th stage

The valves are located in the valve head of the 4th stage, see Fig. 102. The inlet valve merely comprises a valve disk (6) and a wavy washer (5). The inlet valve seat is machined directly into the cylinder liner (8) of the 4th stage piston. The discharge valve consists of the valve seat (11), valve disk (12), valve spring (13), and stroke limiter (2).

The procedure for removal and reinstallation of the valves is as follows (refer to Fig. 102).

The valve head comprises the bottom section (7) and the upper section (3). The valve head is secured by means of the valve head screw (14) connecting the cylinder.

Removal procedure

- Loosen the inlet and discharge pipe on the valve head.
- Loosen and remove valve head screw (14).
- Take off valve top section (3) and stroke limiter (2) with O-ring (1). This releases the discharge valve disk (12) and discharge valve spring (13).

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- Check spring for satisfactory condition and resiliency preferably by comparing with a new spring.
- Replace spring if necessary.
- Check O-ring (1) and replace if necessary.
- Insert two screwdrivers into the extraction groove of the discharge valve seat (11) and lift valve seat with O-ring (9).
- Check, and if required, replace O-ring (9) and backing ring (10).
- Remove wavy washer (5) and inlet valve disk (6).
- Check inlet valve seat on piston liner (8). If scored, remove piston liner, take out piston, and lap valve seat.

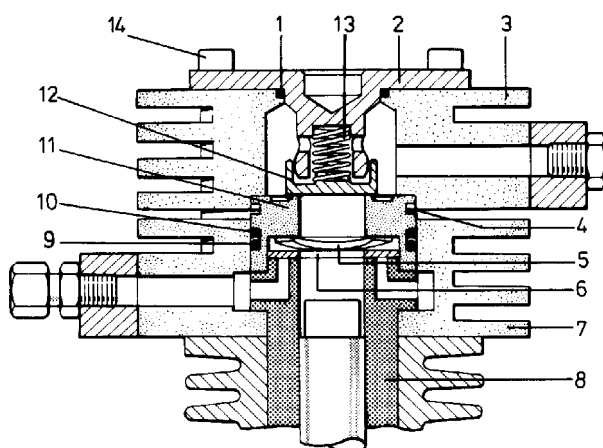


Fig. 102 Valve head and valves, 4th stage

- 1 O-ring
- 2 Stroke limiter
- 3 Valve head, top section
- 4 Extraction groove
- 5 Wavy washer
- 6 Inlet valve disk
- 7 Valve head, bottom section
- 8 Piston liner
- 9 O-ring
- 10 Backing ring
- 11 Discharge valve seat
- 12 Discharge valve disk
- 13 Discharge valve spring
- 14 Valve head screw

Installation procedure

- Turn flywheel on compressor manually until piston protrudes from the cylinder liner (8).
- Locate the inlet valve disk (6) and the wavy washer (5), both of which are prevented from side slip by the piston.
- Insert the discharge valve seat (11) in the bottom section of the valve head (7), taking care to avoid damage to the inlet valve disk and wavy washer.
- Place discharge valve spring (13) and discharge valve disk (12) on stroke limiter (2) and locate this in the top section of the valve head.
- Screw in valve head screws (14) and tighten down diagonally using a torque wrench, for torque values see chapter 17.1.

- Tighten inlet and discharge pipe couplings.

9.5. COMPRESSOR BLOCK IK18.1

9.5.1. Changing the valves of the 1st stage

See 9.4.1., IK150/180.

9.5.2. Changing the valves of the 2nd stage

Remove and reinstall the valves for replacement as follows (see Fig. 103).

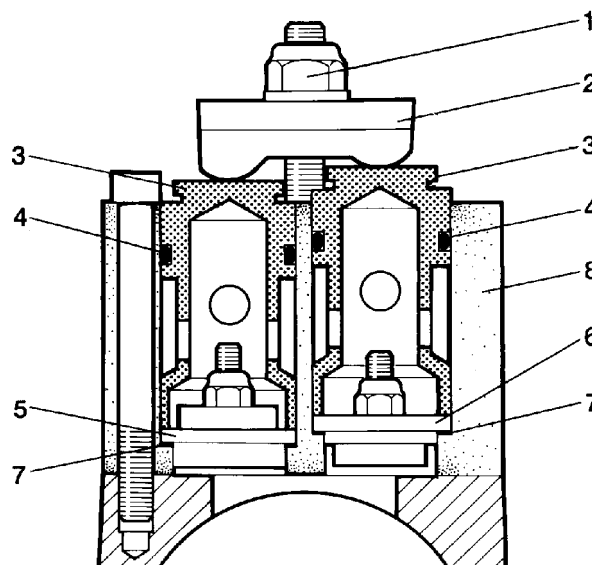


Fig. 103 Valve head and valves, 2nd stage

- 1 Hex. nut
- 2 Cap holder
- 3 Valve cap
- 4 O-ring
- 5 Discharge valve
- 6 Inlet valve
- 7 Valve gasket
- 8 Valve head

Removal procedure

- Unscrew and remove hex. nut (1). Remove cap holder (2).
- Insert two screwdrivers into the groove of the valve cap (3) and lift off valve cap with O-ring (4).
- Check, and if required, replace O-ring (4).
- Take out valves (5) and (6).
- Check valve gasket (7) and replace if required.

Installation procedure

- Fit new valve with gasket (7) and position valve cap (3) with O-ring (4).
- Fit cap holder (2).



The valve cap for the inlet valve protrudes 2.5 mm (.98 in.) out of the valve head more than the valve cap for the discharge valve. (Cap holder is designed accordingly).

- Screw on hex. nut (1) and tighten with torque wrench. Refer to table in para. D.17.1.

9.5.3. Changing the valves of the 3rd stage

See 9.4.2., IK150/180.

9.5.4. Changing the valves of the 4th and 5th stage



Change intake and pressure valves together, only.

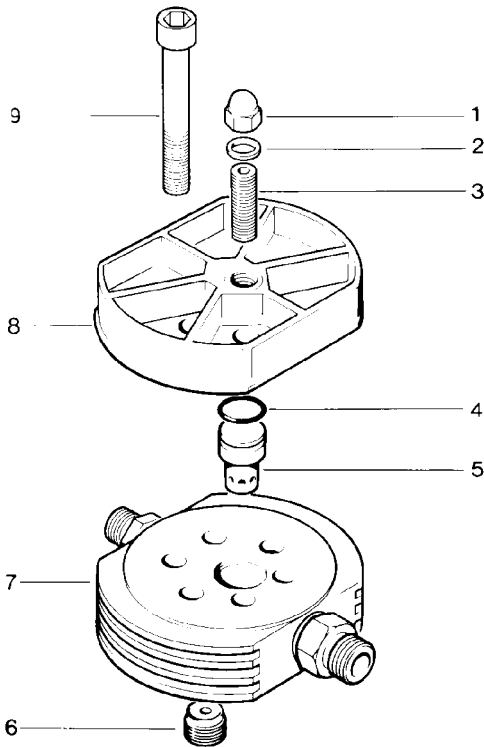


Fig. 104 Valve head 4th/5th stage

- Remove acorn nut (1), rewind stud (3) up to three or four turns.
- Remove internal hex. screw (9) fixing valve head (7), take off valve head cover (8).
- Insert two metal pins - 8 mm diameter, any length - in the holes in the cylinder head and secure these in a vice with the cylinder head on top.
- Unscrew the intake valve body (6) with the special tool (part no. 4555-645, part of the tools set delivered with the unit).



In order to avoid damaging the special tool or the valve when using the tool, ensure that it is pushed properly and firmly into the valve bore so that it will not tilt when it is turned.

Pressure valve (5, Fig. 104) is merely inserted into valve head (7). It is sealed by O-ring (4) and fixed to the valve head by stud (3).

Remove pressure valve according to Fig. 105 as follows:

- Put two screwdrivers into the groove of outlet valve body. If necessary loosen valve first by using a 13 mm spanner on the flat surfaces.

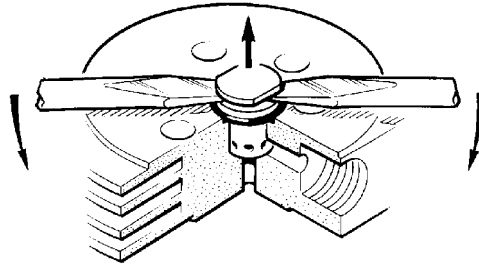


Fig. 105 Removal of 4th/5th stage pressure valve

Reinstall pressure valve (5) in reverse sequence:

- Put O-ring (4) into valve head (7). Check O-ring for abrasions.
- Insert pressure valve (5). Put on valve head cover (8).
- Fix valve head (7) with internal hex. screws. See chapter D-17.
- Screw in and fasten stud (3).
- Put on gasket (2).
- Screw on acorn nut (1).

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10. AUTOMATIC CONDENSATE DRAIN

10.1. GENERAL

Due care must be taken to ensure that any oil which may be drained with the condensate will not pollute the environment. For example, the drain pipe can be directed into a collecting vessel or into drain facilities incorporating oil separators.



Dispose of the condensate according to local regulations!

10.2. MAINTENANCE

The condensate drain valves for the intermediate separators and for the oil and water separator are provided with manual drain valves to check correct operation of the automatic system.

The automatic condensate drain system must be serviced as follows:

- Open all manual drain valves on the separators one after the other, once a week.

This must be carried out immediately after the automatic system has drained the condensate. Observe the drainage of condensate when opening the manual drain valves. If the system drains a lot of condensate this is a sign that the system or the corresponding condensate drain valves are not working properly. Find the fault and remedy accordingly. If hardly any condensate emerges, the automatic system is operating properly. For fault correction, see section D-16. "Trouble-shooting".

10.3. ACTIVATED CHARCOAL ELEMENT MAINTENANCE

Replace or clean and refill the charcoal filter of the condensate collecting tank according to maintenance schedule in D.1.

Item	Part no.	Qty. rq'd
Filter assy	075562	1
Activated charcoal	N65	185 g
Fleece	75654	5

10.4. ACTIVATED CHARCOAL MAINTENANCE

(Units with 40 ltrs. condensate collector, only)

Replace the activated charcoal in the condensate collecting tank according to maintenance schedule in D.1.

Item	Part no.	Qty. rq'd
Activated charcoal	N65	3700 g
Fleece	72207	4

10.5. FLOAT SWITCH MAINTENANCE

(40 ltrs. condensate collector, only)

The float switch should be cleaned at regular intervals to prevent sticking of the switch due to oil residues.

11. ELECTRICAL SYSTEM**11.1. DRIVE MOTOR**

The compressor unit is driven by an electric motor by means of V-belts. Check the V-belts regularly for tension and wear. See sections D-1 and D-12.

Except for external cleaning, the drive motor requires no servicing. The motor bearings may need lubricating, depending on the model. Please observe the instructions written on the motor.

11.2. ELECTRIC CONTROL

For the electrical system of the compressor unit no regular maintenance is necessary.

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12. COMPRESSOR DRIVE SYSTEM

12.1. ELECTRIC DRIVE MOTOR

The drive motor normally needs no servicing except outer cleaning from time to time. Depending on manufacturer and model, greasing of the bearings may be necessary. Observe respective notes on the motor.

12.2. V-BELTS

V-belt tension is adjusted automatically by the weight of the motor. The motor is mounted on a hinged motor plate.

- Check the V-belt regularly for damage and wear (see section D-1)
- Replace if necessary. If more than one V-belt is installed, always replace the complete set.

13. MAINTENANCE ON FILLING VALVES

Maintenance work on the filling panels includes merely cleaning and changing the filling valves as well as checking the safety valves.



Only carry out maintenance work on filling valves when the filling panel is depressurized.

Switch off the compressor and open filling valves. Then dismantle the filling valves, see 13.1.

13.1. REMOVING THE FILLING VALVES

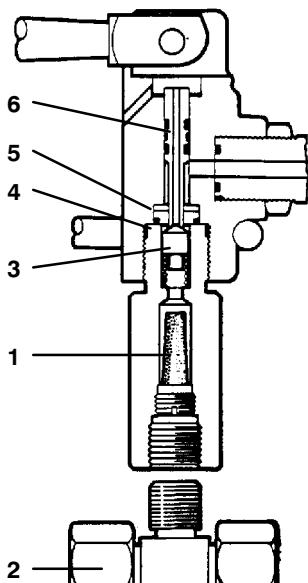
Remove filling valve brackets. To do so, unscrew nuts on the inside of the filling panel, then unscrew cap nuts and remove filling valves from the connecting tubes.

13.1.1. Cleaning / changing the sintered metal filter

See Fig. 106.

The sintered metal filter (1) is situated in the lower part of the filling valves. It separates small particles from the compressed air. We recommend that you clean it regularly.

To do so, unscrew T connection (2) on the filling valve. Remove sintered metal filter with a screwdriver and clean filter in warm soapy water. Dry the filter and replace it. Tighten properly with the screwdriver. Replace the sintered metal filter if there are signs of damage.



13.1.2. Replacing damaged components

Certain components, such as piston and gaskets, can become dented during operation. In this case, they must be replaced.

The required parts are included in the repair kit for filling valves, order no. N5052.

- First of all remove the lower part from the upper part of the filling valve (unscrew).

- Remove and replace the sealing cone (3) in the lower part. Then remove and replace O-ring (4), ball seat (5) and piston (6) in the upper part. Ensure parts are correctly replaced.
- Screw the lower part of the filling valve onto the upper part, tighten properly.

13.1.3. Reassembling the filling valve

Screw the T connection (2) onto the lower part of the filling valve. Replace the filling valve on the connecting tube and replace cap nuts properly.

Replace bracket and tighten nuts. Close filling valves.

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14. MAINTENANCE OF STORAGE BOTTLES

14.1. LIFETIME



The storage bottles are subject to dynamic load. They are designed to withstand a certain no. of load cycles. (1 load cycle = 1 pressurization, 1 depressurization.) The storage bottles must be replaced when the maximum permissible no. of load cycles has been reached. Determine the number of cycles from the table below.

Pressure range	max. no. of load cycles
360 — 0 — 360	1.900
360 — 50 — 360	3.600
360 — 80 — 360	5.500
360 — 100 — 360	7.500
360 — 150 — 360	18.500
360 — 200 — 360	58.200
360 — 250 — 360	280.800
360 — 294 — 360	2,4 mio. (i.e. unlimited)

14.2. INSPECTIONS

The storage bottles have to be maintained according to the German "Pressure Vessel Regulations", § 10, section 4. This results in inner inspections every 5 years, pressure tests every 10 years and outer inspections every 2 years, which have to be performed by the local authorities.

14.3. CONDENSATE DRAIN

Drain condensate at a regular basis. The amount of condensate depends on the condition of compressed medium, on the flow rate as well as on the ambient temperature, and should be determined individually for every single application.

15. REPAIR INSTRUCTIONS

Preventive maintenance usually involves replacing the valves, gaskets and sealing rings as well as carrying out the maintenance work according to the maintenance schedule in chapter D.1.



All further maintenance and repair work not contained in this manual have to be performed by an authorized technical service. It is particularly pointed out that

- no repair should be carried out on the crank-drive nor on the bearings
- safety valves are not repaired but always replaced completely.

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16. TROUBLE-SHOOTING

Trouble	Cause	Remedy
Drive Motor (electric)		
Motor will not start	Electric circuitry faulty	Before attempting to make any repairs, check all fuses, terminal connections, wire leads, make sure that motor data complies with mains supply
Compressor Block		
No oil pressure (IK150, IK180, only)	Air trapped in oil pump	Vent pump and line see D-2.
Sight glass exhibits air bubbles (IK150, IK180, only)	Oil pressure regulator dirty	Clean valve and readjust oil pressure regulator D-2.
Oil foam in the crankcase	Last stage piston worn	Operate compressor with final stage valve head removed. If oil flows continuously out of cylinder, replace piston and liner
	Last stage outlet valve defective	Replace
Compressor does not attain final pressure	Condensate drain valve(s) and/or fittings leaking	Tighten and reseal
	Premature opening of final safety valve	Clean final safety valve and readjust
	Piston rings worn	Replace
	Excessive piston clearance	Replace
Compressor output insufficient	Pipes leaking	Re-tighten
Safety valves between individual stages releasing pressure	Intermediate pressure too high	Check valves - see D-9. - Service and clean valves
	Valves not closing properly	
Compressor running too hot	Insufficient supply of fresh cooling air	Check location max. ambient temperature + 45 °C (110 °F)
	Intake or outlet valves not closing properly	Check and clean valves, replace as necessary
	Wrong direction of rotation	See arrow on compressor and remedy accordingly
Oil residue in delivered air	Improper maintenance of filters, filter cartridge saturated	Remedy filters, change filter cartridges
	Wrong oil type	Use correct oil (see oil list) and clean sooted valves

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Trouble	Cause	Remedy
Electric Control System		
Control does not switch on	No control voltage	Check feed line
	Control fuse defective	Replace fuse, eliminate cause
	Control current line cut off, line or terminal loose	Tighten terminal
	Thermal overload triggered	Clear faults as described in the following
Thermal overload relay for drive motor triggered	Current consumption too high	Check compressor drive
	Overload relay set too low	Correct setting
Control does not switch off, final pressure safety valve blows off	Final pressure switch set too high	Correct setting
	Final pressure safety valve defective	Replace safety valve
Automatic Condensate Drain		
Drain valves do not close	No control air	Check control air line
	Drain valves leaking	Dismantle drain valve and clean
Drain valves do not open	Condensate drain valve piston jammed	Dismantle drain valve, clean or replace valve
Solenoid valve does not close	Solenoid valve faulty	Check solenoid valve and replace if necessary
	No electrical signal	Check for voltage from timer
Solenoid valve does not open	Solenoid valve faulty	Check solenoid valve and replace if necessary
	Continuous electrical signal	Check electrical control circuit and timer
Unsatisfactory drainage (lot of condensate from manual valves)	Nozzles in 3rd and 4th stage drain valves clogged	Remove nozzles, clean

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17. TABLES

17.1. TIGHTENING TORQUE VALUES



Unless otherwise specified in text, the following torque values apply. All valve head screws require torque wrench tightening! The indicated torque values are valid for bolts in greased condition. Replace self-retaining nuts on reassembly.

Bolt or screw	Thread	Max. torque
Hex and allen head	M 6	10 Nm (7 ft.lbs)
Hex and allen head	M 8*	25 Nm* (18 ft.lbs)
Hex and allen head	M 10	45 Nm (32 ft.lbs)
Hex and allen head	M 12	75 Nm (53 ft.lbs)
Hex and allen head	M 14	120 Nm (85 ft.lbs)
Hex and allen head	M 16	200 Nm (141 ft.lbs)
Pipe connections (swivel nuts):		Finger-tight + 1/2 turn

17.2. TORQUE SEQUENCE

Tighten valve head and cylinder bolts/nuts equally in the sequence shown in Fig. 107.

Be sure to tighten all parts in **cold** condition only.

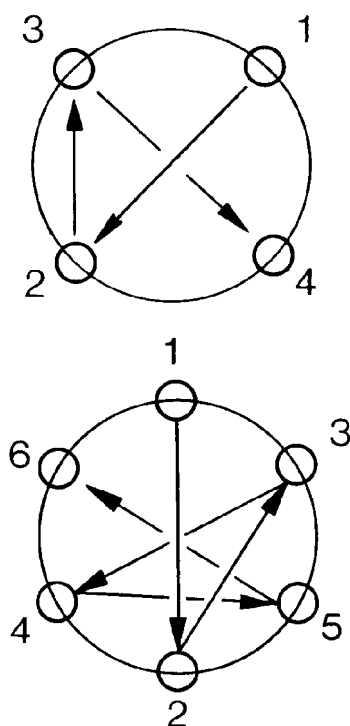


Fig. 107 Torque sequence

* Exception: mounting bolts of final pressure safety valve: 10 Nm

17.3. LUBRICATION CHART

Usage	Lubricants
Rubber and plastic parts, filter housing threads	WEICON WP 300 WHITE part no. N19752 or White petrolatum DAB9 part no. N19091
Sealing rings	Klüber Microlube GL261
Shaft seal (seal) Shaft seal (shaft)	Klüber Microlube GL261 Klüber SK 01-205
Screws, bolts, threads	WEICON ANTI-SEIZE AS 040 P part no. N19753 or equivalent compound with copper or MoS ₂ additives

For all lubricating oils refer to chapter 2 or lubricating oil list available through **BAUER** Service Department.

17.4. ADHESIVE AND SEALANT CHART

Usage	Adhesives and Sealants
Screws, Studs	Loctite 2701
Seal for conical threads	Loctite 243
Metal - metal seals High temperature connections, e.g. valve heads, cylinders	Temperature resistant compound, e.g. WACKER E10, part no. N18247
Paper gaskets	Loctite FAG 2

17.5. TESTING AGENTS

Usage	Testing agents
Tube connectors, tubes	Leakage test spray, part no. FM0089

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17.6. CONVERSION TABLE bar - psi

bar	psi	bar	psi	bar	psi	bar	psi	bar	psi
1	15	56	812	111	1,610	166	2,407	230	3,335
2	29	57	827	112	1,624	167	2,422	235	3,408
3	44	58	841	113	1,639	168	2,436	240	3,480
4	58	59	856	114	1,653	169	2,451	245	3,553
5	73	60	870	115	1,668	170	2,465	250	3,625
6	87	61	885	116	1,682	171	2,480	255	3,698
7	102	62	899	117	1,697	172	2,494	260	3,770
8	116	63	914	118	1,711	173	2,509	265	3,843
9	131	64	928	119	1,726	174	2,523	270	3,915
10	145	65	943	120	1,740	175	2,538	275	3,988
11	160	66	957	121	1,755	176	2,552	280	4,060
12	174	67	972	122	1,769	177	2,567	285	4,133
13	189	68	986	123	1,784	178	2,581	290	4,205
14	203	69	1,001	124	1,798	179	2,596	295	4,278
15	218	70	1,015	125	1,813	180	2,610	300	4,350
16	232	71	1,030	126	1,827	181	2,625	305	4,423
17	247	72	1,044	127	1,842	182	2,639	310	4,495
18	261	73	1,059	128	1,856	183	2,654	315	4,568
19	276	74	1,073	129	1,871	184	2,668	320	4,640
20	290	75	1,088	130	1,885	185	2,683	325	4,713
21	305	76	1,102	131	1,900	186	2,697	330	4,785
22	319	77	1,117	132	1,914	187	2,712	335	4,858
23	334	78	1,131	133	1,929	188	2,726	340	4,930
24	348	79	1,146	134	1,943	189	2,741	345	5,003
25	363	80	1,160	135	1,958	190	2,755	350	5,075
26	377	81	1,175	136	1,972	191	2,770	355	5,148
27	392	82	1,189	137	1,987	192	2,784	360	5,220
28	406	83	1,204	138	2,001	193	2,799	365	5,293
29	421	84	1,218	139	2,016	194	2,813	370	5,365
30	435	85	1,233	140	2,030	195	2,828	375	5,438
31	450	86	1,247	141	2,045	196	2,842	380	5,510
32	464	87	1,262	142	2,059	197	2,857	385	5,583
33	479	88	1,276	143	2,074	198	2,871	390	5,655
34	493	89	1,291	144	2,088	199	2,886	395	5,728
35	508	90	1,305	145	2,103	200	2,900	400	5,800
36	522	91	1,320	146	2,117	201	2,915	405	5,873
37	537	92	1,334	147	2,132	202	2,929	410	5,945
38	551	93	1,349	148	2,146	203	2,944	415	6,018
39	566	94	1,363	149	2,161	204	2,958	420	6,090
40	580	95	1,378	150	2,175	205	2,973	425	6,163
41	595	96	1,392	151	2,190	206	2,987	430	6,235
42	609	97	1,407	152	2,204	207	3,002	435	6,308
43	624	98	1,421	153	2,219	208	3,016	440	6,380
44	638	99	1,436	154	2,233	209	3,031	445	6,453
45	653	100	1,450	155	2,248	210	3,045	450	6,525
46	667	101	1,465	156	2,262	211	3,060	455	6,598
47	682	102	1,479	157	2,277	212	3,074	460	6,670
48	696	103	1,494	158	2,291	213	3,089	465	6,743
49	711	104	1,508	159	2,306	214	3,103	470	6,815
50	725	105	1,523	160	2,320	215	3,118	475	6,888
51	740	106	1,537	161	2,335	216	3,132	480	6,960
52	754	107	1,552	162	2,349	217	3,147	485	7,033
53	769	108	1,566	163	2,364	218	3,161	490	7,105
54	783	109	1,581	164	2,378	220	3,190	495	7,178
55	798	110	1,595	165	2,393	225	3,263	500	7,250

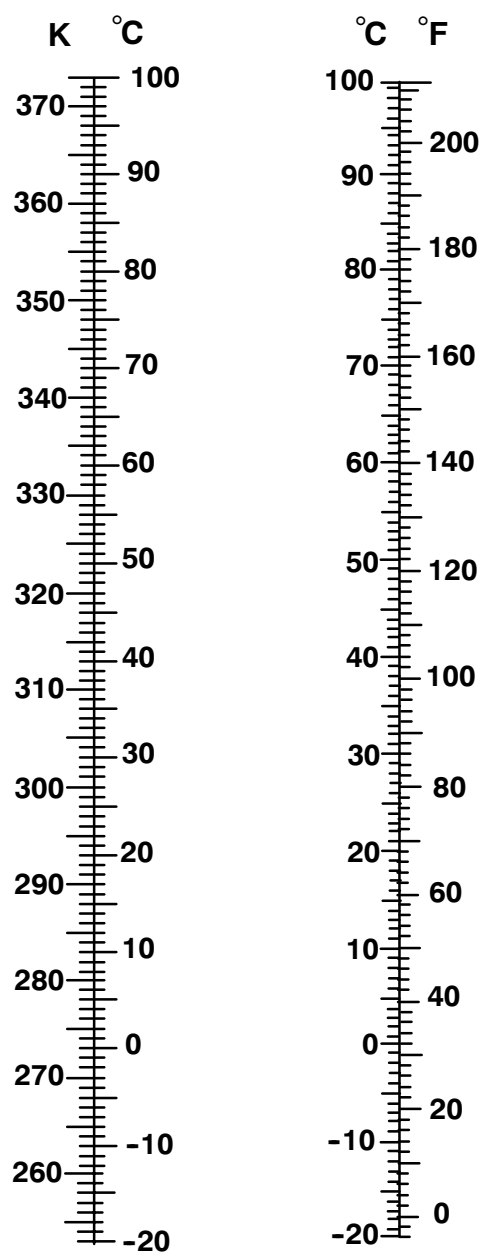
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17.7. CONVERSION TABLE psi - bar

psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
1	0.07	61	4.21	310	21.38	910	63	3,400	234
2	0.14	62	4.28	320	22.07	920	63	3,500	241
3	0.21	63	4.34	330	22.76	930	64	3,600	248
4	0.28	64	4.41	340	23.45	940	65	3,700	255
5	0.34	65	4.48	350	24.14	950	66	3,800	262
6	0.41	66	4.55	360	24.83	960	66	3,900	269
7	0.48	67	4.62	370	25.52	970	67	4,000	276
8	0.55	68	4.69	380	26.21	980	68	4,100	283
9	0.62	69	4.76	390	26.90	990	68	4,200	290
10	0.69	70	4.83	400	27.59	1,000	69	4,300	297
11	0.76	71	4.90	410	28.28	1,010	70	4,400	303
12	0.83	72	4.97	420	28.97	1,020	70	4,500	310
13	0.90	73	5.03	430	29.66	1,030	71	4,600	317
14	0.97	74	5.10	440	30.34	1,040	72	4,700	324
15	1.03	75	5.17	450	31.03	1,050	72	4,800	331
16	1.10	76	5.24	460	31.72	1,060	73	4,900	338
17	1.17	77	5.31	470	32.41	1,070	74	5,000	345
18	1.24	78	5.38	480	33.10	1,080	74	5,100	352
19	1.31	79	5.45	490	33.79	1,090	75	5,200	359
20	1.38	80	5.52	500	34.48	1,100	76	5,300	366
21	1.45	81	5.59	510	35.17	1,110	77	5,400	372
22	1.52	82	5.66	520	35.86	1,120	77	5,500	379
23	1.59	83	5.72	530	36.55	1,130	78	5,600	386
24	1.66	84	5.79	540	37.24	1,140	79	5,700	393
25	1.72	85	5.86	550	37.93	1,150	79	5,800	400
26	1.79	86	5.93	560	38.62	1,160	80	5,900	407
27	1.86	87	6.00	570	39.31	1,170	81	6,000	414
28	1.93	88	6.07	580	40.00	1,180	81	6,100	421
29	2.00	89	6.14	590	40.69	1,190	82	6,200	428
30	2.07	90	6.21	600	41.38	1,200	83	6,300	434
31	2.14	91	6.28	610	42.07	1,210	83	6,400	441
32	2.21	92	6.34	620	42.76	1,220	84	6,500	448
33	2.28	93	6.41	630	43.45	1,230	85	6,600	455
34	2.34	94	6.48	640	44.14	1,240	86	6,700	462
35	2.41	95	6.55	650	44.83	1,250	86	6,800	469
36	2.48	96	6.62	660	45.52	1,260	87	6,900	476
37	2.55	97	6.69	670	46.21	1,270	88	7,000	483
38	2.62	98	6.76	680	46.90	1,280	88	7,100	490
39	2.69	99	6.83	690	47.59	1,290	89	7,200	497
40	2.76	100	6.90	700	48.28	1,300	90	7,300	503
41	2.83	110	7.59	710	48.97	1,400	97	7,400	510
42	2.90	120	8.28	720	49.66	1,500	103	7,500	517
43	2.97	130	8.97	730	50.34	1,600	110	7,600	524
44	3.03	140	9.66	740	51.03	1,700	117	7,700	531
45	3.10	150	10.34	750	51.72	1,800	124	7,800	538
46	3.17	160	11.03	760	52	1,900	131	7,900	545
47	3.24	170	11.72	770	53	2,000	138	8,000	552
48	3.31	180	12.41	780	54	2,100	145	8,100	559
49	3.38	190	13.10	790	54	2,200	152	8,200	566
50	3.45	200	13.79	800	55	2,300	159	8,300	572
51	3.52	210	14.48	810	56	2,400	166	8,400	579
52	3.59	220	15.17	820	57	2,500	172	8,500	586
53	3.66	230	15.86	830	57	2,600	179	8,600	593
54	3.72	240	16.55	840	58	2,700	186	8,700	600
55	3.79	250	17.24	850	59	2,800	193	8,800	607
56	3.86	260	17.93	860	59	2,900	200	8,900	614
57	3.93	270	18.62	870	60	3,000	207	9,000	621
58	4.00	280	19.31	880	61	3,100	214	9,100	628
59	4.07	290	20.00	890	61	3,200	221	9,200	634
60	4.14	300	20.69	900	62	3,300	228	9,300	641

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17.8. TEMPERATURE CONVERSION TABLE



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17.9. MISCELLANEOUS CONVERSION TABLES

Linear measures

	cm	m	km	in	ft	mile
cm	1	0.01	1×10^{-5}	0.3937	0.03281	6.21×10^{-6}
m	100	1	0.001	39.37	3.281	6.21×10^{-4}
km	1×10^5	1000	1	3.94×10^4	3281	0.6214
in	2.540	0.02540	2.54×10^{-5}	1	0.08333	1.58×10^{-5}
ft	30.48	0.3048	3.05×10^{-4}	12	1	1.89×10^{-4}
mile	1.61×10^5	1.609	1.609	6.34×10^4	5280	1

Volume measures

	cm ³	litre	m ³	in ³	ft ³	gal
cm ³	1	0.001	1×10^{-6}	0.06102	3.53×10^{-5}	2.64×10^{-4}
litre	1000	1	0.001	61.02	0.03532	0.2642
m ³	1×10^6	1000	1	6.10×10^4	35.31	264.2
in ³	16.39	0.01639	1.64×10^{-5}	1	5.79×10^{-4}	0.00433
ft ³	2.83×10^4	28.32	0.02832	1728	1	7.481
gal	3785	3.785	0.00379	231.0	0.1337	1

Flow rates

	l/sec	gal/min	ft ³ /sec	ft ³ /min	l/min
l/sec	1	15.85	0.03532	2.119	60
gal/min	0.06309	1	0.00223	0.1337	3.785
ft ³ /s	28.32	448.8	1	60	1699.2
ft ³ /min	0.4719	7.481	0.01667	1	28.32
l/min	0.0167	0.2642	0.0005885	0.03532	1

Pressure conversion table

	mm Hg	inch Hg	inch H ₂ O	ft H ₂ O	atm	psi	kg/cm ²	bar	kPa
mm Hg	1	0.03937	0.5353	0.04460	0.00132	0.01934	0.00136	0.00133	0.133
inch Hg	25.40	1	13.60	1.133	0.03343	0.4912	0.03453	0.0340	3.395
inch H ₂ O	1.868	0.07355	1	0.08333	0.00246	0.03613	0.00254	0.0025	0.249
ft H ₂ O	22.42	0.8826	12	1	0.02950	0.4335	0.03048	0.0300	2.984
atm	760	29.92	406.8	33.90	1	14.70	1.033	1.013	101.375
lb/in ²	51.71	2.036	27.67	2.307	0.06805	1	0.07031	0.069	6.895
kg/cm ²	735.6	28.96	393.7	32.81	0.9678	14.22	1	0.981	98.066
bar	751.8	29.41	402.164	33.3	0.9870	14.50	1.02	1	100
kPa	7.525	0.2960	4.021	0.3350	0.0098	0.1450	0.01	0.01	1

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Instruction Manual Breathing Air Compressor Units • VERTICUS 5

E. STORAGE, PRESERVATION

1. GENERAL

If the compressor is put out of service for more than six months, the unit should be preserved in accordance with the following instructions:

Make sure the compressor is kept indoors in a dry, dust free room. Only cover the compressor with plastic if it is certain that no condensation will form under the sheet. Nevertheless, the sheet should be removed from time to time and the unit cleaned on the outside.

If this procedure cannot be followed and/or the compressor is going to be taken out of service for more than 2 years, please contact our Technical Service Department for special instructions.

2. PREPARATION

Before preserving the compressor unit, run it warm and when it reaches the specified service pressure, keep it running for approx. 10 minutes.

Then carry out the following:

- Check all pipes, filters and valves (also safety valves) for leakage.
- Tighten all couplings, as required.
- After 10 minutes, open the filling valves or the outlet valve and run the compressor at the set minimum pressure (pressure maintaining valve, see chapter 6) for approx. 5 minutes.
- After these 5 minutes, shut the system down. Drain condensate from separators. Depressurize unit. Shut filling valves/outlet valve.
- Open filters and grease threads.

On units equipped with a filter system please observe the following:

- **Ensure that filter cartridges remain in filters!**
This will prevent oil entering filling lines as a result of preservation procedures.
- Remove intake filter from manifold and all intake lines from valve heads.
- Let compressor unit cool down.

3. PRESERVING THE COMPRESSOR

- Turn the compressor on and spray a small amount (approx. 10 cm³ of compressor oil into the valve head inlet port while the compressor is running. Do not let the compressor warm up too much, to keep oil sticky.
- Shut compressor unit off.
- Close all valves.
- Place the dust cap onto the inlet port.

4. PRESERVING THE MOTOR/ENGINE

Preserve the motor/engine according to the instructions of the motor/engine manufacturer.

5. PREVENTIVE MAINTENANCE DURING STORAGE

Run the compressor **once every 6 months** as described in the following:

- Remove the dust cap from the inlet port and insert the intake filter.
- Open the filling valves or the outlet valve and let the unit run for approx. 10 minutes or until the pressure gauges indicate the correct values.
- Stop the compressor.
- Open condensate drain valves and release compressed air. Close condensate drain valves again.
- Carry out preservation procedure according to para.3.

5.1. CHANGING THE LUBE OIL FOR PRESERVING

- After prolonged storage, the oil will age in the compressor and engine. It should be drained after **2 years** at the latest and replaced with fresh oil.
- The stated period can only be attained when the crankcase is sealed during the preservation period in accordance with the preservation requirements.
- After changing the oil, turn the compressor and the engine or run them for the required period. See paras. 3. and 4.
- Check the lubrication of the compressor when putting the unit into operation once every six months or when turning the compressor.

The oil pump is functioning properly when oil can be seen flowing through the sight glass of the oil pressure regulator and if the oil pressure gauge indicates the prescribed pressure.

6. REACTIVATING THE COMPRESSOR UNIT

- Remove the dust cap from the inlet port and insert the intake filter.
- Check the oil level of the compressor.
- Check the motor/engine according to the manufacturer's instructions.
- Only applicable for units equipped with a filter system: open the purifier and change all filter cartridges.
- Run the compressor warm with open filling valves or outlet valve for approx. 10 minutes.
- Check the oil pressure on the pressure gauge or the oil flow in the sight glass. If there is any fault, check the lubrication of the compressor.

- After 10 minutes, close the filling valves or the outlet valve and run the unit up to final pressure until the final pressure safety valve blows. To do so, override the pressure switch, if installed on the unit. On compressors fitted with a factory-installed **B-CONTROL** compressor control unit, the unit has to be set to "Safety valve check" in "Operation mode" menu. Refer to chapter A.11.
- Check the inter-pressure safety valves for leakage.
- Establish cause of any fault from the trouble-shooting table, section D-16., and remedy.
- Stop the system when running properly, the compressor is then ready for operation.

7. TRANSPORTATION

- Packing and/or receptacle must be easy to handle and in such a condition as to protect their content during transportation.
- Loose parts as tools and accessories have to be packed in a suitable individual packing.
- Moving parts have to be fixed at the unit.
- Electric and electronic parts and their connections have to be protected against humidity and mechanical damage.

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F. DIAGRAMS, DRAWINGS

1. FLOW DIAGRAMS

Flow diagrams	No.
Flow diagram KAP 12.14, V12.14	
Flow diagram KAP 150, KAP 180, V 150, V180	
Flow diagram KAP 18.1, V 18.1	
Schematic parts list, valid for all flow diagrams	76360

2. DRAWINGS

Drawing	No.
Compressor unit Verticus 5, breathing air units KAP series	78587-02
Compressor unit Verticus 5, breathing air units V series	78587-03

3. LISTS

List	No.
Lubricating oil list, English	KB 70851-994

4. SCHEMATIC DIAGRAMS

Schematic diagram	Dwg.-No.
Schematic diagrams	according to order
Electric parts list, valid for all schematic diagrams	KB 56344-992

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G. PARTS LISTS

1. COMPRESSOR UNITS

1.1. COMPRESSOR UNIT KAP 12.14

Applicable spare parts lists:	Code
Verticus 5 compressor units	TV5-1/0
Compressor block	A17.1
Filter system	B59
Automatic condensate drain unit	C60
Instrument panel	D15
Frame and panelling	E26
Drive system	F14
Accessories ^{a)} :	
Filling panels, Verticus model	G47
Filling panels, KAP model with filling hoses	G14
Filling panels, KAP model with direct filling connectors	G51
Compressor control system	G59
Storage batteries	G7
Condensate collector system, 40 l container	G44
Automatic selector unit	G46
Intake system and intake pressure reduction	G60

1.2. COMPRESSOR UNIT KAP 150, KAP 180

Applicable spare parts lists:	Code
Verticus 5 compressor units	TV5-1/0
Compressor block	A3.9
Filter system	B59
Automatic condensate drain unit K150, K180	C60
Instrument panel	D15
Frame and panelling	E26
Drive system	F14
Accessories ^{a)} :	
Filling panels, Verticus model	G47
Filling panels, KAP model with filling hoses	G14
Filling panels, KAP model with direct filling connectors	G51
Compressor control system	G59
Storage batteries	G7
Condensate collector system, 40 l container	G44
Automatic selector unit	G46
Intake system and intake pressure reduction	G60

a) According to order

1.3. COMPRESSOR UNIT KAP18.1

Applicable spare parts lists:	Code
Verticus 5 compressor units	TV5-1/0
Compressor block	A15.3
Filter system	B59
Automatic condensate drain unit	C60
Instrument panel	D15
Frame and panelling	E26
Drive system	F14
Accessories ^{a)} :	
Filling panels, Verticus model	G47
Filling panels, KAP model with filling hoses	G14
Filling panels, KAP model with direct filling connectors	G51
Compressor control system	G59
Storage batteries	G7
Condensate collector system, 40 l container	G44
Automatic selector unit	G46
Intake system and intake pressure reduction	G60

1.4. COMPRESSOR UNIT V 12.14

Applicable spare parts lists:	Code
Verticus 5 compressor units	TV5-1/0
Compressor block	A17.1
Filter system	B59
Automatic condensate drain unit	C60
Instrument panel	D15
Frame and panelling	E26
Drive system	F14
Accessories ^{a)} :	
Filling panels, Verticus model	G47
Filling panels, KAP model with filling hoses	G14
Filling panels, KAP model with direct filling connectors	G51
Compressor control system	G59
Storage batteries	G7
Condensate collector system, 40 l container	G44
Automatic selector unit	G46
Intake system and intake pressure reduction	G60

a) According to order

Instruction Manual Breathing Air Compressor Units • VERTICUS 5

1.5. COMPRESSOR UNIT V 150, V 180

Applicable spare parts lists:	Code
Verticus 5 compressor units	TV5-1/0
Compressor block	A3.9
Filter system	B59
Automatic condensate drain unit K150, K180	C60
Instrument panel	D15
Frame and panelling	E26
Drive system	F14
Accessories ^{a)} :	
Filling panels, Verticus model	G47
Filling panels, KAP model with filling hoses	G14
Filling panels, KAP model with direct filling connectors	G51
Compressor control system	G59
Storage batteries	G7
Condensate collector system, 40 l container	G44
Automatic selector unit	G46
Intake system and intake pressure reduction	G60

1.6. COMPRESSOR UNIT V 18.1

Applicable spare parts lists:	Code
Verticus 5 compressor units	TV5-1/0
Compressor block	A15.3
Filter system	B59
Automatic condensate drain unit	C60
Instrument panel	D15
Frame and panelling	E26
Drive system	F14
Accessories ^{a)} :	
Filling panels, Verticus model	G47
Filling panels, KAP model with filling hoses	G14
Filling panels, KAP model with direct filling connectors	G51
Compressor control system	G59
Storage batteries	G7
Condensate collector system, 40 l container	G44
Automatic selector unit	G46
Intake system and intake pressure reduction	G60

ERSATZTEILLISTE SPARE PARTS CATALOGUE CATALOGUE DES PIECES

TV5-1/0

Kompressoranlagen
Compressor units
Groupes compresseurs

Verticus 5



Auflage /edition /édition 04/ 2000

BAUER KOMPRESSOREN GmbH

Postfach 710260 D-81452 München Tel. 089/78049-0 Fax 089/78049167

HINWEIS

Diese Ersatzteilliste ist für unterschiedliche Konfigurationen gültig; Der tatsächliche Lieferumfang kann insbesondere bei den Anbau- und Zubehörteilen von den dargestellten Baugruppen und Teilen abweichen.

NOTE

This parts list covers different configurations; the delivery scope, especially for the mounting and accessory parts may differ from the assemblies and parts shown.

NOTE

Cette liste de pièces est pour des configurations diverses; il est possible que les pièces et les assemblages livrés pourraient être différents des pièces et assemblages indiqués, particulièrement les pièces pour le montage et les accessoires.



Baugruppe	Assembly	Groupe d'assemblage	Seite/page
Verticus 5 Kompressoranlagen . . .	Verticus 5 Compressor units	Groupes compresseur Verticus 5	TV5.0- 1
Rahmen	Frame	Cadre	TV5.0- 2
Armaturentafel	Instrument panel	Panneau des instruments	TV5.0- 3
Basiseinheit	Base unit	Unité de base	TV5.0- 4
Kondensat-Sammelsystem	Condensate collecting system	Système collecteur des condensats	TV5.0- 5
Ansaugeinrichtung	Intake system	Système d'induction	TV5.0- 6
Ansaugdruckreduzierung	Intake pressure reduction	Système de reduction de pression	TV5.0- 7
Abdeckung kpl.	Cover assy	Unité de couvercle	TV5.0- 8
Beschilderung	Labels	Vignettes	TV5.0- 9

Änder.-Nr. Change no. No. de change	Datum Date	Änderung	Change	Changement
0	01.04.2000	Grundausgabe	Basic edition	Edition de base

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Bestell-Nr., die mit der Ziffer 0 beginnen, bezeichnen Baugruppen, die komplett geliefert werden. Teile ohne Bestell-Nr. sind nur zur Information für die Montage aufgeführt. Sie sind nicht als Ersatzteil erhältlich. Bei Ersatzteilbestellungen erwarten Sie unsere richtige Lieferung; deshalb benötigen wir von Ihnen folgende Angaben (siehe unten gezeigtes Typenschild):

1. Modellbezeichnung, Fabrik-Nr. sowie Fertigungsstand von Anlage/Block
2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

Bestell-Beispiel:

Für Kompressorblock ...
Fabrik-Nr. 524-0528/1/2 drei Dichtungen
8263-090

Important notes for spare parts orders:

Part nos. beginning with digit 0 indicate parts available as complete assemblies. Parts without part no. are indicated for assembly reference, only. These parts are not available as single parts. When placing an order for spare parts, please give the following items so as to ensure our correct delivery (see identification plate shown below):

1. Model, serial no. as well as design standard of unit/block
2. Quantity required
3. Name and part no.

Example for order:

For compressor block ...
serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr / Year / Année	
Volumenstrom m3/min	/	n/min.	
Free air delivery Scfm	/	r.p.m.	
Betriebsüberdruck bar		kW	
Max. working press. psig			
Fertigungsstand / Modification no. / No. de modification		KB 73708	
Anlage/Unit/Groupe		Kompressorblock / Compressor block / Bloc compresseur	



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



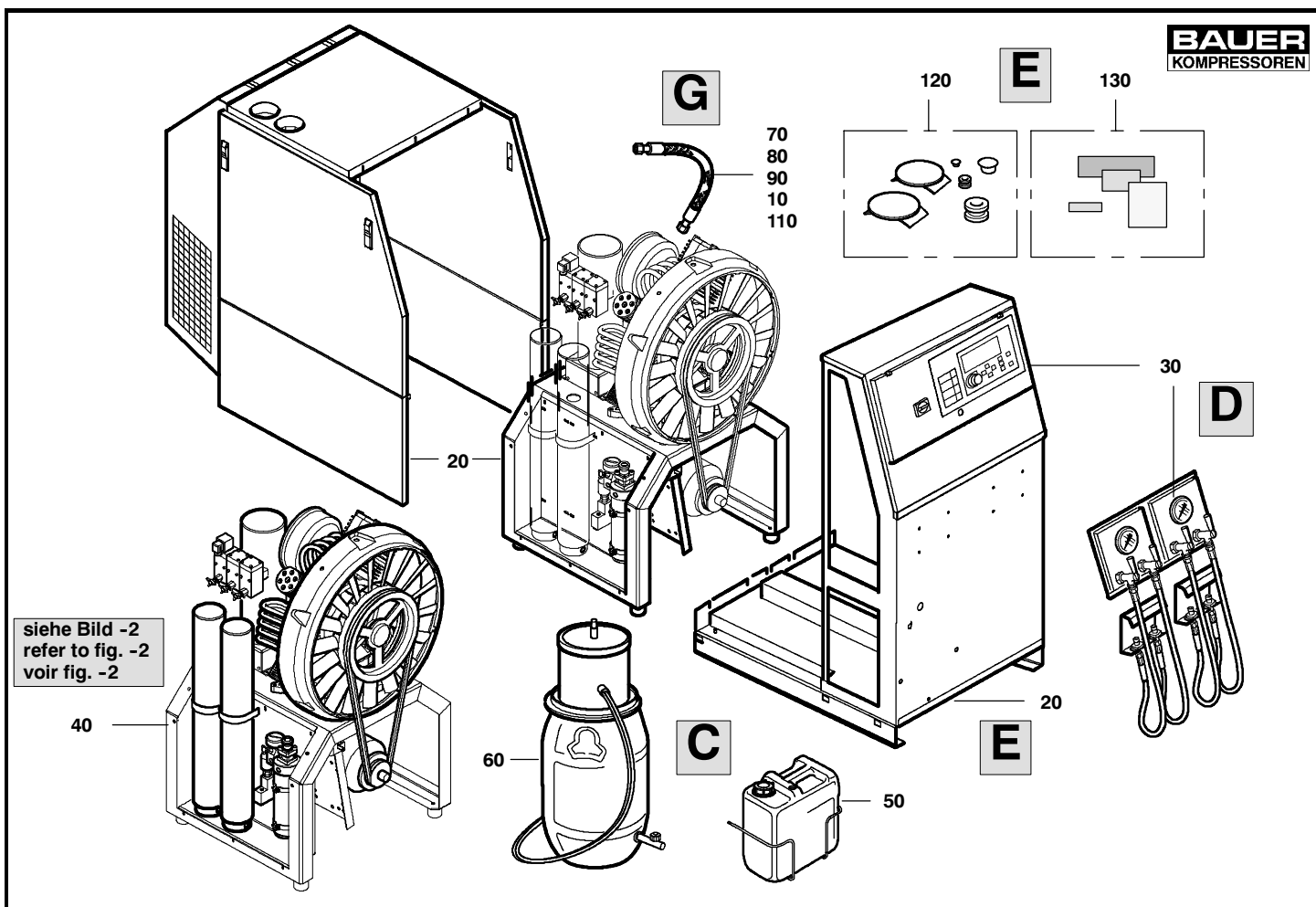
ATTENTION

Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



ATTENTION

N'utiliser que des vis et des goujons filetés de la qualité 8.8!



siehe Bild -2
refer to fig. -2
voir fig. -2

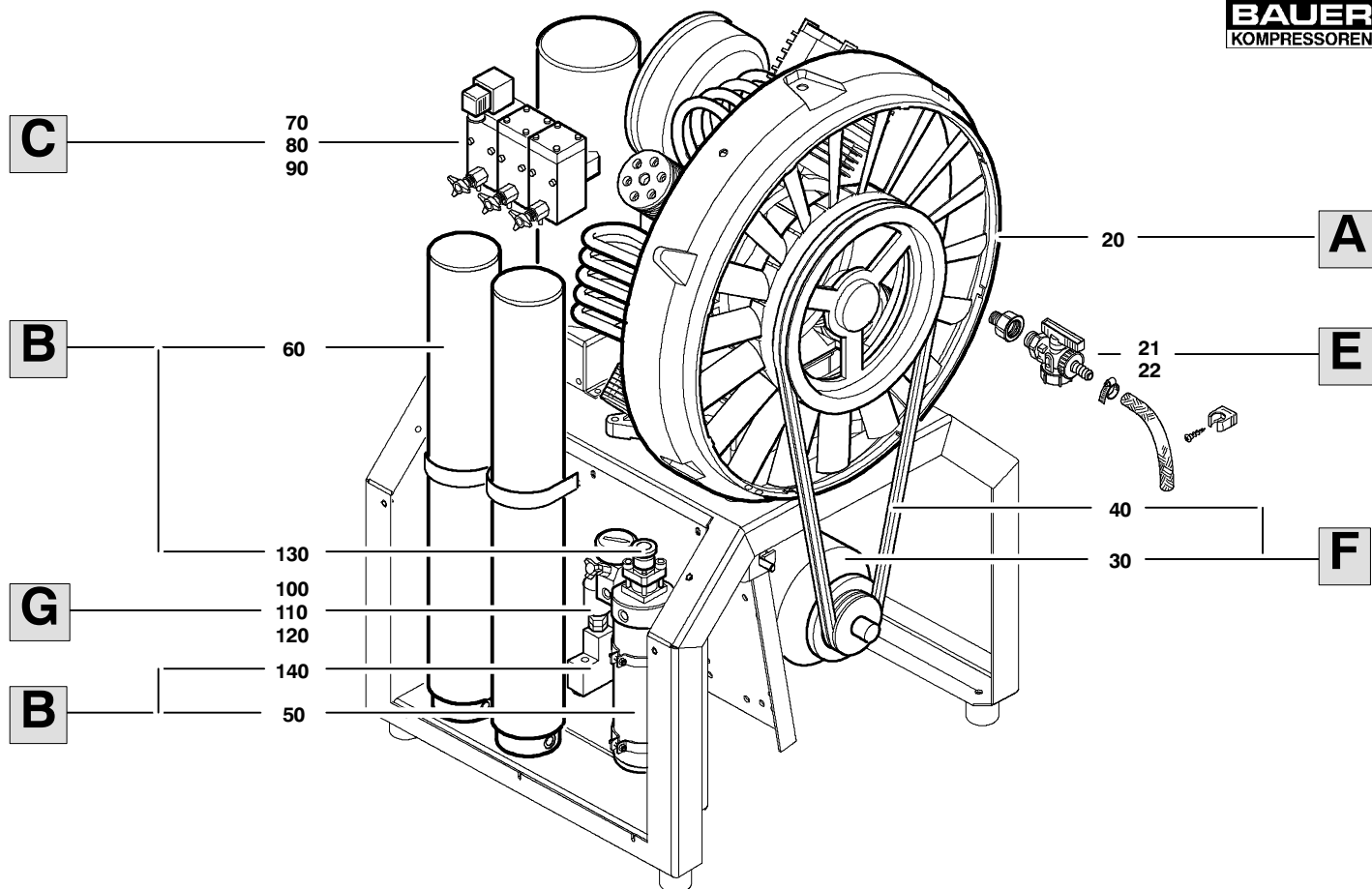


**Wartungssätze
Maintenance kits
Kits d'entretien**

Baugruppe Verticus 5 Verticus 5 Kompressoranlagen
 Assembly Verticus 5 Verticus 5 Compressor units
 Assemblage Verticus 5 Verticus 5 Groupes compresseur

TV5.0- 1

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			20	78265	1	Rahmen	Frame assy			
			30	77630	1	Armaturentafel	Instrument panel			
			40	77633	1	Basiseinheit	Base unit			
			50	78015	1	Kondensat-Sammelsystem	Condensate collecting assy			10l
			60	78422	1	Kondensat-Sammelsystem	Condensate collecting assy			40l
			70	78620-01	1	Ansaugeinrichtung	Intake system			GI150-11;GI180-15
			80	78620-02	1	Ansaugeinrichtung	Intake system			GI100-2.2/3;GI120-4/5.5
			90	78620-03	1	Ansaugeinrichtung	Intake system			ext.;K100/120/12.4
			100	78620-04	1	Ansaugeinrichtung	Intake system			ext.; K150/K15.1/180/18.1
			110	78164	1	Ansaugdruckreduzierung	Intake pressure reduction			1-fach;GI150/GI180
			120	78689	1	Abdeckung kpl.	Cover assy			
			130	78695	1	Beschilderung	Labels			



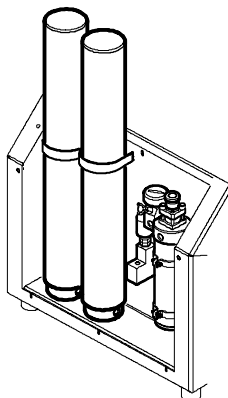
Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 77633
Assembly 77633
Assemblage 77633

Basiseinheit
Base unit
Unité de base

TV5.0- 2

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			20	78403	1	Kompressorblock	Compressor block	Bloc compresseur		K100-K180
			21	78642-01	1	Ölablaß	Oil drain	Vidange d'huile		K150;K180
			22	78642-02	1	Ölablaß	Oil drain	Vidange d'huile		K100;K120;K12.14
			30	78404	1	Drehstrommotor	Electric motor	Moteur électrique		K100-K180
			40	78405	1	Motorzubehör	Motor accessories	Accessoires de moteur		
			50	78411	1	Öl- und Wasserabscheider	Oil and water separator	Séparateur d'huile et d'eau		350bar;420bar
			60	78186	1	Filtersystem	Filter system	System de filtrage		
			70	78406-01	1	Kondensatautomatik	Automatic condensate drain	Purge autom. du condensat		K100;K120
			80	78406-02	1	Kondensatautomatik	Automatic condensate drain	Purge autom. du condensat		K12.14
			90	78406-03	1	Kondensatautomatik	Automatic condensate drain	Purge autom. du condensat		K150;K180
			100	78501-01	1	Überwachungsarmaturen	Monitoring devices	Unités de surveillance		-1 b.600bar; Enddr.
			110	78501-02	1	Überwachungsarmaturen	Monitoring devices	Unités de surveillance		0 b.600bar;Zw.-dr.
			120	78501-03	1	Überwachungsarmaturen	Monitoring devices	Unités de surveillance		o.Steuerung
			130	78638	1	Sicherheitsventil	Safety valve	Supape de sûreté		
			140	78681	1	Druckhalte-Rückschlagventil	Pressure maintaining valve	Soupape de maintien de pr.		



