
INSTRUCTION MANUAL

LW 570 ES
SILENT



LENHARDT & WAGNER GMBH

S A F E T Y P R E C A U T I O N S

General Notice

This instruction manual contains the operation and maintenance procedures necessary to safely run your L&W compressor. We strongly recommend to read this manual thoroughly prior to operation and follow all the safety precautions precisely.

Damage resulting from any deviation from these instructions is excluded from warranty and liability for this product.

Be sure to pay attention to the following points:

- Fill only tanks with a valid hydrostatic test date
- Never exceed the working-pressure rating indicated on the tank
- Carry out proper maintenance on the compressor and filtration system
- Care must be taken to avoid the intake of contaminated air in to the compressor
- Do not exceed maximum operating temperatures

Safety Precautions

- Read the operation manual of your compressor carefully
- Allow only qualified personnel to run the compressor
- Do not place any objects on compressor while in operation
- Make sure no person or object can accidentally touch any moving parts while running
- Take care that the intake-air is pure and free of toxic gases
- All work on compressor must be carried out while compressor is disconnected for the power supply and depressurized
- Check unit regularly for air- & oil leaks
- Never weld damaged high-pressure tubes
- Filling-hoses must be in perfect condition; special attention should be paid to the connecting fittings
- Do not touch any hot compressor / engine parts while doing maintenance work as these may cause injury by burning. Wait until unit has cooled down.



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Technical Data	LW 570 ES
Delivery Capacity:	570 l/min
Max. Pressure:	350 bar (420 bar on request)
Compressor RPM:	1,100 min ⁻¹
No of Pressure Stages:	4
Cylinder Bore 1st Stage:	Ø 105 mm
Cylinder Bore 2nd Stage:	Ø 50 mm
Cylinder Bore 3rd Stage:	Ø 25 mm
Cylinder Bore 4th Stage:	Ø 14 mm
Medium:	Air
Intake Pressure:	atmospheric
Oil Pressure:	+2.0 bar
Oil Capacity:	2.5 Litre
Intake Temperature:	0 < +45°C
Ambient Temperature:	+5 < +45°C
Cooling Air Requirement:	> 4,500 m ³ /h
Voltage:	400 V / 3-Phase / 50 Hz
Protection Class Drive Motor	IP 54
Motor Power:	15 kW
Motor RPM:	2,870 min ⁻¹
Start:	Star / Delta
Noise level:	83 dB[A] at 1m distance
Dimensions:	
Depth:	680 mm (26.7")
Length:	1,230 mm (48.4")
Height:	1,000 mm (39.4")
Weight:	approx. 310 kg
Capacity Filter Housing:	2.3 ltr.
Max. Pressure Filter Housing:	350 bar



LW 570 ES Silent

Application:

Breathing air / industrial air applications.

Large capacity, slow running stationary compressor.

Low noise levels for working areas, can be placed in a corner for space economy.

Specifications:

- Ready to connect, fully wired with pneumatic/electric compressor control and start/delta start cycle, automatic stop and automatic condensation drain
- Operating panel with start/stop buttons and drain test button, final pressure gauge and hours counter
- Sound insulated, sturdy steel frame, powder coated in RAL 6026
- All pistons with piston rings
- Low pressure oil pump
- Oil/water separators after each stage, safety valve for each stage
- Breathing air purification in accordance with EN 12021
- Pressure maintaining and non-return valve
- HP outlet

Technical Data:

Type:	4 cylinder, 4 stage, air cooled, oil lubricated compressor
Delivery rate:	570 Litre/min
Prime mover:	15 kW Electric-Motor 400V / 3 Phase / 50 Hertz
Operating temperature:	+5°C < +50°C
Operating pressure:	max. 350 bar
Cooling air requirement:	4,500 m ³ /h
Air outlet temperature:	approx. 8°C above ambient
Breathing air filter capacity:	1,200 m ³ at +20°C (approx. 35 hrs.)
Compressor speed:	1,100 rpm
Oil capacity and pressure:	2.5 Litre, 1.8 bar (+/- 0.3 bar)
Dimensions:	D x W x H (mm) 950 x 810 x 1680
Weight:	370 kg
Noise level:	65 dB(A) @ 1m distance

General Notice

This instruction manual contains the operation and maintenance procedures necessary to safely run your L&W compressor.