Baugruppe	Assembly	Groupe d'assemblage	Seite/page
Endabscheider	Final separator	Séparateur d'huile et d'eau	B59.0- 1
Filtersystem P61 350 bar	Filter system P61 350 bar	Système de filtrage P61 350 bar	B59.0- 2
Druckhalte-/Rückschlagventil	Pressure maintaining/non-return valve	Soupape de maintien de pression	B59.0- 3
Sicherheitsventile	Safety valves	Soupapes de sécurité	B59.0- 4

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2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

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8263-090

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serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr / Year / Année	
Volumenstrom m ³ /min	/	n/min. / r.p.m.	
Free air delivery Scfm		kW	
Betriebsüberdruck bar			
Max. working press. psig			
		KB 73708	
			Fertigungsstand / Modification no. / No. de modification
			Anlage/Unit/Groupe
			Kompressorblock / Compressor block / Bloc compresseur



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



ATTENTION

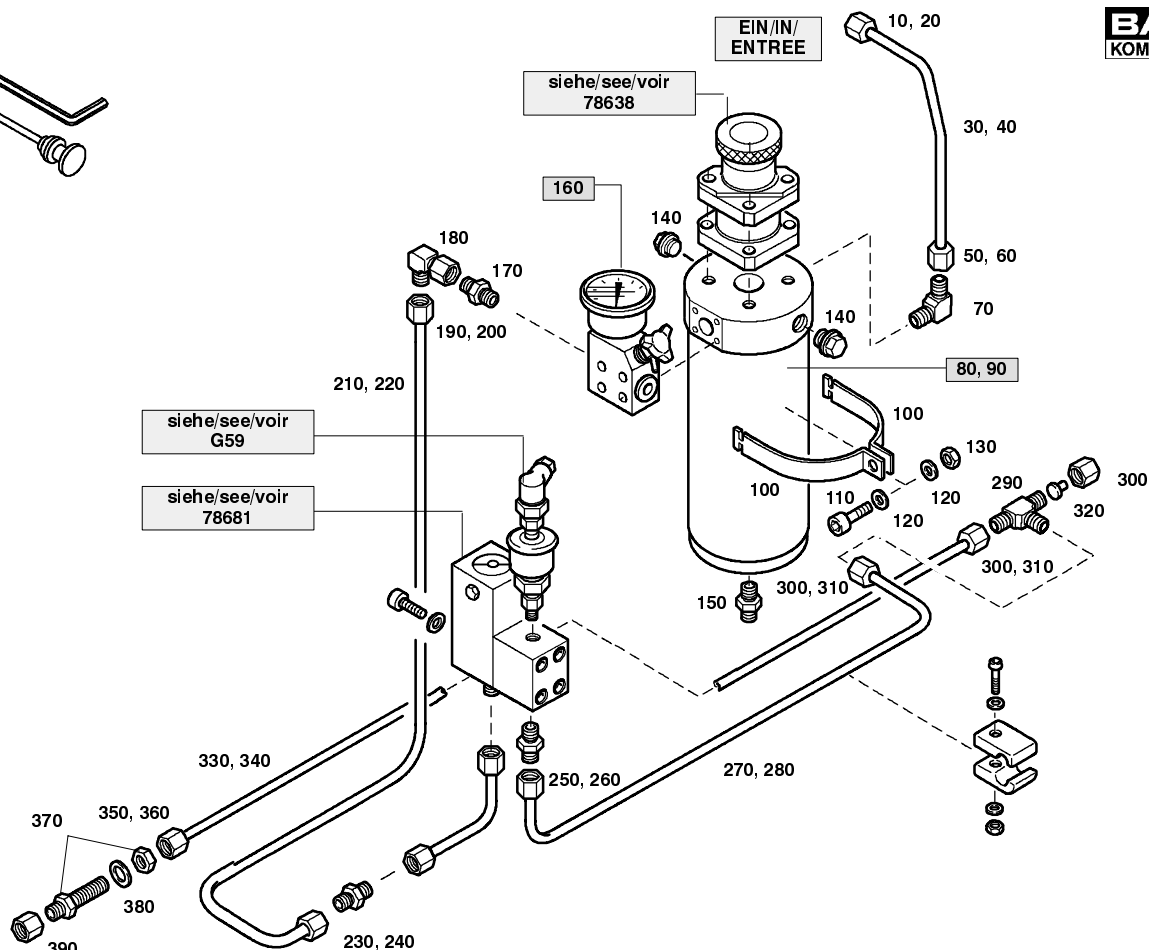
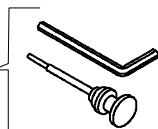
Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



ATTENTION

N'utiliser que des vis et des goujons filetés de la qualité 8.8!

067458


Wartungssätze
Maintenance kits
Kits d'entretien
Baugruppe 78411
Assembly 78411
Assemblage 78411

Endabscheider
Final separator
Séparateur final
B59.0- 1

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;AD8;M16x1.5
			20	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			30	N18356*	mm	Rohr, 420 bar	pipe	tube	,3 kg	500 mm; DIN 2462;8x2
			40	N3619*	mm	Rohr, 350 bar	stainless steel tube 8x1.5	tuyau en acier inox 8x1.5	,244 kg	500 mm; DIN 2462;8x1.5
			50	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;AD8;M16x1.5
			60	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			70	N20172	1	W-Einschraubstutzen	screwed socket	manchon visse	48 g	WES 8 SRK;R1/4;St
			80	090100	1	Öl- und Wasserabscheider	oil and water separator	séparateur d'huile et d'eau	11,98	PN420/D;D95x306
			90	090058	1	Öl- und Wasserabscheider	oil and water separator	séparateur d'huile et d'e	9 kg	PN350/D;D95x306
			100	78115	4	Schelle				D95;L47.5;1.4301
			110	N19537	2	Zylinderschraube			10 g	DIN 912;M6x35;8.8;A3A
			120	N102	4	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			130	N1042	2	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-frein.		DIN 980;N M6;8;A3A
			140	N16394	1	Verschlußschraube	plug	bouchon filete	14 g	VS-R1/4-WD;G1/4;St
			150	N20211	1	G-Einschraubstutzen	straight male stud	tubulure	33 g	GES 6 SR-WD;G1/4;St
			160	78122	1	Rückschlagventil	Non-return valve			V5;PN420
			170	N20287	1	G-Einschraubstutzen	union	vissage	35 g	GES 8 SR-WD;G1/4;St
			180	N	1	Einst. Winkelstutzen	union	vissage		evW 8 SR-WD;G1/4;St
			190	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;AD8;M16x1.5
			200	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			210	N18356*	mm	Rohr, 420 bar	pipe	tube	,3 kg	500 mm; DIN 2462;8x2
			220	N3619*	mm	Rohr, 350 bar	stainless steel tube 8x1.5	tuyau en acier inox 8x1.5	,244 kg	500 mm; DIN 2462;8x1.5
			230	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;AD8;M16x1.5
			240	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			250	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			260	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			270	N3619*	mm	Rohr	stainless steel tube 8x1.5	tuyau en acier inox 8x1.5	,244	500 mm; 8x1.5
			280	N18356*	mm	Rohr	pipe	tube	,3 kg	500 mm; 8x2;1.4541
			290	N20205	1	T-Stutzen	connector	raccord	117 g	TS 8 S;St

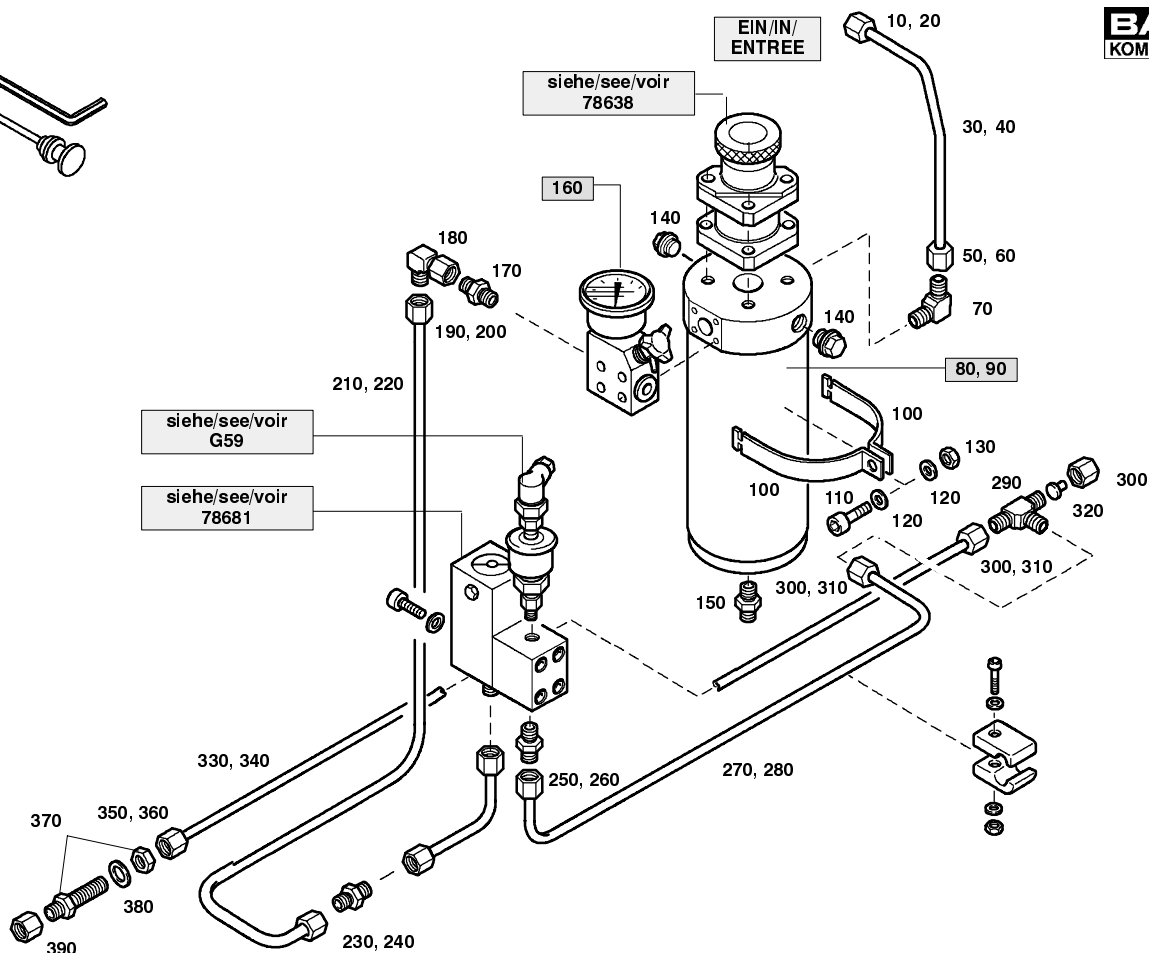
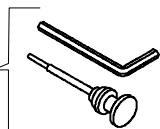
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Meterware

Piece goods

Marchandise au mètre

067458


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe
 Assembly
 Assemblage

78411

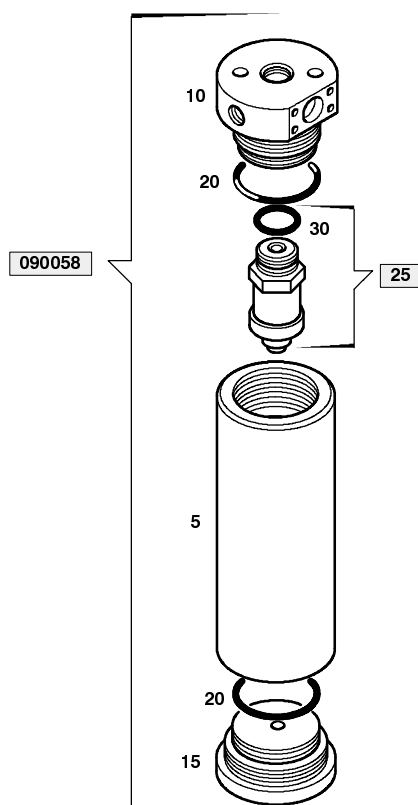
78411

78411

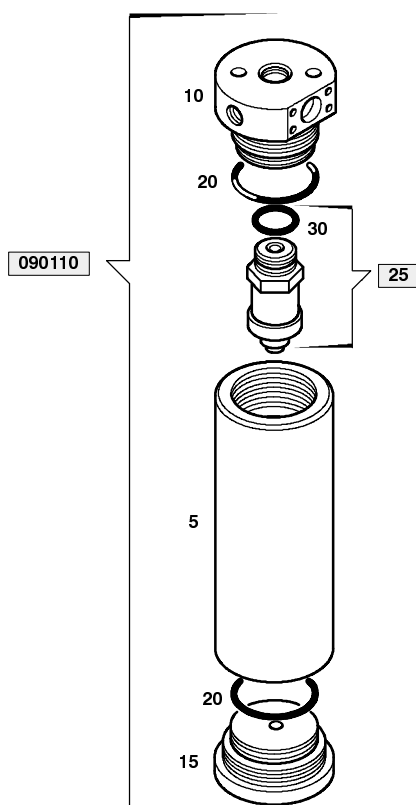
 Endabscheider
 Final separator
 Séparateur final

B59.0- 1

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			300	N3608	3	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			310	N3609	2	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			320	N16309	1	Verschlußstopfen	plug	bouchon	13 g	VS 8 L/S;Rohr-AD8;St
			330	N3619*	mm	Rohr	stainless steel tube 8x1.5	tuyau en acier inox 8x1.5	,244	800 mm; 8x1.5;1.4541
			340	N18356*	mm	Rohr	pipe	tube	,300	800 mm; 2;8x2
			350	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			360	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			370	N20183	1	G-Schottstutzen	connector	raccord	84 g	GSS 8 S;M16x1.5;St
			380	N1219	2	Scheibe	washer	rondelle	11 g	DIN 125;B 17;St;A3A
			390	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8



			Wartungssätze Maintenance kits Kits d'entretien			Baugruppe 090058 Endabscheider 350 bar Assembly 090058 Final separator 350 bar Assemblage 090058 Séparateur final 350 bar			B59.0- 1a	
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	*	1	Behältergehäuse				
			10	*	1	Behälterdeckel				
			15	*	1	Behälterboden				
X			20	N4586	2	O-Ring	o-ring	joint torique		59,92x3,53;FPM;90Sh.
X			25	061860	1	Microfilterpatrone	filter cartridge	cartouche de filtre		
			30	N4385	2	O-Ring	o-ring	joint torique		26,64x2,62;FPM;90Sh.



Wartungssätze
Maintenance kits
Kits d'entretien

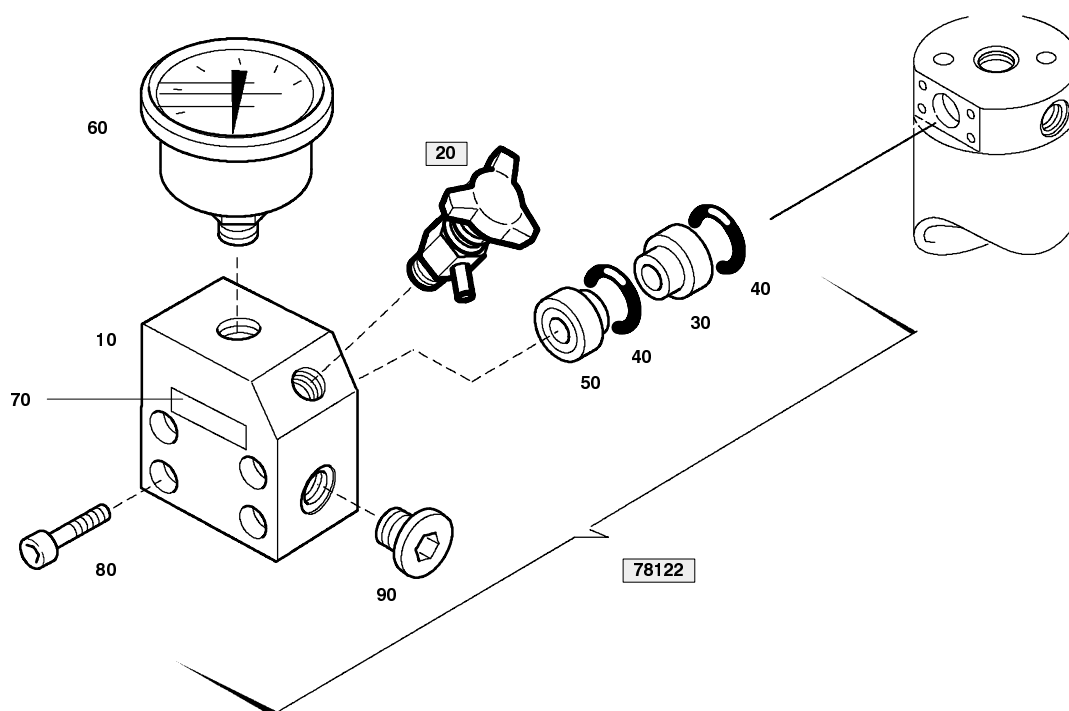
Baugruppe
Assembly
Assemblage

090110
090110
090110

Endabscheider 420 bar
Final separator 420 bar
Séparateur final 420 bar

B59.0- 1b

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	*	1	Behältergehäuse				
			10	*	1	Behälterdeckel				
			15	*	1	Behälterboden				
X			20	N4586	2	O-Ring	o-ring	joint torique		59,92x3,53;FPM;90Sh.
X			25	061860	1	Microfilterpatrone	filter cartridge	cartouche de filtre		
			30	N4385	2	O-Ring	o-ring	joint torique		26,64x2,62;FPM;90Sh.



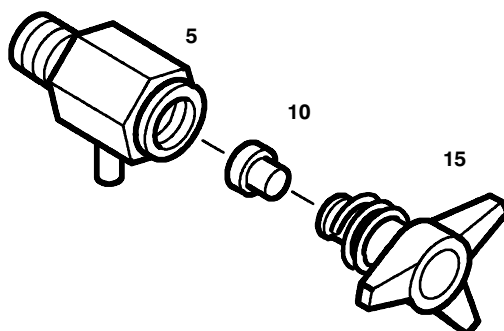
Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78122
Assembly 78122
Assemblage 78122

Rückschlagventil
Non-return valve
Soupape anti-retour

B59.0- 1c

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78123	1	Ventilkörper				f.Rückschlagventil
			20	011430	1	Knebelschraube	condensate drain knob	robinet de purge		
			30	63843	1	Ventilsitz	non-return valve seat	siege de clapet anti-ret.		f.Rückschlagventil
			40	N4178	2	O-Ring	o-ring	joint torique		17,12x2,62;FPM;75Sh
			50	73767	1	Ventilkolben	valve piston	soupape de piston		PN350;L16,4;D14,8
			60	N17062	1	Manometer	gauge	manometre		R1/4 unten;NG63
			70	64179	1	Schild	label	vignette		
			80	N19538	4	Zylinderschraube	cylinder screw	vis à six pans creux		DIN 912;M6x40;8.8
			90	N16394	1	Verschußschraube	plug	bouchon		VS-R1/4-WD;G1/4;St

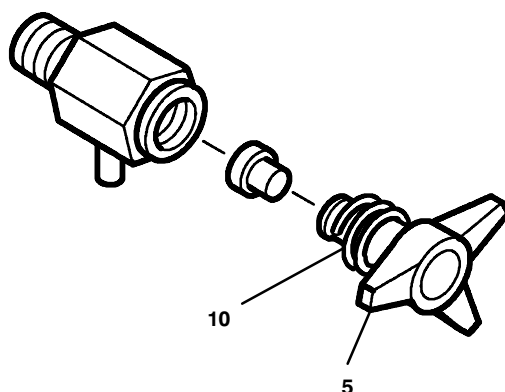

**Wartungssätze
 Maintenance kits
 Kits d'entretien**

 Baugruppe 011430
 Assembly 011430
 Assemblage 011430

 Kondensatablaßhahn
 Condensate drain tap
 Robinet de purge

B59.0- 1d

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	068410	1	Ablaßhahnkörper, kpl.	drain valve body	corps de robinet de purge		
X			10	13283	1	Dichtung	gasket	joint		
			15	055888	1	Knebelschraube m. Sicherungsfeder	tommy screw with retaining spring	vis a garret avec ressort		



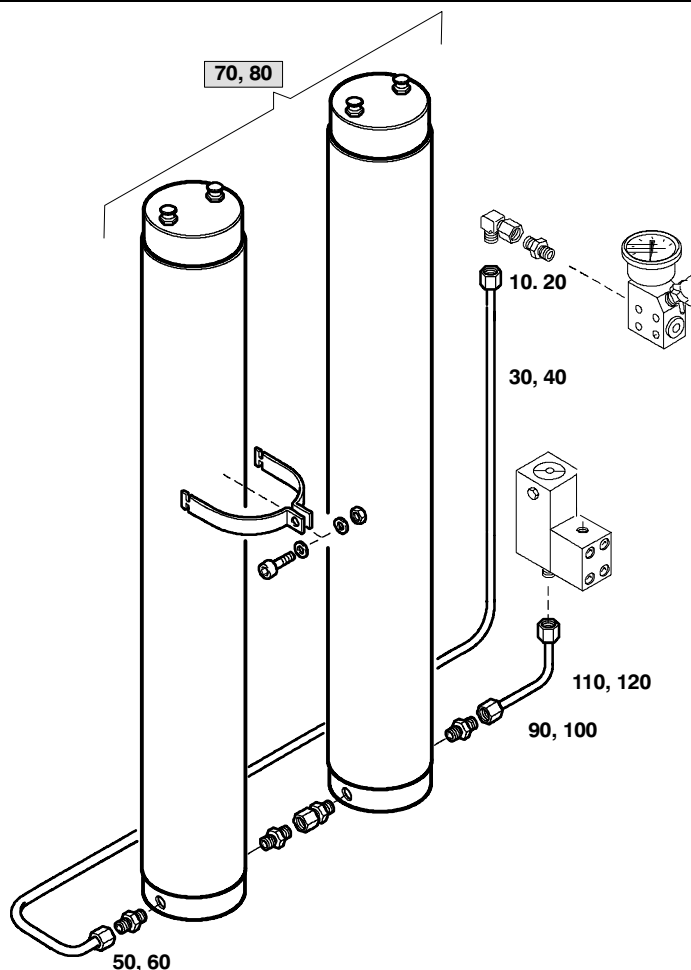
Ersatzteilsätze
Spare parts sets
Kits de pièces dét.

Baugruppe 055888
Assembly 055888
Assemblage 055888

Knebelschraube mit Sicherungsfeder
Tommy screw with retaining spring
Vis a garret avec ressort

B59.0- 1e

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	11392	1	Knebelschraube	tommy screw	vis a garret		
			10	13284	1	Sicherungsfeder	locking spring	ressort d'arret		

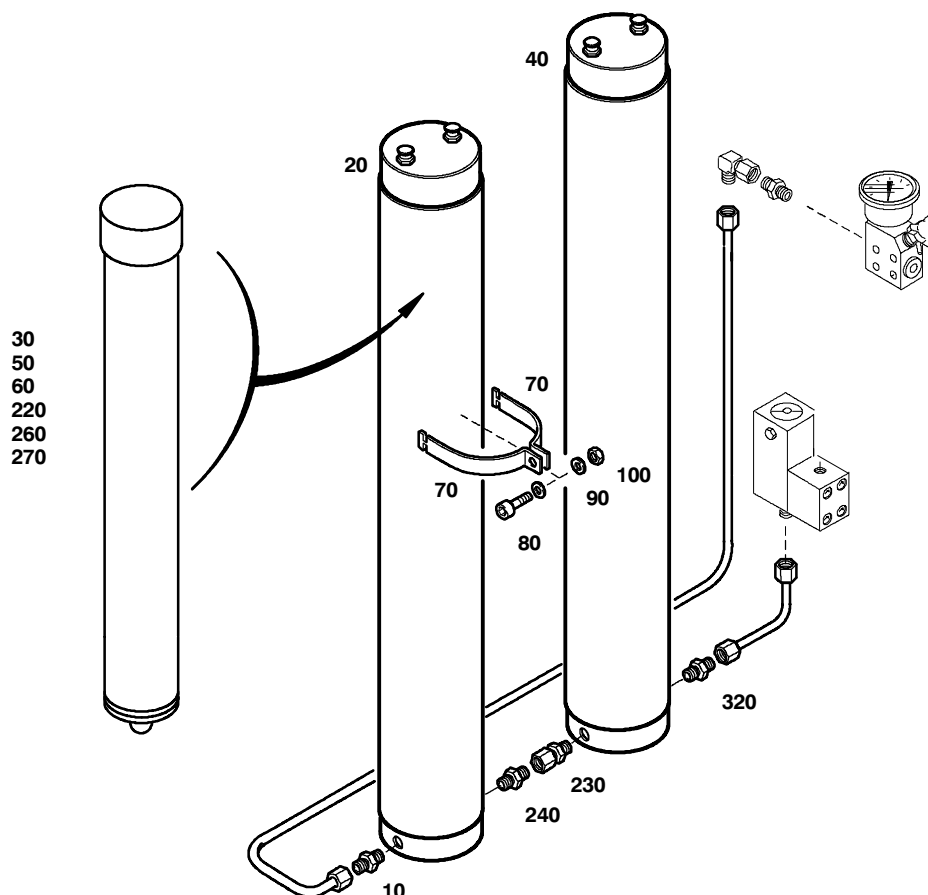

 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78186
 Assembly 78186
 Assemblage 78186

 Filtersystem
 Filter system
 Système de filtrage

B59.0- 2

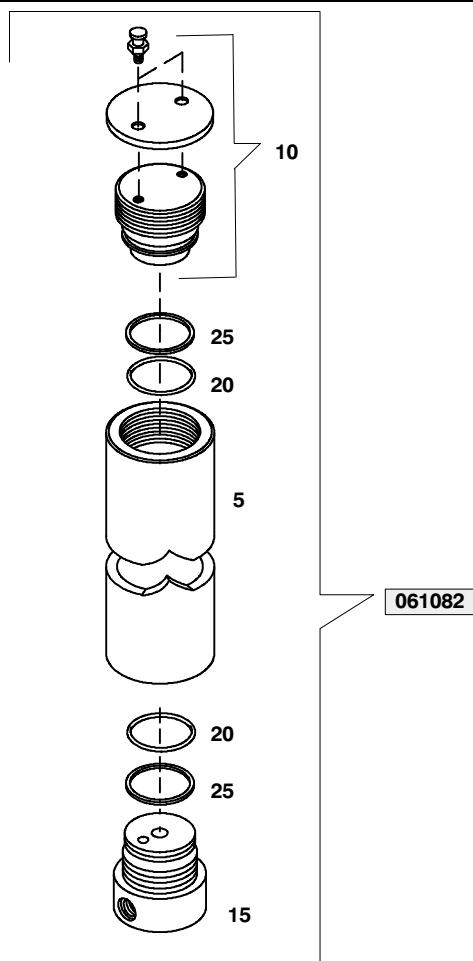
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			20	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			30	N3619*	mm	Rohr	stainless steel tube 8x1.5	tuyau en acier inox 8x1.5	,244	800 mm; 8x1.5
			40	N18356*	mm	Rohr	pipe	tube	,3 kg	800 mm; 8x2;1.4541
			50	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			60	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			70	78186-01	1	Filterbehälter kpl.				V5;PN350;P61/P81
			80	78186-02	1	Filterbehälter kpl.				V5;PN420;P61/P81
			90	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			100	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			110	N3619*	mm	Rohr	stainless steel tube 8x1.5	tuyau en acier inox 8x1.5	,244	300 mm; 8x1.5
			120	N18356*	mm	Rohr	pipe	tube	,3 kg	300 mm; 8x2;1.4541


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78186-01 Filterbehälter kpl. 350 bar
 Assembly 78186-01 Filter assy. 350 bar
 Assemblage 78186-01 Filtres cpl. 350 bar

B59.0- 2a

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N20404	1	G-Einschraubstutzen	Screwed socket	Manchin visse	35 g	GES 8 SR-WD;G3/8
			20	061082	1	Filterbehälter	filter	filtre	10,1	27";Stand.;PN350/D
			30	058826	1	Filterpatrone	filter	cartouche multiplex	2,3 kg	27";MS-AC-MS
			40	090970	1	Filterbehälter	filter	filtre		27";SEC-C;PN350/D
			50	060036	1	Filterpatrone	filter	cartouche multisecc	2,3 kg	27";MS-AC-MS/SEC
			60	060037	1	Filterpatrone	cartridge	cartouche multisecc	2,2 kg	27";MS-AC/SEC-HP
			70	78114	4	Schelle	clamp			D100;L50;1.4301
			80	N19537	2	Zylinderschraube	allen screw		10 g	DIN 912;M6x35;8.8
			90	N102	4	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			100	N1042	2	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M6;8;A3A
			210	061082	1	Filterbehälter	filter	filtre	10,1	27";Stand.;PN350/D
			220	058826	1	Filterpatrone	filter	cartouche	2,3 kg	27";MS-AC-MS
			230	N15501	1	G-Einschraubstutzen	straight male connector	raccord droit male	83 g	EGES 10 SR-WD-SV
			240	N20228	1	G-Einschraubstutzen	straight screwed socket	manchon visse	48 g	GES 10 SR-WD;G3/8
			250	090970	1	Filterbehälter	filter	filtre		27";SEC-C;PN350/D
			260	060036	1	Filterpatrone	filter	cartouche	2,3 kg	27";MS-AC-MS/SEC
			270	060037	1	Filterpatrone	cartridge 27";SEC;CO	cartouche	2,2 kg	27";AC-MS/SEC-HP
			280	78114	8	Schelle	clamp			D100;L50;1.4301
			290	N19537	4	Zylinderschraube	allen screw		10 g	DIN 912;M6x35;8.8
			300	N102	8	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			310	N1042	4	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M6;8;A3A
			320	N20404	1	G-Einschraubstutzen	Screwed socket	Manchin visse	35 g	GES 8 SR-WD;G3/8



Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe
Assembly
Assemblage

061082
061082
061082

Filterbehälter
Filter housing
Corps de filtre

B59.0- 2b

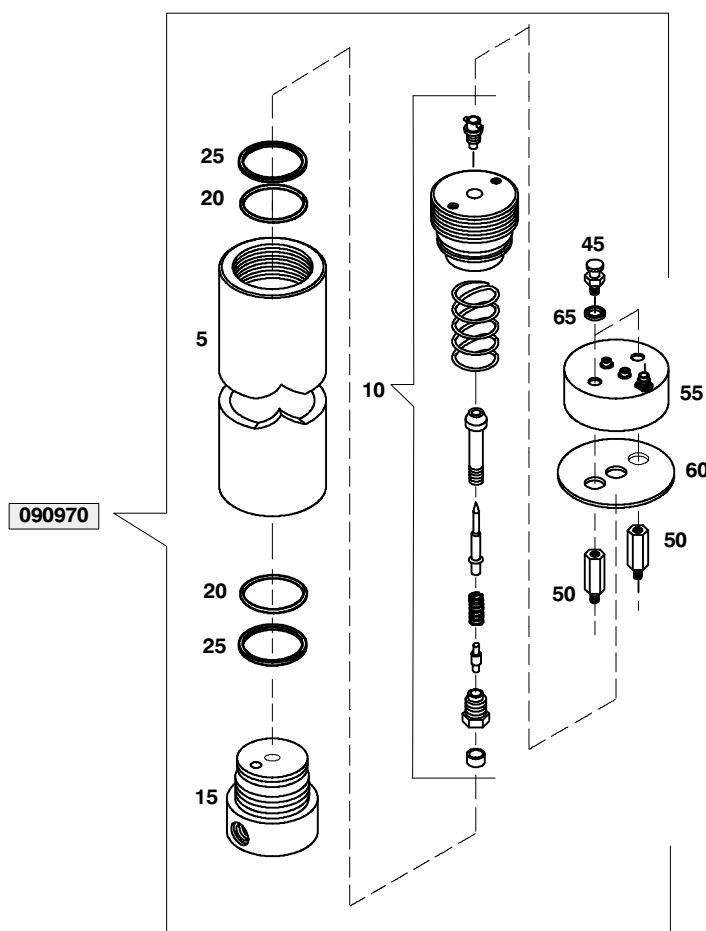
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	*	1	Behältergehäuse				
			10	*	1	Behälterdeckel kpl.				
			15	*	1	Behälterboden			1,36	
			20	N4736	2	Stützring	back-up ring	bague d'appui	,003	63,96x1,52;N300-9
			25	N4735	2	O-Ring	o-ring	joint torique		62,87x5,33;FPM;90Sh
			30	90761	1	Fabrikschild			4,7 g	BKM;deutsch/englisch
			35	N3334	1	Niete	semitubular rivet	rivet semi-tubulaire		4,8x9;Al
			40	N3333	3	Blindniete	pop rivet	rivet aveugle		2.4x5.1;Al
			45	91024	1	Klebeschild				

*

nur kpl. lieferbar

available as cpl. assy- only

ne sont livrées qu'ensemble



Wartungssätze
Maintenance kits
Kits d'entretien

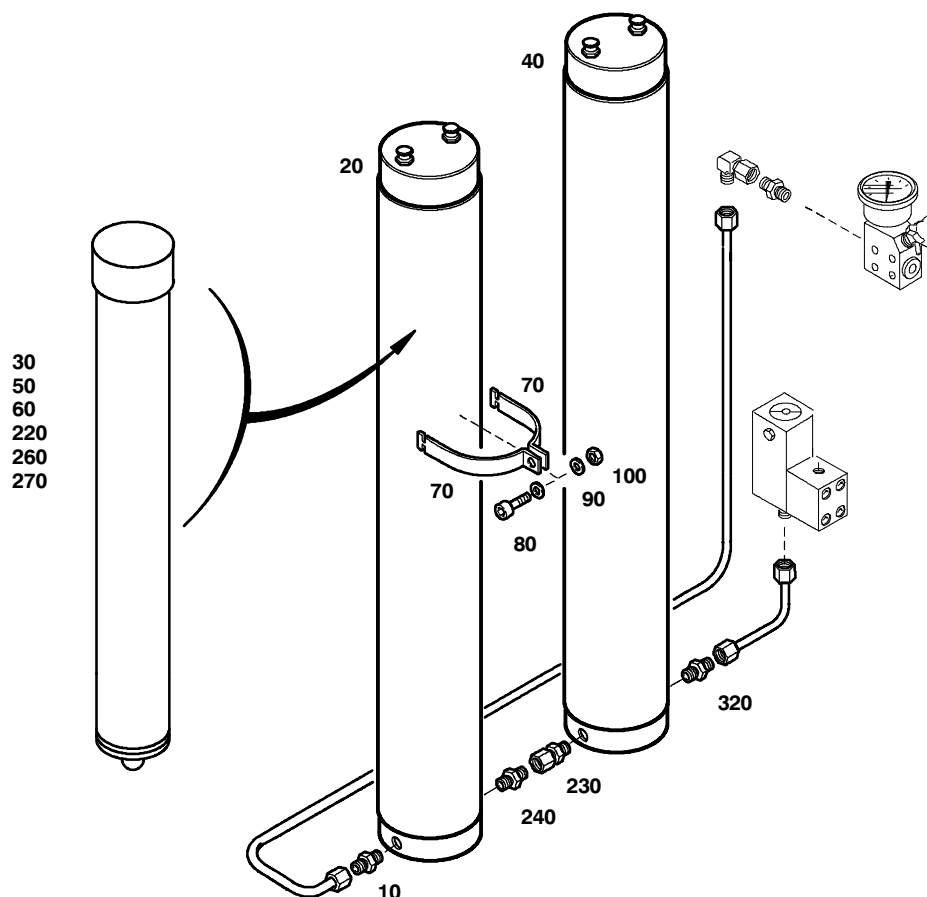
Baugruppe
Assembly
Assemblage

090970
090970
090970

Filterbehälter
Filter housing
Corps de filtre

B59.0- 2c

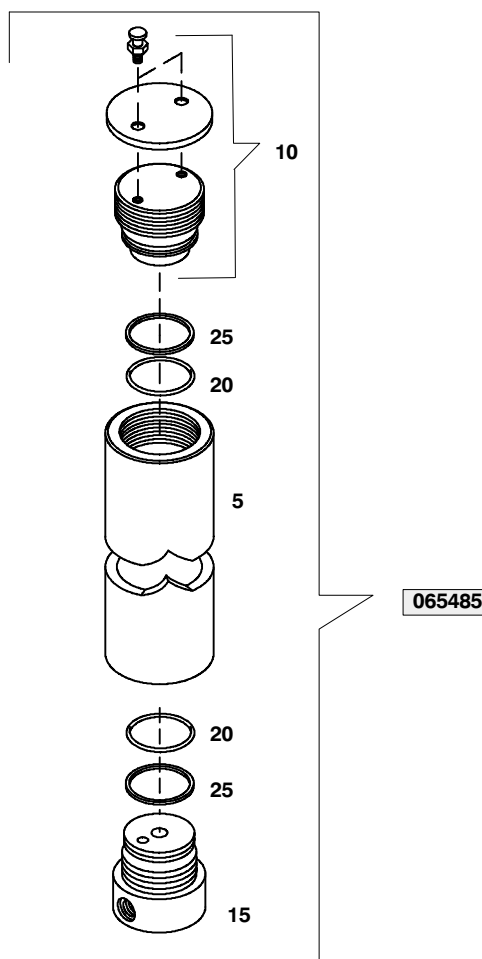
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	*	1	Behältergehäuse				
			10	*	1	Behälterdeckel kpl.				SECURUS
			15	*	1	Behälterboden			1,36	
			20	N4736	2	Stützring	back-up ring	bague d'appui	,003	63,96x1,52;N300-9
			25	N4735	2	O-Ring	o-ring	joint torique		62,87x5,33;FPM;90Sh
			30	90761	1	Fabrikschild			4,7 g	BKM;deutsch/englisch
			35	N3334	1	Niete	semitubular rivet	rivet semi-tubulaire		4,8x9;Al
			40	N3333	3	Blindniete	pop rivet	rivet aveugle		2.4x5.1;Al
			45	12293	2	Schraube	fastening screw	vis de fixation	,03 kg	
			50	90765	2	Sechskant	distance bolt	boulon d'ecartement	58 g	SW17;L45;GG-25
			55	090570	1	SECURUS	SECURUS	SECURUS		
			60	90715	1	Dichtung	gasket	joint		D98;H2;NBR;65Shore
			65	N20648	2	USIT-Ring	USIT-ring	USIT-anneau		St/NBR
			80	91025	1	Klebeschild				SECURUS-Behälter


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78186-01 Filterbehälter kpl. 350 bar
 Assembly 78186-01 Filter Assy. 350 bar
 Assemblage 78186-01 Filtres cpl. 350 bar

B59.0- 2d

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N20404	1	G-Einschraubstutzen	Screwed socket	Manchin visse	35 g	GES 8 SR-WD;G3/8
			20	065485-V003	1	Filterbehälter	filter housing	filtre 27"	15,3	27";Stand.;PN420/D
			30	058826	1	Filterpatrone	filter cartridge	cartouche	2,3	27";MS-AC-MS
			40	091040-V002	1	Filterbehälter	filter housing		15,4	27";SEC-C;PN420/D
			50	060036	1	Filterpatrone	filter cartridge	cartouche	2,3	27";AC-MS/SEC
			60	060037	1	Filterpatrone	cartridge	cartouche	2,2	27";AC-MS/SEC-HP
			70	78113	4	Schelle				D114.5;L57.25;1.4301
			80	N19537	2	Zylinderschraube			10 g	DIN 912;M6x35;8.8
			90	N102	4	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			100	N1042	2	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M6;8;A3A
			210	065485-V003	1	Filterbehälter	filter	filtre	15,3	27";Stand.;PN420/D
			220	058826	1	Filterpatrone	filter	cartouche	2,3	27";MS-AC-MS
			230	N15501	1	G-Einschraubstutzen	straight male connector	raccord droit male	83 g	EGES 10 SR-WD-SV
			240	N20228	1	G-Einschraubstutzen	straight screwed socket	manchon visse	48 g	GES 10 SR-WD;G3/8
			250	091040-V002	1	Filterbehälter			15,4	27";SEC-C;PN420/D
			260	060036	1	Filterpatrone	filter 27";SEC	cartouche	2,3	27";AC-MS/SEC
			270	060037	1	Filterpatrone	cartridge 27";SEC;CO	cartouche	2,2	27";AC-MS/SEC-HP
			280	78113	8	Schelle				D114.5;L57.25;1.4301
			290	N19537	4	Zylinderschraube			10 g	DIN 912;M6x35;8.8;A3
			300	N102	8	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			310	N1042	4	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M6;8;A3A
			320	N20404	1	G-Einschraubstutzen	Screwed socket	Manchin visse	35 g	GES 8 SR-WD;G3/8



Wartungssätze
Maintenance kits
Kits d'entretien

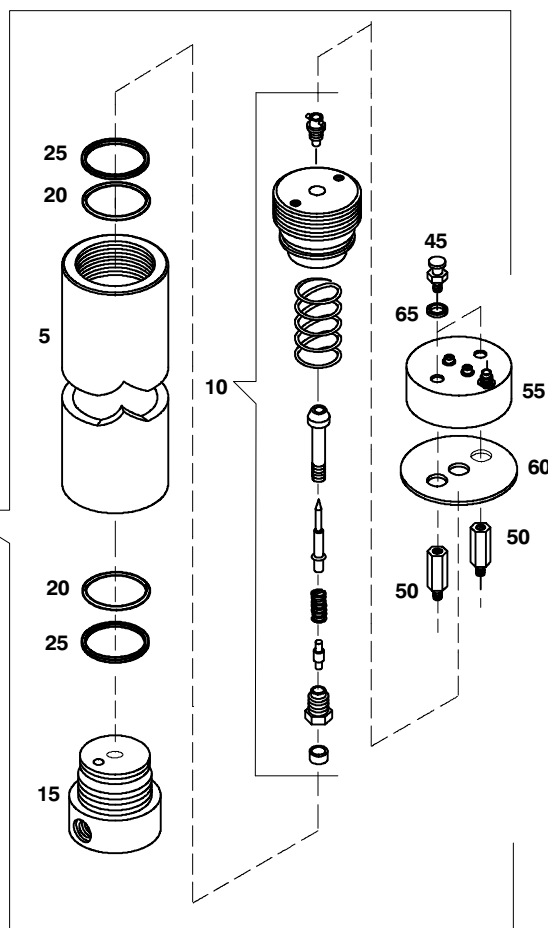
Baugruppe 065485
Assembly 065485
Assemblage 065485

Filterbehälter
Filter housing
Corps de filtre

B59.0- 2e

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	*	1	Behältergehäuse				
			10	*	1	Behälterdeckel kpl.				
			15	*	1	Behälterboden			1,36	
			20	N4736	2	Stützring	back-up ring	bague d'appui	,003	63,96x1,52;N300-9
			25	N4735	2	O-Ring	o-ring	joint torique		62,87x5,33;FPM;90Sh
			30	90761	1	Fabrikschild			4,7 g	BKM;deutsch/englisch
			31	66074	1	Schild			4,7 g	französisch
			32	65963	1	Fabrikschild			4,7 g	BCI; USA
			35	N3334	1	Niete	semitubular rivet	rivet semi-tubulaire		4,8x9;Al
			40	N3333	3	Blindniete	pop rivet	rivet aveugle		2.4x5.1;Al
			45	91024	1	Klebeschild				

091040


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe
 Assembly
 Assemblage

 091040
 091040
 091040

 Filterbehälter
 Filter housing
 Corps de filtre

B59.0- 2f

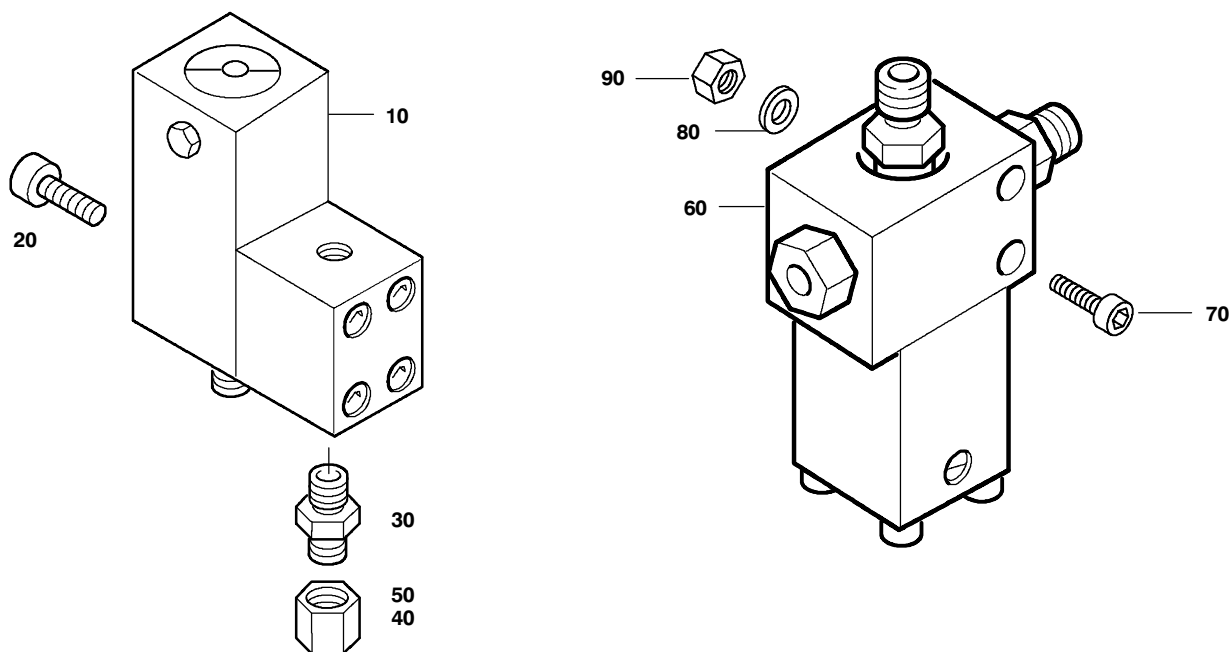
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	*	1	Behältergehäuse				
			10	*	1	Behälterdeckel kpl.				SECURUS
			15	*	1	Behälterboden			1,36	
			20	N4736	2	Stützring	back-up ring	bague d'appui	,003	63,96x1,52;N300-9
			25	N4735	2	O-Ring	o-ring	joint torique		62,87x5,33;FPM;90Sh
			30	90761	1	Fabrikschild			4,7 g	BKM;deutsch/englisch
			31	66074	1	Schild			4,7 g	französisch
			32	65963	1	Fabrikschild			4,7 g	BCI; USA
			35	N3334	1	Niete	semitubular rivet	rivet semi-tubulaire		4,8x9;Al
			40	N3333	3	Blindniete	pop rivet	rivet aveugle		2.4x5.1;Al
			45	12293	2	Schraube	fastening screw	vis de fixation	,03 kg	
			50	90765	2	Sechskant	distance bolt	boulon d'ecartement	58 g	SW17;L45;GG-25
			55	090570	1	SECURUS	SECURUS	SECURUS		
			60	90715	1	Dichtung	gasket	joint		D98;H2;NBR;65Shore
			65	N20648	2	USIT-Ring	USIT-ring	USIT-anneau		St/NBR
			80	91025	1	Klebeschild				SECURUS-Behälter

*

nur kpl. lieferbar

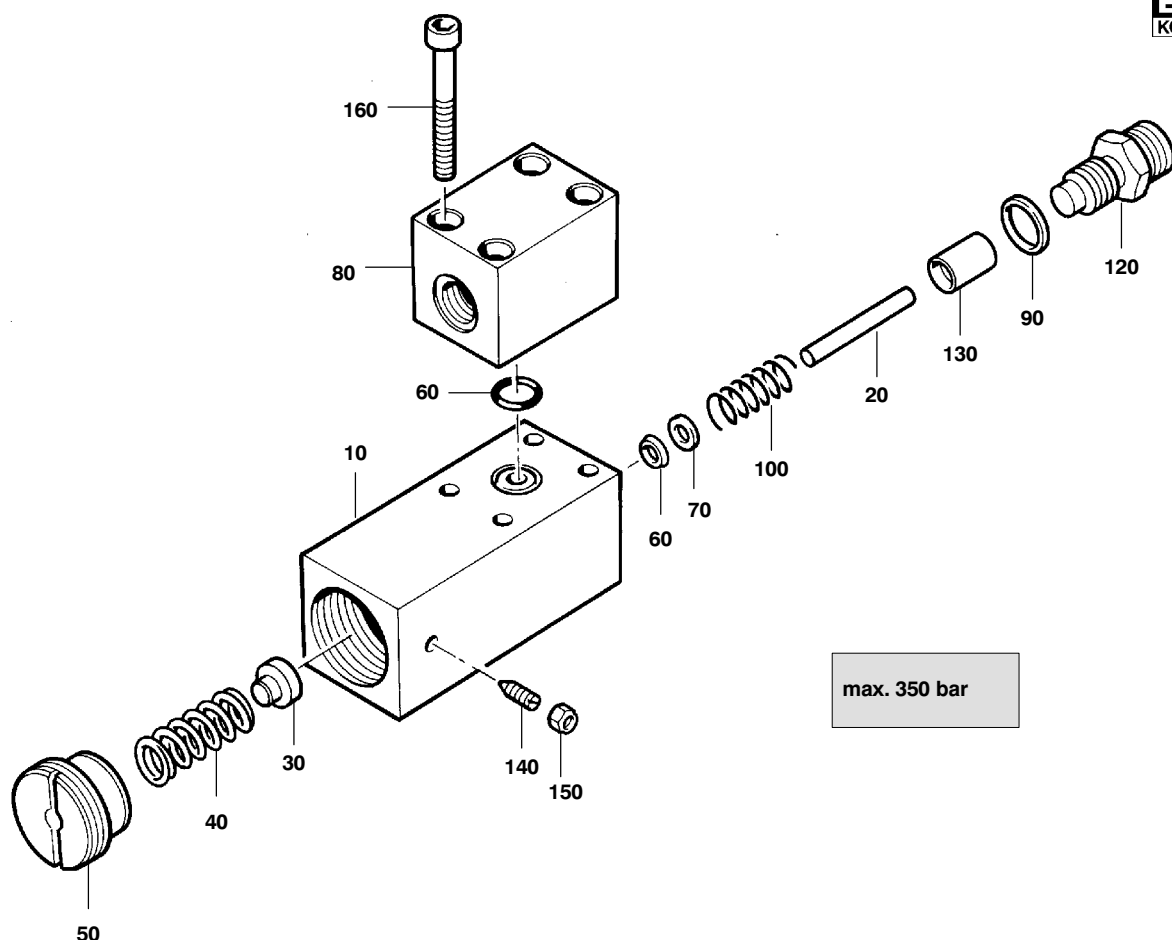
available as cpl. assy - only

ne sont livrées qu'ensemble


**Wartungssätze
Maintenance kits
Kits d'entretien**
Baugruppe 78681
Assembly 78681
Assemblage 78681

Druckhalte-/Rückschlagventil kpl.
Pressure maintaining/non-return valve assy.
Soupape de maintien de pression anti-retour cpl.
B59.0- 3