We strongly recommend to read this manual thoroughly prior to operation and to follow all the safety precautions precisely. Damage resulting from any deviation from these instructions is excluded from warranty and liability for this product. Be sure to pay attention to the following points:

- Fill only tanks with a valid hydrostatic test date
- Never exceed the working-pressure rating indicated on the tank
- Do proper maintenance to the filtration system
- Avoid contaminated air to reach the air intake
- Do not exceed maximum operation temperatures

Safety Precautions

- Read the operation manual of your compressor carefully
- Allow only qualified personnel to run the compressor
- Do not place any objects on compressor while in operation
- Make sure no person or object can accidentally touch any moving parts while running
- Take care that the intake-air is pure and free of toxic gases
- All work on compressor must be carried out while compressor is plugged off and depressurized
- Check unit regularly for air- & oil leaks
- Never weld damaged high-pressure tubes
- Filling-hoses must be in perfect condition; special attention should be paid to the connecting fittings
- Always disconnect power-cable prior to any work
(Compressor could start automatically in "automatic mode"!)
- Do not touch any highly temperate compressor parts while doing maintenance work. Wait till unit is cooled down.

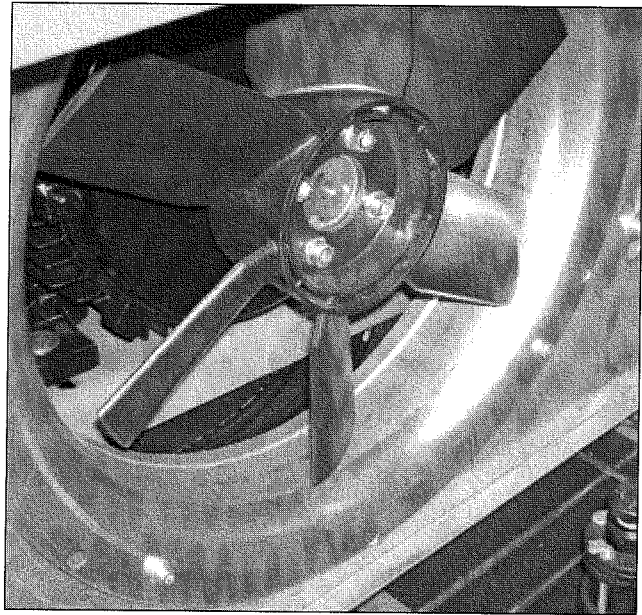
Installation

The compressor should only be connected by a qualified electrician.
Use a 32 Amps plug for installation.

NOTE:

Check direction of rotation immediately after the first start. If it is wrong the pistons may cease due to lack of lubrication! Furthermore the unit would not be cooled properly.

When facing the front of the compressor - direction of rotation should be clockwise (see *arrow sign*).



Always ensure good room ventilation and pure intake air!

Method of Operation

Air comes through a micro filter into the first stage, is compressed and leaves through the heat exchanger into a water / oil separator. A short pipe leads the air into the second cylinder and is further compressed, leaving again through a heat exchanger and the second water /oil separator and then compressed in the third stage to the final pressure. The air then goes through the after cooler and into the mole carbon filter. The purified air goes through a safety valve and into the pressure maintaining valve, there to the air manifold and filling hoses or, if required, into an external filling panel.

Electric Motor

Specification: 15 kW / 3-phase / 50 Hz / 3,000 rpm
 Motor is mounted by four bolts to adjustable base plate.
 - *Special windings on request* -

V-Belt Tension

A correctly adjusted V-belt does just not slip when starting the compressor. To adjust the V-belt tension turn M10 nut - located next to the left mounting stand of compressor (viewed from back side) - till correct tension is achieved. Over tightening of the V-belt can cause damage to both electric motor- and compressor bearings.

Installation

The compressor should only be connected by a qualified licensed electrician.

NOTE: Check direction of rotation immediately after the first start!