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	063838	1	Druckhalte-Rückschlagv.	pressure maintaining valve	soupape de maintien de pression		PN350
			20	N19539	2	Zylinderschraube			12 g	DIN 912;M6x45;8.8
			30	N20287	1	G-Einschraubstutzen	union	vissage	35 g	GES 8 SR-WD;G1/4
			40	N3608	1	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			50	N3609	1	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			60	068275	1	Druckhalte-Rückschlagventil	pressure maintaining and non-	soupape de maintien et		PN500
			70	N1040	2	Zylinderschraube	allen screw	vis a six pans creux		DIN 912;M6x65;8.8
			80	N102	2	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			90	N1042	2	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-freinant		DIN 980;N M6;8;A3A



Wartungssätze
Maintenance kits
Kits d'entretien

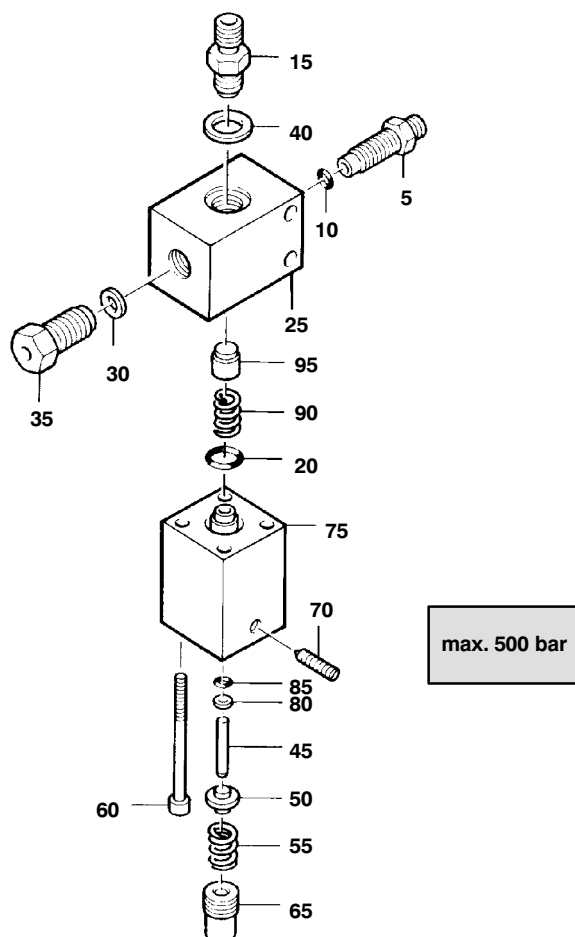
Baugruppe
Assembly
Assemblage

063838
063838
063838

Druckhalte-/Rückschlagventil
Pressure maintaining/non-return valve
Soupape de maintien de pression anti-retour

B59.0- 3a

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	90964	1	Ventilkörper				
	X		20	77245	1	Zylinderstift			5 g	DIN 7;5h8x40;Rz2-3
			30	57762	1	Aufnahme	spring seat	siege de ressort		f. Feder
			40	2623	1	Druckfeder	spring	ressort de pression		
			50	57935	1	Einstellschraube	adjusting screw	vis d'ajustage		
	X		60	N17080	1	Dichtung	gasket	joint		5x8x2.3;FU;PTFE
			70	90965	1	Scheibe				f. DH/RS-Ventil
			80	90967	1	Anschlußstück				
	X		90	N4602	1	USIT-Ring	usit-ring	joint usit		U 14-18.7-1.5;St/NBR
			100	N23206	1	Druckfeder				VD-063N
			110	N3824	1	O-Ring	o-ring	joint torique		7.59x2.62;NBR;70 Sh.
			120	90966	1	Ventilsitz				
	X		130	75269	1	Ventilkolben	valve piston	piston		
			140	N4465	1	Gewindestift	set screw	goujon fileté	1 g	DIN 553;M4x10;5.8
			150	N3837	1	Sechskantmutter	hex nut	ecrou hex.		DIN 985;M4;8
			160	N724	4	Zylinderschraube	allen screw	vis a six pans creux	11 g	DIN 912;M6x40;8.8



max. 500 bar

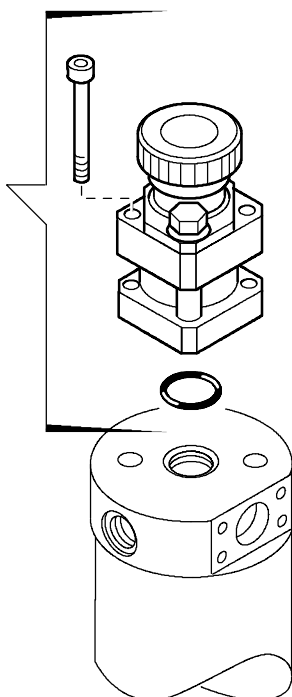
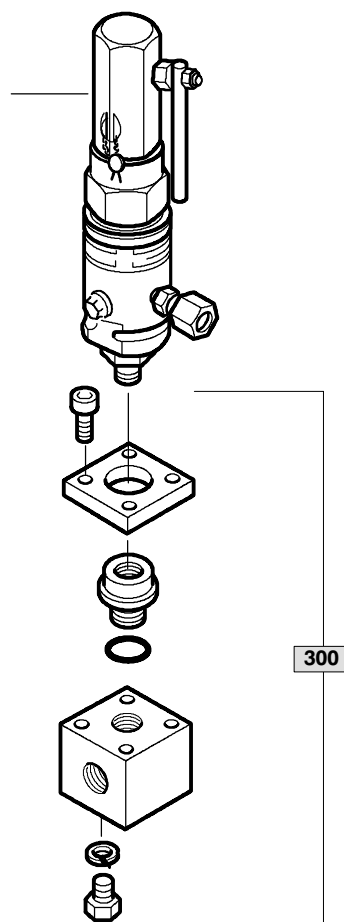

 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 068275
 Assembly 068275
 Assemblage 068275

 Druckhalte-Rückschlagventil
 pressure maintaining and non-return valve
 soupape de maintien de pression anti-retour

B59.0- 3b

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	68270	1	Rohrverschraubung	connector	raccord		
			10	N4600	1	O-Ring	o-ring	joint torique		2.9x1.78
			15		1	Druckhalteventilsitz	valve seat	siege de soupape		
			20	N2789	1	O-Ring	o-ring	joint torique		15.6x1.78
			25		1	Ventilkörper				
			30	4479	1	Dichtung	gasket	joint		8x14x2.5
			35	68271	1	Rohrverschraubung	Connector	Raccord		
			40	N4499	1	USIT-Ring	usit-ring	joint usit		U 16.7-24-1.5
			45	56739	1	Bolzen	bolt	boulon	6 g	
			50	56675	1	Aufnahme	spring seat	siege de ressort	10 g	f. Feder
			55	2623	1	Druckfeder	spring	ressort de pression		
			60	N1282	4	Zylinderschraube	allen screw	vis a six pans creux	35 g	DIN 912 ; M8x75 ; 8.8
			65	57517	1	Einstellschraube	adjusting screw	vis d'ajustage	35 g	
			70	N18103	1	Gewindestift			1 g	DIN 553 ; M4x16 ; 5.8
			75		1	Ventilkörper				
			80	N18104	1	Stützring	retaining ring	bague de retenue		SP 5-7.4-0.5 Z
			85	N16591	1	O-Ring	o-ring	joint torique		5x1.5
			90	68294	1	Druckfeder	spring	plume		
			95	056674	1	Ventilkolben kpl.	valve piston	piston de soupape		

10
20
30
40
50
60

 70
80
90


300

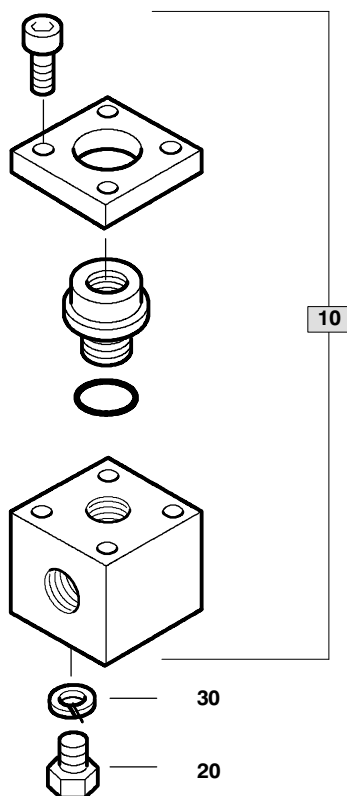

 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78638
 Assembly 78638
 Assemblage 78638

 Sicherheitsventile
 Safety valves
 Soupapes de sûreté

B59.0- 4

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	059410-225	1	Sicherheitsventil	safety valve	soupape de sûreté		225bar;bauteilgeprüft
			20	059410-225TÜV	1	Sicherheitsventil	safety valve	soupape de sûreté		225bar;bauteilgeprüft
			30	059410-330	1	Sicherheitsventil	safety valve	soupape de sûreté		330bar;bauteilgeprüft
			40	059410-330TÜV	1	Sicherheitsventil	safety valve	soupape de sûreté		330bar;bauteilgeprüft
			50	059410-350	1	Sicherheitsventil	safety valve	soupape de sûreté		350bar;bauteilgeprüft
			60	059410-350TÜV	1	Sicherheitsventil	safety valve	soupape de sûreté		350bar;bauteilgeprüft
			70	N17066-420	1	Sicherheitsventil	safety valve	soupape de sûreté		420bar;DN6;G1/2
			80	N17066-525	1	Sicherheitsventil	safety valve	soupape de sûreté		525bar;DN6;G1/2
			90	N17066-525TÜV	1	Sicherheitsventil	safety valve	soupape de sûreté		525bar;DN6;G1/2
			300	78825	1	Aufnahme kpl.				V5;f.SIV



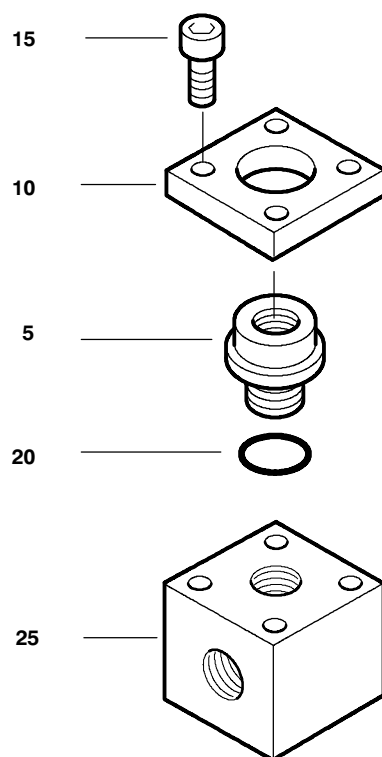
Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78825
Assembly 78825
Assemblage 78825

Aufnahme kpl.
Adapter assy.
Adaptateur cpl.

B59.0- 4a

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	067800	1	Aufnahme kpl.	Adapter assy.	Adaptateur cpl.		SiV; G1/2"
			20	N19505		Sechskantschraube	Hex. screw	Vis hex.		M8x20, DIN EN24017
			30	N108		Federring	Lock washer	Rondelle élastique		A8, DIN 127



Wartungssätze
 Maintenance kits
 Kits d'entretien

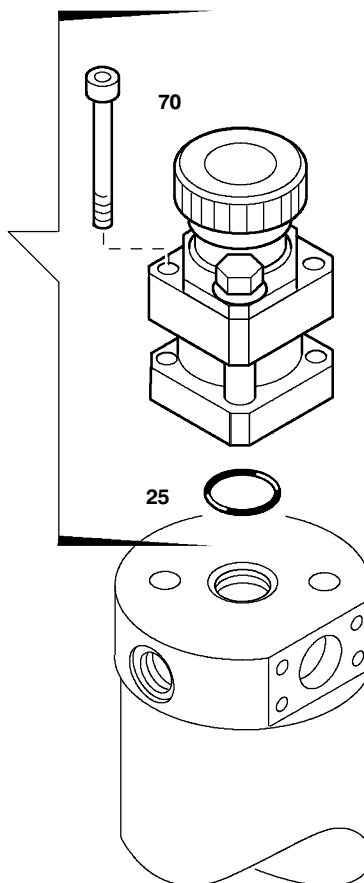
Baugruppe 067800
 Assembly 067800
 Assemblage 067800

Aufnahme kpl.
 Adapter assy.
 Adaptateur cpl.

B59.0- 4b

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	67797		Adapter	Adapter	Adaptateur		
			10	64119		Adapter	Adapter	Adaptateur		
			15	N61		Innensechskantschr.	Allen screw	Vis à six pans creux		M8x25, DIN 912
			20	N4882		O-Ring	O ring	Joint torique		16x2
			25	67798		Aufnahmevierkant	Block	Bloc		

059410


 Wartungssätze
 Maintenance kits
 Kits d'entretien

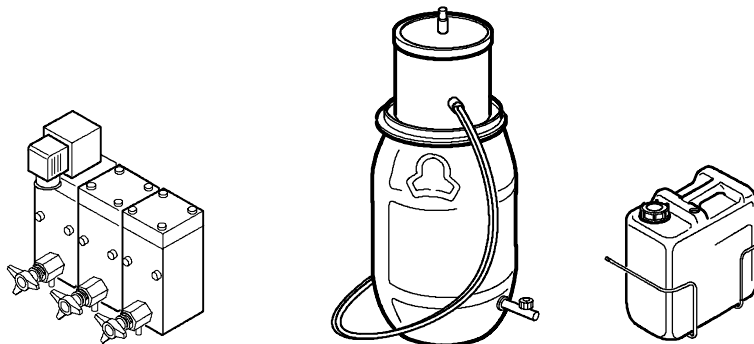
 Baugruppe 059410
 Assembly 059410
 Assemblage 059410

 Sicherheitsventil
 Safety valve
 Soupape de sûreté

B59.0- 4c

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			25	N4882	1	O-Ring	o-ring	joint torique		16x2;NBR;72Shore
			70	N19555	2	Zylinderschraube	screw	vis	29 g	DIN 912;M8x60;8.8

VERTICUS 5



Baugruppe	Assembly	Groupe d'assemblage	Seite/page
Kondensat-Ablaufautomatik 78406-01 . . .	Automatic cond. drain unit 78406-01 . . .	Purge automatique des condensats 78406-01 . . .	C60.0- 1
Kondensatabscheider kpl. 78831	Condensate separator assy. 78831 . . .	Séparateur de condensat cpl. 78831	C60.0- 2
Kondensatabscheider 78832	Condensate separator 78832	Séparateur de condensat 78832	C60.0- 3
Kondensat-Ablaufautomatik 78406-02 . . .	Automatic cond. drain unit 78406-02 . . .	Purge automatique des condensats 78406-02 . . .	C60.0- 4
Kondensat-Ablaufautomatik 78406-03 . . .	Automatic cond. drain unit 78406-03 . . .	Purge automatique des condensats 78406-03 . . .	C60.0- 5
Kondensatabscheider kpl. 78952	Condensate separator assy. 78952 . . .	Séparateur de condensat cpl. 78952	C60.0- 6
Kondensatabscheider 075845	Condensate separator assy. 075845 . . .	Séparateur de condensat cpl. 075845	C60.0- 7
Kondensatablaßventil 060410	Condensate drain valve 060410	Soupape de purge cpl. 060410	C60.0- 8
Kondensatablaßventil 061008	Condensate drain valve 060410	Soupape de purge cpl. 060410	C60.0- 9
Kondensatablaßventil 061010	Condensate drain valve 061010	Soupape de purge cpl. 061010	C60.0- 10
Kondensatablaßhahn 011430	Condensate drain tap 011430	Robinet de purge 011430	C60.0- 11
Kondensat-Sammelsystem 78015	Condensate collecting system 78015 . . .	Système collecteur des condensats 78015	C60.0- 12
Kondensat-Sammelsystem 78422	Condensate collecting system 78422 . . .	Système collecteur des condensats 78422	C60.0- 13

Änder.-Nr. Change no. No. de change	Datum Date	Änderung	Change	Changement
0	01.04.2000	Grundausgabe	Basic edition	Edition de base

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Wichtige Hinweise für Teilebestellung:

Bestell-Nr., die mit der Ziffer 0 beginnen, bezeichnen Baugruppen, die komplett geliefert werden. Teile ohne Bestell-Nr. sind nur zur Information für die Montage aufgeführt. Sie sind nicht als Ersatzteil erhältlich. Bei Ersatzteilbestellungen erwarten Sie unsere richtige Lieferung; deshalb benötigen wir von Ihnen folgende Angaben (siehe unten gezeigtes Typenschild):

1. Modellbezeichnung, Fabrik-Nr. sowie Fertigungsstand von Anlage/Block
2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

Bestell-Beispiel:

Für Kompressorblock ...
Fabrik-Nr. 524-0528/1/2 drei Dichtungen
8263-090

Important notes for spare parts orders:

Part nos. beginning with digit 0 indicate parts available as complete assemblies. Parts without part no. are indicated for assembly reference, only. These parts are not available as single parts. When placing an order for spare parts, please give the following items so as to ensure our correct delivery (see identification plate shown below):

1. Model, serial no. as well as design standard of unit/block
2. Quantity required
3. Name and part no.

Example for order:

For compressor block ...
serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr/Year	
Volumenstrom m3/min	/	n/min.	
Free air delivery Scfm		r.p.m.	
Betriebsüberdruck bar		kW	
Max. working press. psig			
		KB 73708	
		Fertigungsstand / Modification no. / No. de modification	
		Anlage/Unit/Groupe	
		Kompressorblock / Compressor block / Bloc compresseur	



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



ATTENTION

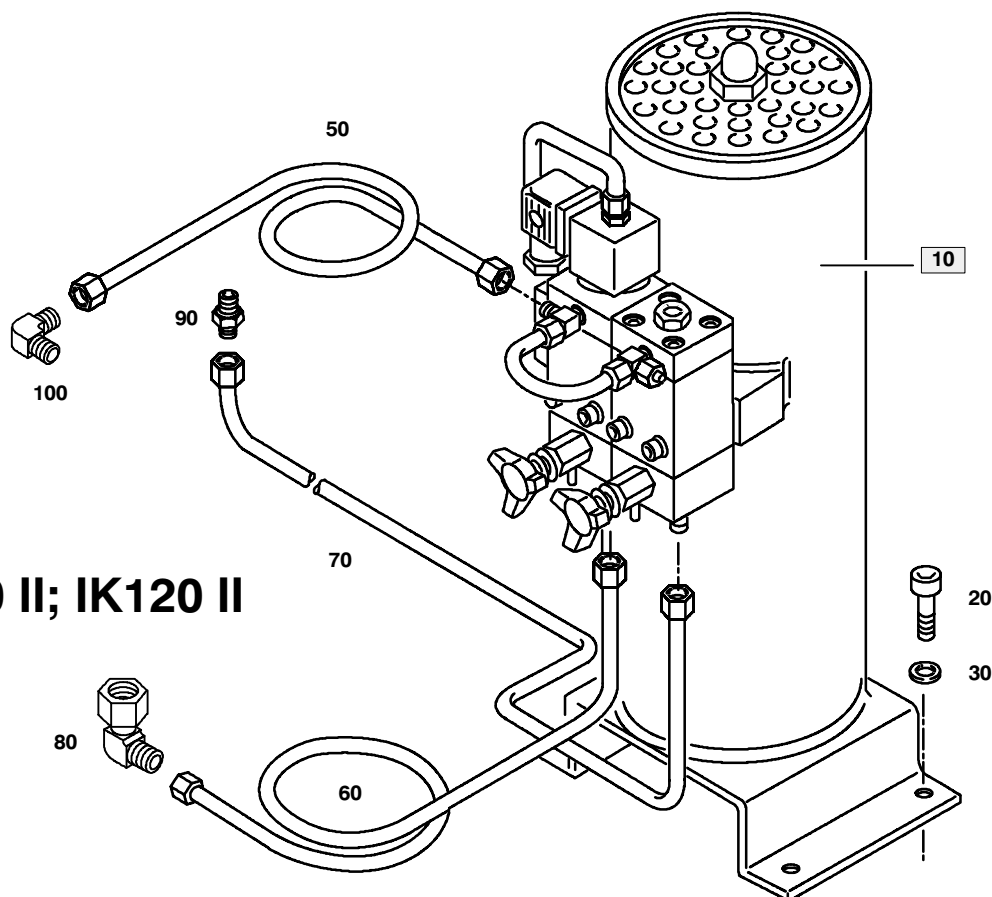
Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



ATTENTION

N'utiliser que des vis et des goujons filetés de la qualité 8.8!

IK100 II; IK120 II



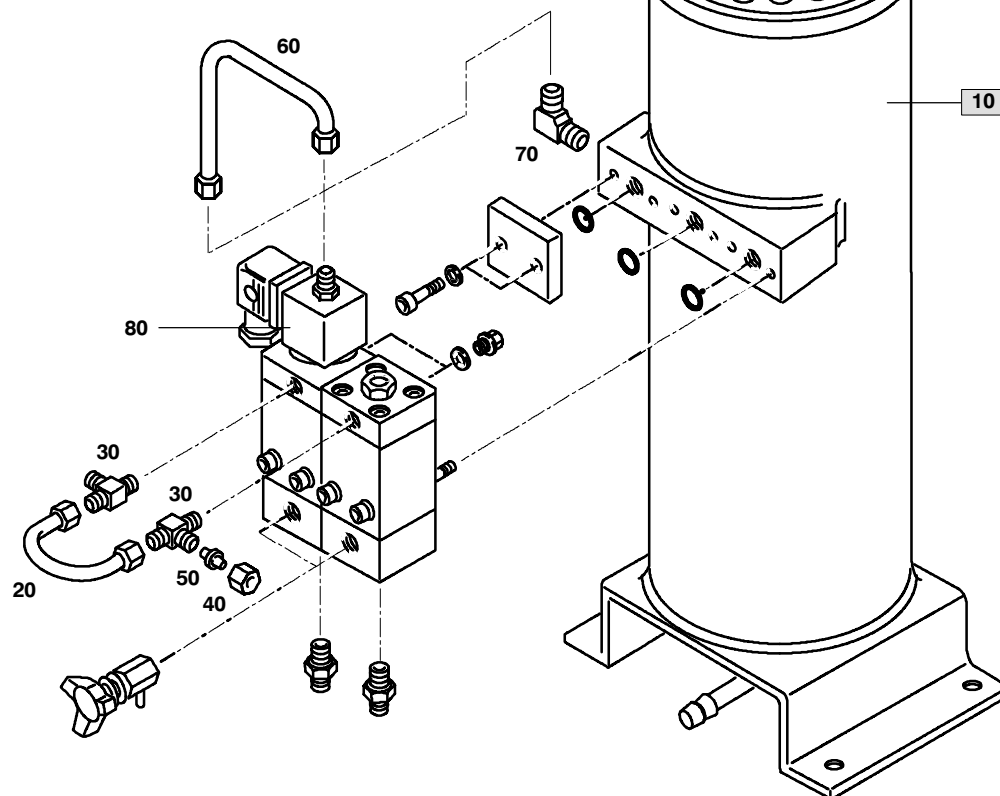
Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78406-01
 Assembly 78406-01
 Assemblage 78406-01

Kondensat-Ablaufautomatik kpl. IK100 II; IK120 II
 Automatic condensate drain assy. IK100 II; IK120 II
 Purge automatique des condensats cpl. IK100 II; IK120 II

C60.0- 1

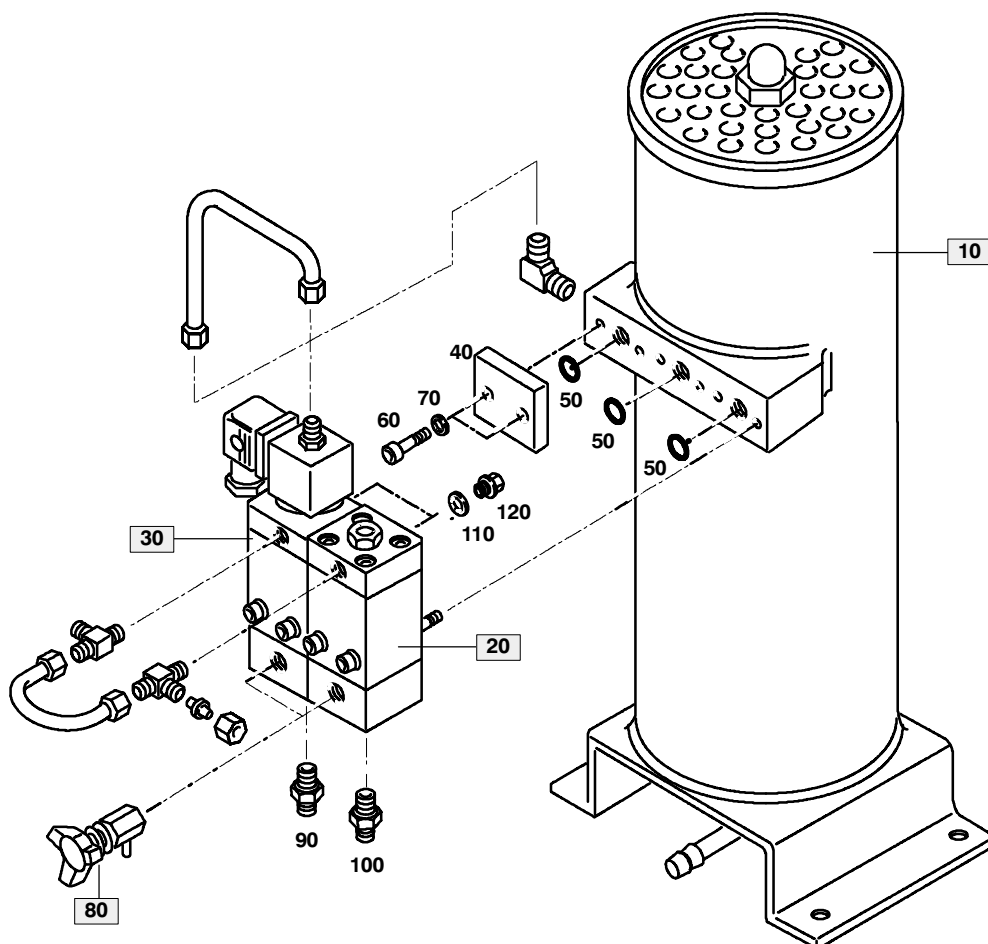
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78831	1	Kondensat-Absch. kpl.	Condensate separator	Séparateur des cond.		m. KAA 2-fach
			20	N19496	4	Sechskantschraube	Hex. screw	Vis hex.	6 g	DIN EN24017 ;M6x20
			30	N102	4	Scheibe	washer	rondelle	1 g	DIN 125;B 6,4;St;A3A
			50	78419-01	1	Rohrleitung	tube	tuyau		
			60	78419-02	1	Rohrleitung	tube	tuyau		
			70	78419-03	1	Rohrleitung	tube	tuyau		
			80		1	Einstellb. Winkelverschr.	adjustable elbow	raccord		
			90		1	Gerade Rohrverschr.	adjustable elbow	raccord		
			100		1	Winkelverschraubung	male elbow	raccord		


**Wartungssätze
Maintenance kits
Kits d'entretien**

Baugruppe 78831 Kondensat-Ablaufautomatik
 Assembly 78831 Automatic condensate drain
 Assemblage 78831 Purge automatique des condensats

C60.0- 2

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78832	1	Kondensat-Abscheider				m. Filter
			20	072208	1	Verbindungsleitung kpl.				KAA
			30	N20346	2	L-Einschraubstutzen	L-screwed socket	L-manchon visse	37 g	LES 6 LRK;R1/8;St
			40	N7430	1	Überwurfmutter	screw cap	ecrou-chapeau	9 g	M 6 L;Rohr-AD=6
			50	N4530	1	Verschlußstopfen	plug	bouchon	10 g	VS 6 L/S
			60	075847	1	Verbindungsleitung kpl.				MV-Entl. z. Sammell.
			70	N20003	1	Winkel-Einschraubst.	equal elbow coupling	raccord coude male	29 g	WES 6 LRK;R1/8;St
			80	N18363	1	Magnetspule	coil	bobine		24V/50-60Hz;Typ BH

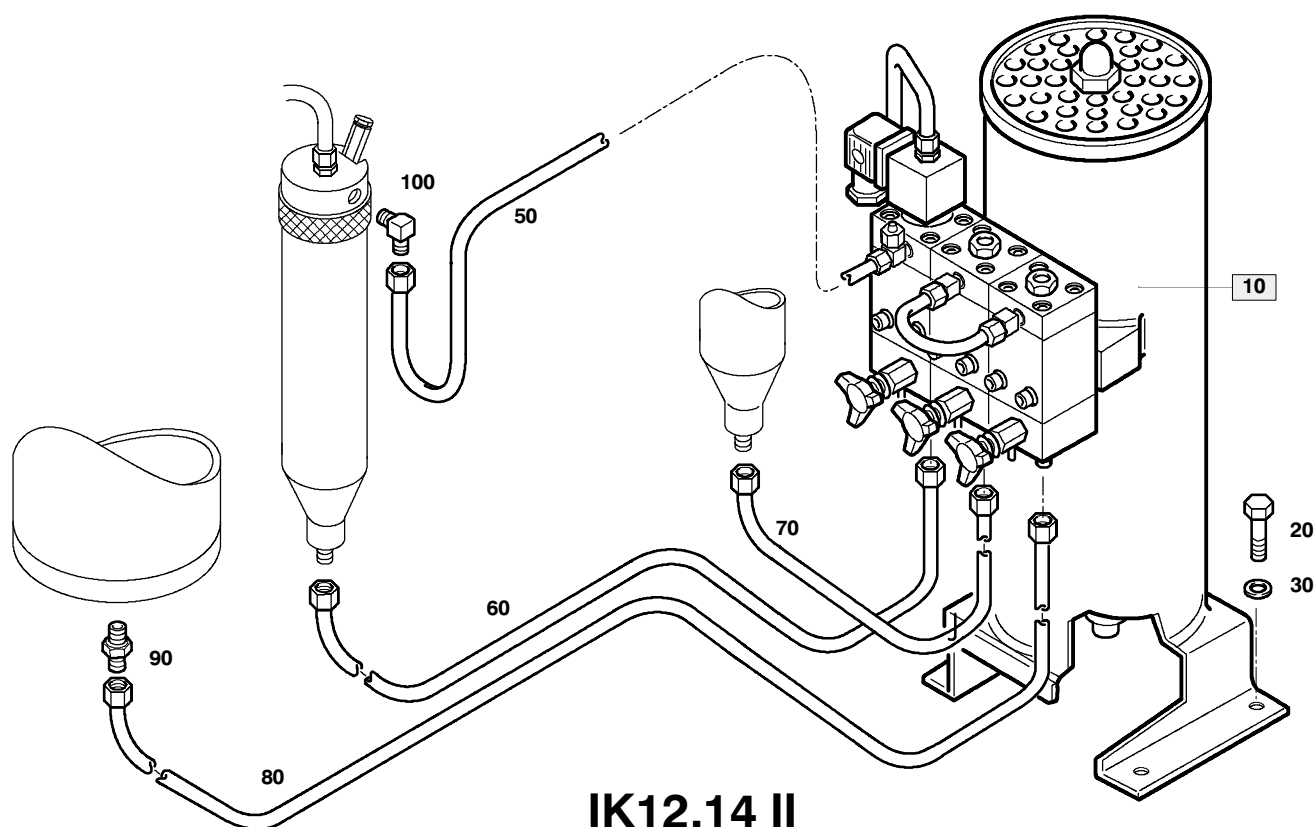


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78832 Kondensatabscheider kpl.
 Assembly 78832 Condensate separator assy.
 Assemblage 78832 Collecteur des condensats cpl.

C60.0- 3

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	075845	1	Kondensat-Abscheider	Condensate separator	Séparateur des cond.		m. Filter
			20	061008	1	Kondensatventil	condensate drain valve	soupape de purge	,8	
			30	060410	1	Kondensatventil	condensate drain valve	soupape de purge	1,23	
			40	62293	1	Abschlußdeckel	cover plate	couvercle de fermeture		
	X		50	N4333	3	O-Ring	o-ring	joint torique		15,54x2,62;FPM;75Sh.
			60	N19534	2	Zylinderschraube	cylinder screw	vis cylindrique	6 g	DIN 912;M6x20;8.8
			70	N102	2	Scheibe	washer	rondelle	1 g	DIN 125;B 6,4;St;A3A
			80	011430	2	Ablaßhahn	condensate drain knob	robinet de purge		
			90	N20065	1	Gerader-Einschraubst.	straight male stud	tubulure	33 g	GES 8 LR-WD;G1/4
			100	N20211	1	Gerader-Einschraubst.	straight male stud	tubulure	33 g	GES 6 SR-WD;G1/4
			110	N4051	1	Dichtring	gasket	joint	1 g	DIN 7603;A10x15x1
			120	N3459	1	Verschlußschraube	plug	bouchon filete	12 g	DIN 910;G1/8A;St;A3A


IK12.14 II

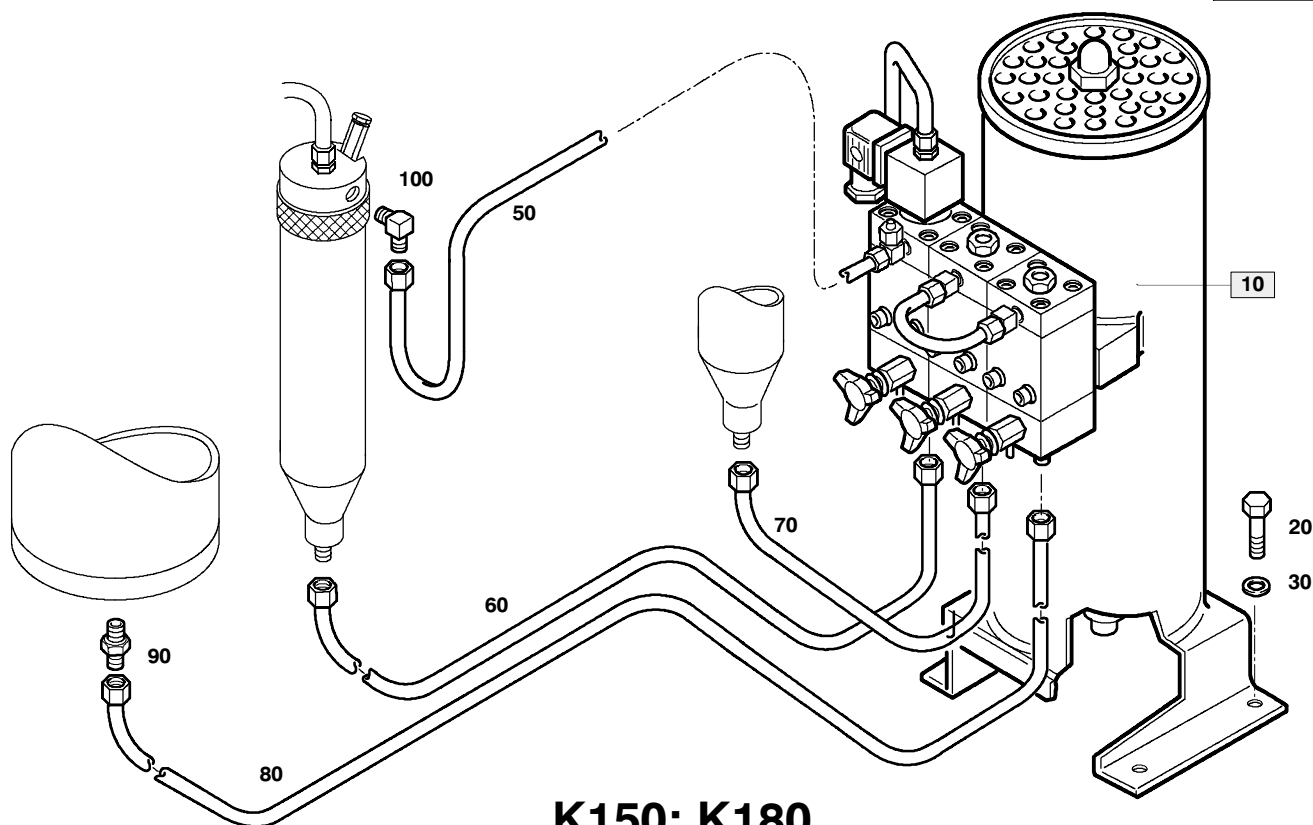
 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78406-02
 Assembly 78406-02
 Assemblage 78406-02

 Kondensat- Abfallautomatik IK12.14 II
 Automatic condensate drain unit IK12.14 II
 Purge automatique des condensats IK12.14 II

C60.0- 4

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78952	1	Kondensat-Abscheider				m.KAA 3-fach
			20	N19496	4	Sechskantschraube	hex screw	hex screw	6 g	DIN 933;M6x20;8.8
			30	N102	4	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			50	78416-01	1	Rohrleitung	tube	tuyau		
			60	78416-02	1	Rohrleitung	tube	tuyau		
			70	78416-03	1	Rohrleitung	tube	tuyau		
			80	78419-03	1	Rohrleitung	tube	tuyau		
			90		1	Gerade Rohrverschr.	adjustable elbow	raccord droit mâle		
			100		1	Winkel-Rohrverschr.	male elbow	raccord		


K150; K180

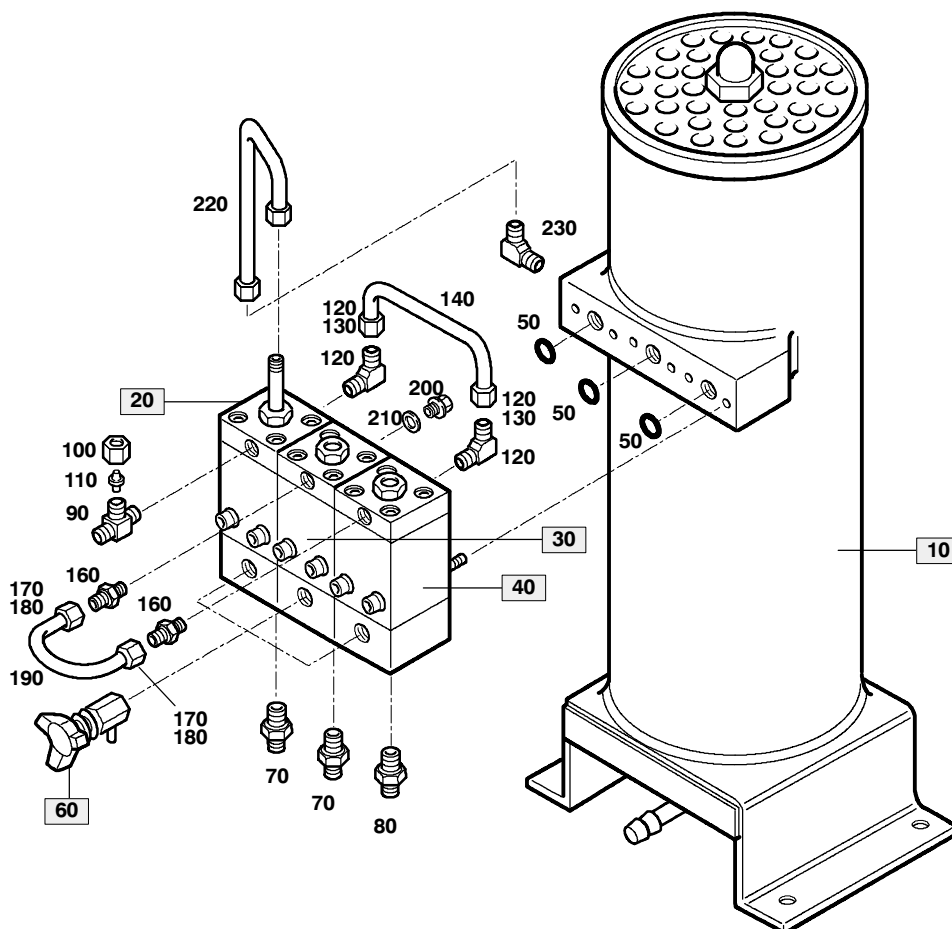
 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78406-03
 Assembly 78406-03
 Assemblage 78406-03

 Kondensat-Ablaufautomatik K150; K180
 Automatic condensate drain unit K150; K180
 Purge automatique des condensats K150; K180

C60.0- 5

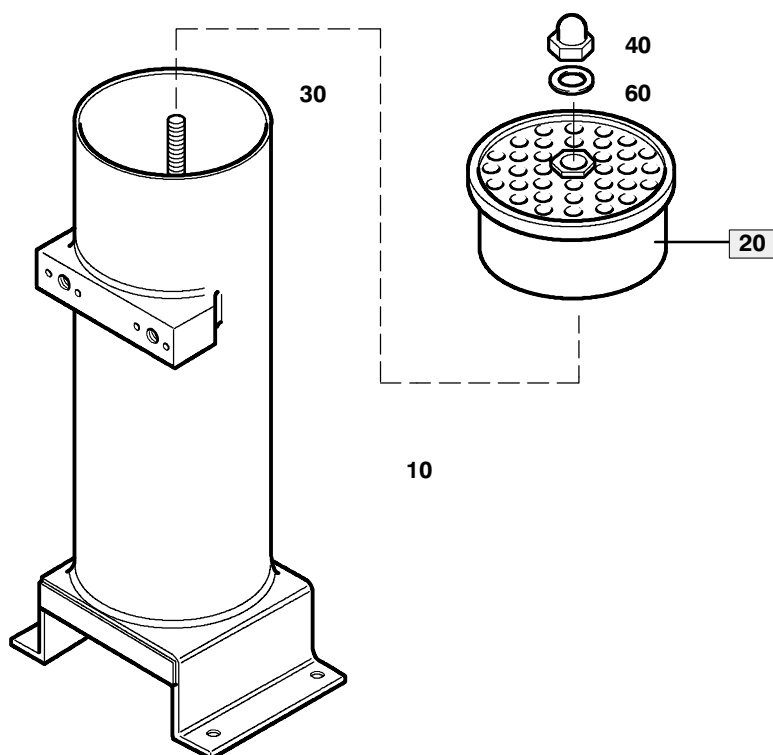
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78952	1	Kondensat-Abscheider				m.KAA 3-fach
			20	N19496	4	Sechskantschraube	hex screw	hex screw	6 g	DIN 933;M6x20;8.8
			30	N102	4	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			50	78420-01		Rohrleitung	tube	tuyau		
			60	78420-02		Rohrleitung	tube	tuyau		
			70	78420-03		Rohrleitung	tube	tuyau		
			80	78419-03		Rohrleitung	tube	tuyau		
			90		1	Gerade Rohrverschr.	adjustable elbow	raccord droit mâle		
			100		1	Winkel-Rohrverschr.	male elbow	raccord		


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78952 Kondensatabscheider kpl.
 Assembly 78952 Condensate separator assy.
 Assemblage 78952 Séparateur des condensats cpl.

C60.0- 6

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	075845	1	Kondensat-Abscheider	separator with filter			m.Filter
			20	060410	1	Kondensatventil	condensate drain valve	soupape de purge	1,23	
			30	061010	1	Kondensatventil	condensate drain valve	soupape de purge	,83	
			40	061010	1	Kondensatventil	condensate drain valve	soupape de purge	,83	
			45	N18363	1	Magnetspule	coil	bobine		24V/50-60Hz; Typ BH
	X		50	N4333	3	O-Ring	o-ring	joint torique		15.54x2.62; FPM; 75Sh.
			60	011430	3	Ablabahn	condensate drain knob	robinet de purge		
			70	N20065	2	Gerader-Einschraubst.			28 g	GES 8 LR-WD; G1/4
			80	N20211	1	Gerader-Einschraubst.	straight male stud	tubulure	33 g	GES 6 SR-WD; G1/4
			90	N20346	1	L-Einschraubstutzen	L-screwed socket	L-manchon visse	37 g	LES 6 LRK; R1/8; St
			100	N7430	1	Überwurfmutter	screw cap	ecrou-chapeau	9 g	M 6 L; Rohr-AD=6
			110	N4530	1	Verschlußstopfen	plug	bouchon	10 g	VS 6 L/S; Rohr-AD=6
			120	N20003	2	Winkel-Einschraubst.	equal elbow coupling	raccord coude male	29 g	WES 6 LRK; R1/8; St
			130	N7430	2	Überwurfmutter	screw cap	ecrou-chapeau	9 g	M 6 L; Rohr-AD=6
			140	N3663	2	Schneidring	cutting ring	anneau de matrice	2 g	R6 L/S; St
			150	N3616*	mm	Nahtloses Rohr	stainless steel tube 6x1	tuyau en acier inox 6x1	,125	250 mm; DIN 2462; 6x1
			160	N20237	2	Gerader-Einschraubst.	male stud	raccord	14 g	GES 6 LR-WD; G1/8
			170	N7430	2	Überwurfmutter	screw cap	ecrou-chapeau	9 g	M 6 L; Rohr-AD=6
			180	N3663	2	Schneidring	cutting ring	anneau de matrice	2 g	R6 L/S; St
			190	N3616*	mm	Nahtloses Rohr	stainless steel tube 6x1	tuyau en acier inox 6x1	,125	200 mm; DIN 2462; 6x1
			200	N3459	1	Verschlußschraube	plug	bouchon fileté	12 g	DIN 910; G1/8A; St; A3A
			210	N4051	1	Dichtring	gasket	joint	1 g	DIN 7603; A10x15x1
			220	075847	1	Verbindungsleitung kpl.				MV-Entl. z. Sammel.
			230	N20003	1	Winkel-Einschraubst.	equal elbow coupling	raccord coude male	29 g	WES 6 LRK; R1/8; St



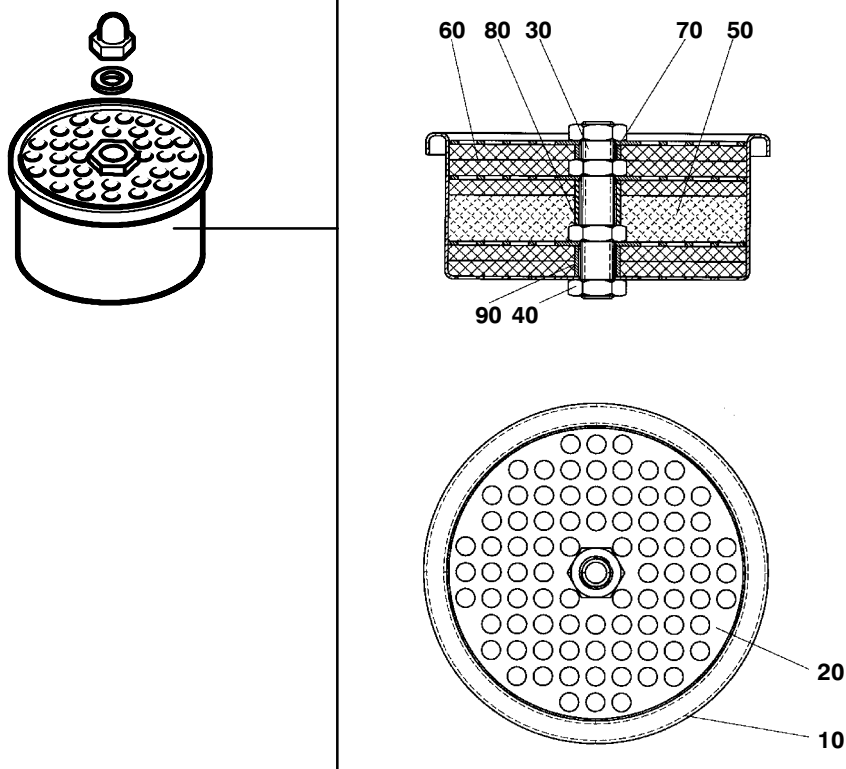
075845/04/98


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 075845 Kondensatabscheider
 Assembly 075845 Condensate separator
 Assemblage 075845 Séparateur des condensats

C60.0- 7

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	75300	1	Kondensat-Abscheider	Condensate separator	Séparateur des condens.		Gehäuse
			20	075562	1	Filter	Filter	Filtre		
			30	75565	1	Gewindestange	Threaded rod			M8;L135
			40	N84	1	Sechskant-Hutmutter	acorn nut	ecrou a chapeau	11 g	DIN 1587;M8;6;A3A
			50	N23927*	mm	Vierkantschnur	square rope			505 mm; B10;H6
			60	N58	1	Scheibe	washer	rondelle	2 g	DIN 125;B 8.4;St;A3A



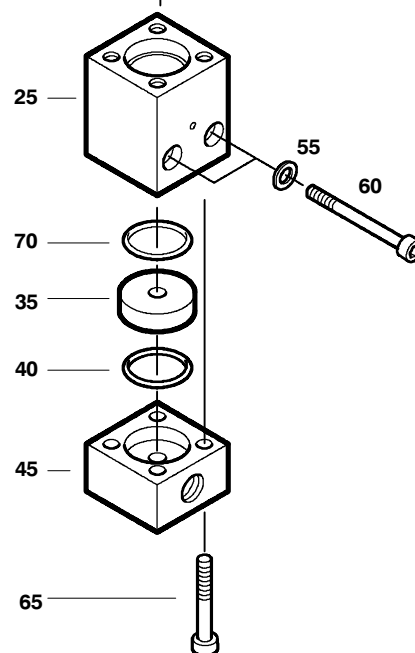
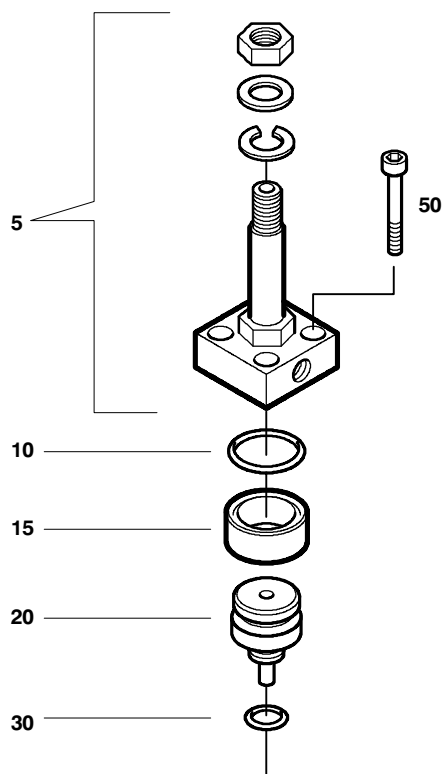
075562/09/97


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 075562 Filter
 Assembly 075562 Filter
 Assemblage 075562 Filtre

C60.0- 7a

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	75528	1	Filtertopf				
			20	75534	3	Lochblech				f.Filter
			30	75530	1	Gewinderohr				AGM16x1.5;ID10;L86
			40	N59	4	Sechskantmutter	hexagon nut	ecrou hexagonal		DIN 439;B M16x1.5;04
			50	072347	1	Aktivkohle	activated carbon	charbon active	500 g	Gebinde 500g
	X		60	75654	5	Filtermatte				AD155;ID14;H20
			70	75536	1	Hülse				AD22;ID18;H7
			80	75539	1	Hülse				AD22;ID18;H22
			90	75662	1	Hülse				AD22;ID18;H15

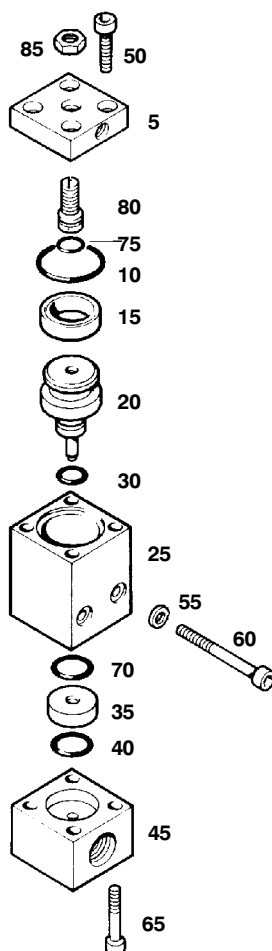


Wartungssätze
 Maintenance kits
 Kits d'entretien

Baugruppe 060410 Kondensat-Ablaufventil
 Assembly 060410 condensate drain valve
 Assemblage 060410 soupape de purge de condense

C60.0- 8

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	058053	1	3/2-Wege-Magnetventil	3/2-way solenoid valve	electrovanne 3/2 voies	,19 kg	
	X		10	N2720	1	O-Ring	o-ring	joint torique		37x2
	X		15	N4177	1	Nutring	grouved ring	anneau a gorge	,002 kg	25x35x8x5 ; 90 NBR
		X	20	57628	1	Ventilkolben	valve piston	piston de soupape	,06 kg	
			25		1	Ventilkörper			,305 kg	
	X		30	N3489	1	O-Ring	o-ring	joint torique		10.77x2.62
	X		35	56687	1	Ventilsitz	valve seat	siege de soupape	,015 kg	
	X		40	N4178	1	O-Ring	o-ring	joint torique		17.12x2.62
			45	60416	1	Zwischen-Teil	intermediate part	piece intermediaire	,23 kg	
			50	N210	4	Zylinderschraube m. IN-6KT	allen screw	vis a six pans creux	6 g	DIN 912 ; M6x20 ; 8.8
			55	N102	2	Scheibe, rund	washer	rondelle	1 g	DIN 125 ; B 6.4
			60	N781	2	Zylinderschraube m. IN-6KT	allen screw	vis a six pans creux	15 g	DIN 912 ; M6x60 ; 8.8
			65	N1511	4	Zylinderschraube m. IN-6KT	allen screw	vis a six pans creux	10 g	DIN 912 ; M6x35 ; 8.8
X			70	N2507	1	O-Ring	o-ring	joint torique		18.77x1.78

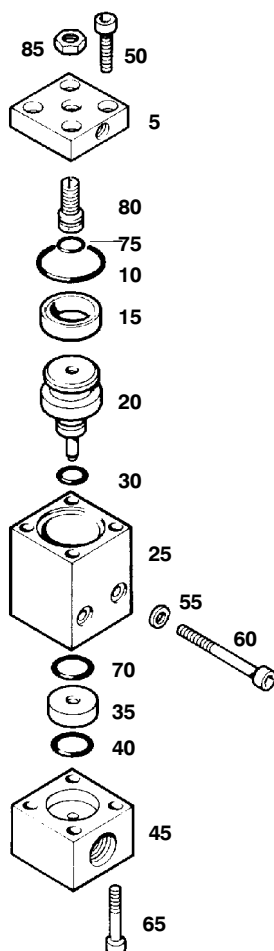


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 061008 Kondensatablaßventil
Assembly 061008 Condensate drain valve
Assemblage 061008 soupape de purge des condensats

C60.0- 9

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	61007	1	Flansch	flange	bride	,12 kg	
	X		10	N2720	1	O-Ring	o-ring	joint torique		37x2
	X		15	N4177	1	Nutring	grooved ring	anneau a gorge	,002	25x35x8x5 ; 90 NBR
		X	20	57628	1	Ventilkolben	valve piston	piston de soupape	,05 kg	
			25		1	Ventilkörper			,305	
	X		30	N3489	1	O-Ring	o-ring	joint torique		10.77x2.62
	X		35	56687	1	Ventilsitz	valve seat	siege de soupape		
	X		40	N4178	1	O-Ring	o-ring	joint torique		17.12x2.62
			45	60416	1	Zwischen-Teil	intermediate part	piece intermediaire	,23	
			50	N796	4	Zylinderschraube	allen screw	vis a six pans creux	8 g	DIN 912 ; M6x25 ; 8.8
			55	N102	2	Scheibe, rund	washer	rondelle	1 g	DIN 125 ; B 6.4
			60	N781	2	Zylinderschraube	allen screw	vis a six pans creux	15 g	DIN 912 ; M6x60 ; 8.8
			65	N1511	4	Zylinderschraube	allen screw	vis a six pans creux	10 g	DIN 912 ; M6x35 ; 8.8
	X		70	N2507	1	O-Ring	o-ring	joint torique		18.77x1.78
	X		75	N7091	1	O-Ring	o-ring	joint torique		9.25x1.78
			80	57353	1	Einstellschraube	adjusting screw	vis d'ajustage	,015	
			85	N3764	1	Sechskantmutter	hexagon nut	ecrou hexagonal		DIN 439 ; B M8x1 ; 04



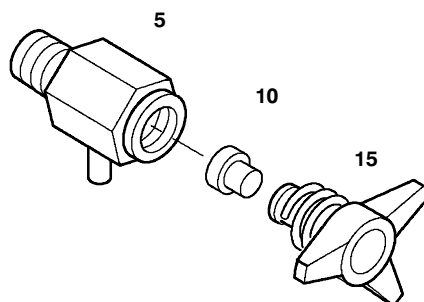
061010/04/98


 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 061010 Kondensatablaßventil
 Assembly 061010 Condensate drain valve
 Assemblage 061010 soupape de purge des condensats

C60.0- 10

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	61007	1	Flansch	flange	bride	,12 kg	
	X		10	N2720	1	O-Ring	o-ring	joint torique		37x2
	X		15	N4177	1	Nutring	grouved ring	anneau a gorge	,002	25x35x8x5 ; 90 NBR
		X	20	57629	1	Ventilkolben	valve piston	piston de soupape	,05 kg	
			25		1	Ventilkörper			,305	
	X		30	N3489	1	O-Ring	o-ring	joint torique		10.77x2.62
	X		35	56691	1	Ventilsitz	valve seat	siege de soupape		
	X		40	N4178	1	O-Ring	o-ring	joint torique		17.12x2.62
			45	60416	1	Zwischen-Teil	intermediate part	piece intermediaire	,23	
			50	N796	4	Zylinderschraube	allen screw	vis a six pans creux	8 g	DIN 912 ; M6x25 ; 8.8
			55	N102	2	Scheibe, rund	washer	rondelle	1 g	DIN 125 ; B 6.4
			60	N781	2	Zylinderschraube	allen screw	vis a six pans creux	15 g	DIN 912 ; M6x60 ; 8.8
			65	N1511	4	Zylinderschraube	allen screw	vis a six pans creux	10 g	DIN 912 ; M6x35 ; 8.8
	X		70	N2507	1	O-Ring	o-ring	joint torique		18.77x1.78
	X		75	N7091	1	O-Ring	o-ring	joint torique		9.25x1.78
			80	57353	1	Einstellschraube	adjusting screw	vis d'ajustage	,015	
			85	N3764	1	Sechskantmutter	hexagon nut	ecrou hexagonal		DIN 439 ; B M8x1 ; 04



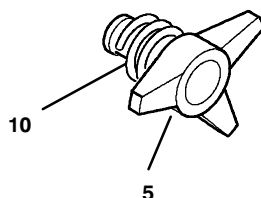
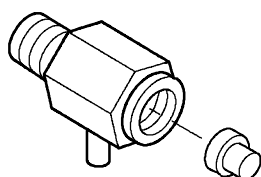
Ersatzteilsätze
Spare parts sets
Kits de pièces dét.