If the direction of rotation is wrong, the oil pump will not pump oil to the third stage and the piston may cease! Furthermore the unit would not be cooled. When facing the front of the compressor, the direction of rotation should be anticlockwise (check arrow on motor). Don't place compressor closer than 0.5 m to any walls and ensure good ventilation.

NOTE: Pure intake air is very important!

Filling Process

Fill only air tanks which are:

- suitable for final pressure
- hydro static tested (check last testing date)

The automatic switch off, or safety valve, has to be checked before tanks can be filled

- Close filling valves
- Start compressor by green push button (std. Version)
- Connect tank to compressor - *Filling valve and tank are still closed* -
- First slowly open filling valve
- Carefully open tank valve
- Fill tank to desired pressure
- Close tank valve
- Close filling valve - *self venting type* - A hissing sound can be heard
- Disconnect tank from filling connection
- Turn off compressor by red push button (std. version)

Automatic Condensation Dump System

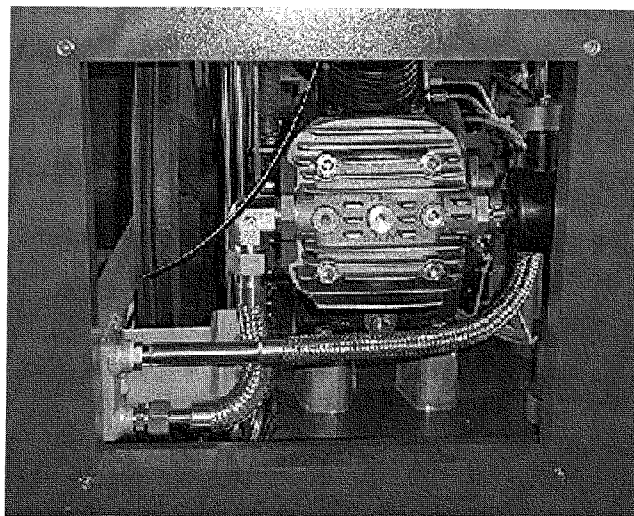
The L&W 570 ES comes as standard with an auto dump system. Solenoids open and drain all four condensate separators about every 15 minutes. We recommend operating the blue push button - mounted on the dash panel - every 5 to 10 hours, to check if all auto dump valves are in working order.

Intake Filter

A micro filter cartridge is used as an air intake filter. We recommend that the filter cartridge should be replaced every 60 to 100 working hours. A dirty, contaminated filter restricts the airflow, reduces the compressor's capacity and causes overheating.

Cylinder Heads and Valves

Inlet and outlet valves are located inside the cylinder heads. The inlet valve opens on the down stroke. The outlet valve opens on the upstroke. The valves should be replaced after 2,000 working hours due to normal wear and tear. To replace valves the cylinder heads have to be removed. All three valves are combined valves. Inlet and outlet valves form one unit. The first and second stage valves are of plate valve design. The third and fourth stage valves use spring operated pistons which act inside brass cylinders. These valves sit loose inside the cylinder head, alloy rings are used as high temperature seals. There are no special tools required to replace any of these valves.



1st Stage Cylinder Head & Air Intake Housing

Lubrication

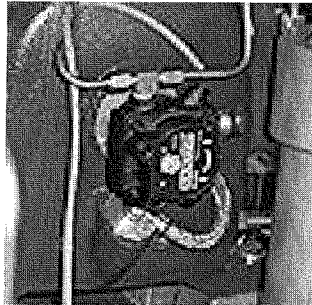
Crankshaft is lubricated by an oil splash ring.

1st and 2nd stages are lubricated by spray oil.

3rd & 4th stage are lubricated by a mechanical oil pump

2.5 litre of synthetic oil (order no.: 000001) is required for an oil change.

NOTE: The oil level never should be lower than the red marking on the oil level indicator glass (located on the compressor crankcase).



Low pressure Oil Pump with Suction Hose & Pressure Pipes

Starting the Compressor for the first Time

- Place the compressor in a distance of at least 50 cm to any walls (air temperature max. +40°C)
- Check compressor oil level
- Check if air filter cartridge is in place
- Make sure all filling valves are closed
- Start compressor by green push button (Standard Version) or key 1 (ECC Version)
- Check direction of rotation - immediately after start
- Run compressor to max. pressure
- Check if end-pressure switch works at max. pressure
- Check compressor unit for air leaks
- Check auto dump valves for function by pushing the blue push button on the dash panel (standard version)
- Turn off compressor by red push button (Standard Version) or key 0 (ECC Version)
- Release pressure by filling valves

Safety Valves

Every pressure-stage is equipped with its own safety valve. They protect the unit from over -pressure / load.

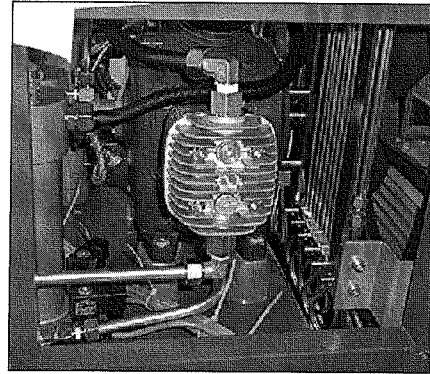
Safety valves are adjusted to:

- 1st Stage: 8 bar**
- 2nd Stage: 22 bar**
- 3rd Stage: 70 bar**
- 4th stage: final pressure**

If a safety valve blows, it indicates problems with either inlet or outlet valve of the next following stage.

NOTE:

Faulty safety valves should always be replaced!



2nd Stage Cylinder Head

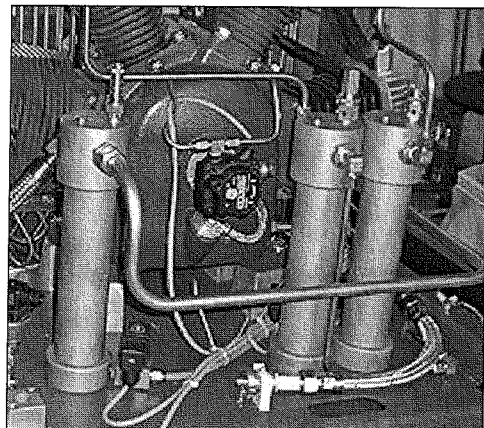
Oil / Water Separator

Condensate will be separated after every stage of compression. All four separators have magnetic valves which were controlled by an electronic timer.

The timer is located in the switchboard compartment and activates the dump valves every 15 minutes - interval is adjustable - to release the condensate through the blue poly hoses. We recommend the use of a 20 litre container to collect all condensate. It can then be disposed of like discarded oil. The drain noise is kept to a minimum with a silencer.

The condense separators are free of maintenance. However, we do recommend that they should be cleaned every 1000 working hours.

Replace O-rings if necessary.



Water separators with safety valves fitted

Final Air Purifier (Mole Carbon Filter)

The mole carbon filter housing is mounted to the hinged front door - *capacity: 2.3 litre*, order no.: 000003 (standard breathing air cartridge).

Inside the filter housing a jet blows air on to the housing wall. Oil and water mist condenses and flows to the bottom of the housing. Air then flows through the molecular carbon filter cartridge, which purifies the air from moisture and odours. Cartridges should be changed at periods of 38 hours (@ +20°C) or more often, depending on humidity and ambient temperature.

All cartridges are vacuum sealed. We recommend that they should be opened just before they will be fitted to the compressor, as they could be saturated with moisture just by being exposed to high humidity.

Maintenance

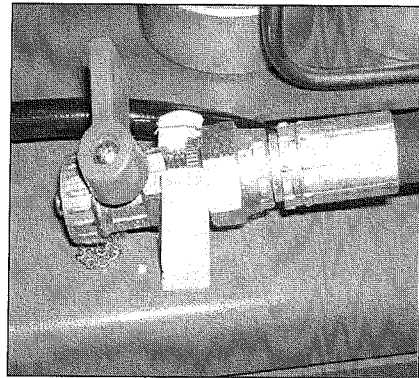
Compressor oil level has to be checked before each day of use.