Baugruppe 011430
Assembly 011430
Assemblage 011430

Kondensatablaßhahn
Condensate drain tap
Robinet de purge

C60.0- 11

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
0	2	5								
			5	068410	1	Ablaßhahnkörper, kpl.	drain valve body	corps de robinet de purge		
X			10	13283	1	Dichtung	gasket	joint		
			15	055888	1	Knebelschraube m. Sicherungsfeder	tommy screw with retaining spring	vis a garret avec ressort		



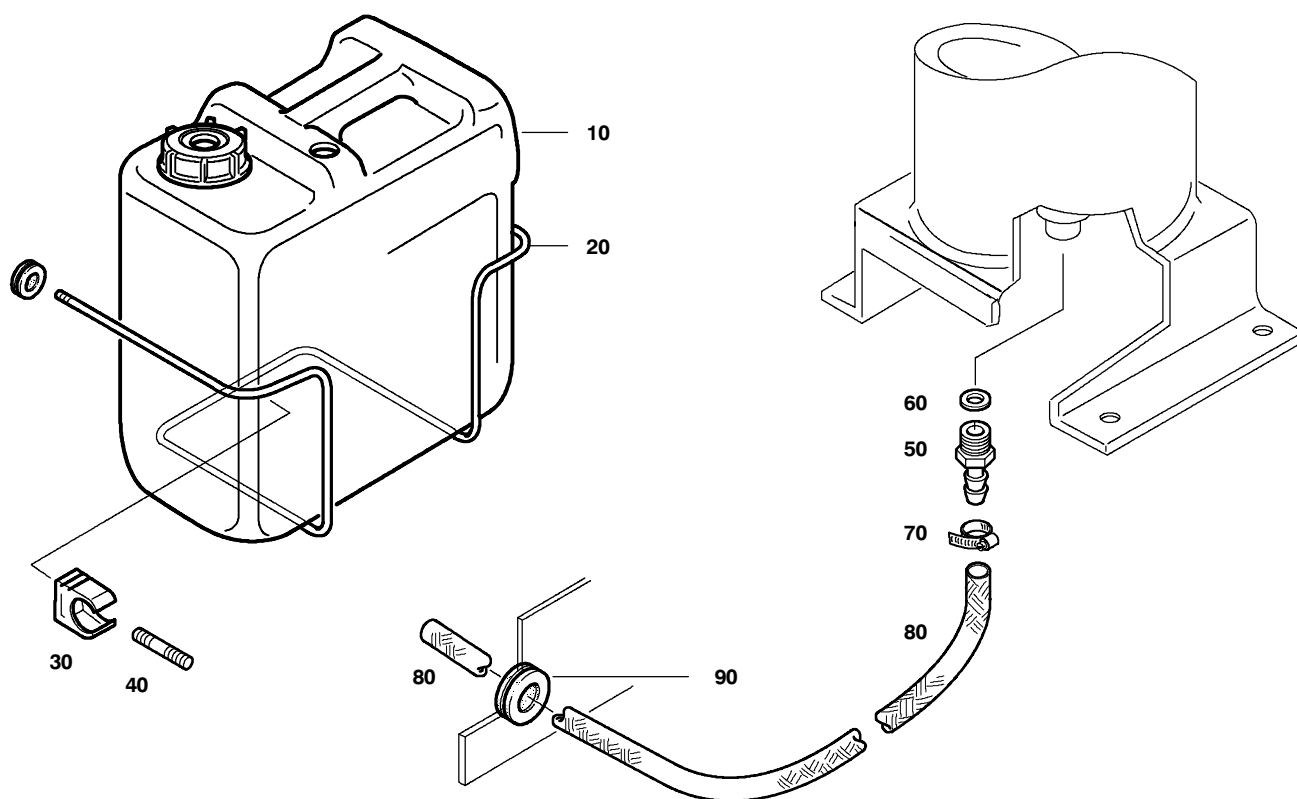
Ersatzteilsätze
Spare parts sets
Kits de pièces dét.

Baugruppe 055888
Assembly 055888
Assemblage 055888

Knebelschraube mit Sicherungsfeder
Tommy screw with retaining spring
Vis a garret avec ressort

C60.0- 11a

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			5	11392	1	Knebelschraube	tommy screw	vis a garret		
			10	13284	1	Sicherungsfeder	locking spring	ressort d'arret		

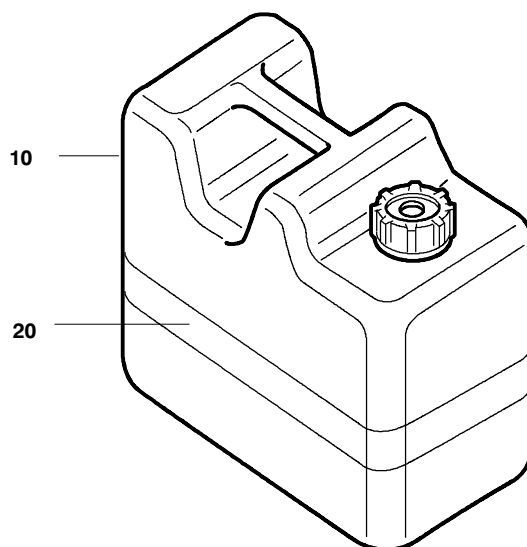


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78015 Sammelbehälter
 Assembly 78015 Collector tank
 Assemblage 78015 Collecteur

C60.0- 12

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78014	1	Kondensatbehälter				V5;m.Kupplg.
			20	76191	1	Halterung				f.Sammelbehälter
			30	N3202	1	Rohrclip	tube clamp	clip de tube		Einfach;D8
			40	N7490	1	Gewindestift			2 g	DIN 913;M6x16;45H
			50	N23873	1	Schlauchtülle	hose nozzle			G1/2;f.ID13
			60	N293	1	Dichtring	gasket	joint	3 g	DIN 7603;A21x28x1.5;Cu
			70	N7454	1	Schlauchschelle	hose clamp	collier de serrage		DIN 3017 T1;12-22/9;St v
			80	N19939	1 m	Schlauch	PVC hose	PVC tuyau		DN13;PN13;PVC glasklar
			90	N4994	1	Durchführungstülle	grommet	manchon traversee		DA200/280/20;AD36;ID20



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78014 Sammelbehälter
Assembly 78014 Collector tank
Assemblage 78014 Collecteur

C60.0- 12a

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78010	1	Kanister	Container			L286;B168;H272;10l
			20	N17184	mm	Isolierband	tape			920 mm; B19;PVC

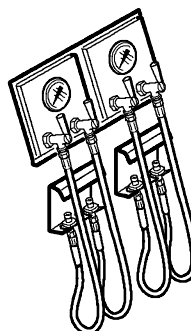
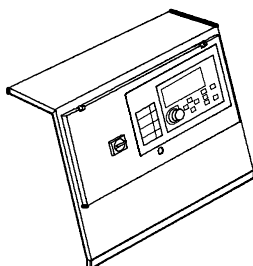
Ersatzteilliste
Spare parts catalogue
Liste de pièces

D15.0
D15.0
D15.0

Armaturentafel
Instrument panel
Tableau des instruments



VERTICUS 5



Baugruppe	Assembly	Groupe d'assemblage	Seite/page
77630 Armaturentafel	Instrument panel	Tableau des instruments	D15.0- 1
77636 Füllpaneel	Filling panel	Tableau de remplissage	D15.0- 2
77636-01 Füllpaneel 4x200/300	Filling panel 4x200/300	Tableau de remplissage 4x200/300	D15.0- 3
77636-02 Füllpaneel 2x200+300	Filling panel 2x200+2x300	Tableau de remplissage 2x200+2x300	D15.0- 4
77636-03 Füllpaneel 2x200+300 mit Druckminderer	Filling panel 2x200+2x300 with pressure reducer	Tableau de remplissage 2x200+2x300 avec détendeur de pression	D15.0- 5
Füllventile	Filling valves	Robinets de remplissage	D15.0- 6

HINWEIS

Diese Ersatzteilliste ist für unterschiedliche Konfigurationen gültig; Der tatsächliche Lieferumfang kann insbesondere bei den Anbau- und Zubehörteilen von den dargestellten Baugruppen und Teilen abweichen.

NOTE

This parts list covers different configurations; the delivery scope, especially for the mounting and accessory parts may differ from the assemblies and parts shown.

NOTE

Cette liste de pièces est pour des configurations diverses; il est possible que les pièces et les assemblages livrés pourraient être différents des pièces et assemblages indiqués, particulièrement les pièces pour le montage et les accessoires.

Änder.-Nr. Change no. No. de change	Datum Date	Änderung	Change	Changement
0	01.04.2000	Grundausgabe	Basic edition	Edition de base

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www.bauer-kompressoren.de

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www.bauer-kompressoren.de

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www.bauer-kompressoren.de

Wichtige Hinweise für Teilebestellung:

Bestell-Nr., die mit der Ziffer 0 beginnen, bezeichnen Baugruppen, die komplett geliefert werden. Teile ohne Bestell-Nr. sind nur zur Information für die Montage aufgeführt. Sie sind nicht als Ersatzteil erhältlich. Bei Ersatzteilbestellungen erwarten Sie unsere richtige Lieferung; deshalb benötigen wir von Ihnen folgende Angaben (siehe unten gezeigtes Typenschild):

1. Modellbezeichnung, Fabrik-Nr. sowie Fertigungsstand von Anlage/Block
2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

Bestell-Beispiel:

Für Kompressorblock ...
Fabrik-Nr. 524-0528/1/2 drei Dichtungen
8263-090

Important notes for spare parts orders:

Part nos. beginning with digit 0 indicate parts available as complete assemblies. Parts without part no. are indicated for assembly reference, only. These parts are not available as single parts. When placing an order for spare parts, please give the following items so as to ensure our correct delivery (see identification plate shown below):

1. Model, serial no. as well as design standard of unit/block
2. Quantity required
3. Name and part no.

Example for order:

For compressor block ...
serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr / Year / Année	
Volumenstrom m3/min	/	n/min.	
Free air delivery Scfm	/	r.p.m.	
Betriebsüberdruck bar	/	kW	
Max. working press. psig	/		
CE		KB 73708	
Fertigungsstand / Modification no. / No. de modification		Anlage/Unit/Groupe	
Kompressorblock / Compressor block / Bloc compresseur			



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



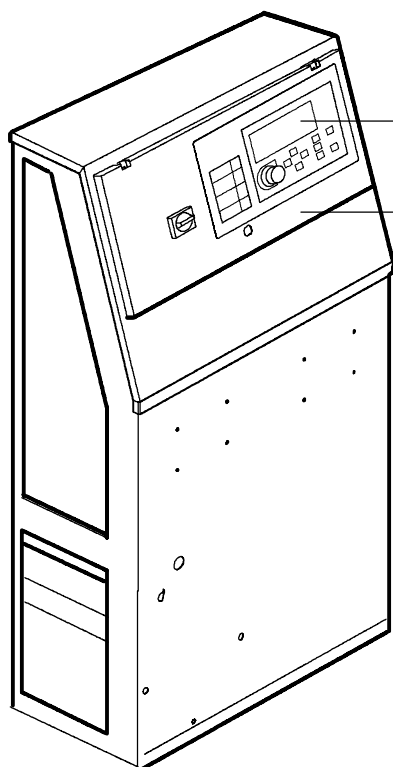
ATTENTION

Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



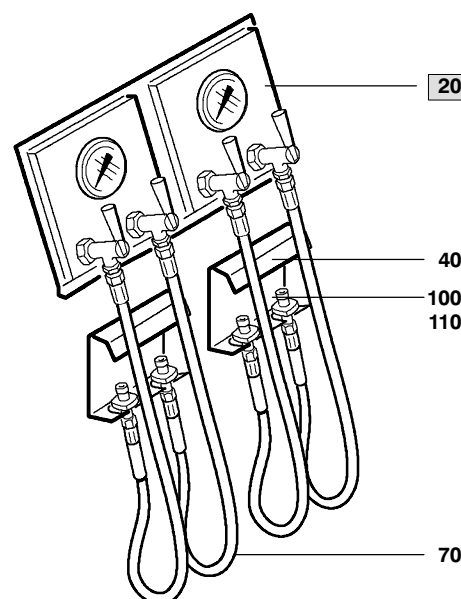
ATTENTION

N'utiliser que des vis et des goujons filetés de la qualité 8.8!


 siehe / see / voir
 G59

30

10



20

40

100

110

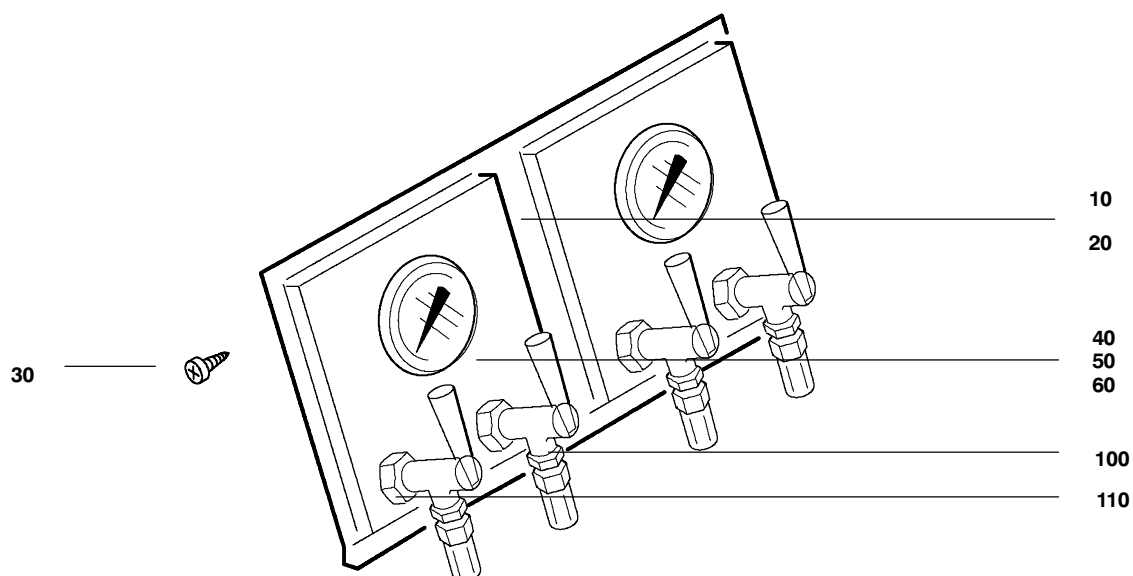
70


Wartungssätze
Maintenance kits
Kits d'entretien

 Baugruppe 77630 Armaturentafel
 Assembly 77630 Instrument panel
 Assemblage 77630 Tableau des instruments

D15.0- 1

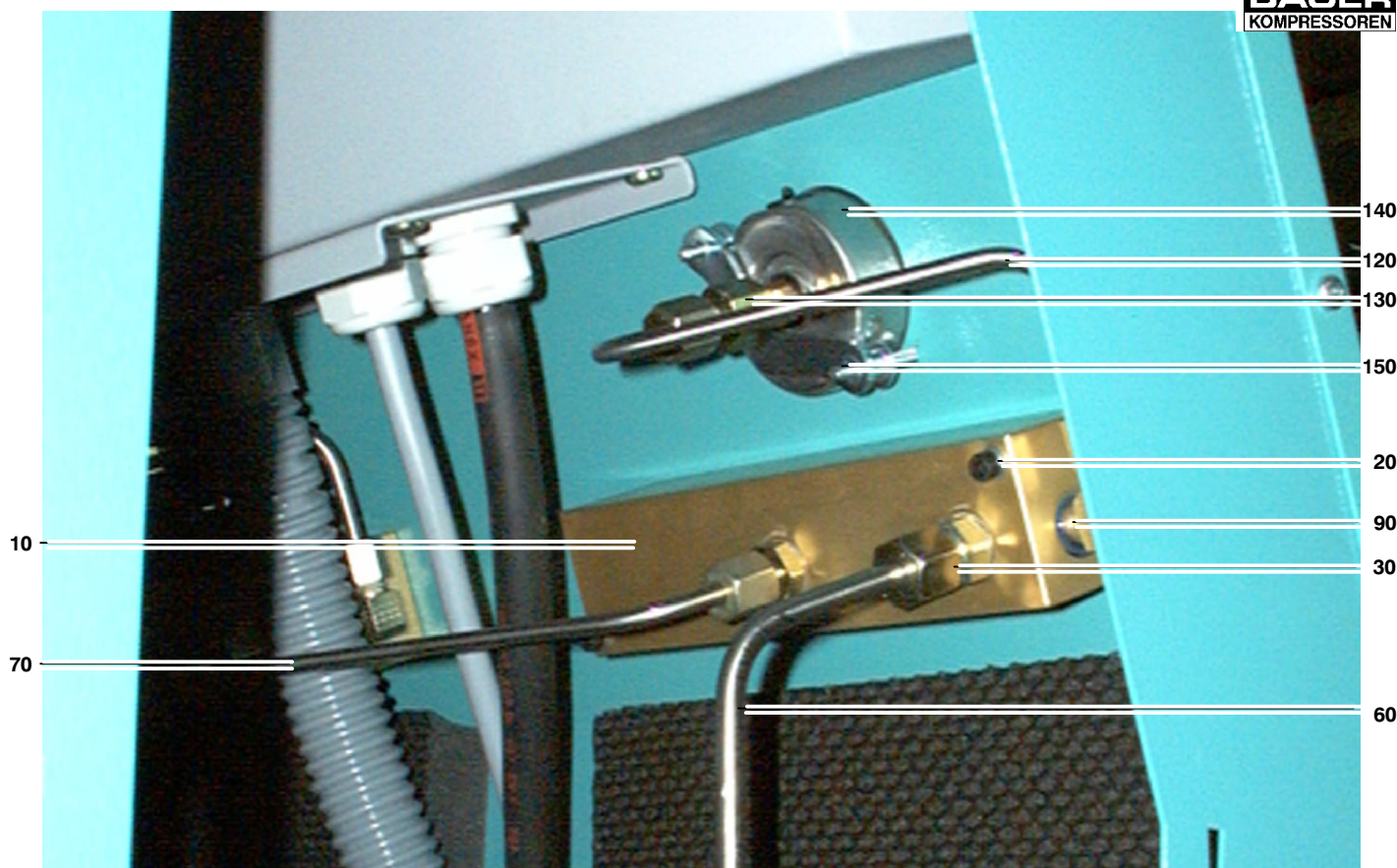
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78793	1	Gehäuse kpl.	Control box	Boîte de commande		V5 o.Steuerung
			20	77636	1	Füllpaneel	Filling panel	Tableau de remplissage		V5
			30	78266	1	Kompressorsteuerung	Compressor control unit	Commande électrique		V5;B-Co
			40	75260	2	Halterung	fixation	fixation		f.Füllventil
			50	N1042	8	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-frein.		DIN 980;N M6;8;A3A
			60	N102	8	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			70	N2817	4	UNIMAM-Füllschlauch	UNIMAM Filling hose 1 m	tuyau Unimam		DN6;PN450;L1m;Polyam.
			80	65594	1	Banderole	revenue seal	banderole		PN200
			90	65595	1	Banderole	revenue seal	banderole		PN300
			100	010912	1	UNIMAM-Flaschenanschluß	bottle connection	connexion de bouteille		PN300
			110	07756	1	UNIMAM-Flaschenanschluß	bottle connection	connexion de bouteille		PN200
			120	03147	1	ISO-Füllanschlußbügel kpl.	filling connection PN200	raccord de remplissage		PN200;ISO


**Wartungssätze
Maintenance kits
Kits d'entretien**

 Baugruppe 77636 Füllpaneel
 Assembly 77636 Filling panel
 Assemblage 77636 Tableau de remplissage

D15.0- 2

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78096	1	Paneel kpl.	panel	tableau		V5;o.Füllanschlüsse
			20	77638	1	Paneel kpl.	filling panel	tableau de remplissage		V5;m.Füllanschlüsse
			30	N25546	8	Blechschaube	screw	vis	2,2 g	B 4.8x13;A3A;Torx 25
			40	77636-01	1	Füllpaneel	filling panel	tableau de remplissage		V5;4x200 o.4x300
			50	77636-02	1	Füllpaneel	filling panel	tableau de remplissage		V5;2x200/2x300;o.DM
			60	77636-03	1	Füllpaneel	filling panel	tableau de remplissage		V5;2x200/2x300;DMV
			100	075353	4	Füllventil	filling valve	soupape de remplissage		PN200;PN300
			110	N25630	4	Abdeckung	cover			V5;f.Füllventile

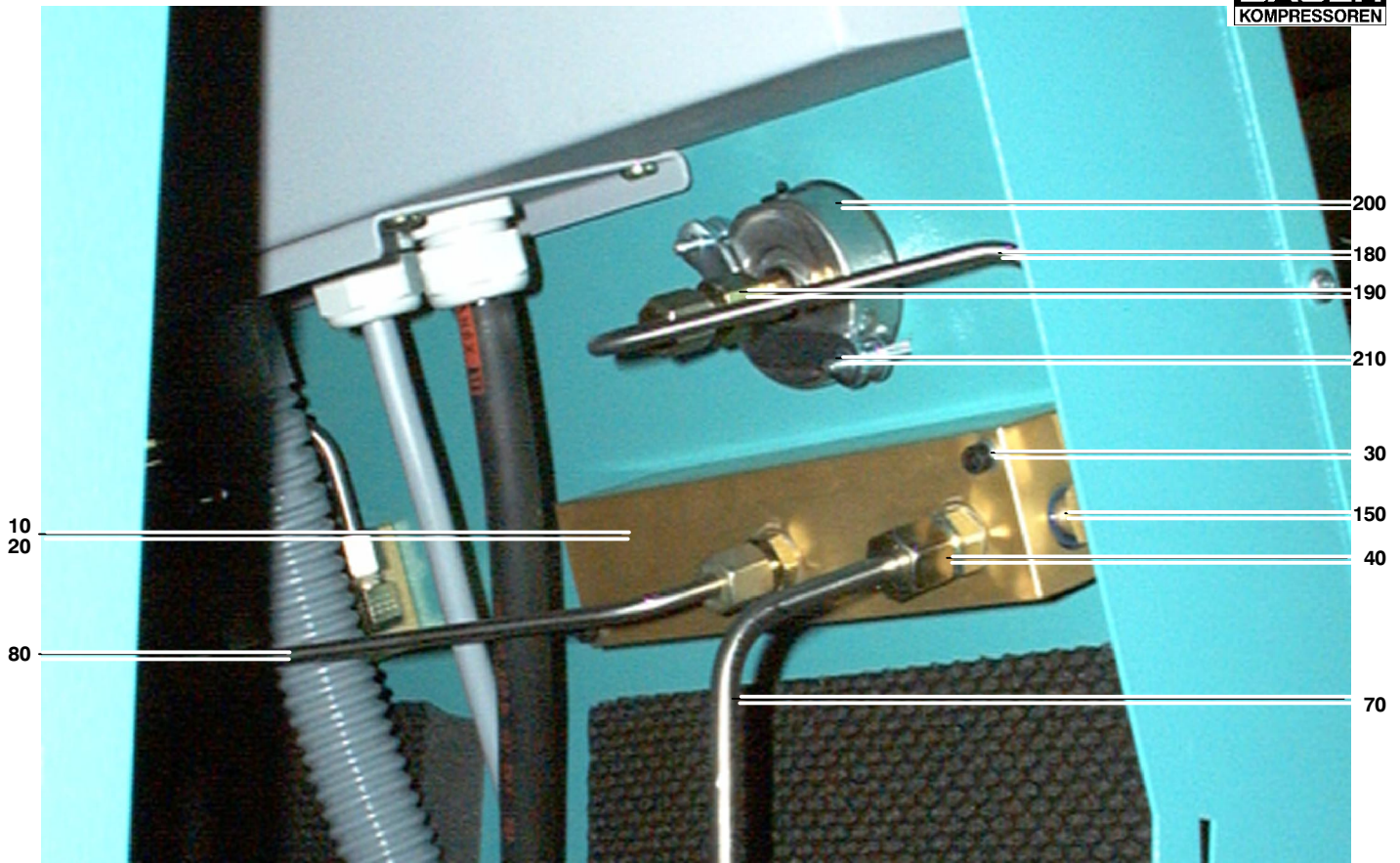

**Wartungssätze
Maintenance kits
Kits d'entretien**

 Baugruppe 77636-01
 Assembly 77636-01
 Assemblage 77636-01

 Füllpaneel 4x200/4x300
 Filling panel 4x200/4x300
 Tableau de remplissage 4x200/4x300

D15.0- 3

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77816	2	Verteilerblock				V5;PN350
			20	N3683	8	Zylinderschraube	allen screw	vis a six pans creux	8 g	DIN 912;M5x45;8.8;A3A
			30	N20287	3	G-Einschraubstutzen	union	vissage	35 g	GES 8 SR-WD;G1/4;St
			40	N3609	3	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			50	N3608	3	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			60	78350	1	Rohrleitung				V5;P61/81 z. Füllpaneel
			70	78362	1	Rohrleitung	tube			V5;Leiste1 -Leiste2
			80	N16394	2	Verschlußschraube	plug	bouchon filete	14 g	VS-R1/4-WD;G1/4;St
			90	N20001	2	W-Einschraubstutzen	male elbow	raccord	55 g	WES 6 SRK;R1/4;St
			100	N3663	4	Schneidring	cutting ring 6L/S	anneau de matrice	2 g	R6 L/S;St
			110	N3610	4	Überwurfmutter	screw cap 6S	ecrou-chapeau	15 g	M 6 S;Rohr-AD6
			120	78363	2	Rohrleitung	tube			V5;Block1/2-Manometer
			130	N3569	2	G-Aufschraubstutzen	straight screw on coupling	raccord droit male	23 g	GAS 6 SR;G1/4;St
			140	N22330	2	Manometer	pressure gauge	manometre		NG63;0-400bar;R1/4
			150	N23880	2	Bügel	fastening			f.MAN NG63 m.Bördelring
			160	78128	2	Klebeschild	sticker			V5;330bar/4800psi
			170	78129	2	Klebeschild	sticker			V5;225bar/3300psi

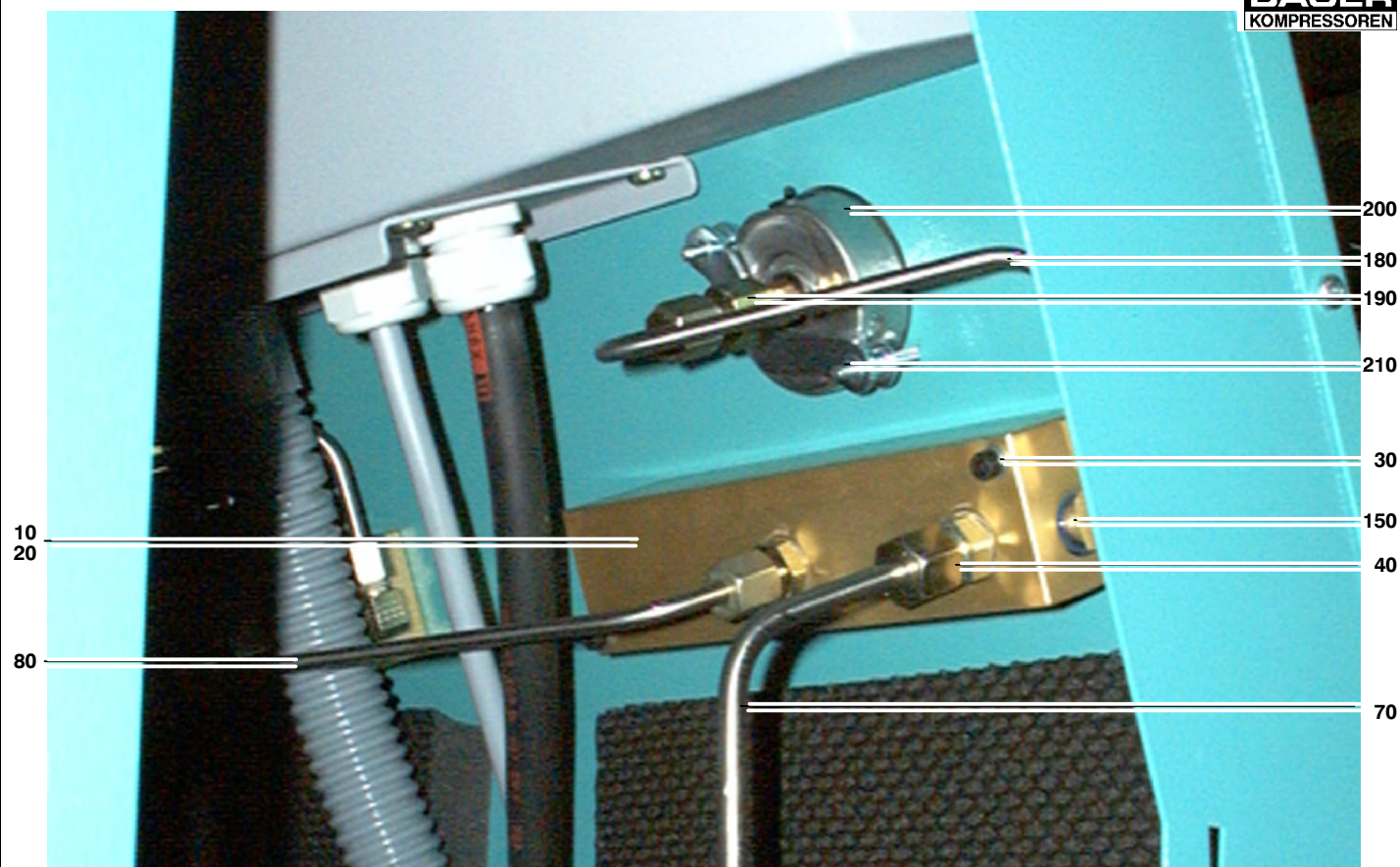

**Wartungssätze
Maintenance kits
Kits d'entretien**

 Baugruppe 77636-02
 Assembly 77636-02
 Assemblage 77636-02

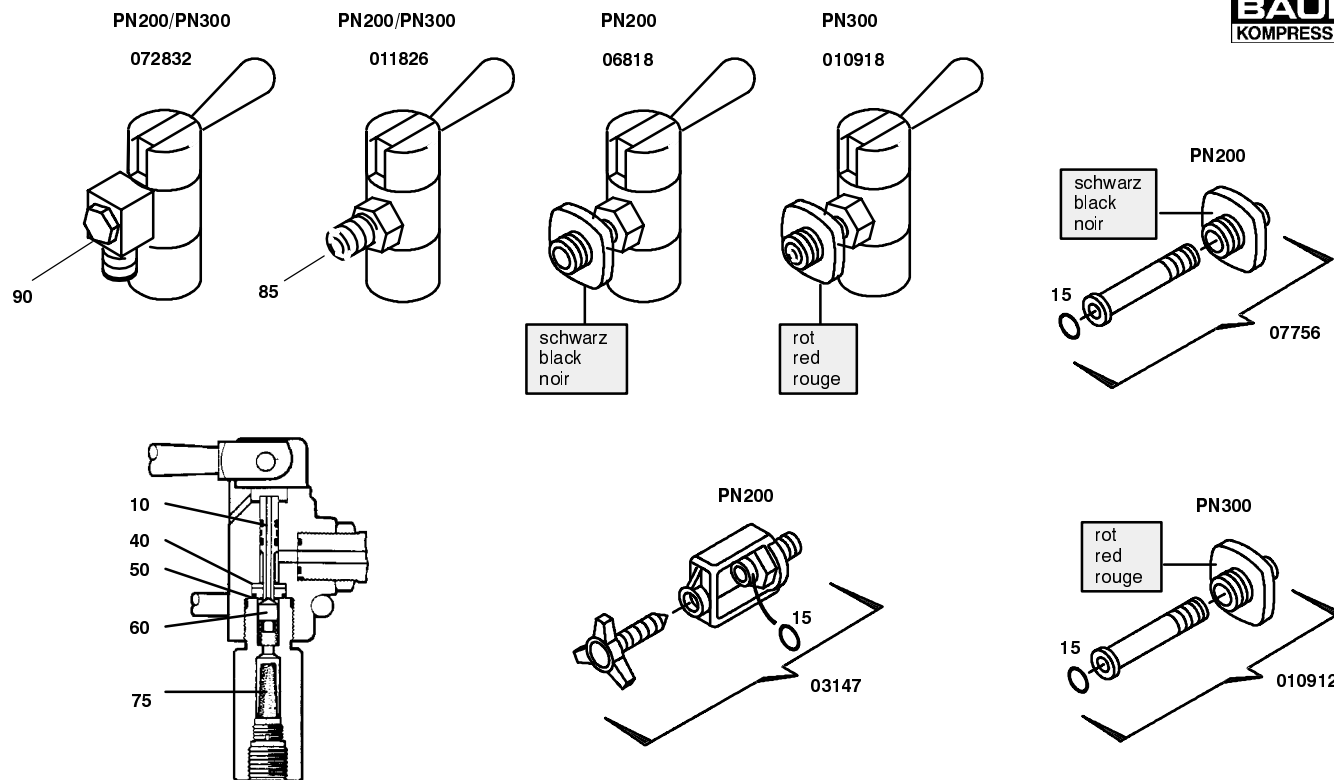
 Füllpaneel 2x200/2x300
 Filling panel 2x200/2x300
 Tableau de remplissage 2x200/2x300

D15.0- 4

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77816	1	Verteilerblock				V5;PN350
			20	77791	1	Verteilerblock kpl.				V5;2xPN200/300
			30	N3683	8	Zylinderschraube	allen screw	vis a six pans creux	8 g	DIN 912;M5x45;8.8
			40	N20287	2	G-Einschraubstutzen	union	vissage	35 g	GES 8 SR-WD;G1/4
			50	N3609	3	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			60	N3608	3	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S;Rohr-AD8
			70	78350	1	Rohrleitung				V5;P61/81 z Füllpaneel
			80	78362	1	Rohrleitung				V5;Leiste1-Leiste2
			140	N16394	2	Verschlußschraube	plug	bouchon filete	14 g	VS-R1/4-WD;G1/4;St
			150	N20001	2	W-Einschraubstutzen	male elbow	raccord	55 g	WES 6 SRK;R1/4;St
			160	N3663	4	Schneidring	cutting ring 6L/S	anneau de matrice	2 g	R6 L/S;St
			170	N3610	4	Überwurfmutter	screw cap 6S	ecrou-chapeau	15 g	M 6 S;Rohr-AD6
			180	78363	2	Rohrleitung				V5;Block1/2-Manom.
			190	N3569	2	G-Aufschraubstutzen	straight coupling	raccord droit male	23 g	GAS 6 SR;G1/4;St
			200	N22330	2	Manometer	pressure gauge	manometre		NG63;0-400bar;R1/4
			210	N23880	2	Bügel	clamp			f.MAN NG63
			220	78128	1	Klebeschild	label			V5;330bar/4800psi
			230	78130	1	Klebeschild	label			V5;225bar/330bar


**Wartungssätze
Maintenance kits
Kits d'entretien**
Baugruppe 77636-03
Assembly 77636-03
Assemblage 77636-03
Füllpaneel 2x200/2x300 mit Druckminderer
Filling panel 2x200/2x300 with pressure reducer
Tableau de remplissage 2x200/2x300 avec détendeur de pression
D15.0- 5

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77816	1	Verteilerblock				V5;PN350
			20	78935	1	Verteilerblock				V5;PN350
			30	N3683	8	Zylinderschraube	allen screw	vis a six pans creux	8 g	DIN 912;M5x45;8.8
			40	N20287	2	G-Einschraubstutzen	union	vissage	35 g	GES 8 SR-WD;G1/4
			50	N3609	5	Schneidring	cutting ring	anneau de matrice	2,9 g	R8 L/S;St
			60	N3608	5	Überwurfmutter	screw cap	ecrou-chapeau	17 g	M 8 S; Rohr-AD8
			70	78350	1	Rohrleitung				V5;P61/81 z Füllpaneel
			80	N15600	1	G-Einschraubstutzen	straight male connector	raccord droit male	48 g	EGES 8 SR-WD-SV
			90	N20270	1	Einst. W-Stutzen	connector	raccord	50 g	EWS 8 S-SV;St
			100	N20266	2	G-Einschraubstutzen	straight screwed socket	manchon droit visse	35 g	GES 8 S/1/4NPT
			110	N21826	1	Druckminderer	pressure reducer	reducteur de pression		
			120	N4472	2	Verschlußschraube	plug	bouchon filete		S-4-P;1/4NPT
			130		1	Rohrleitung				V5;DMV-Block2
			140	N16394	1	Verschlußschraube	plug	bouchon filete	14 g	VS-R1/4-WD;G1/4;St
			150	N20001	2	W-Einschraubstutzen	male elbow	raccord	55 g	WES 6 SRK;R1/4;St
			160	N3663	4	Schneidring	cutting ring 6L/S	anneau de matrice	2 g	R6 L/S;St
			170	N3610	4	Überwurfmutter	screw cap 6S	ecrou-chapeau	15 g	M 6 S; Rohr-AD6
			180	78363	2	Rohrleitung				V5;Block1/2-Manometer
			190	N3569	2	G-Aufschraubstutzen	straight screw on coupling	raccord droit male	23 g	GAS 6 SR;G1/4;St
			200	N22330	2	Manometer	pressure gauge	manometre		NG63;0-400bar;R1/4
			210	N23880	2	Bügel	fastening			f.MAN NG63 m.Bördelring
			220	059410	1	Sicherheitsventil	safety valve	soupape de securite		1 00-365bar;bauteilgeprüft
			230	78128	1	Klebeschild				V5;330bar/4800psi
			240	78129	1	Klebeschild				V5;225bar/3300psi



Die benötigten Teile sind im Reparatursatz für Füllventile, Best.-Nr. N5052 enthalten.
 The required parts are contained in filling valve repair kit, p/n N5052

Les pièces nécessaires sont contenues dans le kit de réparation, N° de cde. N5052
 Maintenance Kit
 Assembly
 Assemblage

D15.0- 6

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N3558	2	O-Ring	o-ring	joint torique		2.57x1.78;FPM;75 Sh
			15	N638	1	O-Ring	o-ring	joint torique		11x2.5;FBM;80 Shore
			40	57695	1	Stützscheibe	supporting ring	rondelle-support		
			50	N3331	1	O-Ring	o-ring	joint torique		8.79x1.14;NBR;70 Sh
			60	57068	1	Dichtkegel	valve cone	cone de soupape	,002	f. Füllventil
			65	N3355	1	O-Ring	o-ring	joint torique		7.65x1.78;NBR;70 Sh
			70	64279	1	Kontermutter	lock nut	contre-ecrou		
			75	63832	1	Sinterfilter	sintered filter	filtre en metal fritte		f. Füllventil
			80	11347	1	Einschraubstück	threaded insert	piece a visser	,112	f. Füllventil
			85	63596	1	Doppelnippel	double nipple	nipple double		M16x1.5
			90	072539	1	Winkel-Füllanschluß	Filling connector			f. Füllventil

VERTICUS 5

Baugruppe	Assembly	Groupe d'assemblage	Seite/page
78265 Rahmen kpl.	Frame assy.	Cadre cpl.	E26.0- 1
078116 Rahmen	Frame	Cadre	E26.0- 2
78290 Grundrahmen	Base frame	Cadre de base	E26.0- 3
77631 Grundplatte kpl.	Base plate	Plaque de base	E26.0- 4
77639 Frontteil kpl.	Front assy.	Assemblage frontale cpl.	E26.0- 5
77640 Frontteil	Front	Assemblage frontale	E26.0- 6
77611 Schwingrahmen kpl.	Anti-vibration frame assy.	Cadre oscillant	E26.0- 7
77335 Verkleidung	Housing	Capotage	E26.0- 8
77625 Dach kpl.	Top assy.	Couverture cpl.	E26.0- 9
77624 Zu-/Abluftschacht kpl.	Air cowl assy.	Conduite pour l'évacuation d'air	E26.0- 10
77622 Deckel unten	Lower cover	Couvercle inf.	E26.0- 11
77619 Deckel rechts oben	Upper RH cover	Couvercle sup. à droit	E26.0- 12
77620 Deckel links oben	Upper LH cover	Couvercle sup. à gauche	E26.0- 13
77635 Deckel rechts, offen	RH cover, open version	Couvercle à droit, version ouverte	E26.0- 14
77642 Deckel links, offen	LH cover, open version	Couvercle à gauche, version ouverte	E26.0- 15
78176 Schottwand kpl.	Bulkhead assy.	Tôle de cloison cpl.	E26.0- 16
78739 Durchführung kpl.	Intake assy.	Traversée cpl.	E26.0- 17
77643 Schottwand kpl.	Bulkhead assy.	Tôle de cloison cpl.	E26.0- 18
78740 Durchführung kpl.	Intake assy.	Traversée cpl.	E26.0- 19
78689 Abdeckung kpl.	Grommet assy.	Couverture cpl.	E26.0- 20
78695 Beschilderung	Labelling	Vignettes	E26.0- 21
78642 Ölablaß	Oil drain	Vidange d'huile	E26.0- 22

HINWEIS

Diese Ersatzteilliste ist für unterschiedliche Konfigurationen gültig; Der tatsächliche Lieferumfang kann insbesondere bei den Anbau- und Zubehörteilen von den dargestellten Baugruppen und Teilen abweichen.

NOTE

This parts list covers different configurations; the delivery scope, especially for the mounting and accessory parts may differ from the assemblies and parts shown.

NOTE

Cette liste de pièces est pour des configurations diverses; il est possible que les pièces et les assemblages livrés pourraient être différents des pièces et assemblages indiqués, particulièrement les pièces pour le montage et les accessoires.

Änder.-Nr. Change no. No. de change	Datum Date	Änderung	Change	Changement
0	01.04.2000	Grundausgabe	Basic edition	Edition de base

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www.bauer-kompressoren.de

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www.bauer-kompressoren.de

Pour les éditions nouvelles se conférer à l'internet sous:

www.bauer-kompressoren.de

Wichtige Hinweise für Teilebestellung:

Bestell-Nr., die mit der Ziffer 0 beginnen, bezeichnen Baugruppen, die komplett geliefert werden. Teile ohne Bestell-Nr. sind nur zur Information für die Montage aufgeführt. Sie sind nicht als Ersatzteil erhältlich. Bei Ersatzteilbestellungen erwarten Sie unsere richtige Lieferung; deshalb benötigen wir von Ihnen folgende Angaben (siehe unten gezeigtes Typenschild):

1. Modellbezeichnung, Fabrik-Nr. sowie Fertigungsstand von Anlage/Block
2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

Bestell-Beispiel:

Für Kompressorblock ...
Fabrik-Nr. 524-0528/1/2 drei Dichtungen
8263-090

Important notes for spare parts orders:

Part nos. beginning with digit 0 indicate parts available as complete assemblies. Parts without part no. are indicated for assembly reference, only. These parts are not available as single parts. When placing an order for spare parts, please give the following items so as to ensure our correct delivery (see identification plate shown below):

1. Model, serial no. as well as design standard of unit/block
2. Quantity required
3. Name and part no.

Example for order:

For compressor block ...
serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr / Year / Année	
Volumenstrom m3/min	/	n/min.	
Free air delivery Scfm		r.p.m.	
Betriebsüberdruck bar		kW	
Max. working press. psig			
		KB 73708	
		Fertigungsstand / Modification no. / No. de modification	
		Anlage/Unit/Groupe	
		Kompressorblock / Compressor block / Bloc compresseur	



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



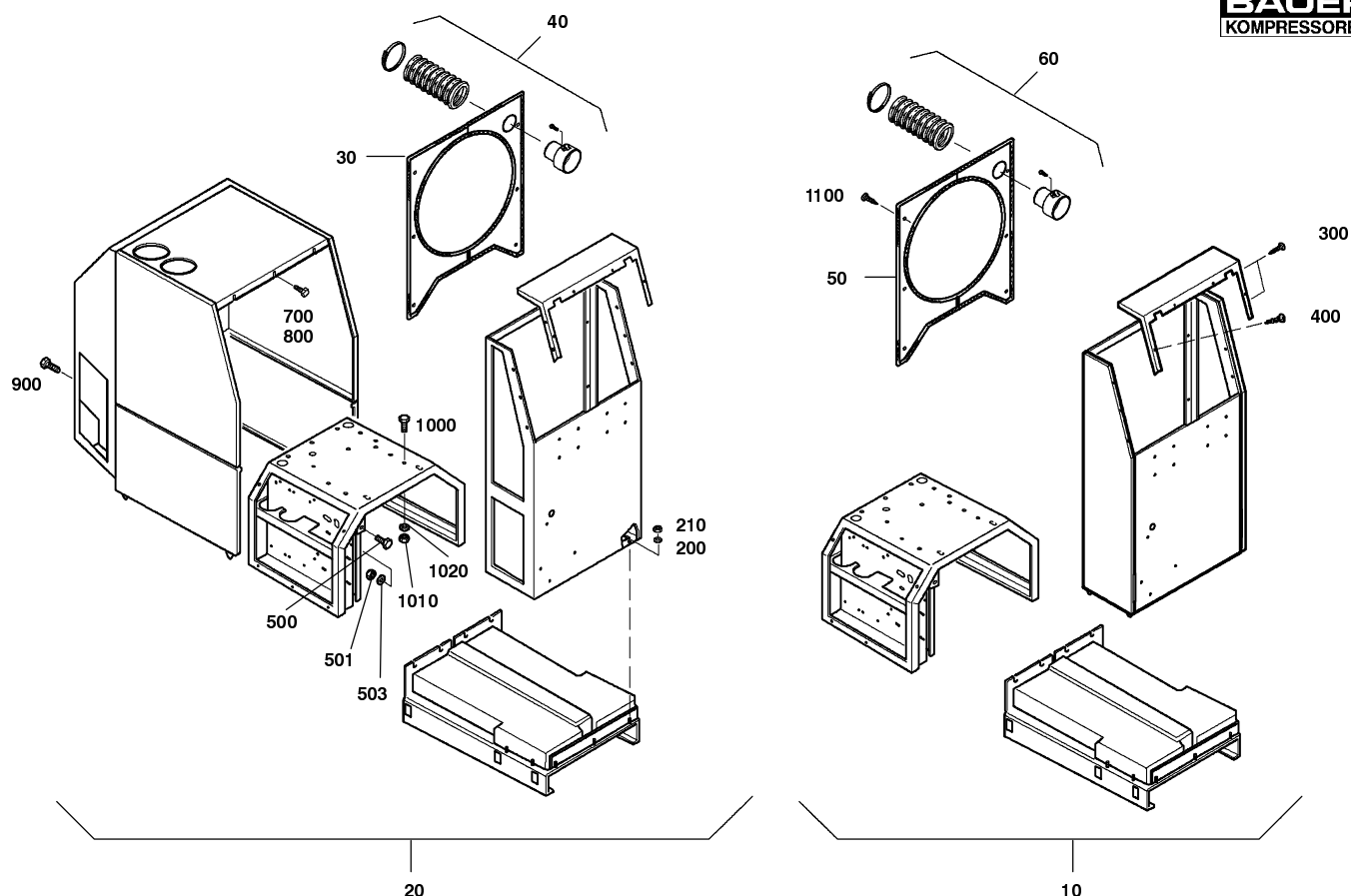
ATTENTION

Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



ATTENTION

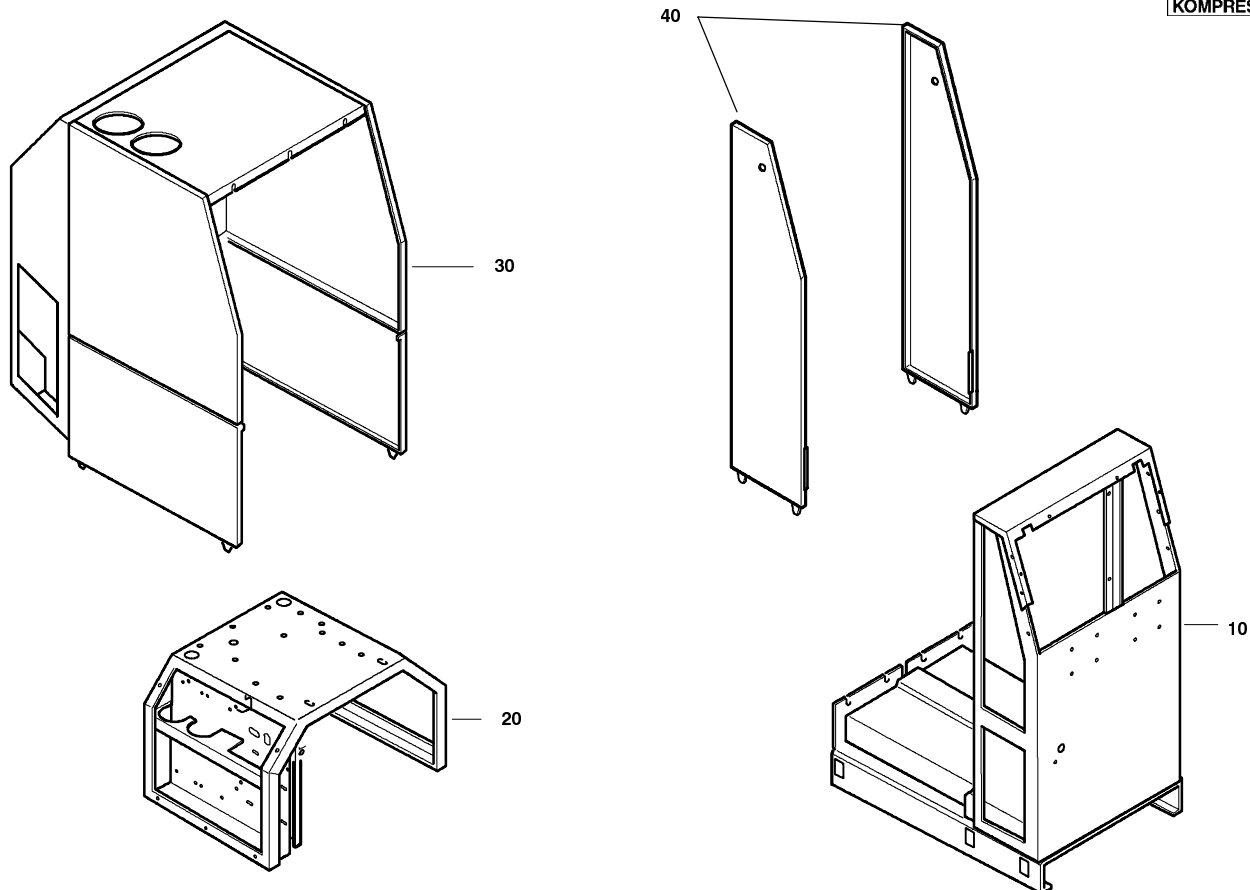
N'utiliser que des vis et des goujons filetés de la qualité 8.8!


**Wartungssätze
Maintenance kits
Kits d'entretien**

 Baugruppe 78265 Rahmen und Verkleidung V5
 Assembly 78265 Frame and panelling V5
 Assemblage 78265 Cadre et panneaux V5

E26.0- 1

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78116-V001	1	Rahmen	frame	cadre		V5;offen
			20	78116-V002	1	Rahmen	frame	cadre		V5;geschlossen
			30	78176	1	Schottwand kpl.	baffle assy.			V5;f.K100/K120/K12.14
			40	78739	1	Durchführung kpl.				V5;K100/120/12.4
			50	77643	1	Schottwand kpl.				V5;K150/K180
			60	78740	1	Durchführung kpl.				V5;K150/15.1/180/18.1
			200	N3313	7	Scheibe	washer	rondelle	3 g	DIN 9021;A 6.4;St;A3A
			210	N287	7	Sechskantmutter	hexagon nut	ecrou hexagonal	2 g	DIN EN 24032;M6;8;A3A
			300	N25546	6	Blechschaube			2,2 g	B 4.8x13;A3A;Torx 25
			400	N25546	6	Blechschaube			2,2 g	B 4.8x13;A3A;Torx 25
			500	N19516	2	Sechskantschraube	Hex screw	Vis hexagonale	36 g	DIN EN 24017;M10x45
			501	N644	1	Sechskantmutter	hexagon nut	ecrou hexagonal		DIN EN 24032;M10;8;A3A
			503	N16	1	Scheibe	washer	rondelle		DIN 125;B 10.5;St;A3A
			700	N25733	4	Sperrzahnschraube	Self-locking screw	Vis auto-freinante	6 g	M6x16; 8.8; gelb chromat.
			800	N25733	6	Sperrzahnschraube	Self-locking screw	Vis auto-freinante	6 g	M6x16; 8.8; gelb chromat.
			900	N25733	4	Sperrzahnschraube	Self-locking screw	Vis auto-freinante	6 g	M6x16; 8.8; gelb chromat.
			1000	N19515	4	Sechskantschraube			33 g	DIN EN 24017;M10x40
			1010	N644	4	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M10;8;A3A
			1020	N16	8	Scheibe	washer	rondelle	4 g	DIN 125;B 10.5;St;A3A
			1100	N25546	6	Blechschaube			2,2 g	B 4.8x13;A3A;Torx 25

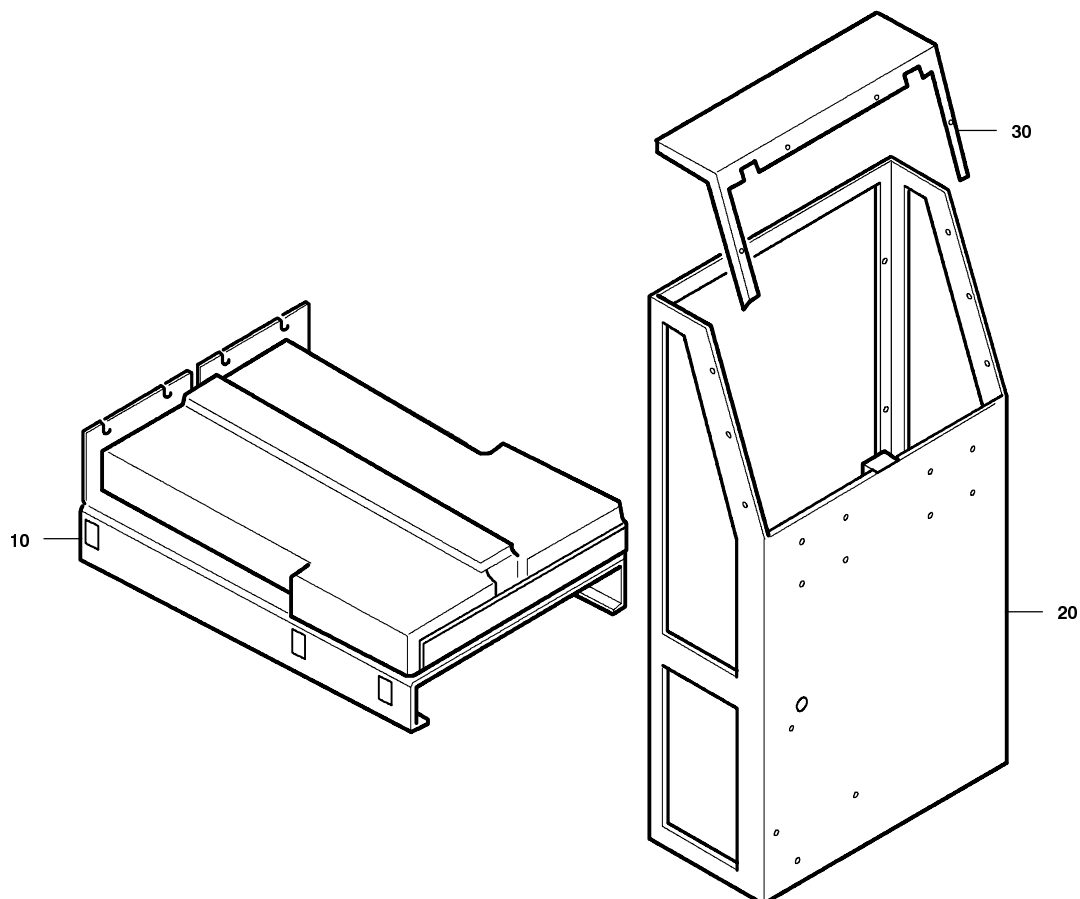


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 078116 Rahmen
 Assembly 078116 Frame
 Assemblage 078116 Cadre

E26.0- 2

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78290	1	Grundrahmen	Base frame			V5
			20	77611	1	Schwingrahmen kpl.	Anti-vibration frame			V5
			30	77335-V001	1	Verkleidung	Cowling			V5;geschlossen
			40	77335-V002	1	Verkleidung	Cowling			V5;offen

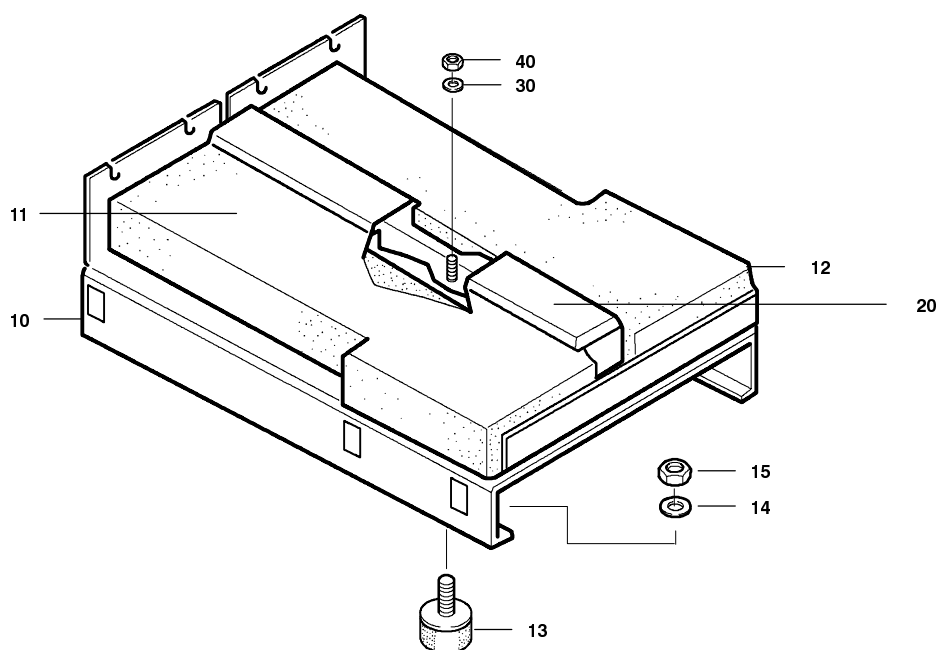


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78290 Grundrahmen
 Assembly 78290 Base frame
 Assemblage 78290 Cadre de base

E26.0- 3

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77631	1	Grundplatte kpl.				V5
			20	77639	1	Frontteil kpl.				V5;f.Armaturentafel
			30	77637	1	Oberteil kpl.				V5;f.Armaturentafel

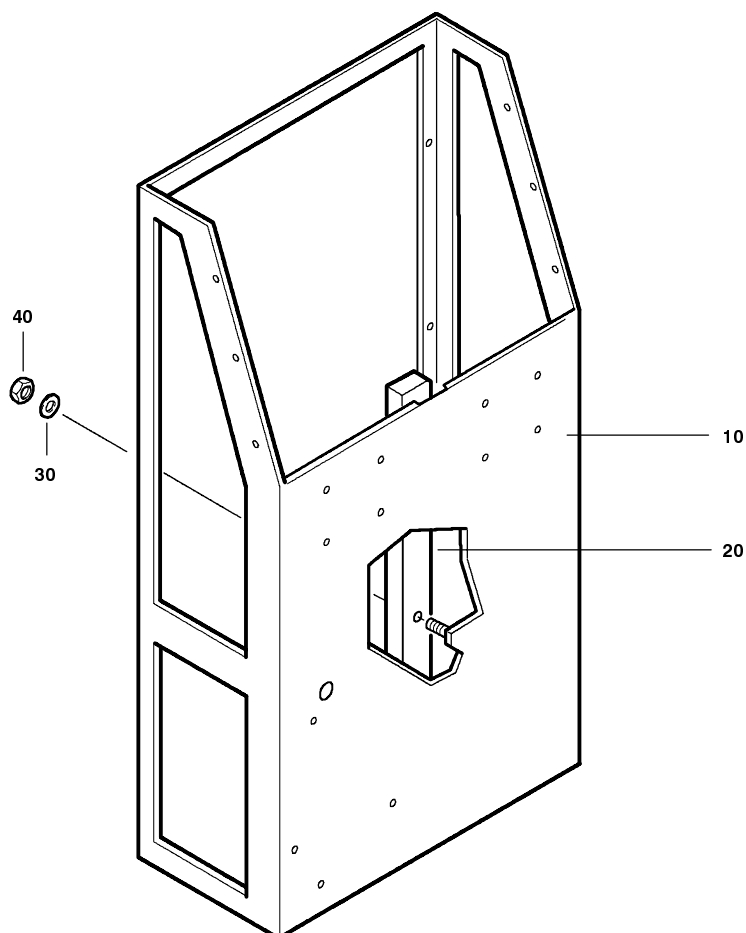


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77631 Grundplatte kpl.
Assembly 77631 Base plate
Assemblage 77631

E26.0- 4

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77336	1	Grundplatte	base plate			V5;pulverbes. RAL 7024
			11	78258-08	1	Schalldämmung				V5;H50;Einbau 77631
			12	78258-09	1	Schalldämmung				V5;H50;Einbau 77631
			13	N1547	4	Schwingmetall	vibration isolator	silent-bloc	,085 kg	D50;H15;M10;55Sh
			14	N15728	4	Scheibe	washer	rondelle	12 g	DIN 9021;A 10.5;St;A3A
			15	N177	4	Sechskantmutter	hexagon nut	ecrou hexagonal	11 g	DIN EN 24032;M10;8;A3A
			20	78204	1	Kabelkanal	cable duct			V5;Grundplatte
			30	N2949	6	Scheibe	washer	rondelle	1 g	DIN 125;B 5.3;St;A3A
			40	N2488	6	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-freinant		DIN 980;N M5;8;A3A

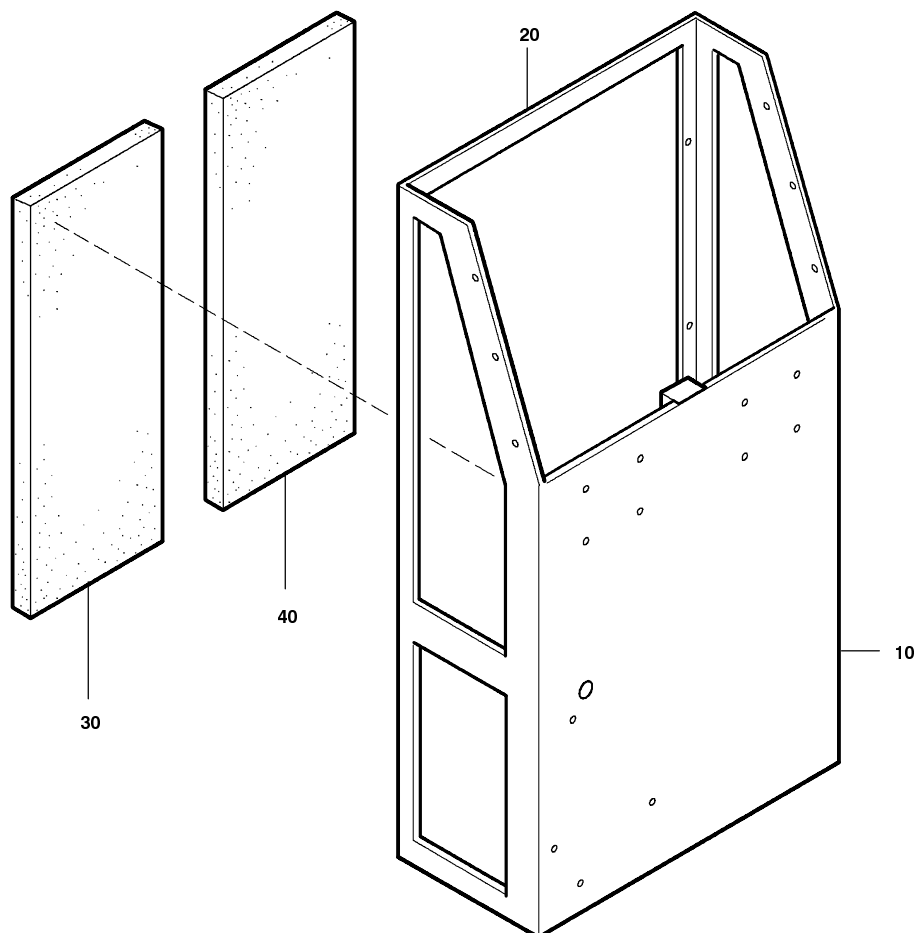


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77639 Frontteil kpl.
 Assembly 77639
 Assemblage 77639

E26.0- 5

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77640	1	Frontblech kpl.				V5;f.Armaturentafel
			20	78205	1	Kabelkanal	cable duct			V5;f.Frontteil
			30	N2949	4	Scheibe	washer	rondelle	1 g	DIN 125;B 5.3;St;A3A
			40	N2488	4	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M5;8;A3A

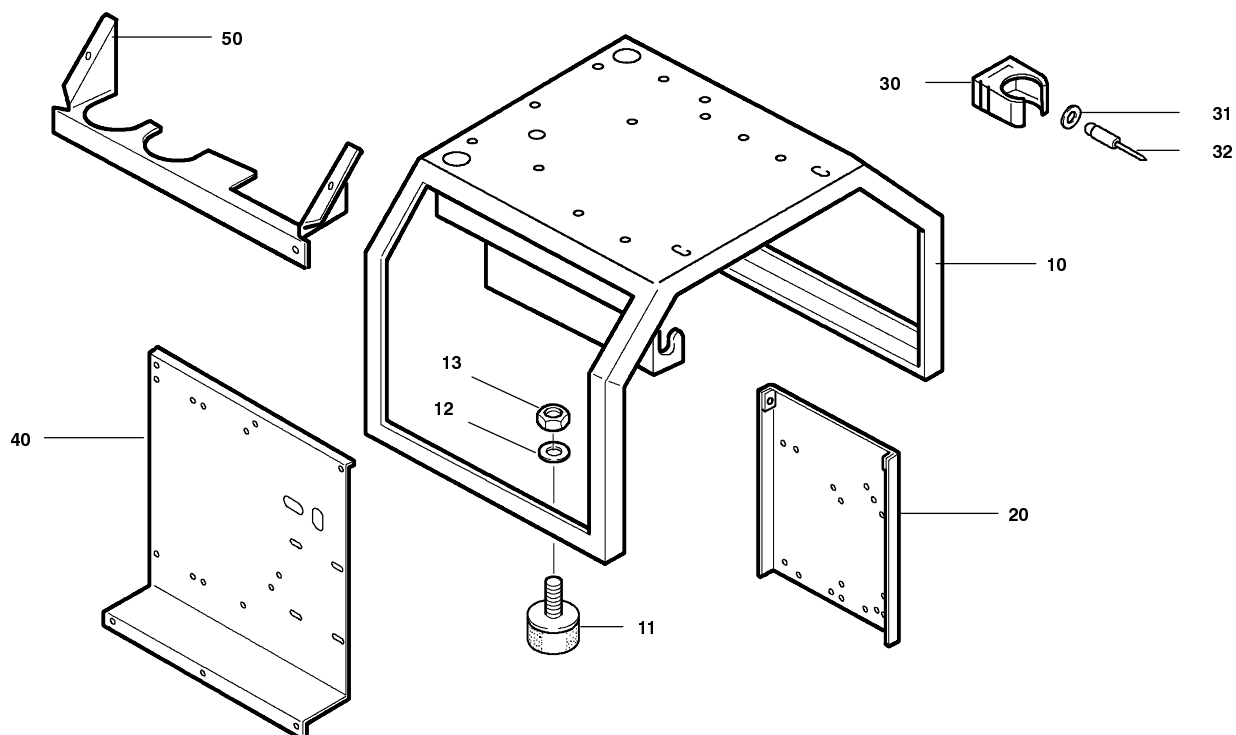


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 77640 Frontteil
 Assembly 77640
 Assemblage 77640

E26.0- 6

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77640-01	1	Frontblech				V5;f.Armaturentafel
			11	78258-04	1	Schalldämmung				V5;H30;Einbau 77640
			12	78258-13	1	Schalldämmung				V5;H30;Einbau 77640
			20	77640-02	1	Frontblech				V5;f.Armaturentafel

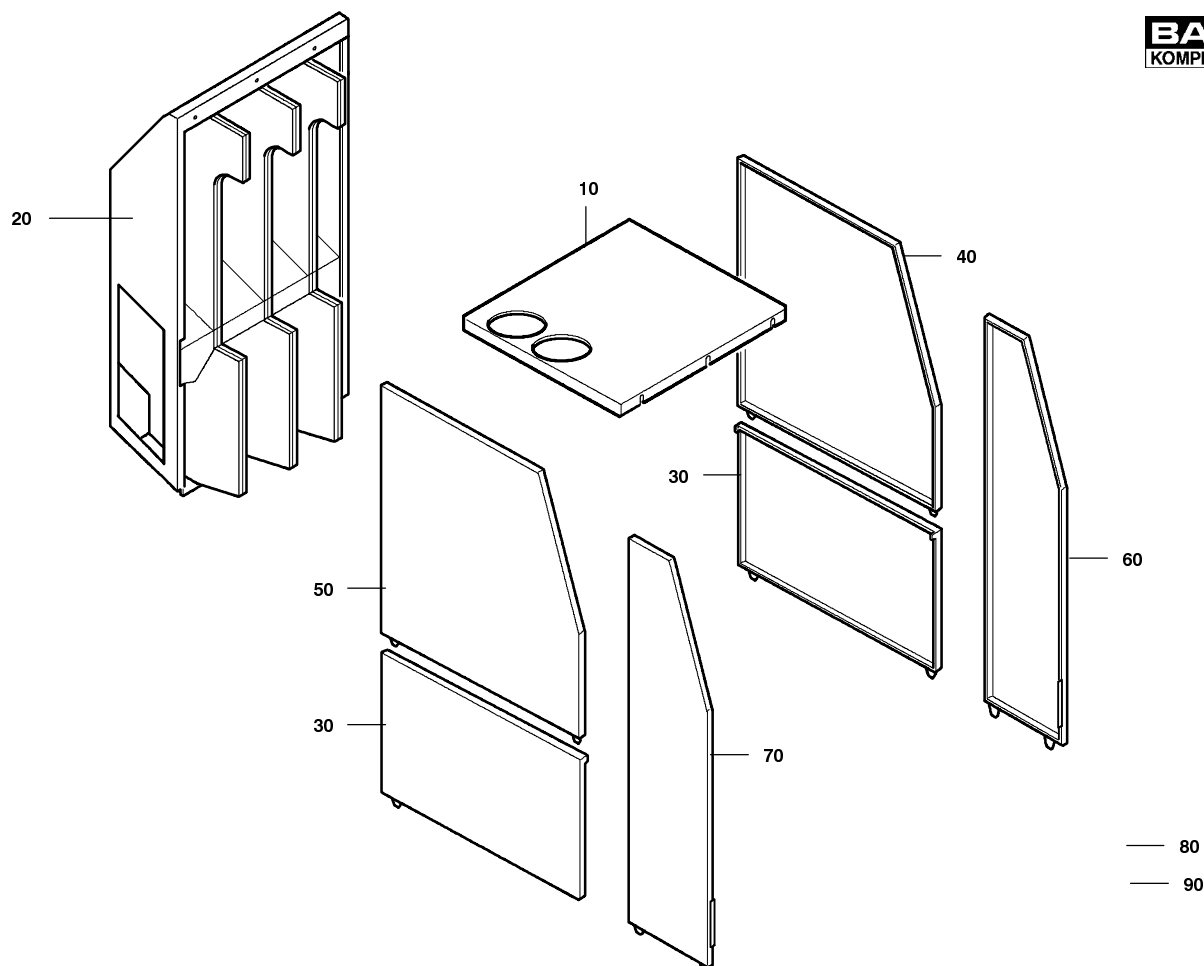


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77611 Schwingrahmen kpl.
Assembly 77611
Assemblage 77611

E26.0- 7

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77330	1	Schwingrahmen kpl.				V5
			11	N25501	4	Schwingmetall			,18 kg	D50;H45;55Shore;M10
			12	N15728	4	Scheibe	washer	rondelle	12 g	DIN 9021;A 10.5;St;A3A
			13	N177	4	Sechskantmutter	hexagon nut	ecrou hexagonal	11 g	DIN EN 24032;M10;8;A3A
			20	78680	1	Motorwippe kpl.				V5
			30	N24468	1	Schnappschelle				Pg36;ID42;B54;H53
			31	N3794	1	Scheibe	washer	rondelle	1 g	DIN 125;B 4.3;St;A3A
			32	N3062	1	Blindniet	blind rivet	rivet faux		D4;L15.7;Al
			40	78088	1	Konsole				V5;f.Filtersystem
			50	78099	1	Abdeckung				V5;f.Filtersystem

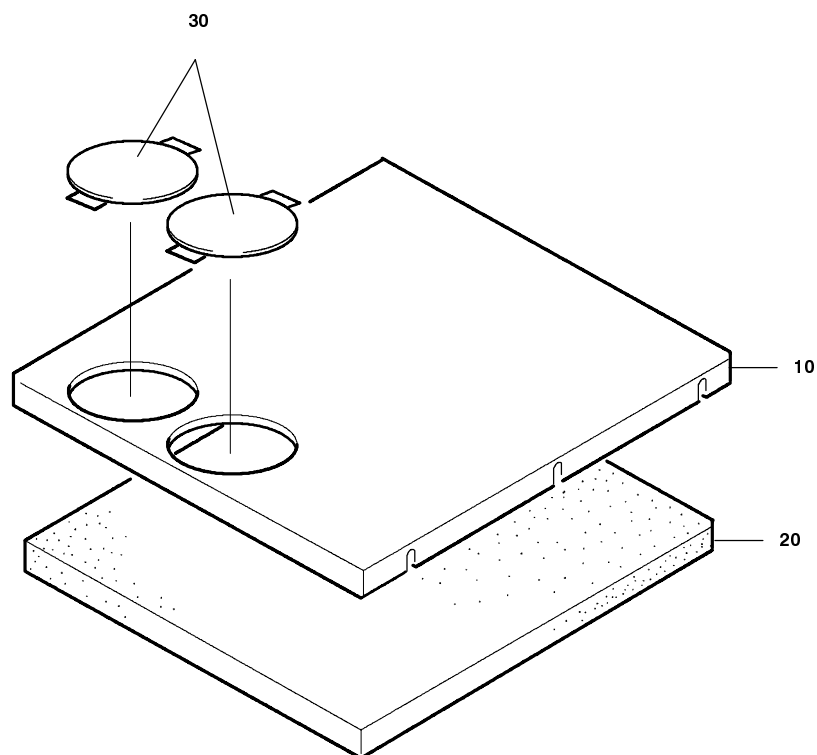


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 77335 Verkleidung
 Assembly 77335
 Assemblage 77335

E26.0- 8

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77625	1	Dach kpl.				V5;geschlossen
			20	77624	1	Zu-/Abluftschacht kpl.				V5;geschlossen
			30	77622	1	Deckel kpl.				V5;unten;geschlossen
			40	77619	1	Deckel kpl.				V5;rechts oben;geschl.
			50	77620	1	Deckel kpl.				V5;links oben;geschl.
			60	77635	1	Deckel kpl.				V5;rechts;offen
			70	77642	1	Deckel kpl.				V5;links;offen
			80	78398	1	Abdeckung				V5;Schwingrahmen/seite
			90	78399	1	Abdeckung				V5;Gitter-Seite;hinten

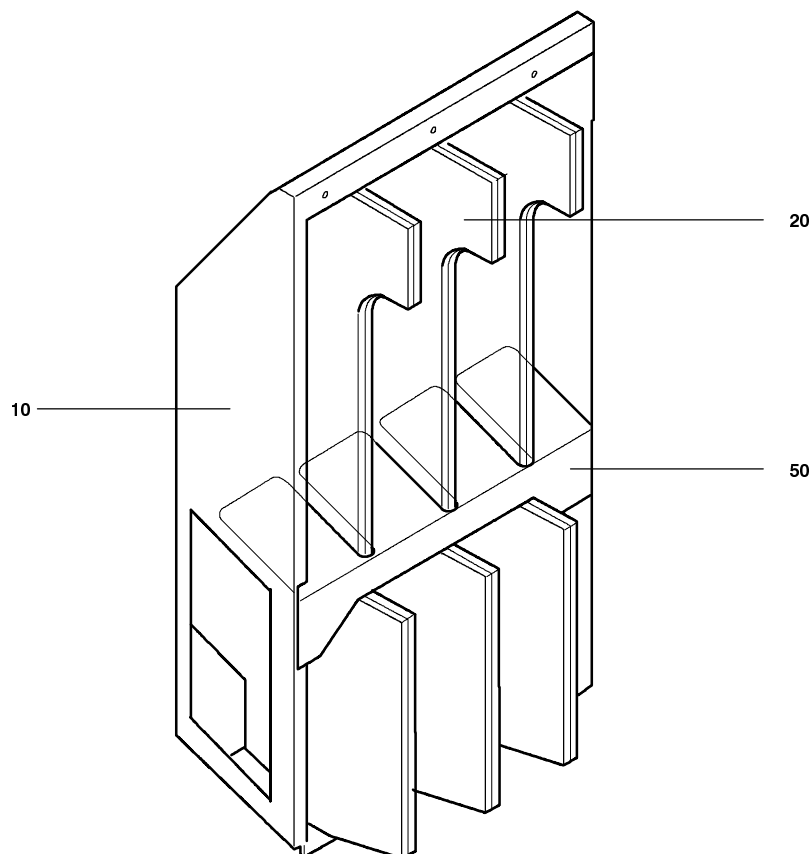


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77625 Dach kpl.
 Assembly 77625
 Assemblage 77625

E26.0- 9

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77626	1	Dach kpl.				V5
			20	78258-05	1	Schalldämmung				V5;H50;Einbau 77626
			30	72320	2	Abdeckung	cover	couvercle		Filter

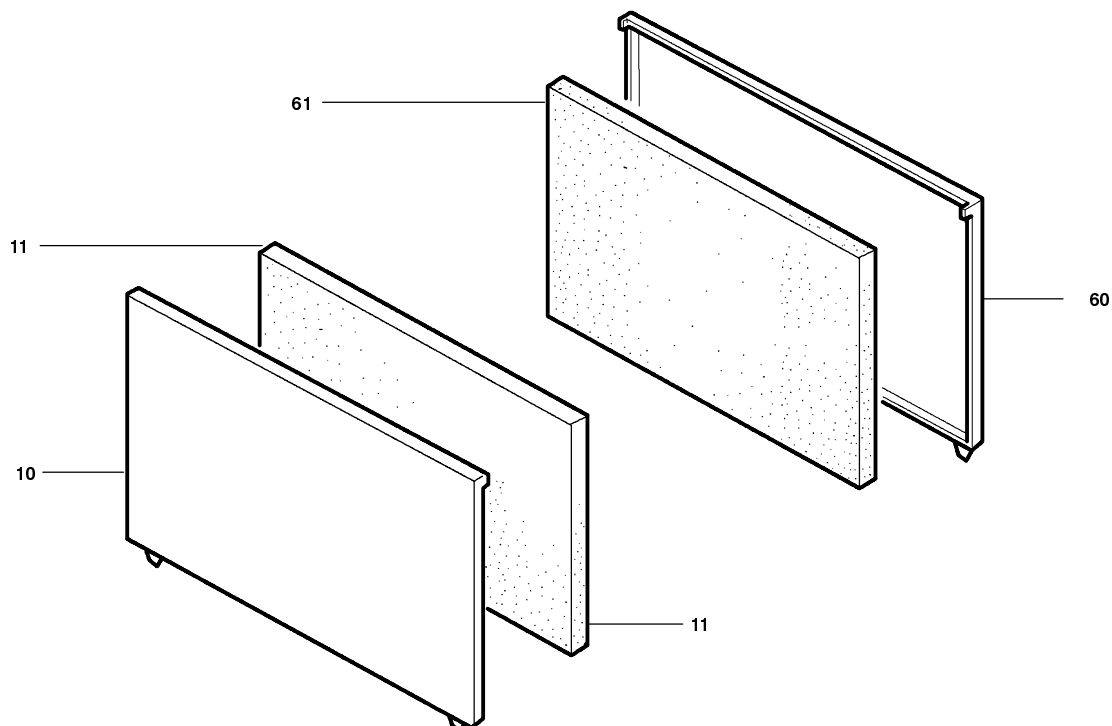


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 77624 Zu-/Abluftschacht kpl.
 Assembly 77624
 Assemblage 77624

E26.0- 10

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77333	1	Zu/Abluftschacht				Verticus 5
			11	78258-02	1	Schalldämmung				V5;H30;Einbau 77333-02 (Rückwand)
			12	78258-03	1	Schalldämmung				V5;H30;Einbau 77333-02 (Rückwand)
			13	78258-10	1	Schalldämmung				V5;H30;Einbau 77333-02 (Rückwand)
			14	78258-15	1	Schalldämmung				V5;H30;Einbau 77333-02 (Rückwand)
			15	78258-16	1	Schalldämmung				V5;H30;Einbau 77333-02 (Rückwand)
			16	78258-17	1	Schalldämmung				V5;H30;Einbau 77333-02 (Rückwand)
			20	78101	3	Kulisse kpl.				V5;f.Zu/Abluftschacht
			21	78258-01	3	Schalldämmung				V5;H20;Einbau 78101 (Kulisse)
			22	78258-12	3	Schalldämmung				V5;H20;Einbau 78101 (Kulisse)
			30	N102	9	Scheibe	washer	rondelle	1 g	DIN 125;B 6.4;St;A3A
			40	N1042	9	Sechskantmutter	hexagon nut self-locking	ecrou hexagonal auto-fr.		DIN 980;N M6;8;A3A
			50	78084	1	Trennwand kpl.				V5;Zu/Abluftschacht
			60	N25546	4	Blechschaube			2,2 g	B 4.8x13;A3A;Torx 25

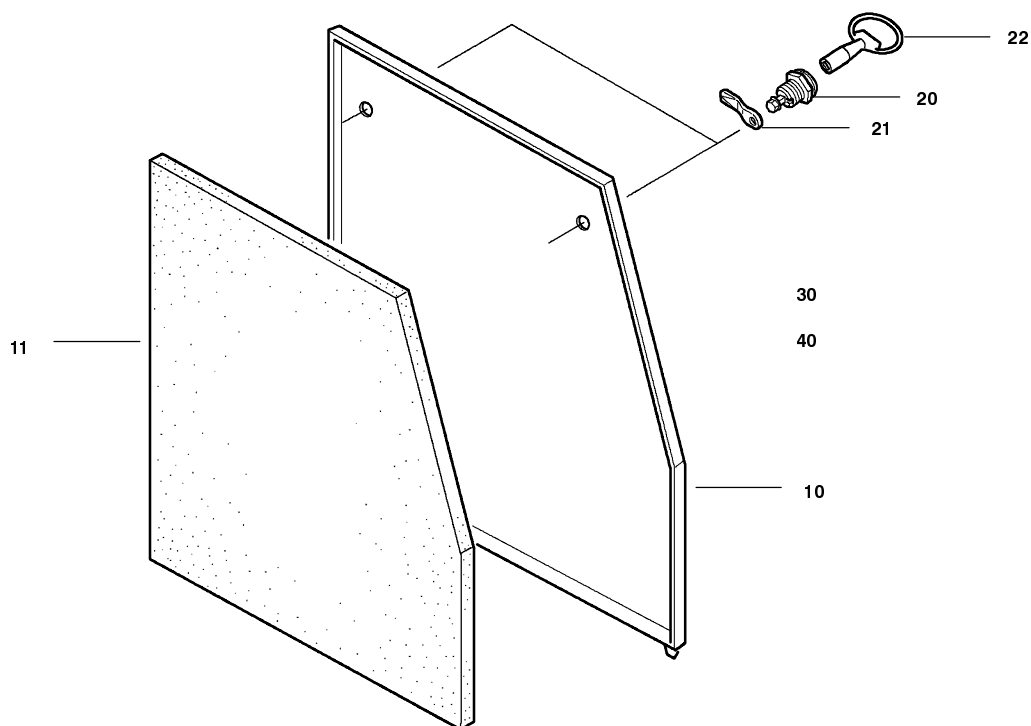


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77622 Deckel kpl.
 Assembly 77622
 Assemblage 77622

E26.0- 11

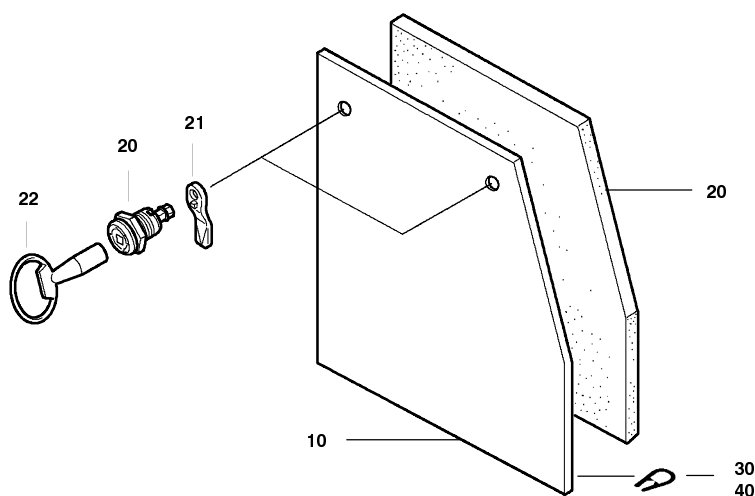
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77615	1	Deckel kpl.				V5; links unten
			11	78258-07	1	Schalldämmung				V5;H30;Einbau 77615
			20	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		970 mm
			30	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		515 mm
			40	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		515 mm
			50	N22072	3	Durchführungstülle	grommet	manchon traversee		DG11;AD22;ID11;H7;PVC
			60	78643	1	Deckel kpl.				V5; rechts unten
			61	78258-14	1	Schalldämmung				V5;H30;Einbau 78643
			70	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		970 mm
			80	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		515 mm
			90	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		515 mm


**Wartungssätze
Maintenance kits
Kits d'entretien**

 Baugruppe 77619 Deckel kpl.
 Assembly 77619
 Assemblage 77619

E26.0- 12

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77614	1	Deckel kpl.				V5; rechts oben
			11	78258-06	1	Schalldämmung				V5;H30;Einbau 77614
			20	N18970	2	Vorreiber				m.Mutter;verchr.
			21	N16182	2	Zunge	tongue	languette		
			22	N16230	2	Schlüssel	pipe key	clef fore		4KT
			30	N16744	mm	Dichtung	profiled joint	joint d'étancheité profile		2670 mm
			40	N16046	mm	Dichtung	profiled joint	joint d'étancheité profile		970 mm

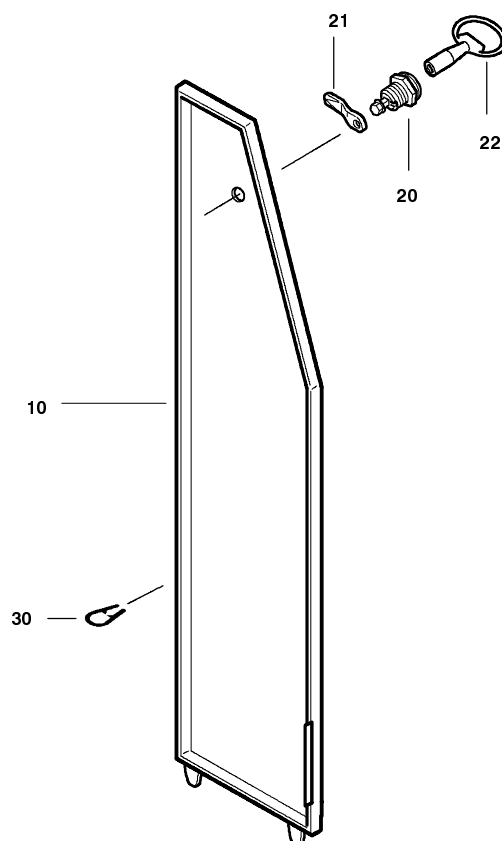


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77620 Deckel kpl.
 Assembly 77620
 Assemblage 77620

E26.0- 13

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77616	1	Deckel				V5;links oben;geschl.
			11	78258- 11	1	Schalldämmung				V5;H30;Einbau 77616
			20	N18970	2	Vorreiber				m.Mutter;verchr.
			21	N16182	2	Zunge	tongue	languette		
			22	N16230	2	Schlüssel	pipe key	clef fore		4KT
			30	N16744	mm	Dichtung	profiled joint	joint d'etancheite profile		2670 mm
			40	N16046	mm	Dichtung	profiled joint	joint d'etancheite profile		970 mm

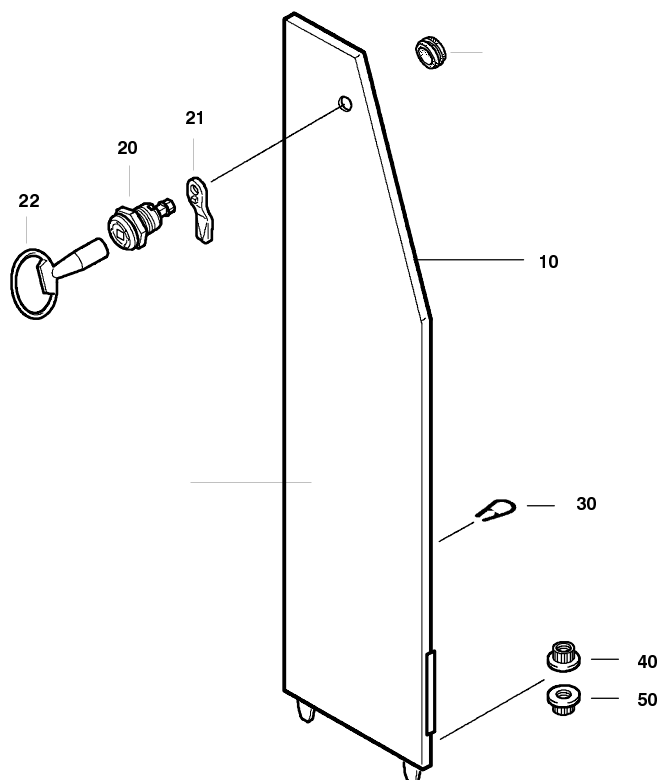


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 77635 Deckel kpl.
 Assembly 77635
 Assemblage 77635

E26.0- 14

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77641	1	Deckel				V5;rechts;offen
			20	N18970	1	Vorreiber				m.Mutter;verchr.
			21	N24664	1	Zunge				H22;L45;St v
			22	N16230	1	Schlüssel	pipe key	clef fore		4KT
			30	N16680	mm	Kantenschutz	edge protection profile	protege-arete		3180 mm; H8;B5.5

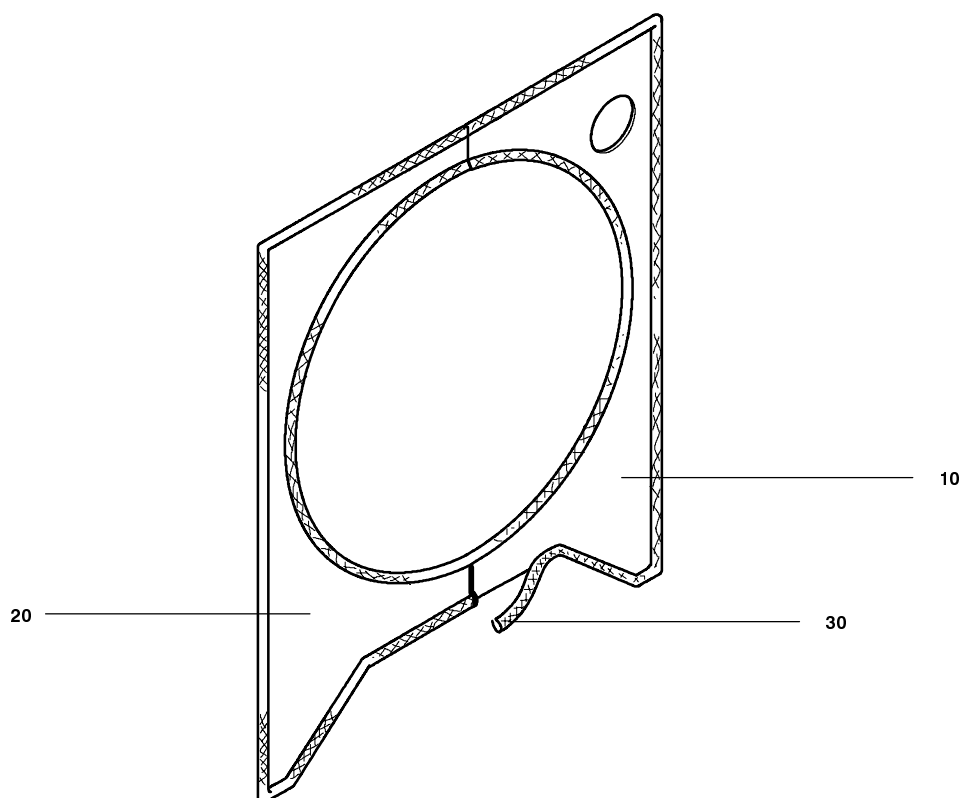


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77642 Deckel kpl.
 Assembly 77642
 Assemblage 77642

E26.0- 15

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78289	1	Deckel				V5;links
			20	N18970	1	Vorreiber				m.Mutter;verchr.
			21	N24664	1	Zunge				H22;L45;St v
			22	N16230	1	Schlüssel	pipe key	clef fore		4KT
			30	N16680	xmm	Kantenschutz	edge protection profile	protege-arete		3180 mm; H8;B5.5
			40	N22547	1	Einnietmutter				M6 v
			50	N22072	3	Durchführungstülle	grommet	manchon traversee		DG11;AD22;ID11;H7;PVC

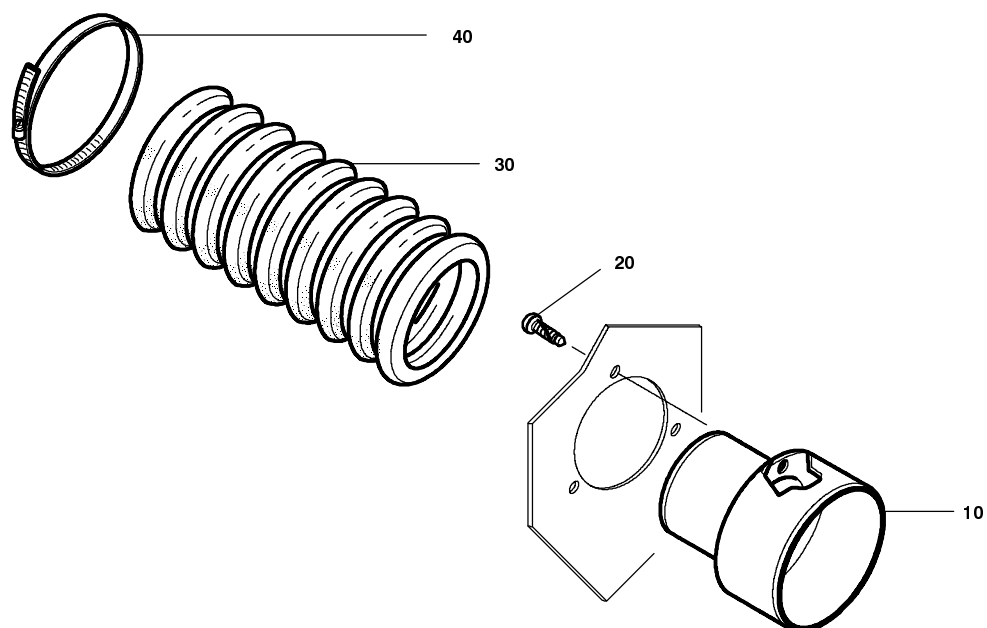


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 78176 Schottwand kpl.
 Assembly 78176
 Assemblage 78176

E26.0- 16

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78176-1	1	Schottwand				V5,f.K100/K120/K12.14;re
			20	78176-2	1	Schottwand				V5,f.K100/K120/K12.14;li
			30	N16680*	mm	Kantenschutz	edge protection profile	protege-arete		1523 mm; H8;B5,5

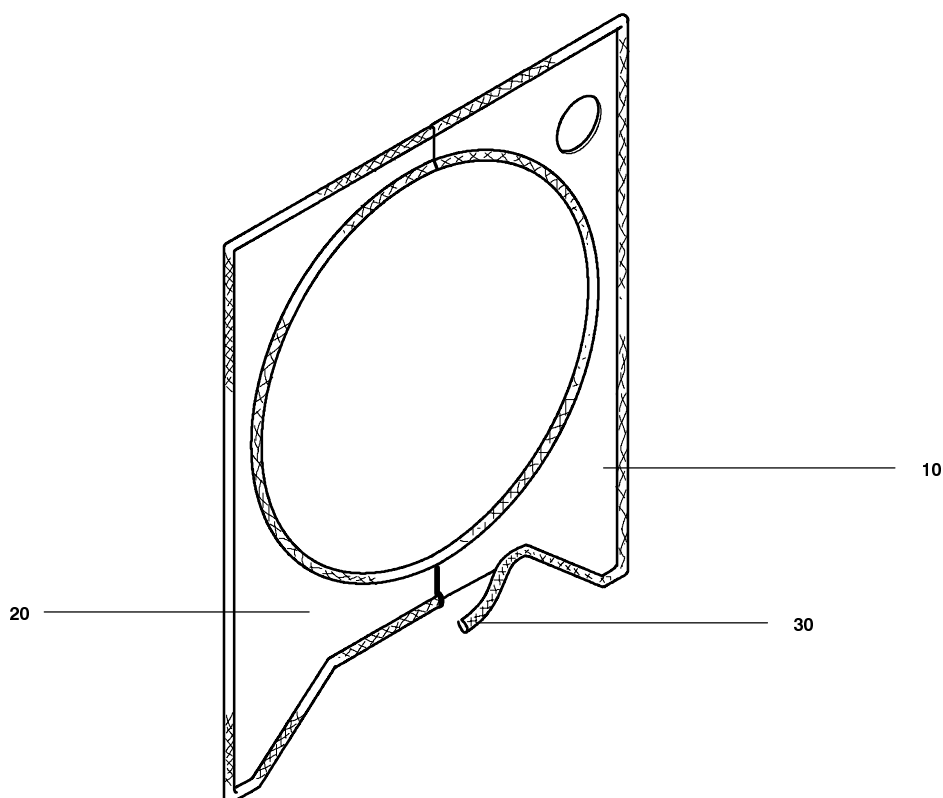


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78739 Durchführung kpl.
 Assembly 78739
 Assemblage 78739

E26.0- 17

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77530	1	Durchführung				K100/120/12.4; ID25/100
			20	N25546	3	Blechschaube			2,2 g	B 4.8x13;A3A;Torx 25
			30	N1005	mm	Schlauch	intake hose	tuyau d'aspiration		500 mm; PN5.5bar;DN25
			40	N2011	2	Schlauchschele	hose clamp	collier de serrage		DIN 3017 T1;25-40/13;St

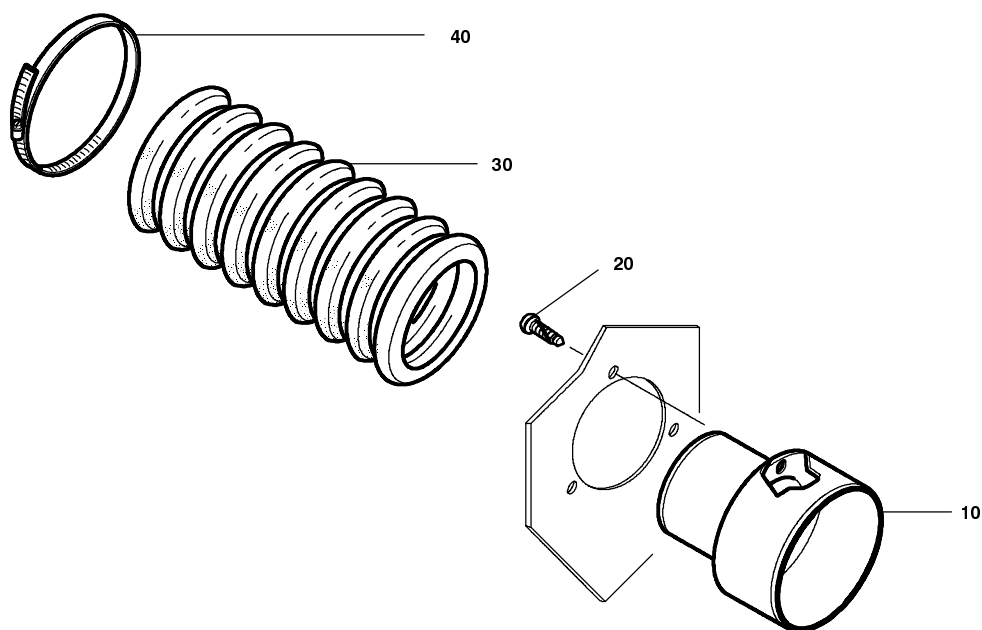


Wartungssätze
Mainenance kits
Kits d'entretien

Baugruppe 77643 Schottwand kpl.
 Assembly 77643
 Assemblage 77643

E26.0- 18

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77643-1	1	Schottwand				V5;K150/K180;rechts
			20	77643-2	1	Schottwand				V5;K150/K180;links
			30	N16680*	mm	Kantenschutz	edge protection profile	protege-arete		2104 mm; H8;B5.5