Compressor oil change intervals:

See Maintenance List

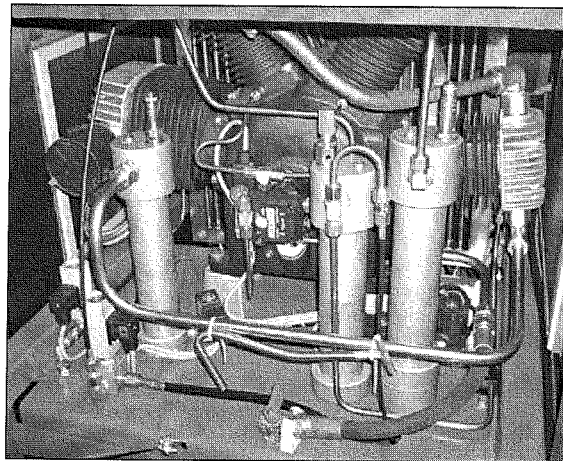
Only use fully synthetic compressor oil (type: LW 9001, order no.: 000001).

About 2.5 litre of oil is required for an oil change.



Oil Drain Valve

The mole carbon filter cartridge has to be changed regularly
(see change of mole carbon filter cartridge)



LW 570: 4-stage compressor block and water separators

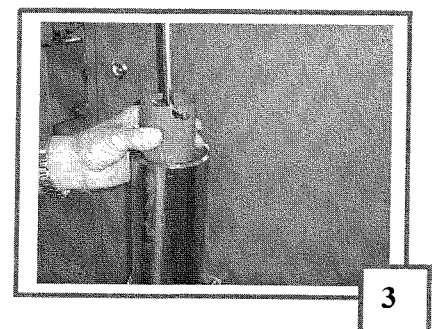
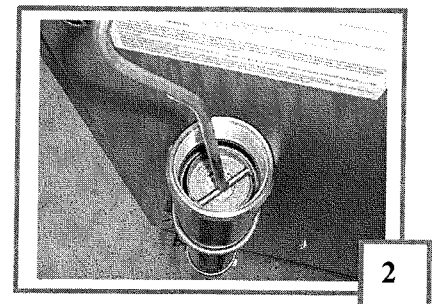
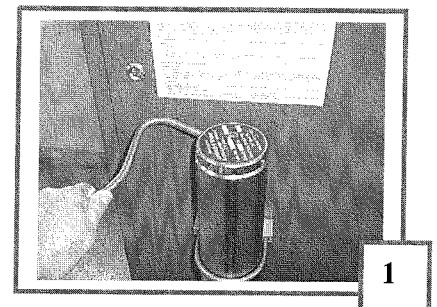


FILTERCHANGE Stationary L&W Compressors

Filter cartridge change

- Unscrew the filter housing cap anti-clockwise, first with the special cartridge key and later by hand (1)
- Place the other end of the cartridge key in the filter cartridge in the filter housing (2)
- Unscrew the filter cartridge anti-clockwise and pull the cartridge out of the housing (3)
- Check O-ring for wear and grease thread of top cap
- Open the sealing of the new filter cartridge and use the cartridge key to place it in the filter housing (3)
- Screw in the new filter cartridge clockwise with the cartridge key hand tight (2)
- Refit the cap of the filter housing clockwise, first by hand and then by the filter key, hand tight (1)
- Close the drain valve of the separator / filter housing if only the hand operated drain is mounted.

The filter cartridge replacement is now completed, ensure that the saturated filter cartridge is disposed of correctly at an approved waste point.





Service, Repair and Maintenance

All repair, service and maintenance work is to be carried out when the compressor is stopped, isolated from the power supply and pressure free.

The unit is to be regularly checked for leaks of air/oil, air leaks can be localised using a leak detector or spray

It is recommended that only authorised L&W service technicians carry out repair and service on the bearing of the compressor (crankshaft and connecting rods)

Conservation / storage of the compressor:

If the compressor is not to be used for an extended period of time, we recommend the following conservation work is carried out before the storage:

- ✓ Run the compressor at 200 bar for approx ten minutes (control the flow with the filling valve to maintain the pressure).
 - ✓ Replace oil.
 - ✓ Open filling valve(s) and run the compressor for a few minutes.
 - ✓ Stop the compressor and open the drain valves.
 - ✓ Close the filling valves.
 - ✓ Open the final filter housing and lubricate the O-Ring with a food grade grease or silicone grease.
 - ✓ Store the compressor in a cool dry place free from dust and contamination. A cover is recommended as long as condensation can be avoided.
-
- ✓ Fuel Driven Units only: Fill up fuel tank to top level to avoid corrosion.
-