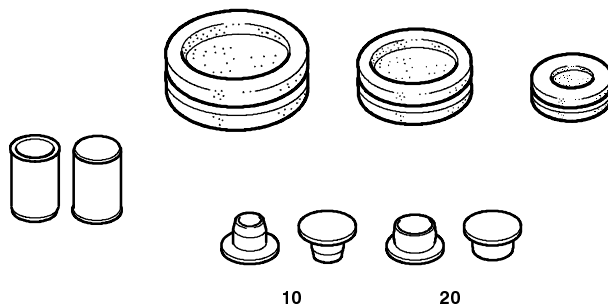


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78740 Durchführung kpl.
Assembly 78740
Assemblage 78740

E26.0- 19

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	77492	1	Durchführung				K150/15.1/180/18.1;ID60
			20	N25546	3	Blechschaube			2,2 g	B 4.8x13;A3A;Torx 25
			30	N25045	1 m	Schlauch				ND60;PVC;transparent
			40	N15558	2	Schlauchschele	worm gear clamp	collier a filet helicoidal		60-80/13;St v



10

20


Wartungssätze
Mainenance kits
Kits d'entretien

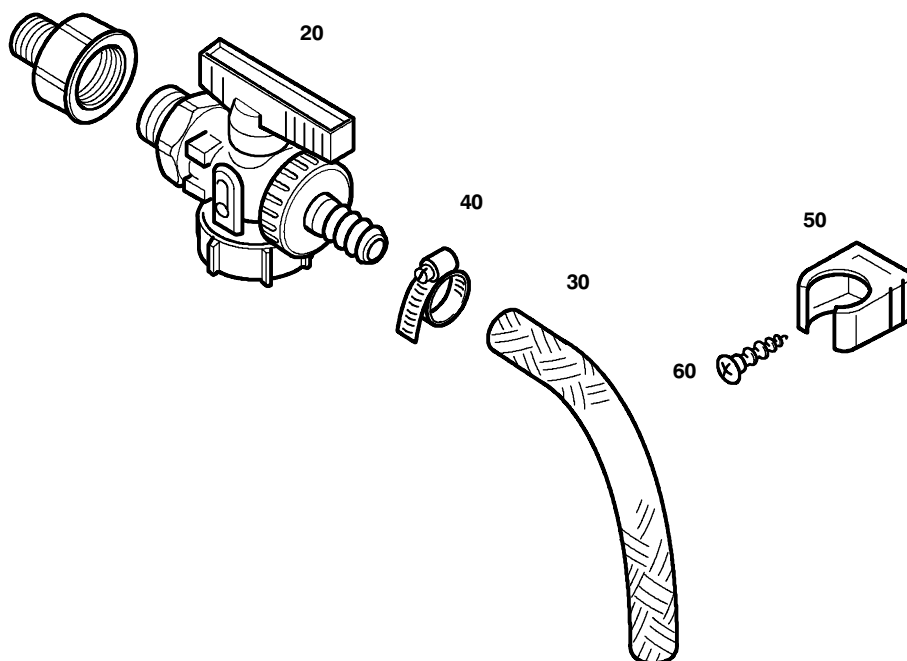
 Baugruppe 78689 Abdeckung kpl.
 Assembly 78689
 Assemblage 78689

E26.0- 20

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N25624	8	Verschlußstopfen				D7.2
			20	N21769	2	Verschlußstopfen				D9.2
			30	N25625	1	Abdeckung				D64
			40	N25643	1	Abdeckung				D50
			50	N25625	1	Abdeckung				D64
			60	N25643	1	Abdeckung				D50
			70	N21769	2	Verschlußstopfen				D9.2


Wartungssätze
Maintenance kits
Kits d'entretien
Baugruppe 78695 **Beschilderung**
Assembly 78695
Assemblage 78695
E26.0- 21

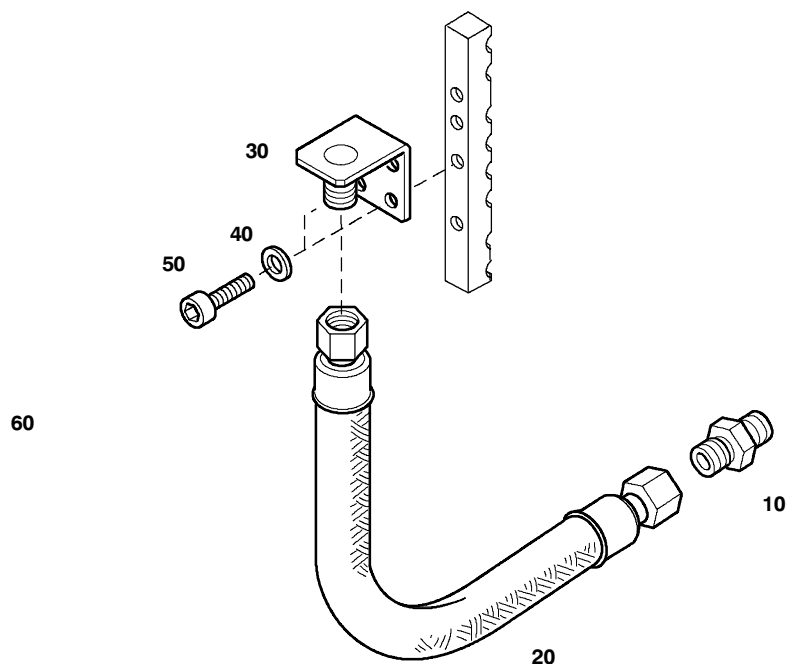
Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78128	1	Klebeschild				V5;330bar/4800psi;Füll- einrichtung
			20	78129	1	Klebeschild				V5;225bar/3300psi;Füll- einrichtung
			30	78130	1	Klebeschild				V5;225bar/330bar;um- schaltbar
			40	3723	1	Typenschild	nameplate	plaque d'identite	,009 kg	
			50	N3333	4	Blindniet	pop rivet	rivet aveugle		2.4x5.1;Al
			60	70856	1	Schild	label	etiquette		Ölbefüllung
			70	13762	1	Klebeschild	information sign	plaque indicatrice		Made in Germany
			80	7675	1	Schild	information sign	plaque indicatrice		..zugelassene Öle ver- wenden...;D/GB/F
			90	73773	3	Klebeschild				Kühlluftkanal frei hal- ten;D/GB/F
			100	65329	1	Klebeschild	information sign	plaque indicatrice		Garantieanspruch;D/E/F
			110	71410	1	Klebeschild				Phasenfolge D/F/I
			120	62559	1	Klebeschild				Bauer Kompressoren- Logo;schwarz
			130	73766	2	Klebeschild				Anl...m.geschl.Türen betr...;D/GB/F
			140	55142	2	Klebeschild	information sign	plaque indicatrice		Richtungspfeil
			150	72555	1	Klebeschild				Symbol;Piktogramm f.Be- triebsanleitg.
			160	N22351	1	Schild				Elektro-Blitz
			170	N22832	2	Schild	information label			Symbol;Warnung v.hei- ßen Oberflächen
			180	72378	1	Schild				GS-Zeichen
			190	N22925	2	Schild	information label			Symbol;Warnung vor au- tom.Anlauf


**Wartungssätze
 Maintenance kits
 Kits d'entretien**

Baugruppe	78642-01	Ölablaß K150; K180
Assembly	78642-01	Oil drain K150; K180
Assemblage	78642-01	Vidange d'huile K150; K180

E26.0- 22

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			20	N25638	1	Kugelhahn	Ball valve	robinet		PN16; R1/2
			30	N19939*	mm	Schlauch	Plastic hose	Tuyau		400 mm; DN13; PN13
			40	N7454	1	Schlauchschelle	Hose clamp			DIN3017; 12-22
			50	N22358	2	Schnappschelle	Clamp			Pg16; AD18; B15; H27
			60	N24549	2	Blechschrabe	Screw	Vis		DIN7981; B4.8x19;A3A


**Wartungssätze
Maintenance kits
Kits d'entretien**
**Baugruppe
Assembly
Assemblage**

 78642-01
 78642-01
 78642-01

 Ölablaß K150, K180, IK18.1
 Oil drain K150, K180, IK18.1
 Vidange d'huile K150, K180, IK18.1

E26.0- 23

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N2375	1	Gewinde- Reduzierstutzen	Reducer	Réducteur		G3/4-R1/2
			20	N25638	1	Kugelhahn	Ball valve	robinet		PN16; R1/2
			30	N19939*	mm	Schlauch	Plastic hose	Tuyau		400 mm; DN13; PN13
			40	N7454	1	Schlauschelle	Hose clamp			DIN3017; 12-22
			50	N22358	2	Schnappschelle	Clamp			Pg16; AD18; B15; H27
			60	N24549	2	Blechschrabe	Screw	Vis		DIN7981; B4.8x19; A3A

VERTICUS 5

Baugruppe	Assembly	Groupe d'assemblage	Seite/page
78404 Antriebsmotoren	Electric drive motors	Moteurs électriques d'entraînement	F14.0- 1
Verticus 5	Verticus 5	Verticus 5	
78405-01 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 2
V12.14-5.5; KAP 12.14-5.5	V12.14-5.5; KAP 12.14-5.5	V12.14-5.5; KAP 12.14-5.5	
78405-02 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 3
V/I/GI 12.14-7.5; KAP 12.14-7.5	V/I/GI 12.14-7.5; KAP 12.14-7.5	V/I/GI 12.14-7.5; KAP 12.14-7.5	
78405-03 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 4
V/I/GI 150-11; V/I/GI 180-15	V/I/GI 150-11; V/I/GI 180-15	V/I/GI 150-11; V/I/GI 180-15	
78405-04 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 5
I/GI 100-2.2	I/GI 100-2.2	I/GI 100-2.2	
78405-05 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 6
I/GI 100-3	I/GI 100-3	I/GI 100-3	
78405-06 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 7
I/GI 120-4	I/GI 120-4	I/GI 120-4	
78405-07 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 8
I/GI 120-5.5	I/GI 120-5.5	I/GI 120-5.5	
78405-08 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 9
I/GI 15.1-7.5	I/GI 15.1-7.5	I/GI 15.1-7.5	
78405-11 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 10
I/GI 18.1-11	I/GI 18.1-11	I/GI 18.1-11	
78405-12 Motorzubehör	Motor accessories	Accessoires de moteur	F14.0- 11
I/GI 18.1-15	I/GI 18.1-15	I/GI 18.1-15	

HINWEIS

Diese Ersatzteilliste ist für unterschiedliche Konfigurationen gültig; Der tatsächliche Lieferumfang kann insbesondere bei den Anbau- und Zubehörteilen von den dargestellten Baugruppen und Teilen abweichen.

NOTE

This parts list covers different configurations; the delivery scope, especially for the mounting and accessory parts may differ from the assemblies and parts shown.

NOTE

Cette liste de pièces est pour des configurations diverses; il est possible que les pièces et les assemblages livrés pourraient être différents des pièces et assemblages indiqués, particulièrement les pièces pour le montage et les accessoires.

Änder.-Nr. Change no. No. de change	Datum Date	Änderung	Change	Changement
0	01.04.2000	Grundausgabe	Basic edition	Edition de base

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www.bauer-kompressoren.de

Wichtige Hinweise für Teilebestellung:

Bestell-Nr., die mit der Ziffer 0 beginnen, bezeichnen Baugruppen, die komplett geliefert werden. Teile ohne Bestell-Nr. sind nur zur Information für die Montage aufgeführt. Sie sind nicht als Ersatzteil erhältlich. Bei Ersatzteilbestellungen erwarten Sie unsere richtige Lieferung; deshalb benötigen wir von Ihnen folgende Angaben (siehe unten gezeigtes Typenschild):

1. Modellbezeichnung, Fabrik-Nr. sowie Fertigungsstand von Anlage/Block
2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

Bestell-Beispiel:

Für Kompressorblock ...
Fabrik-Nr. 524-0528/1/2 drei Dichtungen
8263-090

Important notes for spare parts orders:

Part nos. beginning with digit 0 indicate parts available as complete assemblies. Parts without part no. are indicated for assembly reference, only. These parts are not available as single parts. When placing an order for spare parts, please give the following items so as to ensure our correct delivery (see identification plate shown below):

1. Model, serial no. as well as design standard of unit/block
2. Quantity required
3. Name and part no.

Example for order:

For compressor block ...
serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr / Year / Année	
Volumenstrom m3/min	/	n/min.	
Free air delivery Scfm	/	r.p.m.	
Betriebsüberdruck bar		kW	
Max. working press. psig			
		KB 73708	
		Fertigungsstand / Modification no. / No. de modification	
		Anlage/Unit/Groupe	
		Kompressorblock / Compressor block / Bloc compresseur	



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



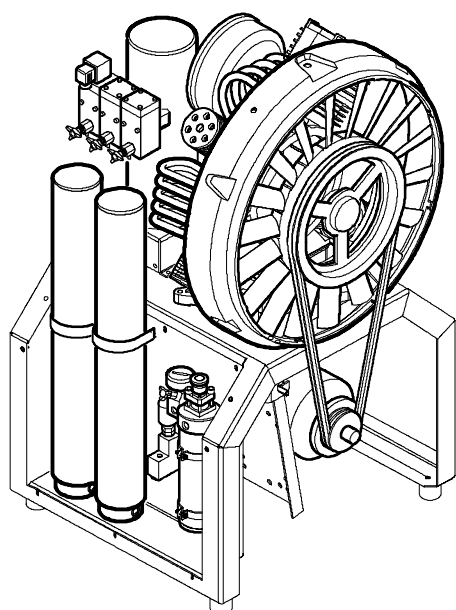
ATTENTION

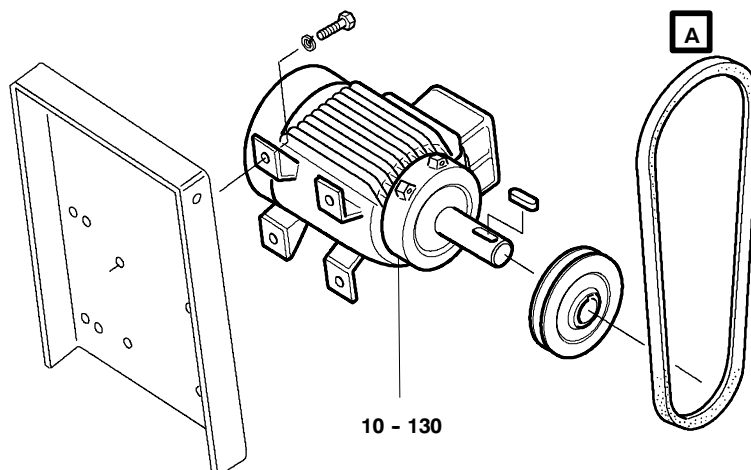
Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



ATTENTION

N'utiliser que des vis et des goujons filetés de la qualité 8.8!


A

 Ansicht 180° gedreht
 view rotated 180°
 vue aversée de 180°


10 - 130

A siehe / refer to / voir E26

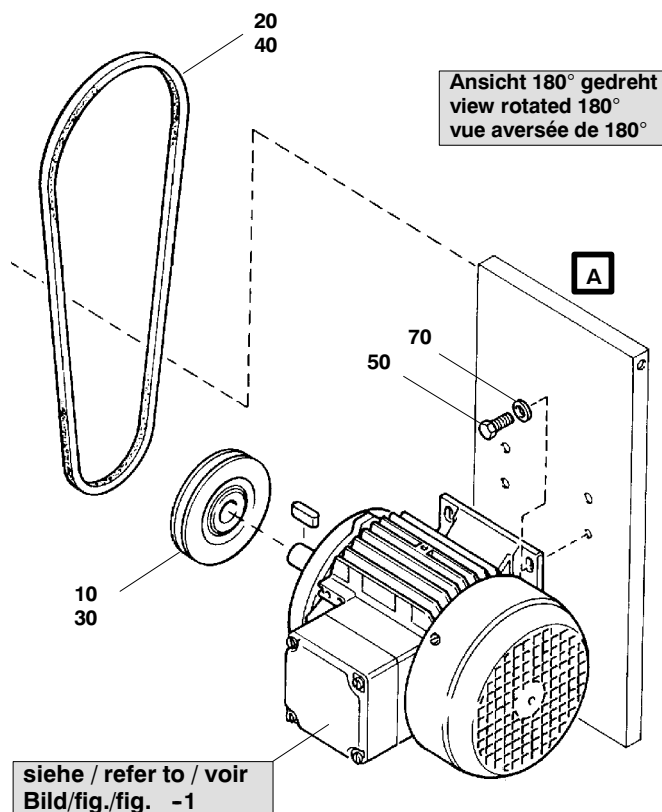
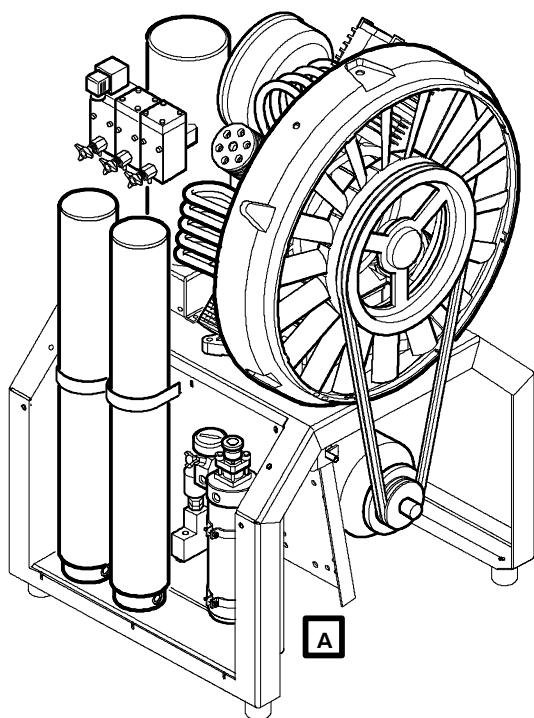
 Wartungssätze
 Maintenance kits
 Kits d'entretien

 Baugruppe 78404
 Assembly 78404
 Assemblage 78404

 Antriebsmotoren
 Electric drive motors
 Moteurs d'entraînement

F14.0- 1

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N2774	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	21 kg	3kW;2840 1/min
			20	N3390	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	27,5 kg	4kW;2815 1/min;
			30	N16727	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	27,5 kg	4kW;2815 1/min
			40	N21717	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	27,5 kg	5.5kW;2910 1/min
			50	N17091	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	46 kg	5.5kW;2910 1/min
			60	N25462	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	57 kg	7.5kW;2910 1/min
			70	N25532	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	57 kg	7.5kW;2910 1/min
			80	N22949	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	76 kg	11kW;2920 1/min
			90	N25533	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	76 kg	11kW;2920 1/min
			100	N25726	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	80 kg	11kW;1440 1/min
			110	N25727	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	80 kg	11kW;1440 1/min
			120	N24584	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	90 kg	15kW;2925 1/min
			130	N25534	1	Drehstrommotor 50/60 Hz	Three-phase motor	Moteur triphasé	90 kg	15kW;2940 1/min



A siehe / refer to / voir E26

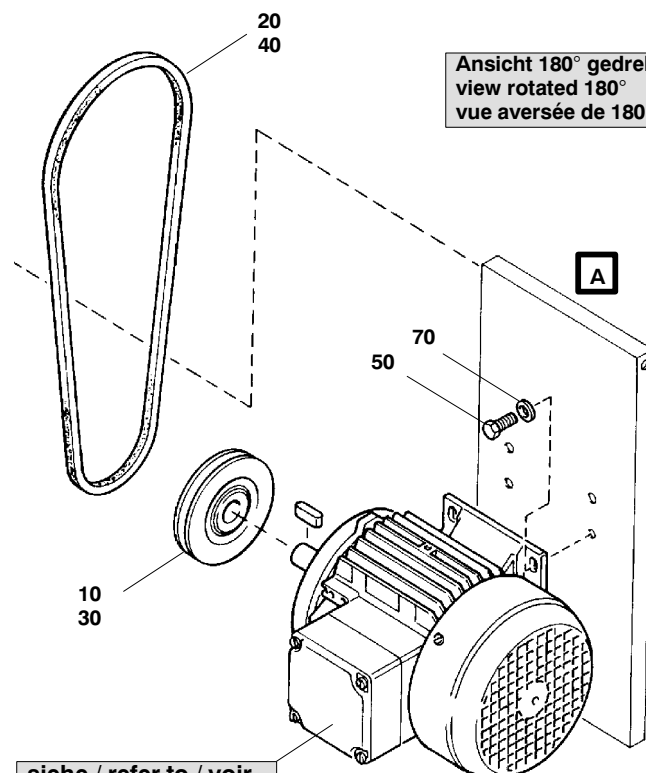
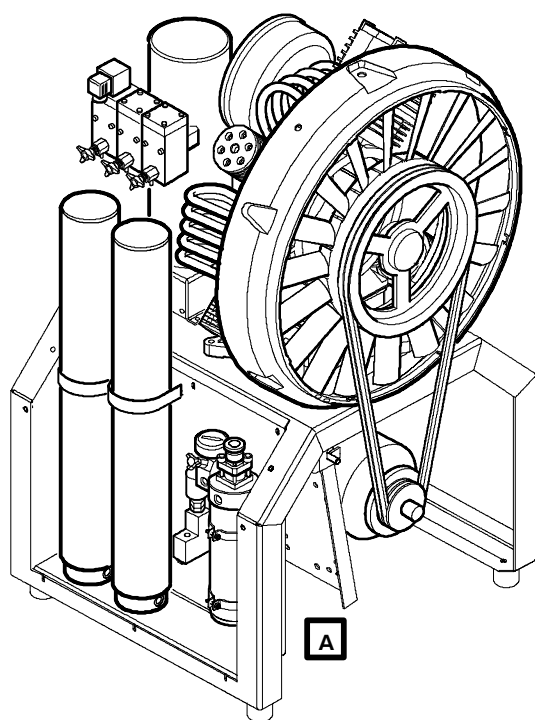


**Wartungssätze
Maintenance kits
Kits d'entretien**

Baugruppe 78405-01 V 12.14, KAP 12.14; 5.5 kW, 50/60 Hz
 Assembly 78405-01 V 12.14, KAP 12.14; 5.5 kW, 50/60 Hz
 Assemblage 78405-01 V 12.14, KAP 12.14; 5.5 kW, 50/60 Hz

F14.0- 2

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	55456	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw170;1-ril.; 50 Hz
		X	20	N2596	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 1857; 50 Hz
			30	14397	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw140;1-ril.; 60 Hz
		X	40	N3336	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1782; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10;1.4571



A siehe / refer to / voir E26

siehe / refer to / voir
Bild/fig./fig. -1

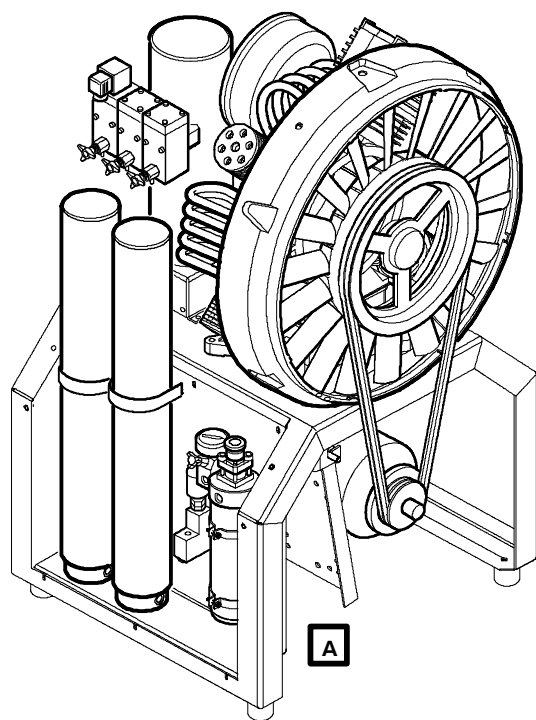


**Wartungssätze
Maintenance kits
Kits d'entretien**

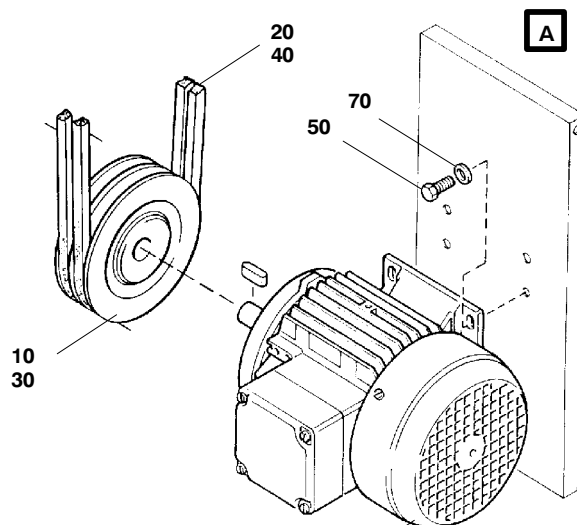
Baugruppe 78405-02 V/I/Gl 12.14, KAP 12.14; 7.5 kW, 50/60 Hz
 Assembly 78405-02 V/I/Gl 12.14, KAP 12.14; 7.5 kW, 50/60 Hz
 Assemblage 78405-02 V/I/Gl 12.14, KAP 12.14; 7.5 kW, 50/60 Hz

F14.0- 3

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N25072	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw212;1-ril.; 50 Hz
		X	20	N2600	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 2082; 50 Hz
			30	N18497	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw180;1-ril.; 60 Hz
		X	40	N3823	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 2032; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10; 1.4571



Ansicht 180° gedreht
 view rotated 180°
 vue aversée de 180°



siehe / refer to / voir
 Bild/fig./fig. -1

A siehe / refer to / voir E26

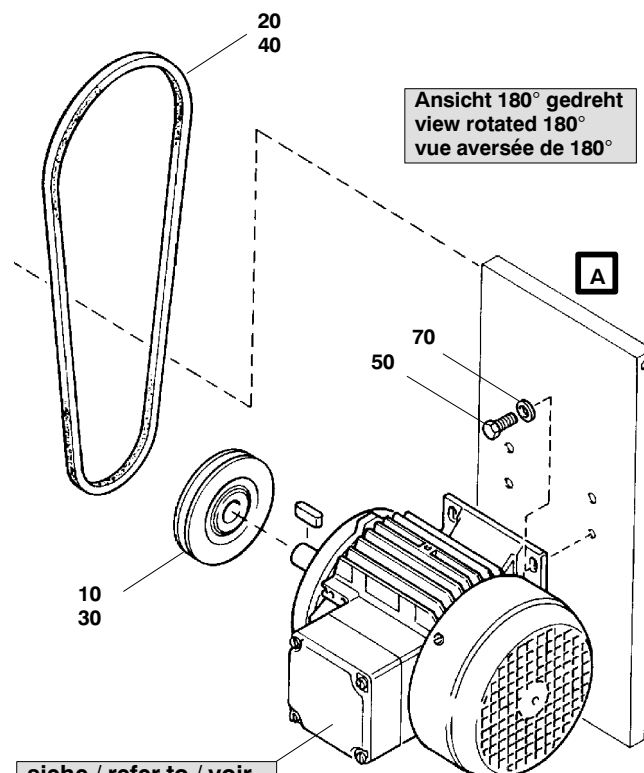
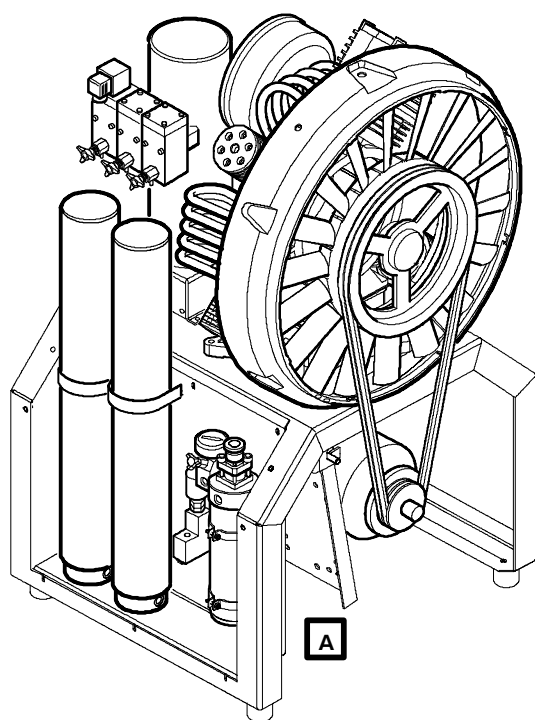


**Wartungssätze
 Maintenance kits
 Kits d'entretien**

Baugruppe 78405-03 V//GI 150, V//GI 180; 11 kW, 15 kW; 50/60 Hz
 Assembly 78405-03 V//GI 150, V//GI 180; 11 kW, 15 kW; 50/60 Hz
 Assemblage 78405-03 V//GI 150, V//GI 180; 11 kW, 15 kW; 50/60 Hz

F14.0- 4

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	64581	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw212;2-ril.; 50 Hz
		X	20	N2599	2	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 1982; 50 Hz
			30	64582	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw180;2-ril.; 60 Hz
		X	40	N2598	2	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1932; 60 Hz
			50	N19523	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M12x45
			70	N16902	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 12; 1.4571



A siehe / refer to / voir E26

siehe / refer to / voir
Bild/fig./fig. -1

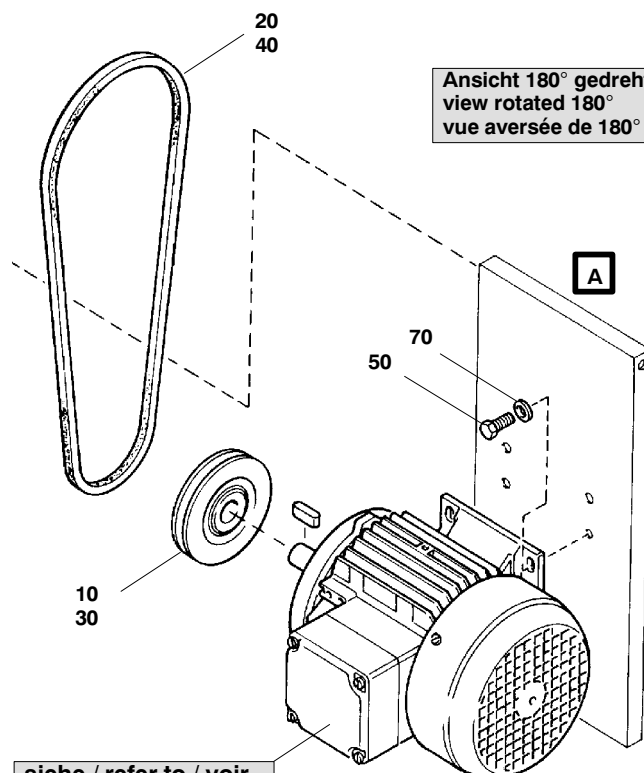
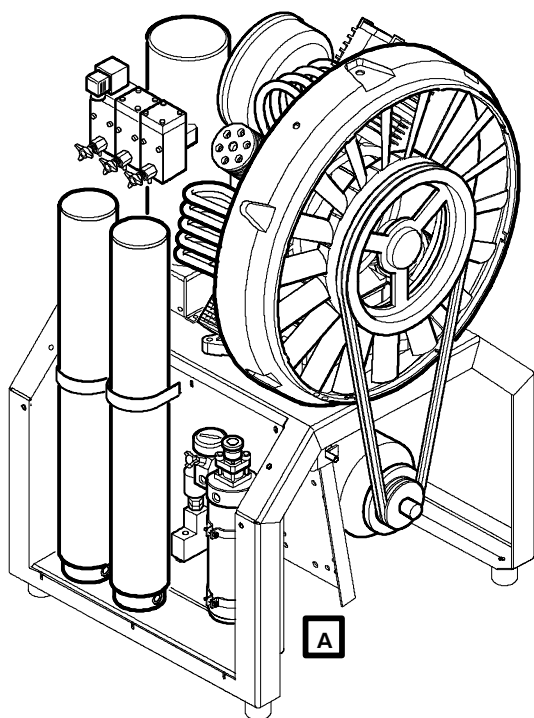


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78405-04 I/Gl 100; 3 kW, 50/60 Hz
 Assembly 78405-04 I/Gl 100; 3 kW, 50/60 Hz
 Assemblage 78405-04 I/Gl 100; 3 kW, 50/60 Hz

F14.0- 5

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	14397	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw140;1-ril.; 50 Hz
		X	20	N2596	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 1857; 50 Hz
			30	N24436	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw118;1-ril.; 60 Hz
		X	40	N3336	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1782; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10;1.4571



A siehe / refer to / voir E26

siehe / refer to / voir
Bild/fig./fig. -1

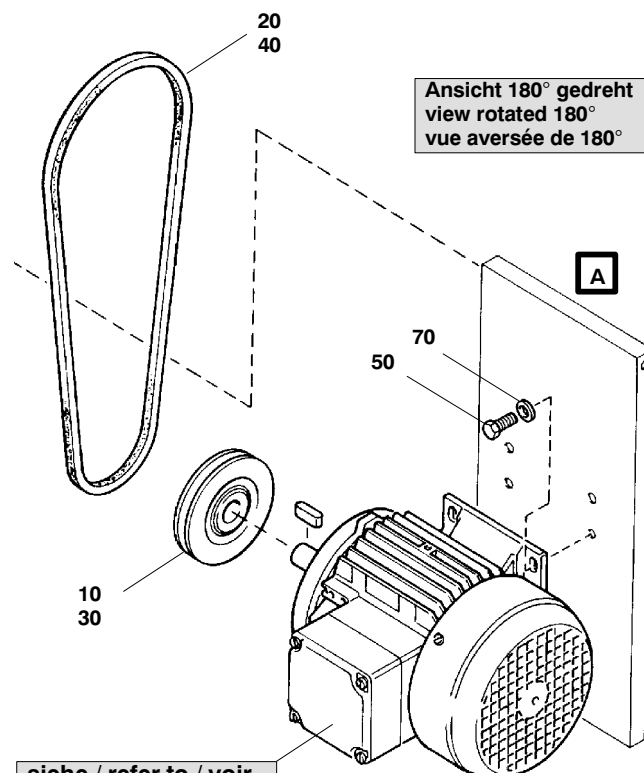
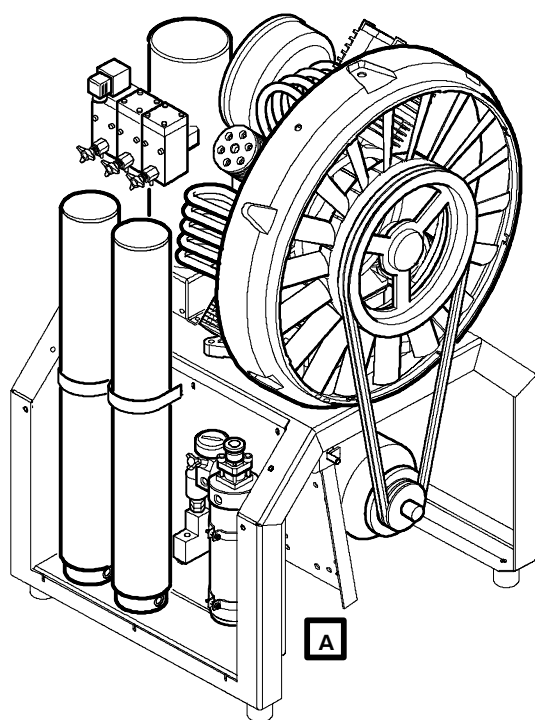


**Wartungssätze
Maintenance kits
Kits d'entretien**

Baugruppe 78405-05 I/GI 100; 4 kW, 50/60 Hz
 Assembly 78405-05 I/GI 100; 4 kW, 50/60 Hz
 Assemblage 78405-05 I/GI 100; 4 kW, 50/60 Hz

F14.0- 6

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N17850	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw180;1-ril.; 50 Hz
		X	20	N17232	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 1907; 50 Hz
			30	N17849	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw150;1-ril.; 60 Hz
		X	40	N2597	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1882; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10;1.4571



A siehe / refer to / voir E26

siehe / refer to / voir
Bild/fig./fig. -1

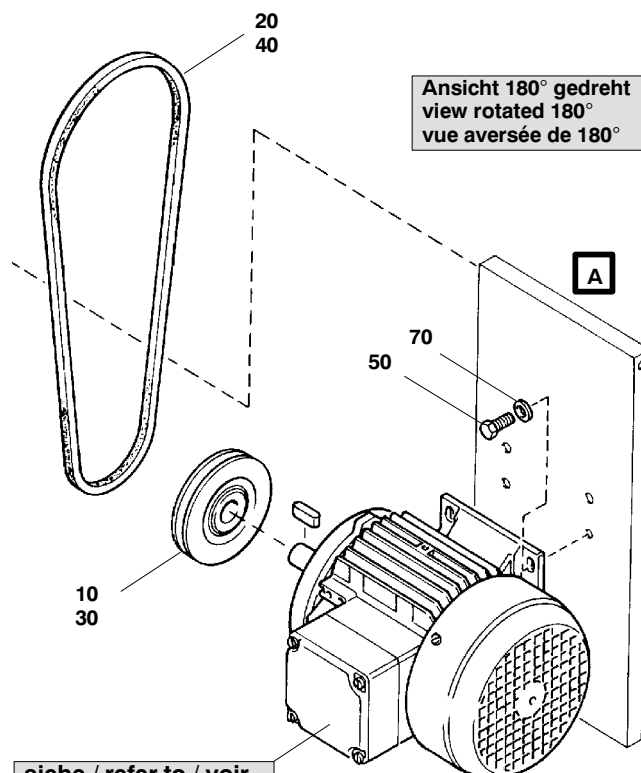
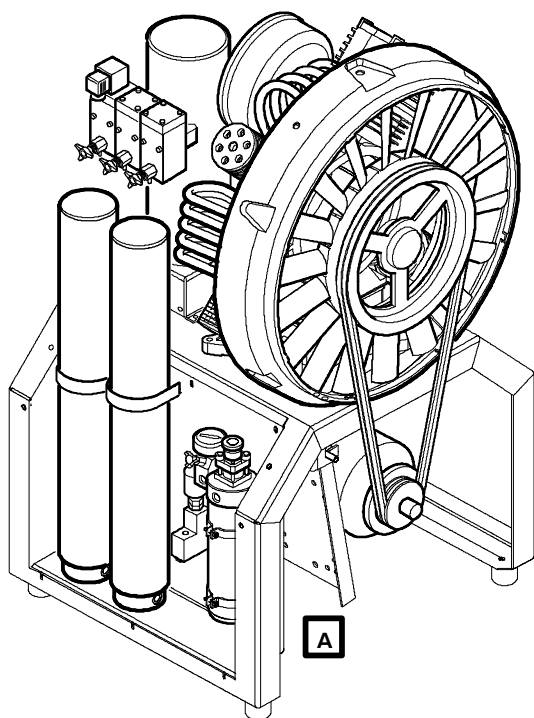


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78405-06 I/Gl 120; 4 kW, 50/60 Hz
 Assembly 78405-06 I/Gl 120; 4 kW, 50/60 Hz
 Assemblage 78405-06 I/Gl 120; 4 kW, 50/60 Hz

F14.0- 7

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N25712	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw190;1-ril.; 50 Hz
		X	20	N2599	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 1982; 50 Hz
			30	N18483	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw160;1-ril.; 60 Hz
		X	40	N18841	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1957; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10;1.4571



A siehe / refer to / voir E26

siehe / refer to / voir
Bild/fig./fig. -1

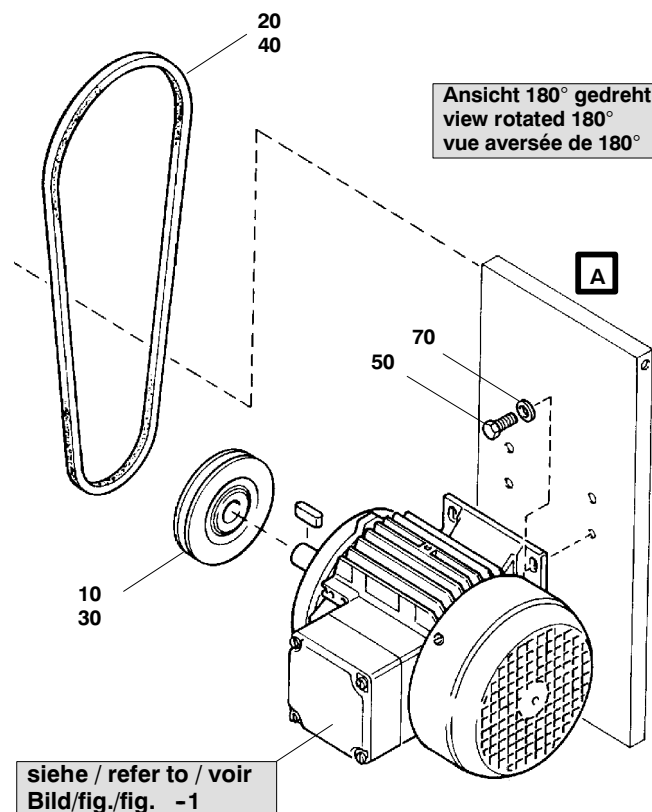
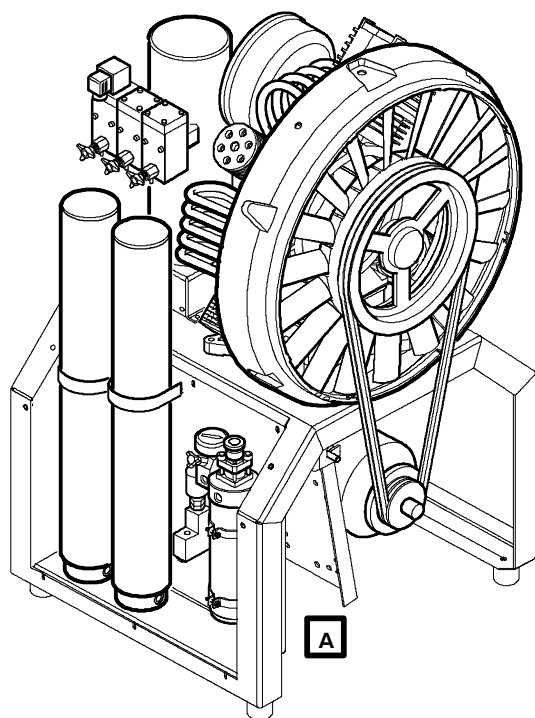


**Wartungssätze
Maintenance kits
Kits d'entretien**

Baugruppe 78405-07 I/Gl 120; 5,5 kW, 50/60 Hz
 Assembly 78405-07 I/Gl 120; 5,5 kW, 50/60 Hz
 Assemblage 78405-07 I/Gl 120; 5,5 kW, 50/60 Hz

F14.0- 8

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N17851	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw224;1-ril.; 50 Hz
		X	20	N3823	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 2032; 50 Hz
			30	N17850	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw180;1-ril.; 60 Hz
		X	40	N2599	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1982; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10;1.4571



A siehe / refer to / voir E26

siehe / refer to / voir
Bild/fig./fig. -1

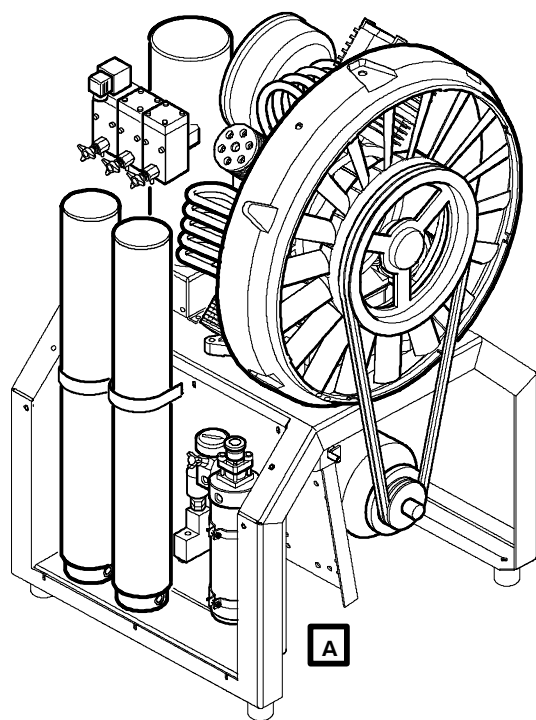


Wartungssätze
Maintenance kits
Kits d'entretien

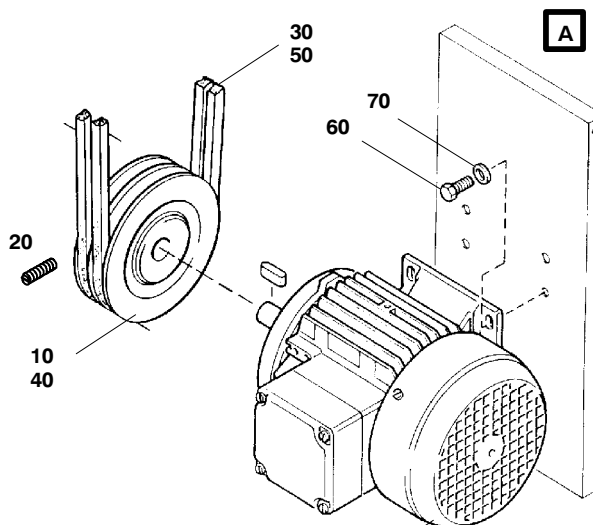
Baugruppe 78405-08 I/Gl 15.1; 7.5 kW, 50/60 Hz
 Assembly 78405-08 I/Gl 15.1; 7.5 kW, 50/60 Hz
 Assemblage 78405-08 I/Gl 15.1; 7.5 kW, 50/60 Hz

F14.0- 9

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N25072	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw212;1-ril.; 50 Hz
		X	20	N2600	1	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 2082; 50 Hz
			30	N18497	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw180;1-ril.; 60 Hz
		X	40	N3823	1	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 2032; 60 Hz
			50	N256	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M10x40
			70	N15781	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 10; 1.4571



Ansicht 180° gedreht
 view rotated 180°
 vue aversée de 180°



siehe / refer to / voir
 Bild/fig./fig. -1

A siehe / refer to / voir E26

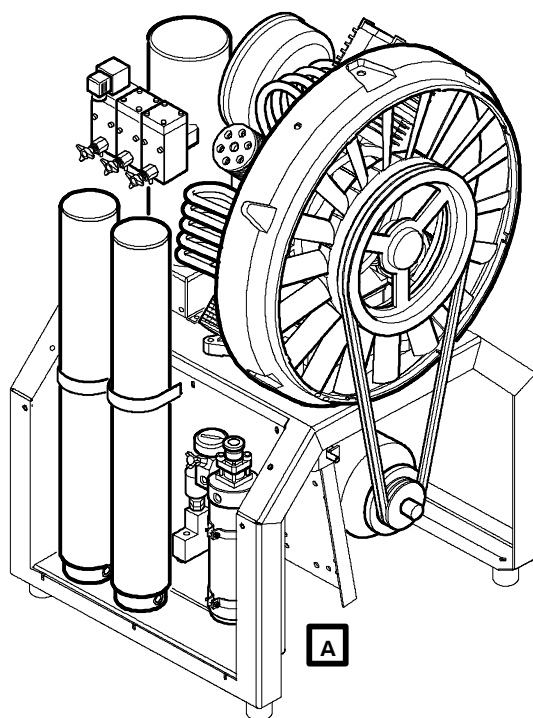


Wartungssätze
Mainenance kits
Kits d'entretien

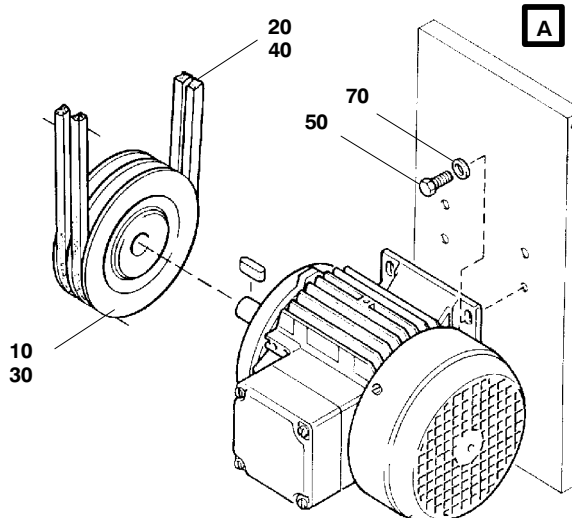
Baugruppe 78405-11 I/Gl 18.1; 11 kW, 15 kW; 50/60 Hz
 Assembly 78405-11 I/Gl 18.1; 11 kW, 15 kW; 50/60 Hz
 Assemblage 78405-11 I/Gl 18.1; 11 kW, 15 kW; 50/60 Hz

F14.0- 10

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	14303	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw261;2-ril.; 50 Hz
			20	N106	1	Gewindestift	stud			DIN EN 27434; M8x12
		X	30	N2601	2	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 2132; 50 Hz
			40	12565	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw212;2-ril.; 60 Hz
		X	50	N2600	2	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 2082; 60 Hz
			60	N19523	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M12x45
			70	N16902	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 12; 1.4571



Ansicht 180° gedreht
 view rotated 180°
 vue aversée de 180°



siehe / refer to / voir
 Bild/fig./fig. - 1

A siehe / refer to / voir E26



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78405-12 I/Gl 18.1; 15 kW; 50/60 Hz
 Assembly 78405-12 I/Gl 18.1; 15 kW; 50/60 Hz
 Assemblée 78405-12 I/Gl 18.1; 15 kW; 50/60 Hz

F14.0- 11

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	64581	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw212;2-ril.; 50 Hz
		X	20	N2599	2	Keilriemen	v-belt	courroie trapezoidale	,23 kg	SPA; Lw 1982; 50 Hz
			30	64582	1	Keilriemenscheibe	v-belt pulley	poulie a gorge		SPA; dw180;2-ril.; 60 Hz
		X	40	N2598	2	Keilriemen	v-belt	courroie trapezoidale	,214 kg	SPA; Lw 1932; 60 Hz
			50	N19523	4	Sechskantschraube	hexagon screw	vis hexagonale	35 g	DIN EN 24014; M12x45
			70	N16902	4	Federring	spring washer	anneau-ressort	2 g	DIN 127; A 12; 1.4571

VERTICUS 5



Baugruppe	Assembly	Groupe d'assemblage	Bild/fig.
V-5 Kompressorsteuerungen	V-5 compressor control units	Dispositifs de commande V-5	G59.0- 1
78156 (2.2 kW; 380 - 440 V)	78156 (2.2 kW; 380 - 440 V)	78156 (2.2 kW; 380 - 440 V)	G59.0- 2
78157 (3 kW; 380 - 440 V)	78157 (3 kW; 380 - 440 V)	78157 (3 kW; 380 - 440 V)	G59.0- 3
78158 (4 kW; 380 - 440 V)	78158 (4 kW; 380 - 440 V)	78158 (4 kW; 380 - 440 V)	G59.0- 4
78159 (5,5 kW; 380 - 440 V)	78159 (5,5 kW; 380 - 440 V)	78159 (5,5 kW; 380 - 440 V)	G59.0- 5
77604 (7,5 kW; 380 - 440 V)	77604 (7,5 kW; 380 - 440 V)	77604 (7,5 kW; 380 - 440 V)	G59.0- 6
(4 kW; 220 - 240 V)	(4 kW; 220 - 240 V)	(4 kW; 220 - 240 V)	
78150 (11 kW; 380 - 440 V)	78150 (11 kW; 380 - 440 V)	78150 (11 kW; 380 - 440 V)	G59.0- 7
(5,5-7,5 kW; 220 - 240 V)	(5,5-7,5 kW; 220 - 240 V)	(5,5-7,5 kW; 220 - 240 V)	
78151 (15 kW; 380 - 440 V)	78151 (15 kW; 380 - 440 V)	78151 (15 kW; 380 - 440 V)	G59.0- 8
78152 (2,2 kW; 220 - 240 V)	78152 (2,2 kW; 220 - 240 V)	78152 (2,2 kW; 220 - 240 V)	G59.0- 9
78153 (3 kW; 220 - 240 V)	78153 (3 kW; 220 - 240 V)	78153 (3 kW; 220 - 240 V)	G59.0- 10
78154 (7,5 kW; 220 - 240 V)	78153 (7,5 kW; 220 - 240 V)	78153 (7,5 kW; 220 - 240 V)	G59.0- 11
78155 (11-15 kW; 220 - 240 V)	78155 (11-15 kW; 220 - 240 V)	78155 (11-15 kW; 220 - 240 V)	G59.0- 12
78501 Überwachungsarmaturen	78501 Monitoring devices	78501 Unités de surveillance	G59.0- 13

HINWEIS

Diese Ersatzteilliste ist für unterschiedliche Konfigurationen gültig; Der tatsächliche Lieferumfang kann insbesondere bei den Anbau- und Zubehöerteilen von den dargestellten Baugruppen und Teilen abweichen.

NOTE

This parts list covers different configurations; the delivery scope, especially for the mounting and accessory parts may differ from the assemblies and parts shown.

NOTE

Cette liste de pièces est pour des configurations diverses; il est possible que les pièces et les assemblages livrés pourraient être différents des pièces et assemblages indiqués, particulièrement les pièces pour le montage et les accessoires.