De-conservation, commissioning:

After the compressor has been stored, the following steps are to be taken:

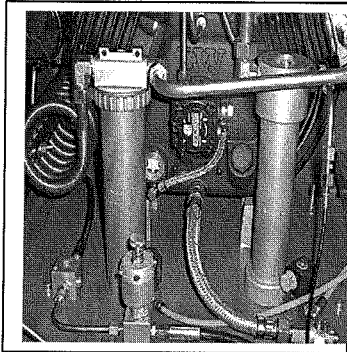
- ✓ If the compressor has been stored for more than 12 Months, we recommend replacing the oil before use.
- ✓ Replace the final purification filter.
- ✓ Check oil level.
- ✓ Inspect the condition of the vee belts, replace if necessary
- ✓ Inspect the filling hoses visually for signs of deterioration, replace as necessary.
- ✓ Open the filling valves and run the compressor for approx 10 minutes with the filling valves open.
- ✓ Close the filling valves and allow the compressor to build up to working pressure.
- ✓ Check the correct safety valve setting and/or pressure switch setting (option).
- ✓ Check all connections and pipe work for leaks.

Once the above steps are completed to satisfaction, the unit is ready to use.



OIL CHANGE INSTRUCTIONS

LW 300 / LW 450 / LW 570 / LW 720 / LW 1300

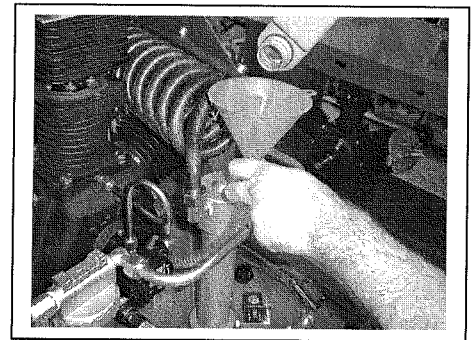
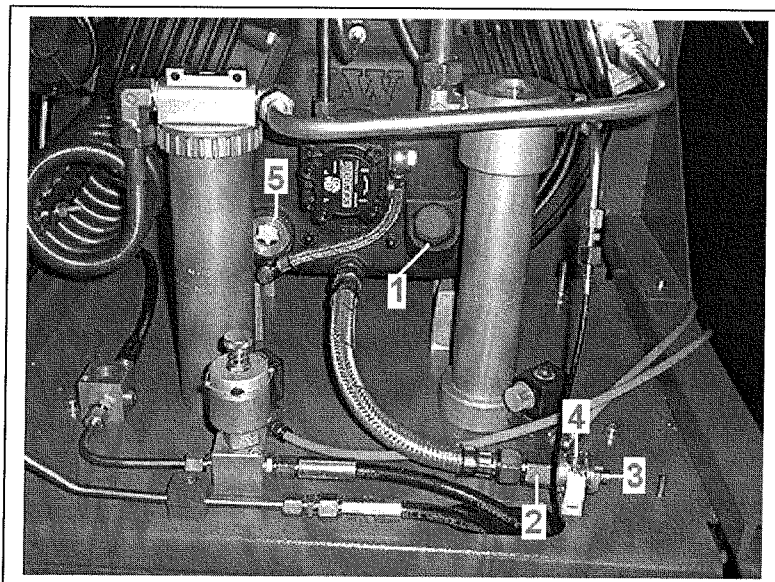


For the periodic oil change, please follow the time schedule of the instruction manual;

Only use original L&W synthetic oil type 9001 (1 ltr bottle, order no.: 000001).

Before changing the oil, be sure the compressor is switched off and cannot be inadvertently started. Disconnect it from the power supply or by switch off the starter of the gasoline or Diesel engine.

To conduct an oil change, the temperature of the oil must be at least +20°C to allow it to flow easily. In cold climates, the compressor should run first for about 15 minutes, dependent on the ambient temperature.



The picture above is showing the easy way of oil refilling by using a funnel placed on the oil drain hose.