Änder.-Nr. Change no. No. de change	Datum Date	Änderung	Change	Changement
0	01.01.1995	Grundausgabe	Basic edition	Edition de base

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www.bauer-kompressoren.de

Wichtige Hinweise für Teilebestellung:

Bestell-Nr., die mit der Ziffer 0 beginnen, bezeichnen Baugruppen, die komplett geliefert werden. Teile ohne Bestell-Nr. sind nur zur Information für die Montage aufgeführt. Sie sind nicht als Ersatzteil erhältlich. Bei Ersatzteilbestellungen erwarten Sie unsere richtige Lieferung; deshalb benötigen wir von Ihnen folgende Angaben (siehe unten gezeigtes Typenschild):

1. Modellbezeichnung, Fabrik-Nr. sowie Fertigungsstand von Anlage/Block
2. Stückzahlen
3. Benennung und Best.-Nr. des gewünschten Teils

Bestell-Beispiel:

Für Kompressorblock ...
Fabrik-Nr. 524-0528/1/2 drei Dichtungen
8263-090

Important notes for spare parts orders:

Part nos. beginning with digit 0 indicate parts available as complete assemblies. Parts without part no. are indicated for assembly reference, only. These parts are not available as single parts. When placing an order for spare parts, please give the following items so as to ensure our correct delivery (see identification plate shown below):

1. Model, serial no. as well as design standard of unit/block
2. Quantity required
3. Name and part no.

Example for order:

For compressor block ...
serial no. 524-0528/1/2, three gaskets
8263-090

Avis important pour la commande de pièces:

Les nos. de commande commençant par le chiffre 0 indiquent les pièces livrées au complet. Les pièces sans no. de commande sont indiquées uniquement pour information de montage. Elles ne sont pas livrées individuellement. Pour que la livraison de pièces de rechange corresponde à la commande, veuillez bien nous fournir les données suivantes (voir plaque d'identité ci-dessous):

1. Modèle, no. de série et standard de construction de bloc compresseur/groupe
2. Quantité désirée
3. Dénomination et no. de commande de la pièce désirée

Exemple de commande:

Pour bloc compresseur ...
no. de série 524-0528/1/2, trois joints no. de cde. 8263-090



Wartungssätze

- a = Wartungssatz 1000 h
b = Wartungssatz 2000 h
c = Wartungssatz 4000 h

In den Spalten sind die im entsprechenden Satz enthaltenen Teile angekreuzt. Bitte beachten, daß die höheren Sätze die untergeordneten nicht beinhalten, d.h. für eine 4000-Stunden-Wartung wird 1x Satz a, 1x Satz b und 1x Satz c benötigt.



Maintenance kit

- a = Maintenance kit 1000 h
b = Maintenance kit 2000 h
c = Maintenance kit 4000 h

The columns contain the parts that are included in the respective parts set. Please note that the higher graded kits do not include the lower ones, i.e. for a 4000 hours maintenance, one kit a, one kit b plus one kit c are required.



Kits de pièces d'entretien :

- a = Kit d'entretien 1000 h
b = Kit d'entretien 2000 h
c = Kit d'entretien 4000 h

Les pièces contenues dans les kits correspondants sont marquées d'une croix dans les colonnes. Veuillez observer que les kits supérieurs ne contiennent pas les kits subordonnés, c'est-à-dire pour un entretien de 4000 heures il faut avoir 1x kit a, 1x kit b et 1x kit c.

Anmerkungen zur Identifikation:
Remarks for identification:
Remarques pour l'identification:

Modell/Model/Modèle		Fabrik-Nr./Serial no./Numéro de série	
		Jahr / Year / Année	
Volumenstrom m3/min	/	n/min. / r.p.m.	
Free air delivery Scfm		kW	
Betriebsüberdruck bar			
Max. working press. psig			
		KB 73708	
			Fertigungsstand / Modification no. / No. de modification
			Anlage/Unit/Groupe
			Kompressorblock / Compressor block / Bloc compresseur



ACHTUNG

Nur Schrauben und Stiftschrauben der Qualität 8.8 verwenden!



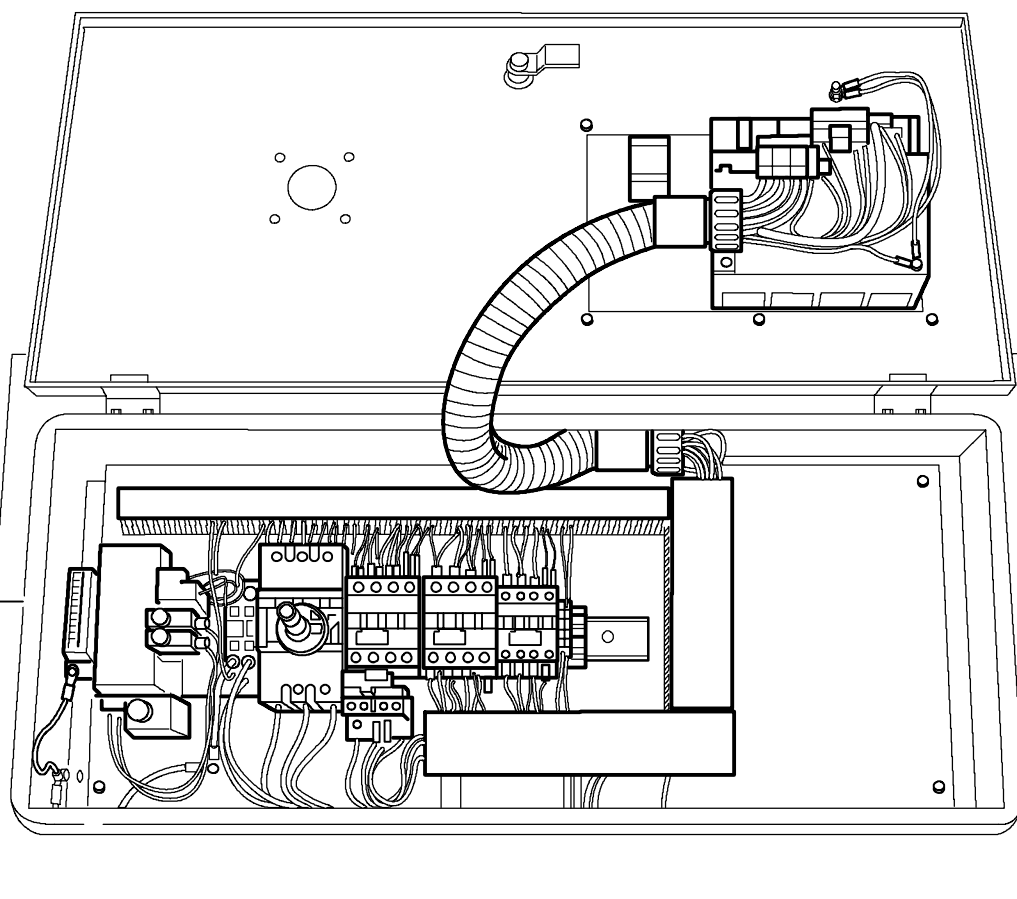
ATTENTION

Use only screws and studs in quality 8.8! This quality is equivalent to SAE J 429 d grade 5.



ATTENTION

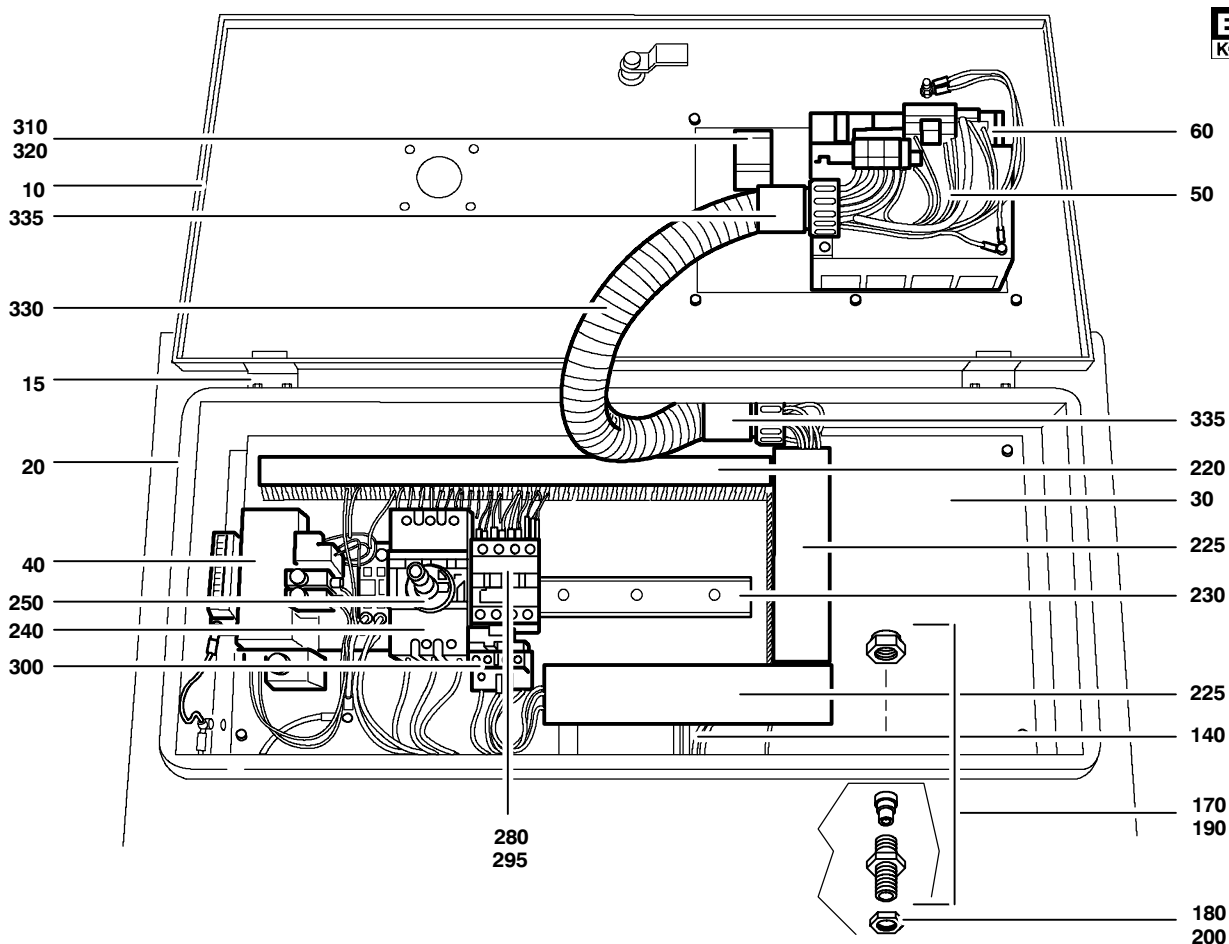
N'utiliser que des vis et des goujons filetés de la qualité 8.8!

10
 20
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 75
 90
 100
 110

**Wartungssätze
 Maintenance kits
 Kits d'entretien**

 Baugruppe 78266 Kompressorsteuerungen Verticus 5
 Assembly 78266 Compressor control units Verticus 5
 Assemblage 78266 Commandes électrique pour compresseur Verticus 5

G59.0- 1

Klasse/ Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz. Qty. Qté.	Benennung	Designation	Dénomination	Gew. Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	78156	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/2.2kW
			20	78157	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/3kW
			30	78158	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/4kW
			40	78159	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/5.5kW
			50	77604	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/7.5kW; 220-240V/4kW
			60	78150	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/11kW; 220-240V/5.5kW
			70	78151	1	Kompressorsteuerung	Compressor control unit	Commande électrique		380-440V/15kW
			75	78152	1	Kompressorsteuerung	Compressor control unit	Commande électrique		220-240V/2.2KW
			90	78153	1	Kompressorsteuerung	Compressor control unit	Commande électrique		220-240V/3kW
			100	78154	1	Kompressorsteuerung	Compressor control unit	Commande électrique		220-240V/7.5kW
			110	78155	1	Kompressorsteuerung	Compressor control unit	Commande électrique		220-240V/11/15kW



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78156 Kompressorsteuerung 380-440V/2.2kW
Assembly 78156 Compressor control unit 380-440V/2.2kW
Assemblage 78156 Commande électrique 380-440V/2.2kW

G59.0- 2

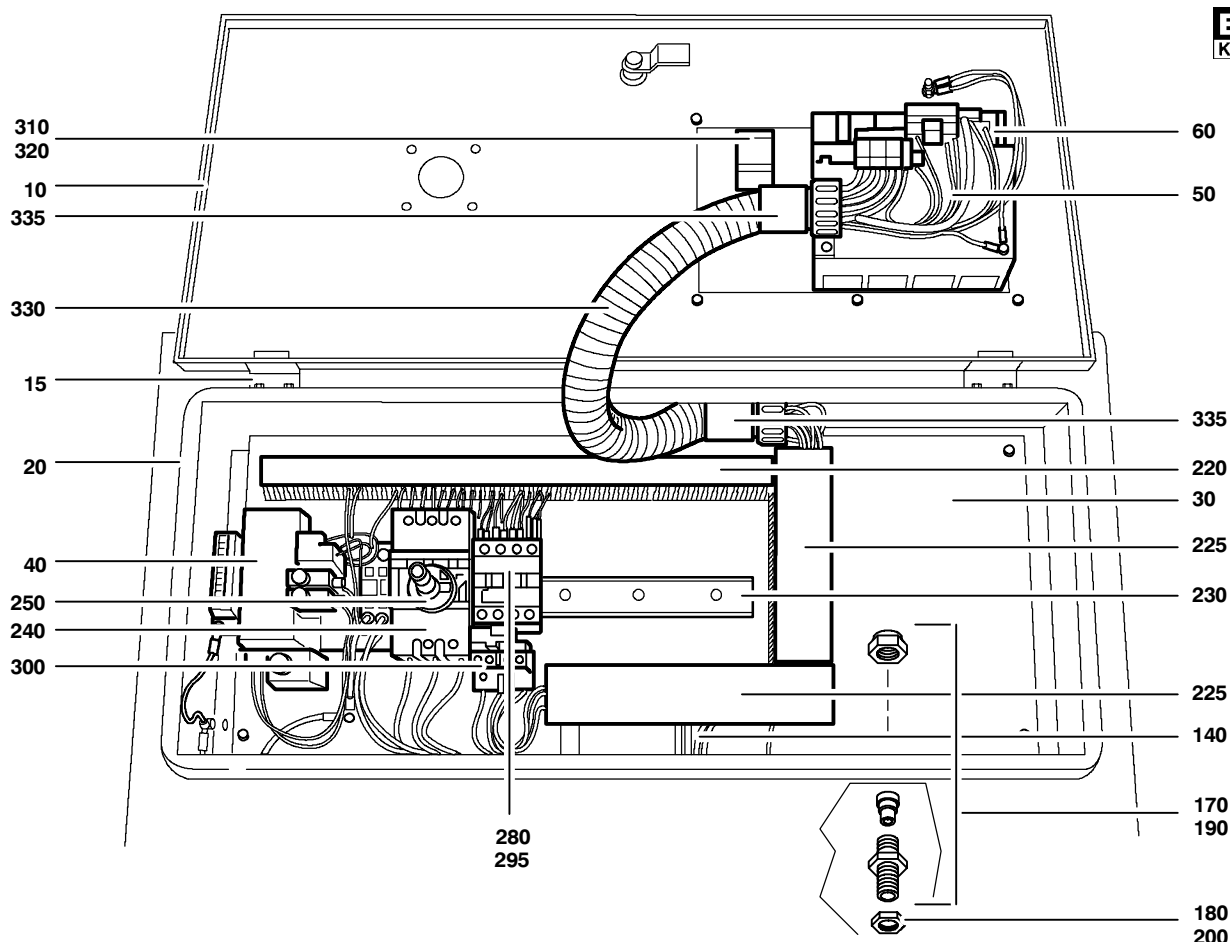
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59187-V002	1	Anschlußkabel	Connecting cable	Câble d'accouplement		bis 5.5 kW / 400 V
			160	78243	1	Anschlußkabel	Connecting cable	Câble d'accouplement		4x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25292	1	Leistungsschalter	Power switch	Disjoncteur	300 g	14 A / 690 V
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21609	2	Schutzleiterklemme	Ground terminal	Borne		4mm ²

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Meterware

Piece goods

Marchandise au mètre

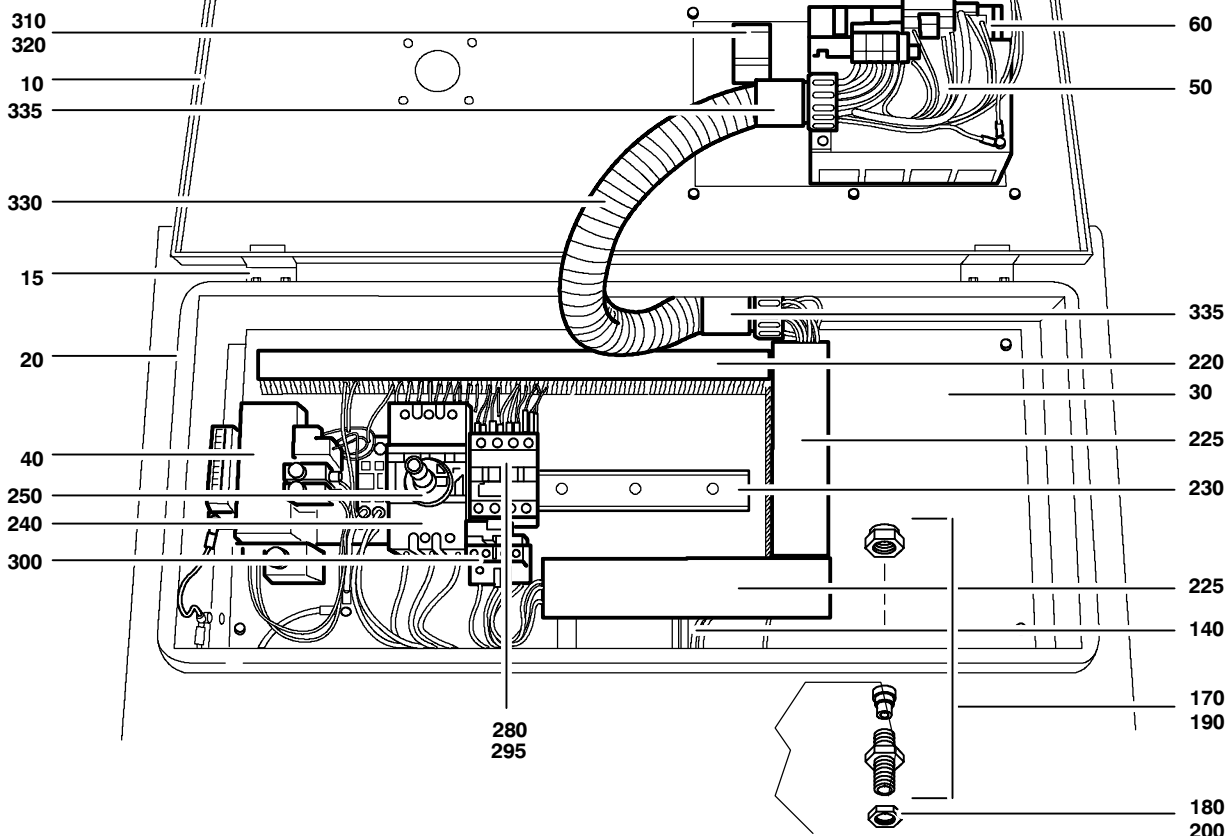


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78156 Kompressorsteuerung 380-440V/2.2kW
Assembly 78156 Compressor control unit 380-440V/2.2kW
Assemblage 78156 Commande électrique 380-440V/2.2kW

G59.0- 2

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21605	1	Durchgangsklemme	Feed-through terminal	Borne de passage		4mm□;blau
			280	N19788	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	1	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19808	1	Überlastrelais	Overload relay	Relais de surintensité		4-6 A
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78157 Kompressorsteuerung 380-440V/3kW
Assembly 78157 Compressor control unit 380-440V/3W
Assemblage 78157 Commande électrique 380-440V/3kW

G59.0- 3

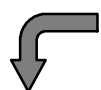
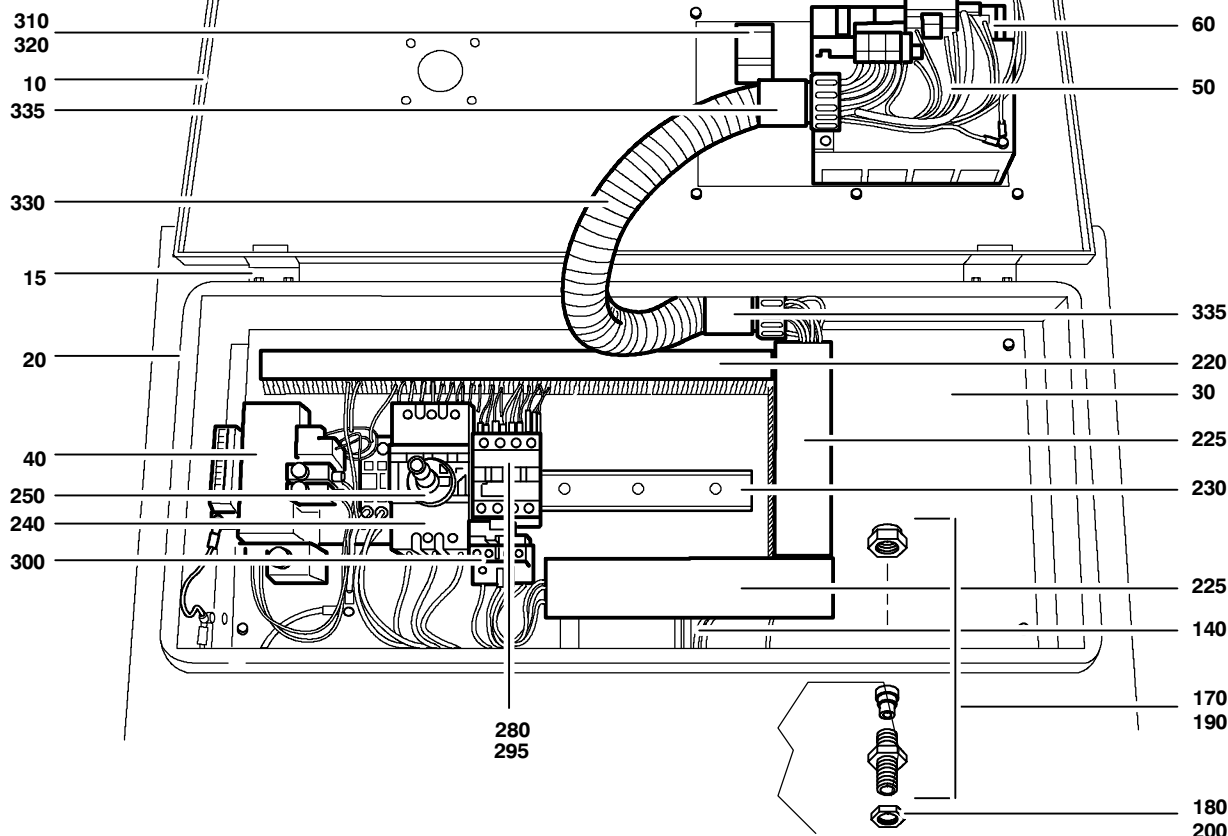
Klasse/Class/Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundauführung
			150	59187-V002	1	Anschlußkabel	Connecting cable	Câble d'accouplement		bis 5.5 kW / 400 V
			160	78243	1	Anschlußkabel	Connecting cable	Câble d'accouplement		4x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25292	1	Leistungsschalter	Power switch	Disjoncteur	300 g	14 A / 690 V
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21609	2	Schutzleiterklemme	Ground terminal	Borne		4mm ²

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Meterware

Piece goods

Marchandise au mètre

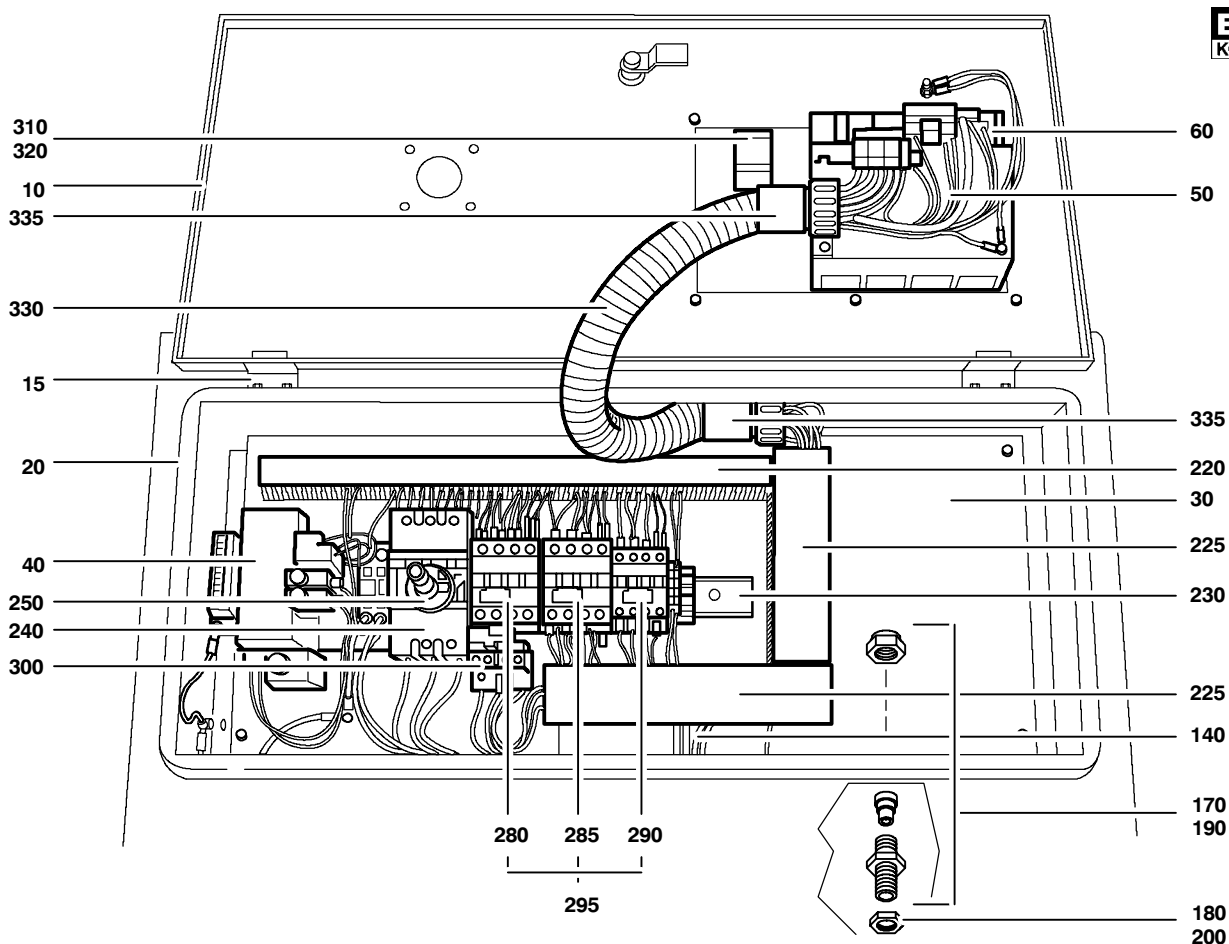


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78157 Kompressorsteuerung 380-440V/3kW
Assembly 78157 Compressor control unit 380-440V/3W
Assemblage 78157 Commande électrique 380-440V/3kW

G59.0- 3

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21605	1	Durchgangsklemme	Feed-through terminal	Borne de passage		4mm□;blau
			280	N19788	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	1	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19809	1	Überlastrelais	Overload relay	Relais de surintensité		5.5-8 A
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arrêt"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78158 Kompressorsteuerung 380-440V/4kW
Assembly 78158 Compressor control unit 380-440V/4kW
Assemblage 78158 Commande électrique 380-440V/4kW

G59.0- 4

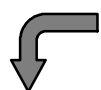
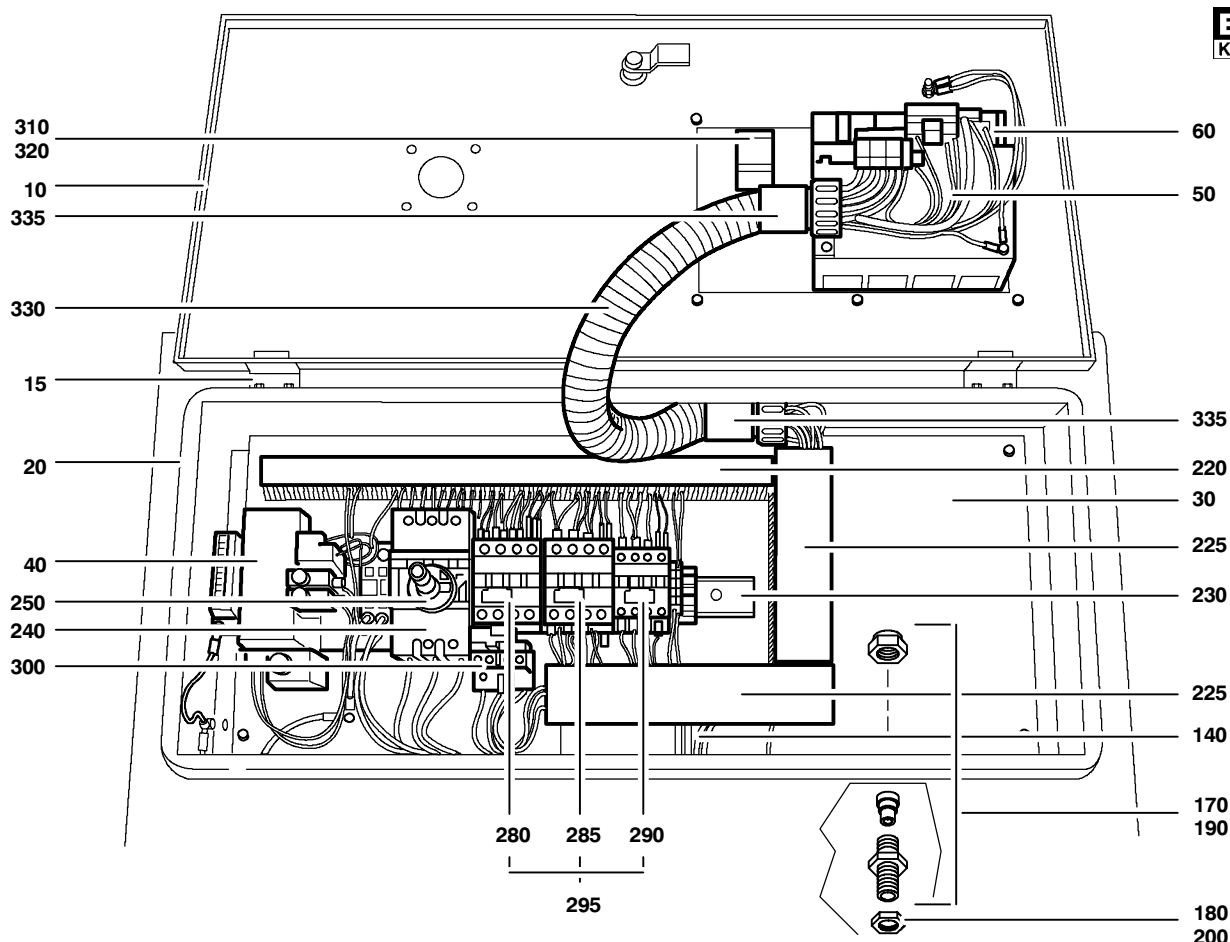
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59187-V002	1	Anschlußkabel	Connecting cable	Câble d'accouplement		bis 5.5 kW / 400 V
			160	78244	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25292	1	Leistungsschalter	Power switch	Disjoncteur	300 g	14 A / 690 V
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21609	2	Schutzleiterklemme	Ground terminal	Borne		4mm ²

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Meterware

Piece goods

Marchandise au mètre

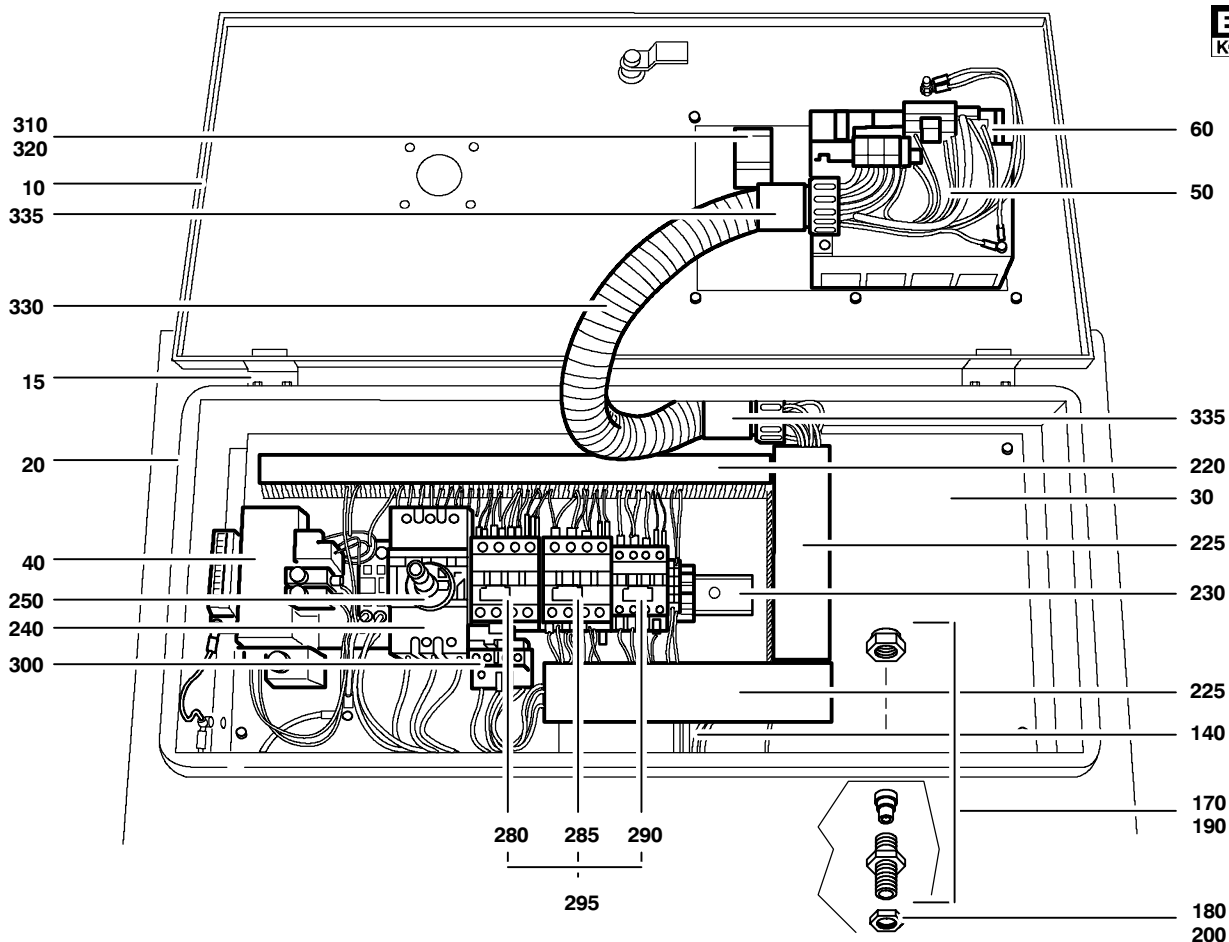


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78158 Kompressorsteuerung 380-440V/4kW
Assembly 78158 Compressor control unit 380-440V/4kW
Assemblage 78158 Commande électrique 380-440V/4kW

G59.0- 4

Klasse/Class/ Classe			Pos.	Bestell.-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21605	1	Durchgangsklemme	Feed-through terminal	Borne de passage		4mm□;blau
			280	N19788	1	Motorschütz	Contactor	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19789	1	Motorschütz	engine contactor		350 g	Spule/24V/50/60Hz
			290	N19789	1	Motorschütz	engine contactor		350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19808	1	Überlastrelais	Overload relay	Relais de surintensité		4-6 A
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78159 Kompressorsteuerung 380-440V/5.5kW
Assembly 78159 Compressor control unit 380-440V/5.5kW
Assemblage 78159 Commande électrique 380-440V/5.5kW

G59.0- 5

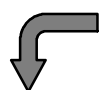
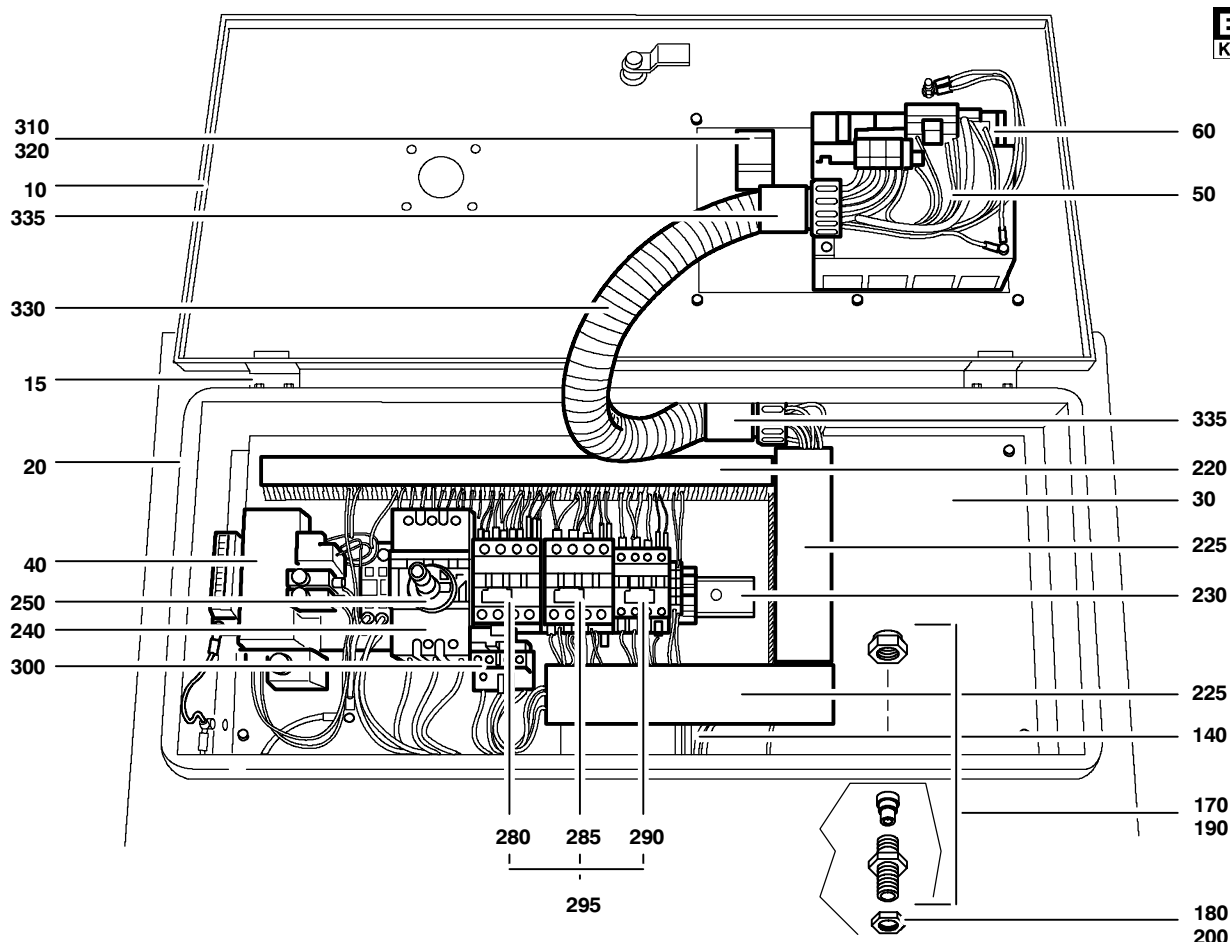
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59187-V002	1	Anschlußkabel	Connecting cable	Câble d'accouplement		bis 5.5 kW / 400 V
			160	78244	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25292	1	Leistungsschalter	Power switch	Disjoncteur	300 g	14 A / 690 V
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21609	2	Schutzleiterklemme	Ground terminal	Borne		4mm ²

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Meterware

Piece goods

Marchandise au mètre

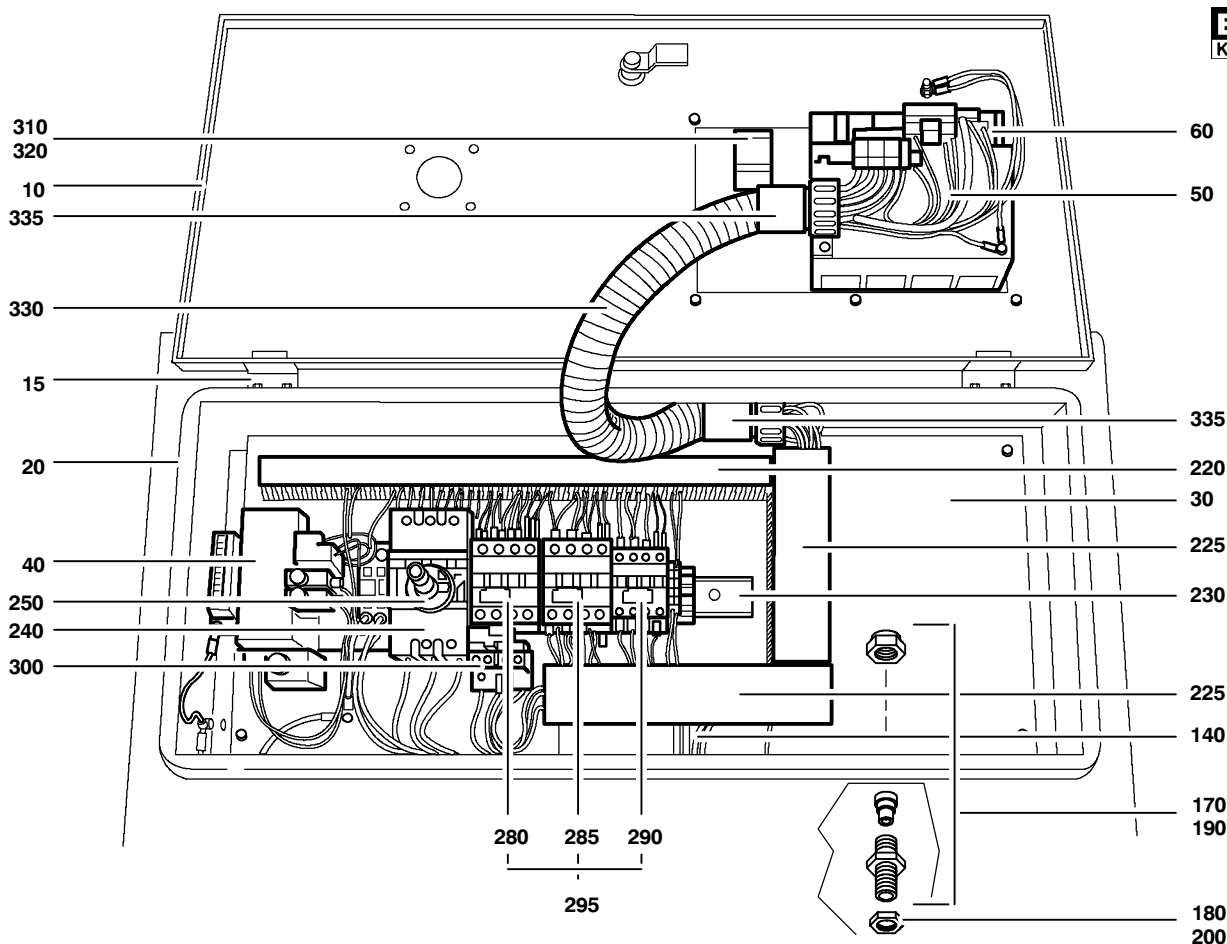


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78159 Kompressorsteuerung 380-440V/5.5kW
Assembly 78159 Compressor control unit 380-440V/5.5kW
Assemblage 78159 Commande électrique 380-440V/5.5kW

G59.0- 5

Klasse/Class/ Classe			Pos.	Bestell.-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21605	1	Durchgangsklemme	Feed-through terminal	Borne de passage		4mm□;blau
			280	N19788	1	Motorschütz	Contactor	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19789	1	Motorschütz	engine contactor		350 g	Spule/24V/50/60Hz
			290	N19789	1	Motorschütz	engine contactor		350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19809	1	Überlastrelais	Overload relay	Relais de surintensité		5.5-8 A
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77604
Assembly 77604
Assemblage 77604

Kompressorsteuerung 380-440V/7.5kW; 220-240V/4kW
Compressor control unit 380-440V/7.5kW; 220-240V/4kW
Commande électrique 380-440V/7.5kW; 220-240V/4kW

G59.0- 6

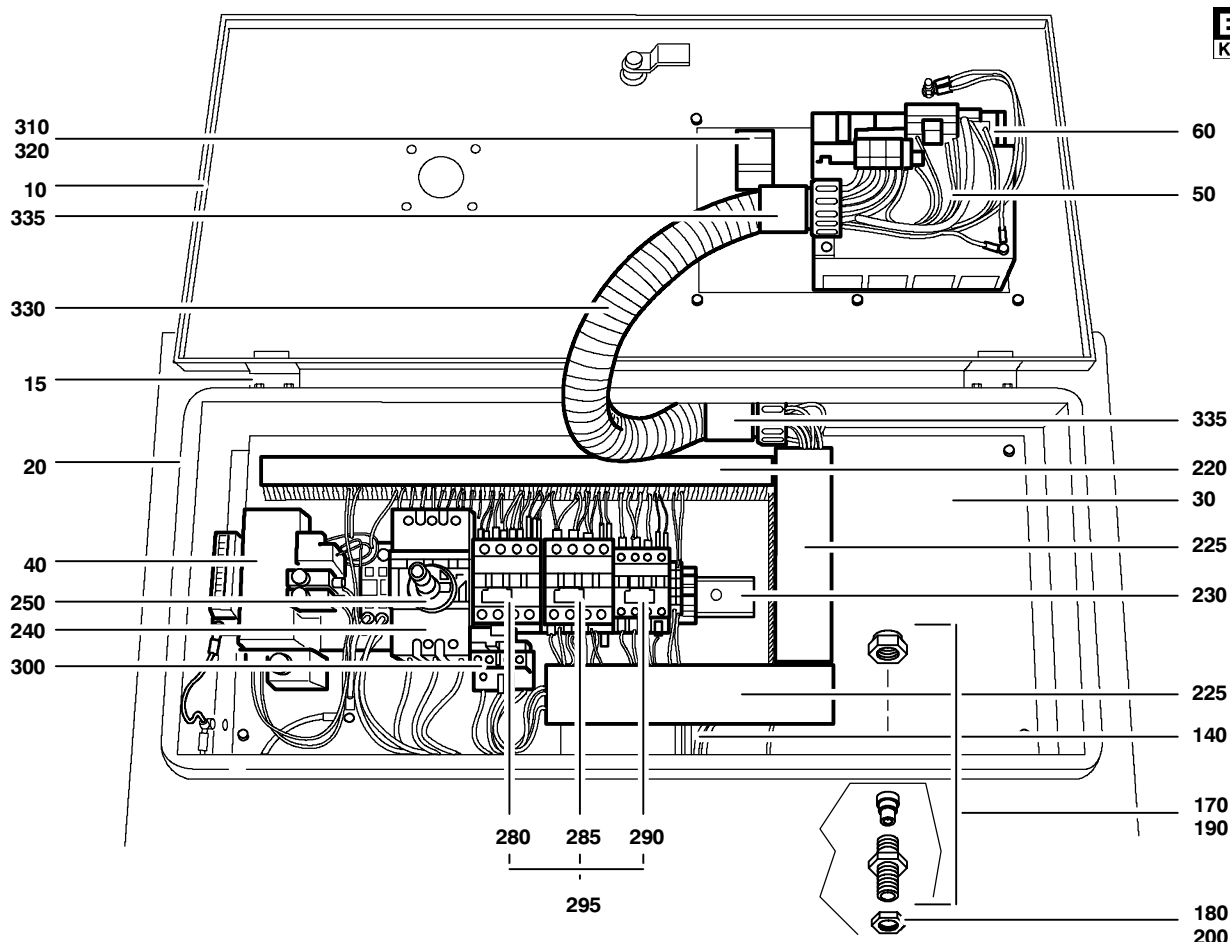
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59188-V001	1	Anschlußkabel	Connecting cable	Câble d'accouplement		CEE-Stecker;7,5-11kW
			160	78244	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25290	1	Leistungsschalter	Power switch	Disjoncteur	3300 g	22A
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21610	1	Schutzleiterklemme	Ground terminal	Borne		6mm ²

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Meterware

Piece goods; specify length

Marchandise au mètre; indiquer la longueur à la commande



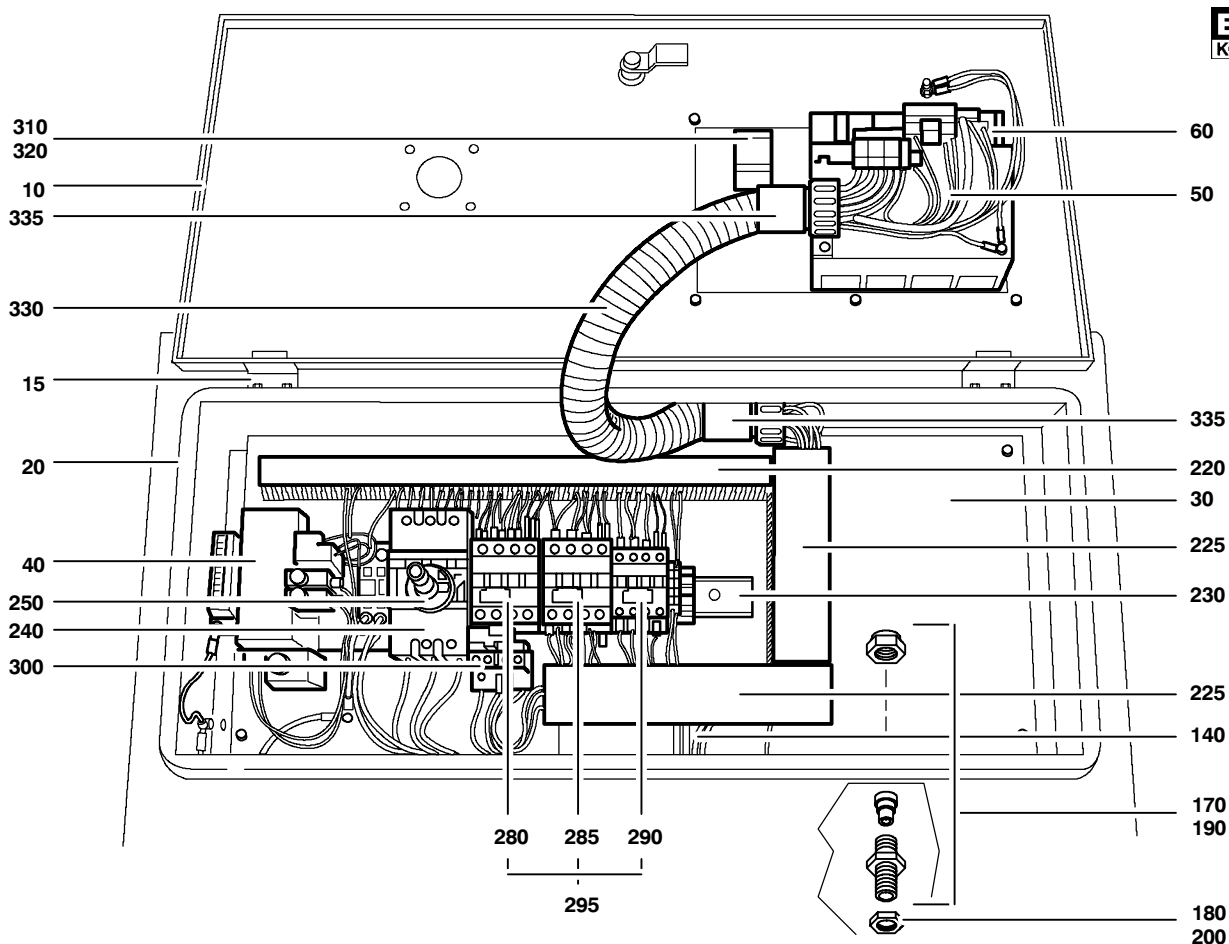
Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 77604
Assembly 77604
Assemblage 77604

Kompressorsteuerung 380-440V/7.5kW; 220-240V/4kW
Compressor control unit 380-440V/7.5kW; 220-240V/4kW
Commande électrique 380-440V/7.5kW; 220-240V/4kW

G59.0- 6

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21606	1	Durchgangsklemme	Feed-through terminal	Borne de passage		6mm;blau
			280	N19790	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19791	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			290	N19789	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19810	1	Überlastrelais	Overload relay	Relais de surintensité		7-10A;LR 2D 1314
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78150
Assembly 78150
Assemblage 78150

Kompressorsteuerung 380-440V/11kW; 220-240V/5.5kW
Compressor control unit 380-440V/11kW; 220-240V/5.5kW
Commande électrique 380-440V/11kW; 220-240V/5.5kW

G59.0- 7

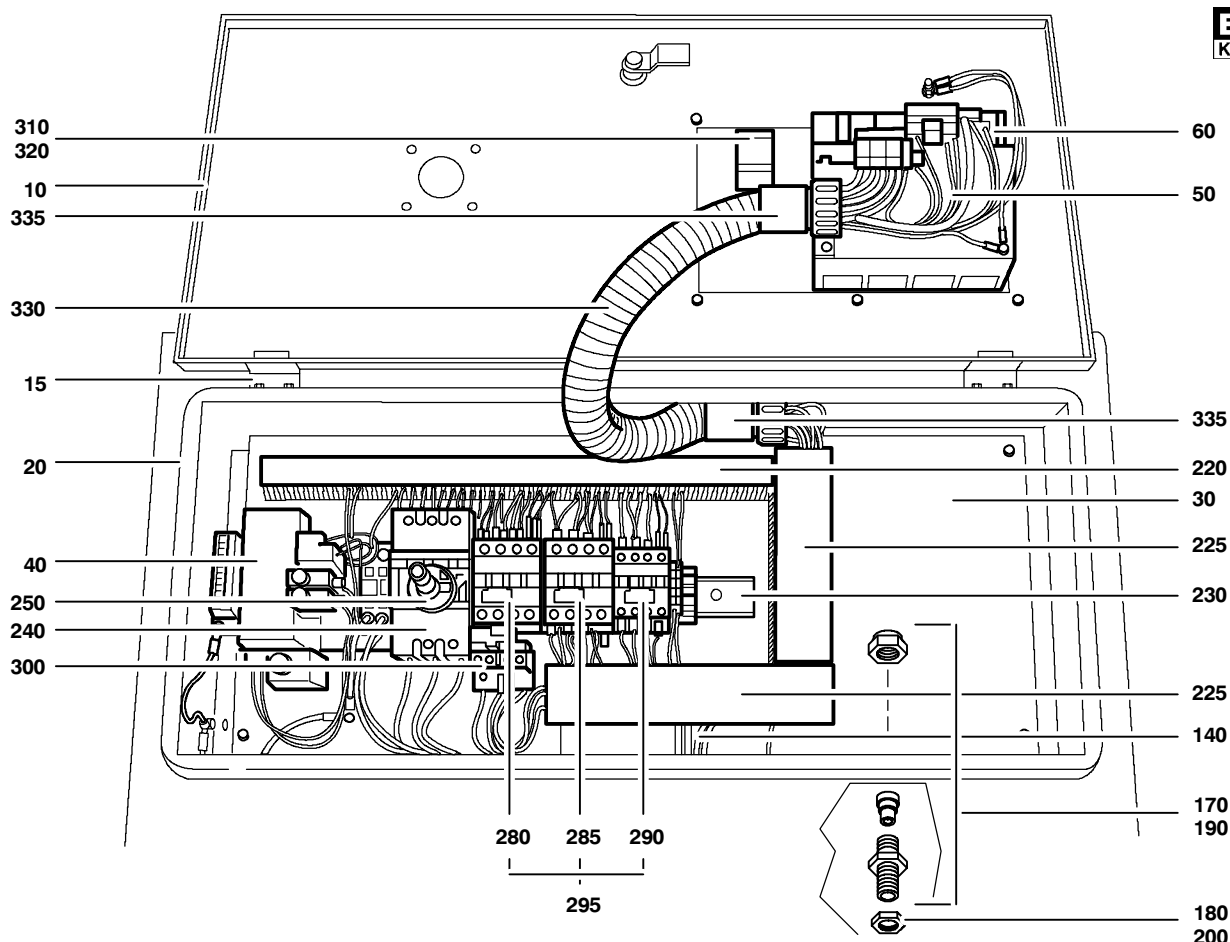
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59188-V001	1	Anschlußkabel	Connecting cable	Câble d'accouplement		CEE-Stecker;7,5-11kW
			160	78245	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x2.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25290	1	Leistungsschalter	Power switch	Disjoncteur	300 g	22A
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21610	1	Schutzleiterklemme	Ground terminal	Borne		6mm ²

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Meterware

Piece goods; specify length

Marchandise au mètre; indiquer la longueur à la commande

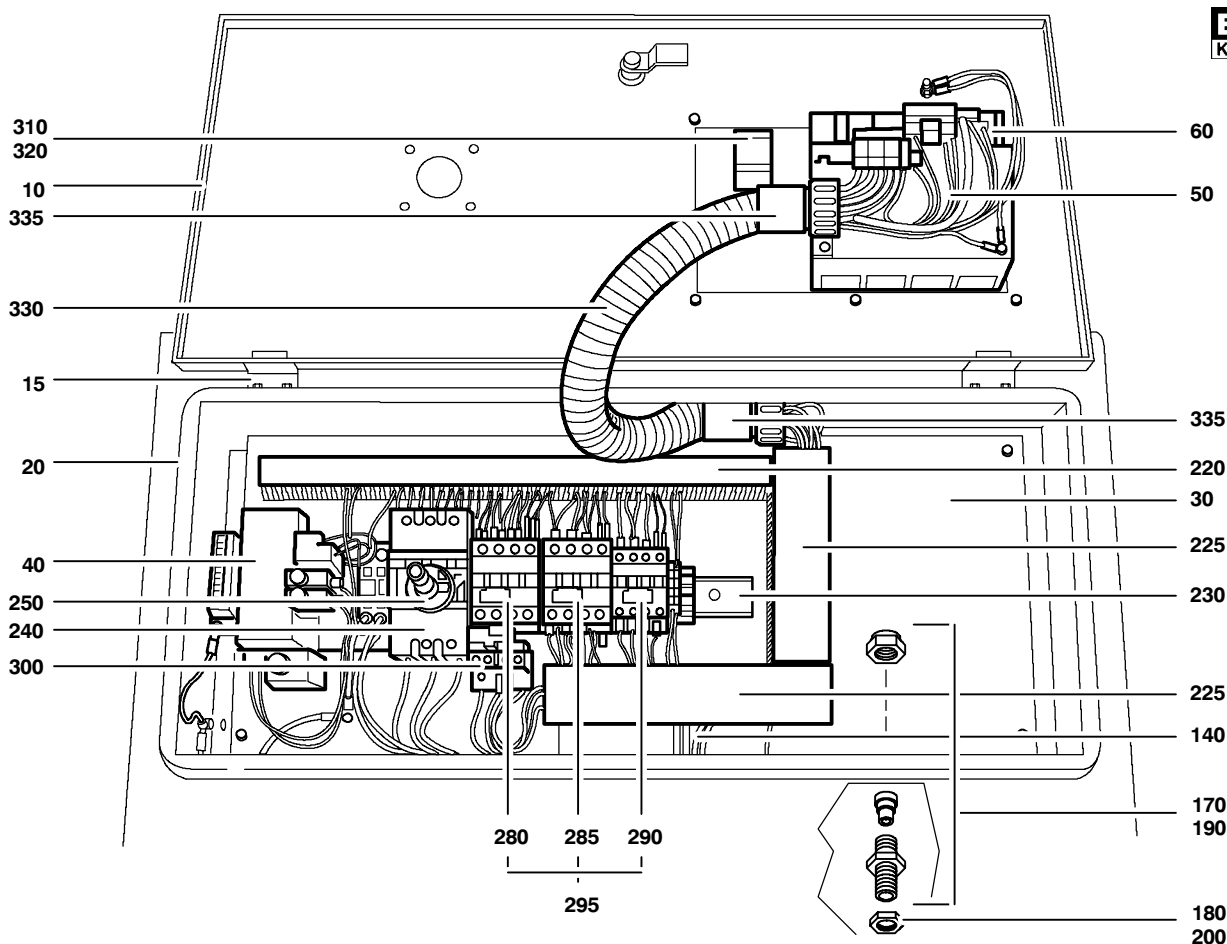


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78150 Kompressorsteuerung 380-440V/11kW; 220-240V/5.5kW
 Assembly 78150 Compressor control unit 380-440V/11kW; 220-240V/5.5kW
 Assemblée 78150 Commande électrique 380-440V/11kW; 220-240V/5.5kW

G59.0- 7

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21606	1	Durchgangsklemme	Feed-through terminal	Borne de passage		6mm;blau
			280	N19792	1	Motorschütz	Contactor	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19793	1	Motorschütz	Contactor	Tôle de capotage	350 g	Spule/24V/50/60Hz
			290	N19789	1	Motorschütz	Contactor	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19811	1	Überlastrelais	Overload relay	Relais de surintensité		9-13A;LR 2D 1316
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78151 Kompressorsteuerung 380-440V/15kW
Assembly 78151 Compressor control unit 380-440V/15kW
Assemblage 78151 Commande électrique 380-440V/15kW

G59.0- 8

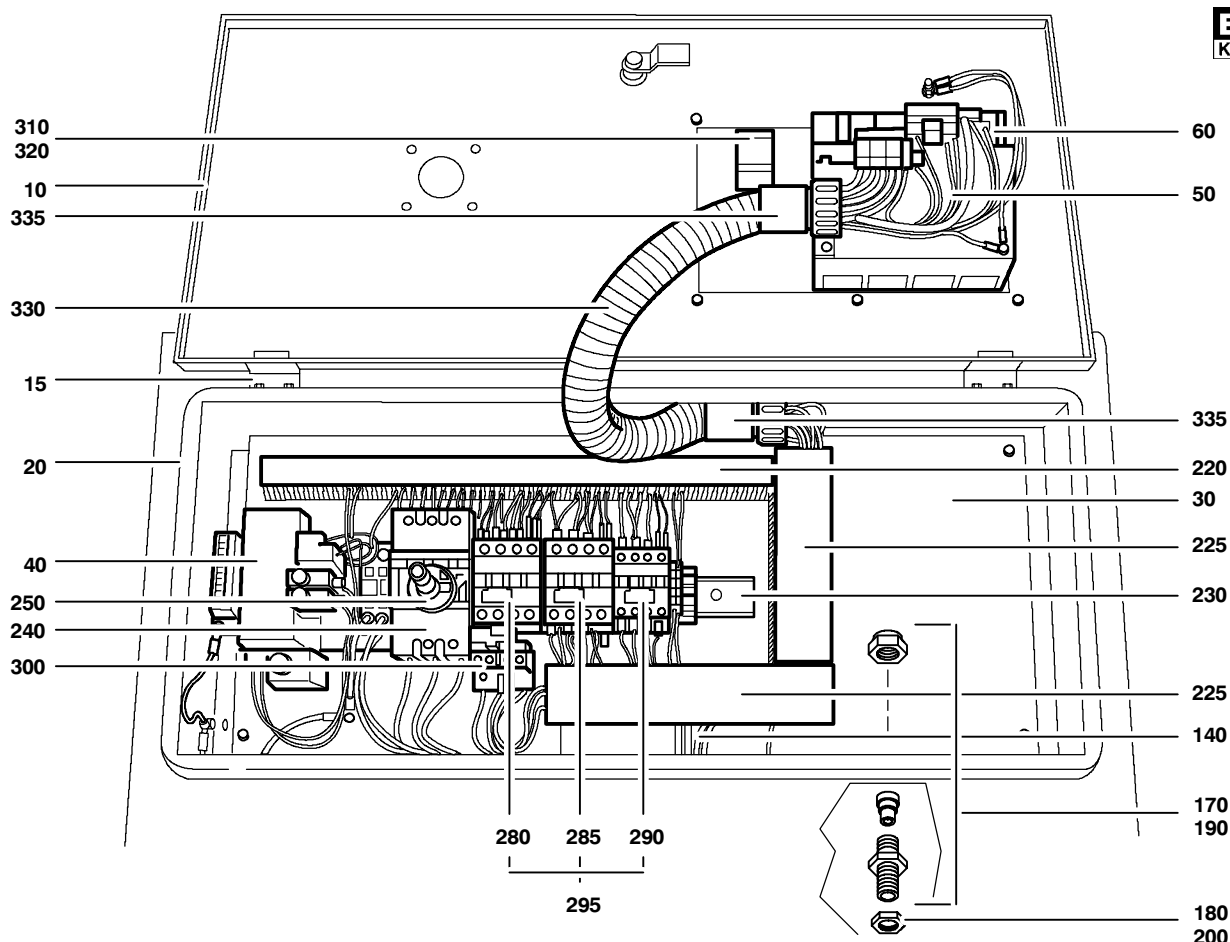
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59188-V001	1	Anschlußkabel	Connecting cable	Câble d'accouplement		CEE-Stecker;7,5-11kW
			160	N17217*	mm	Gummischlauchleitung	Cable	Cable		7000 mm; 5x6mm ²
			170	78246	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x4mm ² ;f.Motor
			180	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			190	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			200	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			210	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25290	1	Leistungsschalter	Power switch	Disjoncteur	300 g	22A
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter

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Meterware

Piece goods; specify length

Marchandise au mètre; indiquer la longueur à la commande

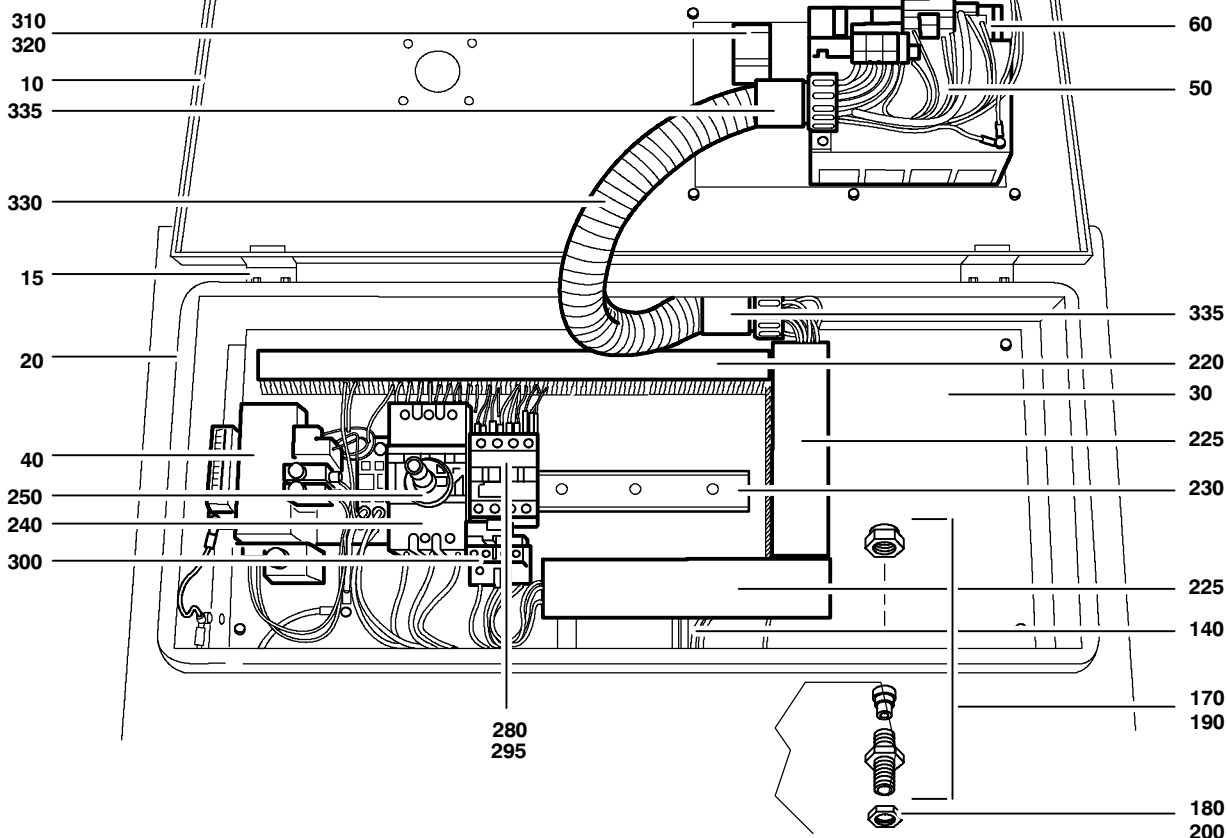


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78151 Kompressorsteuerung 380-440V/15kW
Assembly 78151 Compressor control unit 380-440V/15kW
Assemblage 78151 Commande électrique 380-440V/15kW

G59.0- 8

Klasse/Class/ Classe			Pos.	Bestell.-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			260	N21610	1	Schutzleiterklemme	Ground terminal	Borne		6mm□
			270	N21606	1	Durchgangsklemme	Feed-through terminal	Borne de passage		6mm□;blau
			280	N19792	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19793	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			290	N19789	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19811	1	Überlastrelais	Overload relay	Relais de surintensité		9-13A;LR 2D 1316
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78152 Kompressorsteuerung 220-240V/2.2kW
Assembly 78152 Compressor control unit 220-240V/2.2kW
Assemblage 78152 Commande électrique 220-240V/2.2kW

G59.0- 9

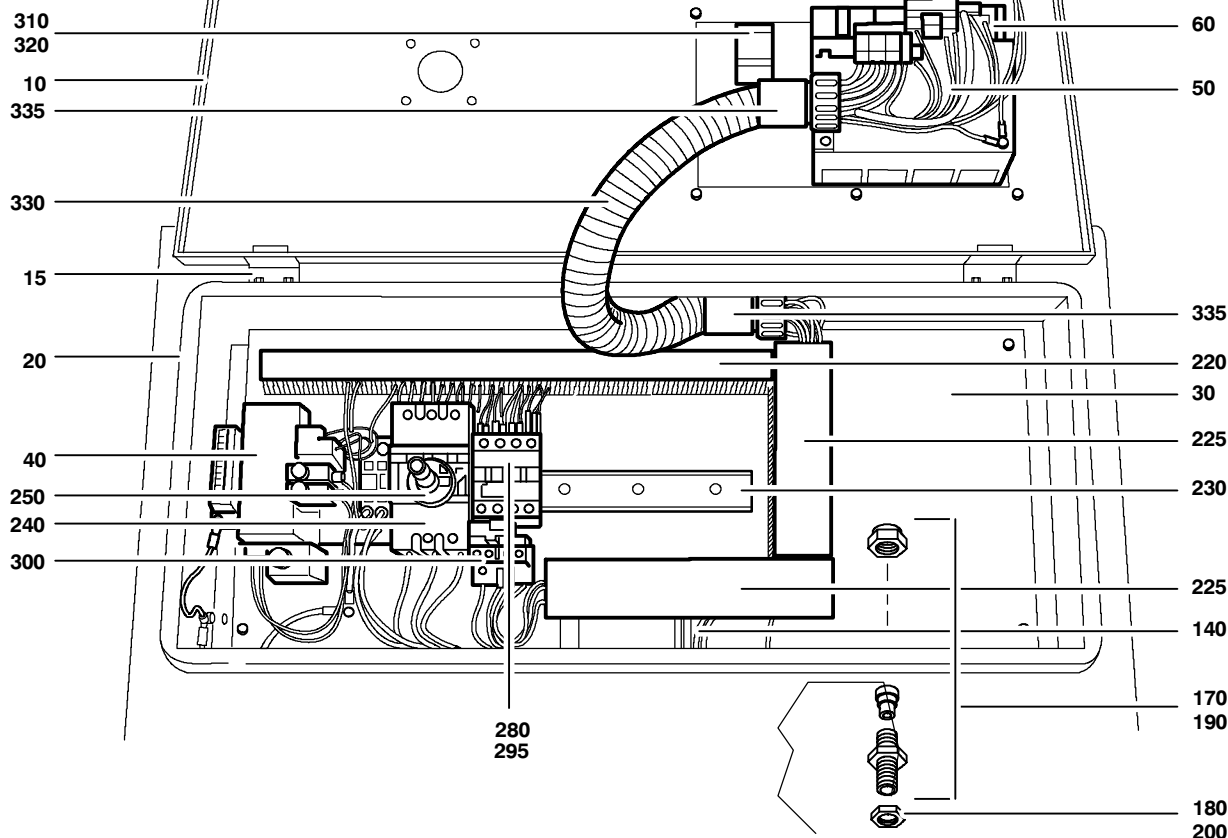
Klasse/Class/Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59187-V002	1	Anschlußkabel	Connecting cable	Câble d'accouplement		bis 5.5 kW / 400 V
			160	78243	1	Anschlußkabel	Connecting cable	Câble d'accouplement		4x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25292	1	Leistungsschalter	Power switch	Disjoncteur	300 g	14 A / 690 V
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21609	2	Schutzleiterklemme	Ground terminal	Borne		4mm ²

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Meterware

Piece goods

Marchandise au mètre

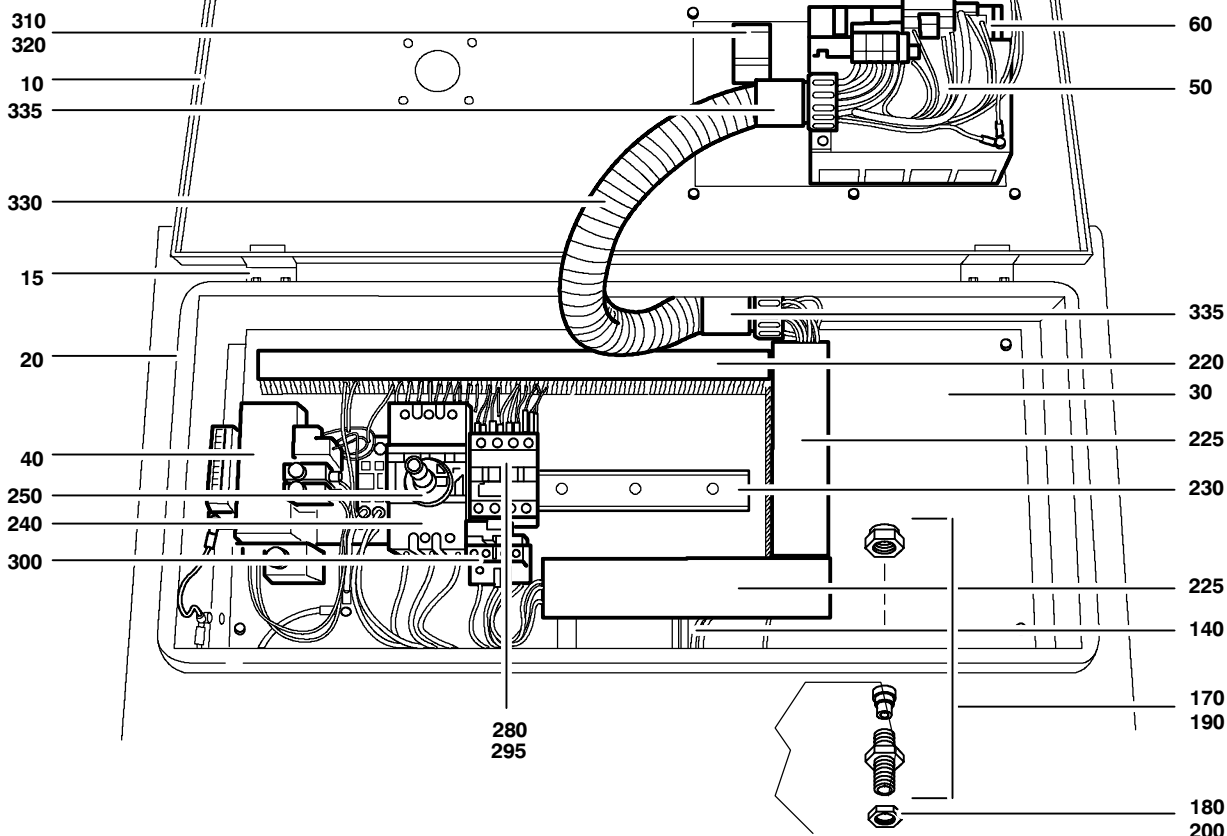


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78152 Kompressorsteuerung 220-240V/2.2kW
Assembly 78152 Compressor control unit 220-240V/2.2kW
Assemblage 78152 Commande électrique 220-240V/2.2kW

G59.0- 9

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21605	1	Durchgangsklemme	Feed-through terminal	Borne de passage		4mm;blau
			280	N19790	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	1	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19810	1	Überlastrelais	Overload relay	Relais de surintensité		7-10 A
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78153 Kompressorsteuerung 220-240V/3kW
Assembly 78153 Compressor control unit 220-240V/3W
Assemblage 78153 Commande électrique 220-240V/3kW

G59.0- 10

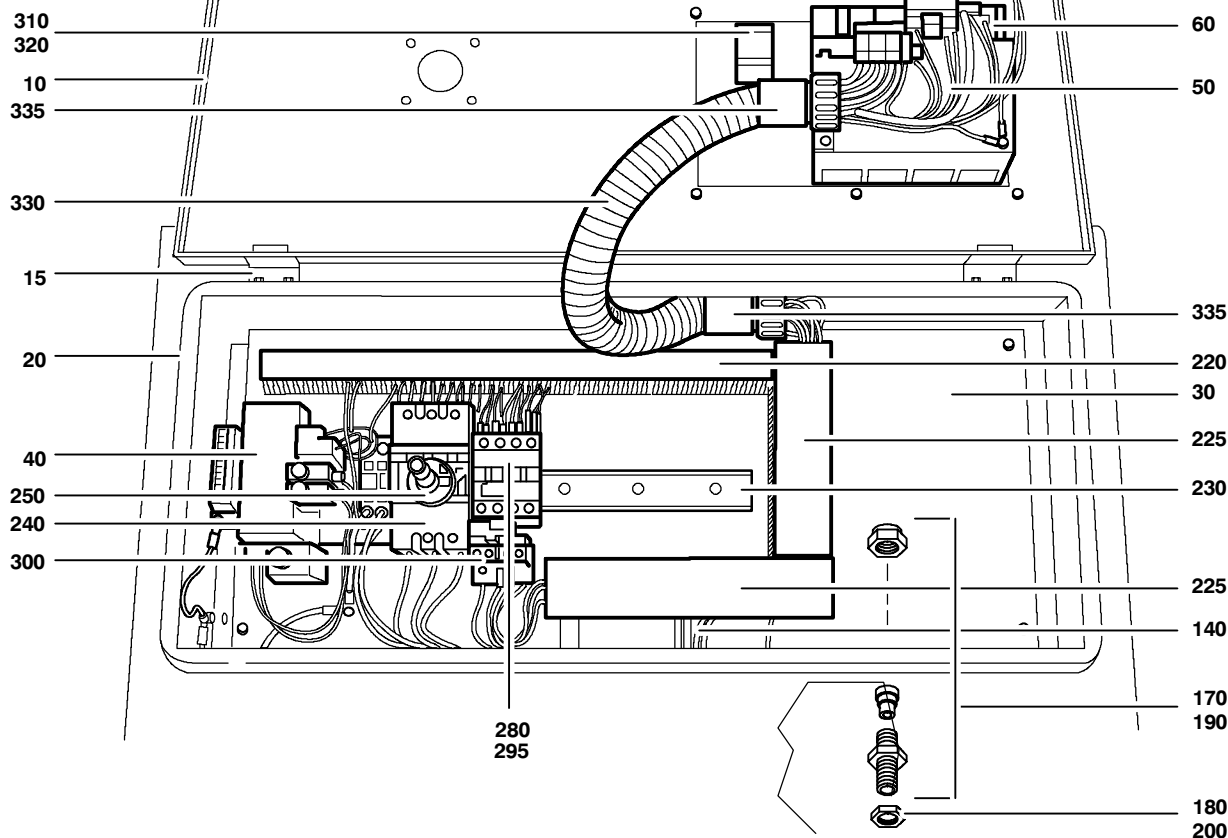
Klasse/Class/Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	59187-V002	1	Anschlußkabel	Connecting cable	Câble d'accouplement		bis 5.5 kW / 400 V
			160	78243	1	Anschlußkabel	Connecting cable	Câble d'accouplement		4x1.5mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25291	1	Leistungsschalter	Power switch	Disjoncteur	300 g	16 A
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21609	2	Schutzleiterklemme	Ground terminal	Borne		4mm ²

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Meterware

Piece goods

Marchandise au mètre

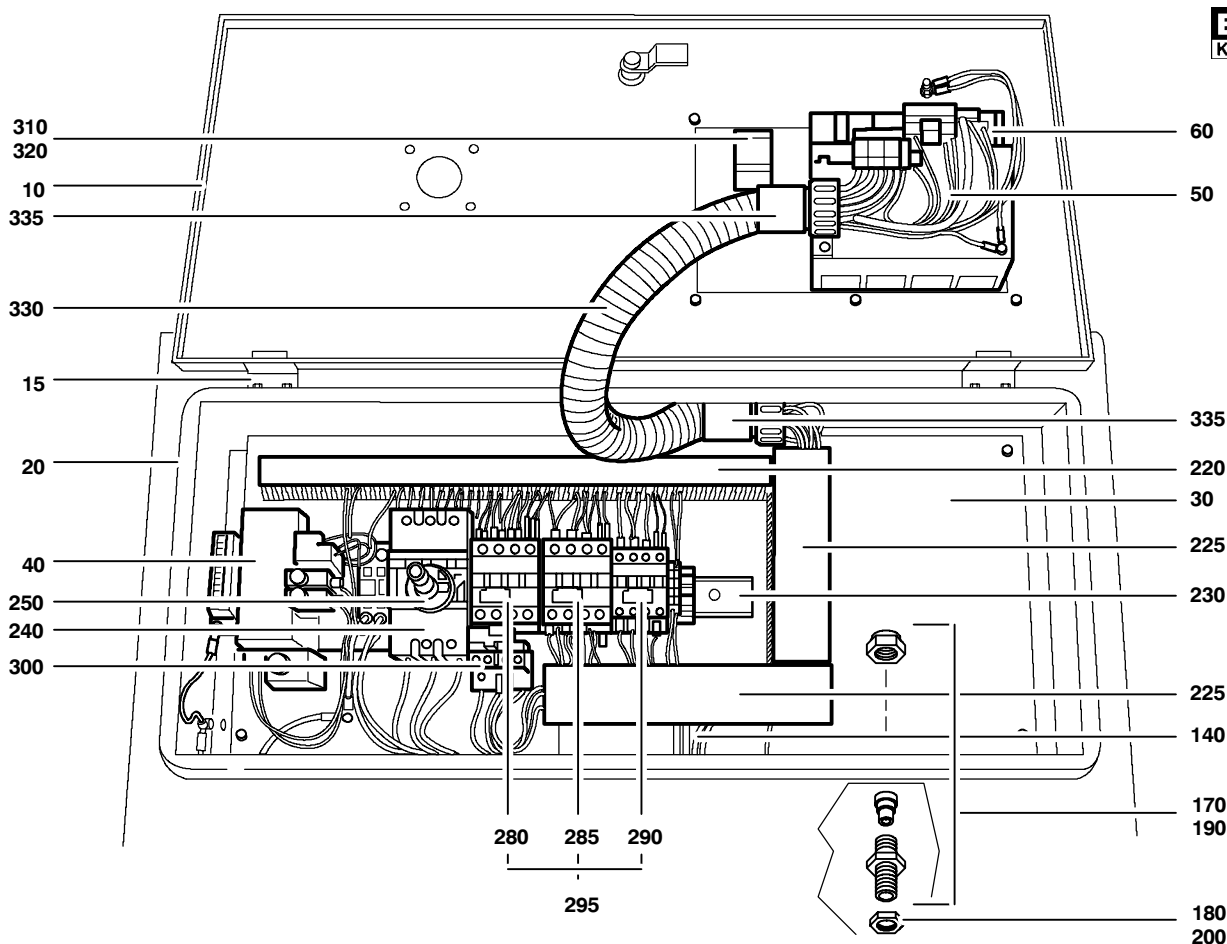


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78153 Kompressorsteuerung 220-240V/3kW
Assembly 78153 Compressor control unit 220-240V/3W
Assemblage 78153 Commande électrique 220-240V/3kW

G59.0- 10

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21605	1	Durchgangsklemme	Feed-through terminal	Borne de passage		4mm□;blau
			280	N19792	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	1	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19811	1	Überlastrelais	Overload relay	Relais de surintensité		9-13 A
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arrêt"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78154 Kompressorsteuerung 220-240V/7.5kW
Assembly 78154 Compressor control unit 220-240V/7.5kW
Assemblage 78154 Commande électrique 220-240V/7.5kW

G59.0- 11

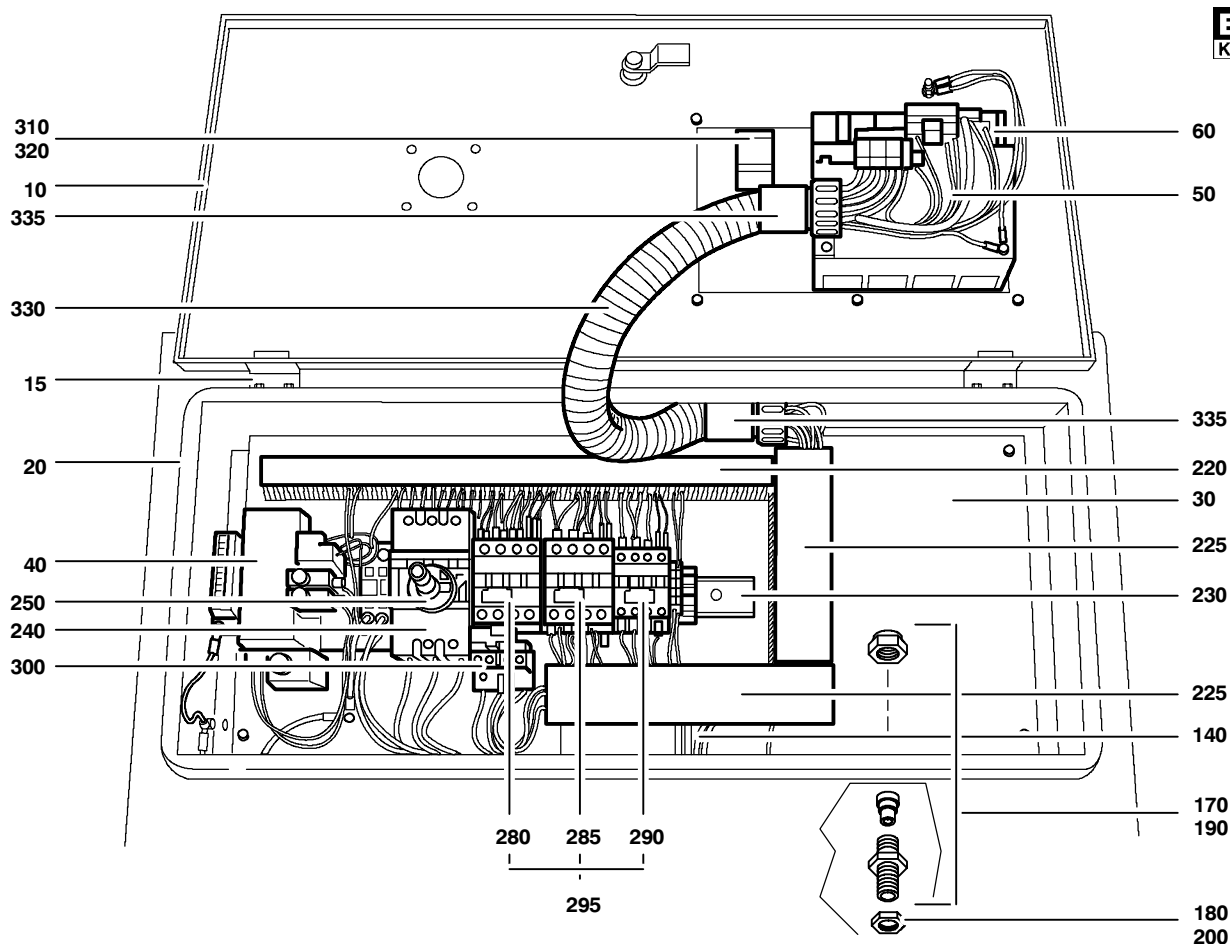
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	N17217*	mm	Gummischlauchleitung	Cable	Cable		7000 mm; 5x6mm ²
			160	78246	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x4mm ² ;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68; grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25289	1	Leistungsschalter	Power switch	Disjoncteur	300 g	40A
			250	N25294	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21612	1	Schutzleiterklemme	Ground terminal	Borne		16mm ²

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Meterware

Piece goods; specify length

Marchandise au mètre; indiquer la longueur à la commande

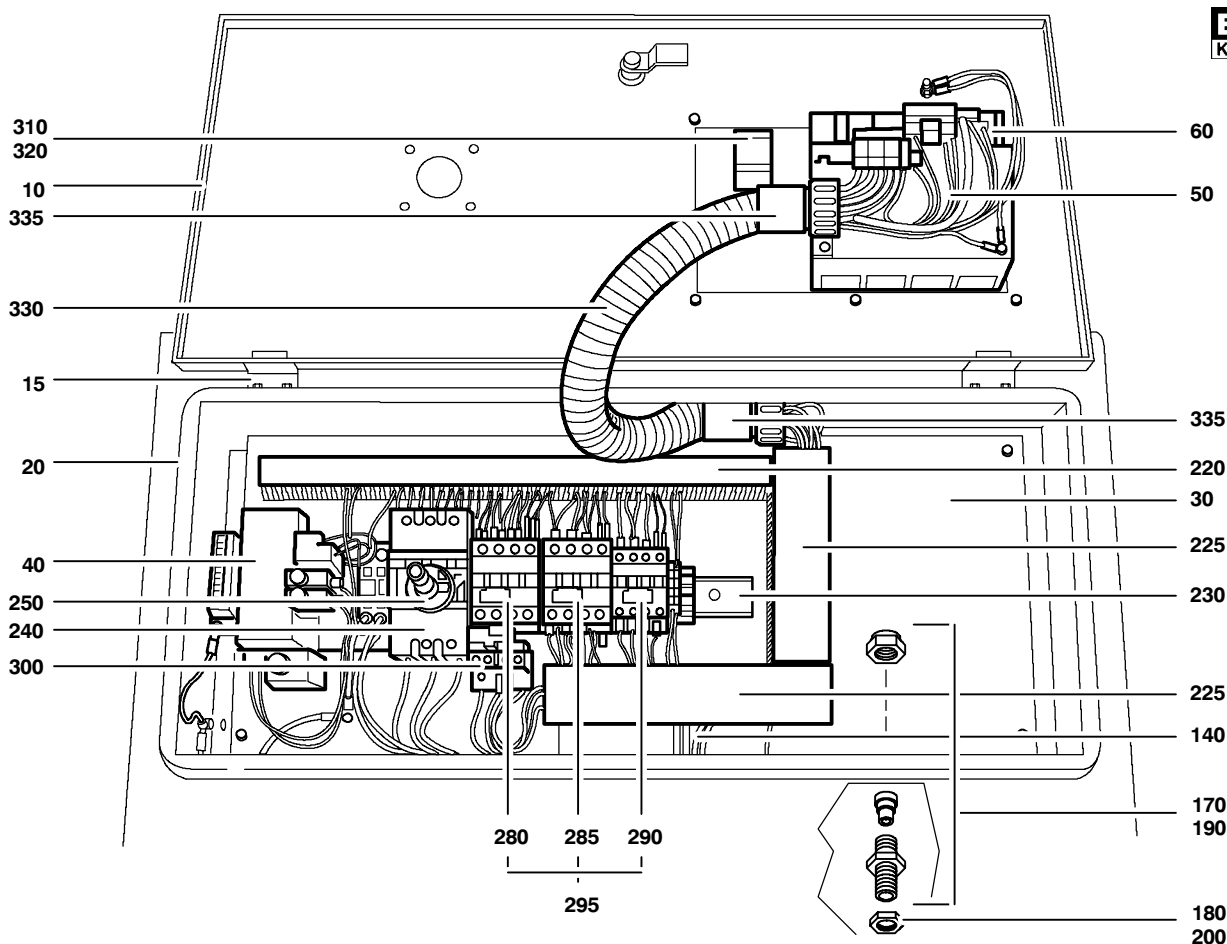


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78154 Kompressorsteuerung 220-240V/7.5kW
Assembly 78154 Compressor control unit 220-240V/7.5kW
Assemblage 78154 Commande électrique 220-240V/7.5kW

G59.0- 11

Klasse/Class/ Classe			Pos.	Bestell.-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21608	1	Durchgangsklemme	Feed-through terminal	Borne de passage		16mm□;blau
			280	N19792	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19793	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			290	N19789	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19812	1	Überlastrelais	Overload relay	Relais de surintensité		12-18A;LR 2D 1316
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78155 Kompressorsteuerung 220-240V/11-15kW
Assembly 78155 Compressor control unit 220-240V/11-15kW
Assemblage 78155 Commande électrique 220-240V/11-15kW

G59.0- 12

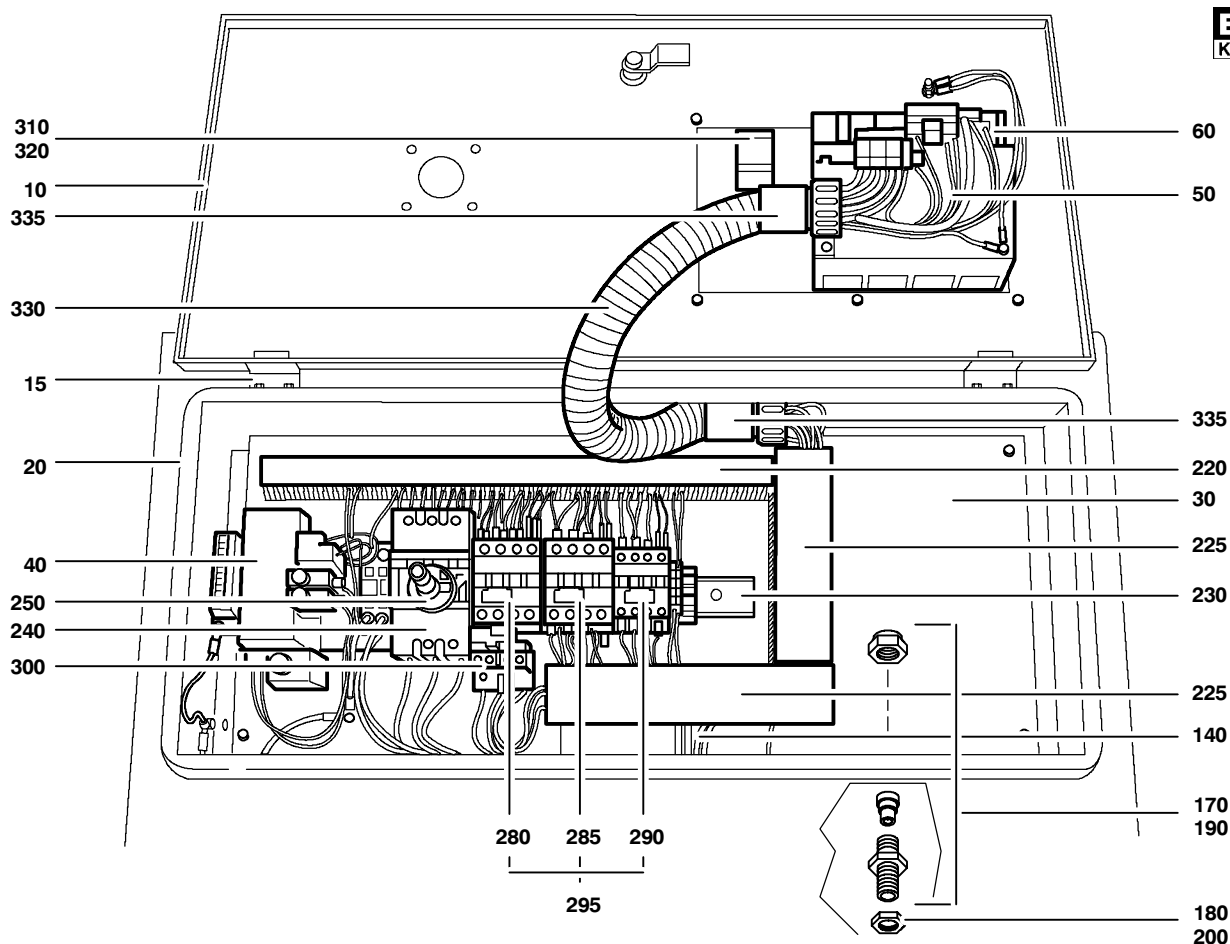
Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	077606	1	Deckel kpl.	Cover assy.	Couvercle cpl.		V5;f.Steuerung
			15	N25388	1	Befestigungssatz	Mounting kit	Kit de fixation		Steuerungsdeckel
			20	077609	1	Unterteil kpl.	Housing assy	Part inférieur		V5;f.Gehäuse
			30	77859	1	Montageplatte	Mounting plate	Plaque de montage	4,1 kg	
			40	N25287	1	Transformator	Transformer	Transformateur		200-440V;277VA
			45	78131	1	Schild	Label	Vignette		V5;Bedienungshinweise
			50	N25286	1	B-Control	B-Control unit	Unité de cde. B-Control		
			60	N25297	1	Stecker	Plug	Fiche de prise de cour.		10-pol ; Raster 5,08mm
			140	078075	1	Kabelbaum	Cable harness	Harnais de câbles		V5 Grundausführung
			150	N25635*	mm	Gummischlauchleitung	Cable	Cable		7000 mm; 5x10mm□
			160	78246	1	Anschlußkabel	Connecting cable	Câble d'accouplement		7x4mm□;f.Motor
			170	N25553	2	Kabelverschraubung	Cable fitting	Passe-câble à vis		M32x1.5;IP68
			180	N25561	2	Gegenmutter	Nut	Ecrou		DIN 46320;M32x1.5
			190	N25552	1	Kabelverschraubung	Cable fitting	Passe-câble à vis		M25x1.5;IP68;grau
			200	N25560	1	Gegenmutter	Nut	Ecrou		DIN 46320;M25x1.5
			220	N21592*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40025;44x30mm
			225	N21593*	mm	Kabelkanal	Cable duct	Conduite de câbles		BA6 40040;44x45mm
			230	N3716*	mm	Tragschiene	Mounting rail	Rail de support		
			240	N25288	1	Leistungsschalter	Power switch	Disjoncteur	300 g	65A
			250	N25293	1	Drehantrieb	Switch actuator	Actuateur		f.Leistungsschalter
			260	N21612	1	Schutzleiterklemme	Ground terminal	Borne		16mm□

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Meterware

Piece goods; specify length

Marchandise au mètre; indiquer la longueur à la commande

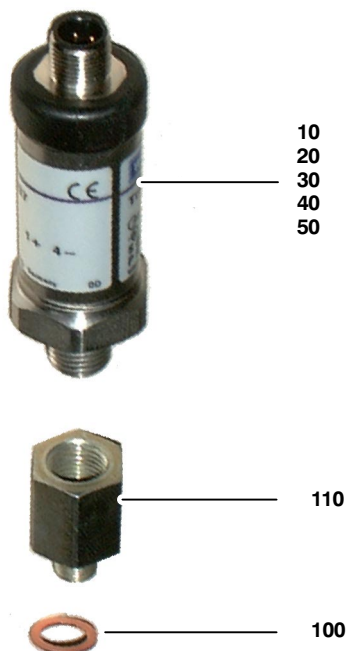


Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78155 Kompressorsteuerung 220-240V/11-15kW
Assembly 78155 Compressor control unit 220-240V/11-15kW
Assemblage 78155 Commande électrique 220-240V/11-15kW

G59.0- 12

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			270	N21608	1	Durchgangsklemme	Feed-through terminal	Borne de passage		16mm□;blau
			280	N19796	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			285	N19797	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			290	N19793	1	Motorschütz	Contacteur	Tôle de capotage	350 g	Spule/24V/50/60Hz
			295	N25274	3	Entstörglied	Interference suppressor	Dispositif anti-parasite		f.Schütze
			300	N19814	1	Überlastrelais	Overload relay	Relais de surintensité		23-32A;LR 2D 2353
			310	N21653	1	Not/Aus-Taste	Emergency OFF button	Bouton "Arret"		rot;Nr. ZB2-BS54
			320	N23597	1	Schaltelement	Switching element	Element inférieur	55 g	Unterteil; ZB2-BZ104
			330	N24447*	mm	Schutzschlauch	Protective hose	Tuyau protective		Pg29;AD35;ID29
			335	N25432	2	Schlauchverschraubung	Hose clamp	Raccord pour tuyaux		Pg29
			340	72827	1	Klebeschild	Sticker, control data	Etiquette		Steuerungsdaten;D
			350	72828	1	Klebeschild	Sticker, serial no.	Etiquette		Seriennummer;D
			400	N21760	2	Bolzen	Bolt	Boulon d'écartement		M4x10;SW7;St
			410	N25403	4	Schirmklemme	Ground terminal	Borne de terre		Typ SK8
			420	N25404*	mm	Tragschiene	Mounting rail	Rail de support		N-Schiene;10x3mm



Wartungssätze
Maintenance kits
Kits d'entretien

Baugruppe 78501-01
Assembly 78501-01
Assemblage 78501-01

Überwachungsarmaturen, B-Control standard
Monitoring devices, B-Control standard
Unités de surveillance, B-Control standard

G59.0- 13

Klasse/Class/ Classe			Pos.	Bestell-Nr. Part No. No. de cde.	Anz/ Qty/ Qté	Benennung	Designation	Dénomination	Gewicht Weight Poids (kg)	Abmessungen Dimensions Dimensions
a	b	c								
			10	N25418	1	Druckmeßumformer	Pressure sensor	Sonde de pression		-1 b. +1.5bar; G1/4A
			20	N25419	1	Druckmeßumformer	Pressure sensor	Sonde de pression		0-10bar; G1/4
			30	N25420	1	Druckmeßumformer	Pressure sensor	Sonde de pression		0-100bar; G1/4
			40	N25421	1	Druckmeßumformer	Pressure sensor	Sonde de pression		0-400bar; G1/4
			50	N25422	1	Druckmeßumformer	Pressure sensor	Sonde de pression		0-600bar; G1/4
			100	N4051	1	Dichtring	Gsket	Joint		DIN 7603; A10x15x1; Cu
			110	N18311	1	Reduzierung	Reducer	Réducteur		Ri 1/8-1/4; G1/8; St

Lubricating Oil List

1. GENERAL

After extensive tests with many different kinds of lubricants, we have decided to authorize the following brands of oil for use in **BAUER** compressors under the given operating conditions.

This list is up to date at the time of printing and will be reviewed continuously. Should your list or your instruction manual be older, please request the latest edition from **BAUER** Customer Services. When using any of the oils listed below, please follow the oil change intervals and the oil filling level described for the equivalent **BAUER** compressor oil in the instruction manual of your unit.

Oil type			Use				Ambient temperature	
Brand name	Designation	Type	A Breathing	I Industry	G Gas	C CNG	+5 ... +35 °C	+5 ... +45 °C
 BAUER KOMPRESSOREN	Special Compressor oil Part no. N22138 a)	M	+	+	+	-	+	+
 BAUER KOMPRESSOREN	Special Compressor oil Part no. N24906 a)	M	-	-	-	+	+	+
 BAUER KOMPRESSOREN	Special Compressor oil Part no. N19745 b)	S	+	+	+	-	+	+
 BP	Energol RC 150 a)	M	+	+	-	-	+	◆
DEA	Actro EP VDL150 a)	M	+	+	-	-	+	◆
LIQUI MOLY	LM 750 with corrosion protection b)	S	+	+	+	-	+	+
Anderol	755 b)	S	+	+	+	-	+	+
Mobil	Rarus 829 b)	S	-	+	+	-	+	+
 Shell	Corena P150 a)	M	+	+	+	-	+	+
 Shell	Rimula Ultra 5W-30 a)	M	-	-	-	+	+	+

Oil type

S	synthetic oil
M	mineral oil

Application

A	approved for breathing air application with BAUER air purification systems
I	suitable for industrial air compressor units
G	suitable for gas compressor units for dry and highly pure gases
C	suitable for compressed natural gas compressors (CNG filling stations)
a)	oil change every 1000 operating hours
b)	oil change every 2000 operating hours

Suitability

+	= suitable
◆	= partly suitable
-	= not suitable

2. TYPE OF OIL

Due to the thermal load on the compressor only high quality oil should be used. You are recommended to restrict oils to those which have been approved by us and are listed in the instruction manual or in the lubricating list overleaf.

Our compressor units are delivered ex works with lubricating oil filled into the crankcase or as consignment, depending on the model, as follows:

Breathing air, industrial air and gas compressor units:	BAUER special Compressor oil, part no. N22138
CNG compressor units	BAUER special Compressor oil, part no. N24906

For operation under difficult conditions, such as continuous running and/or high ambient temperatures, we only recommend the BAUER special compressor oils acc. to the list on the previous page. These have proved excellent quality under ambient temperatures between +5 °C and +45 °C. For lower temperatures a compressor heating device is required which is capable of pre-heating the unit up to +5 °C.

For operation under less severe conditions, and for intermittent operation, i.e. when the compressor is not used for longer periods between the operating periods, we also recommend the use of oils acc. to the list on the previous page. These oils are suitable for ambient temperatures between +5 °C and +35 °C. Here also, a pre-heating device will be required if ambient temperatures should fall below +5 °C.

2.1. Changing the Oil Type

CAUTION

To avoid severe damage to the compressor unit when changing to another oil type, the following measures should be strictly adhered to.

- Drain mineral oil while still warm.
- Check valves, coolers, separators, purifiers and all pneumatic tubes and hoses for deposits.

If deposits are present, perform the following steps:

- Remove deposits or change valves, coolers, separators, purifiers and all pneumatic tubes and hoses.
- Change oil filter, if applicable.
- Fill compressor with the new oil.
- After approx. 100 operating hours, replace oil filter again (if applicable). Check lube oil for degree of contamination, and change if necessary.
- Top up with same oil type.

3. OIL CHANGE

Mineral oil	Every 1000 operating hours, at least annually
Synthetic oil	Every 2000 operating hours, at least bi-annually
Oil capacity	Refer to compressor unit instruction manual

BAUER compressor oil is available in the following quantities:

Oil quantity ▼	Oil type ♦	Mineral oil N22138	Mineral oil N24906	Synthetic oil N19745
1 l bottle		part no. N22138-1	part no. N24906-1	part no. N19745-1
5 l container		part no. N22138-5	part no. N24906-5	part no. N19745-5
20 l container		part no. N22138-20	part no. N24906-20	part no. N19745-20