Oil change

- Unscrew the filling cap anti-clockwise (1)
- Remove the oil drain hose from its holder (2)
- Unscrew the drain hose cap anti-clockwise (3)
- Hold the drain hose over a container for waste oil and open the drain valve (4)
- Let the oil drain completely, close valve (4), screw on plug (3) and relocate the hose
- Refill the block with original L&W compressor oil (approx. 1.8 ltr) by using a funnel
- The indicator glass (5) should be filled up to the top level - **DO NOT OVERFILL WITH OIL!!**
- Refit the oil filler cap

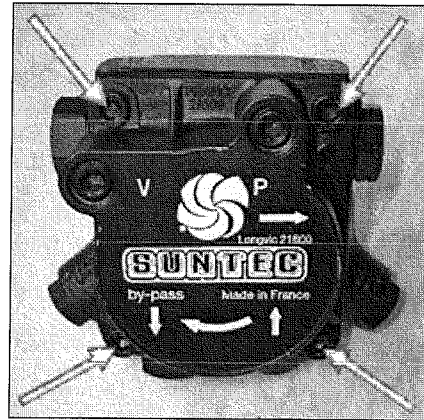
The oil change is now completed, **ensure the filling cap (1) is securely refitted.** The schedule in the maintenance manual will indicate the next oil change or the ECC display. Ensure the waste oil is disposed of correctly at an approved waste oil point.

Oil Pump Service

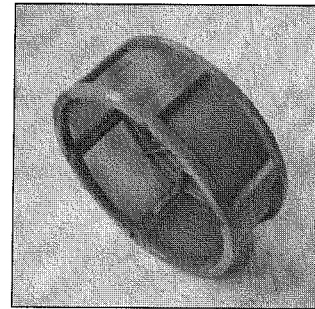
The oil pump has an integrated plastic filter which needs to be cleaned every 1,000 working hours

How to clean the oil filter:

- Remove 4 bolts securing the oil pump cover (see picture)
- Remove oil pump cover
- Remove blue plastic oil sieve
- Clean oil sieve with compressed air
- Check if oil sieve is undamaged (replace if necessary)
- Clean sealing surfaces of main housing and cover
- Check cover gasket (replace if necessary)
- Check O-ring (replace if necessary)
- Place gasket and O-ring on top cover
- Place oil sieve on main housing (make sure **UP** marking is facing upwards)
- Reassemble oil pump and fasten cover bolts



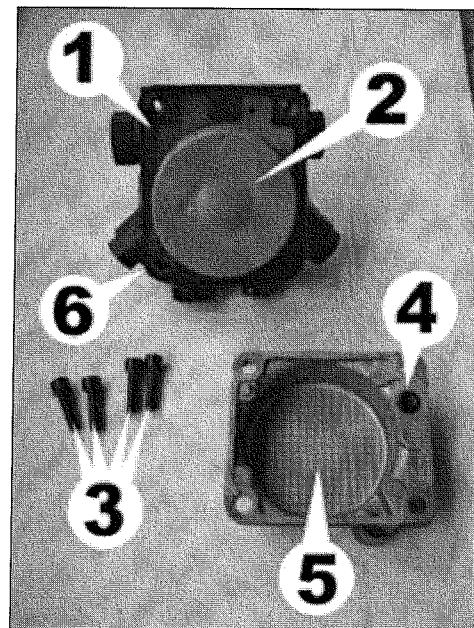
Remove 4 bolts of top cover



Oil Sieve

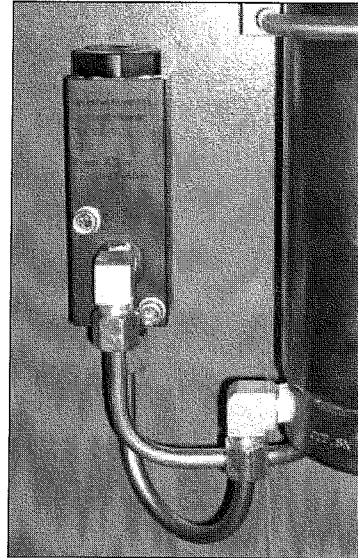
Parts of Oil Pump:

- 1) Oil Pump Main Housing
- 2) Oil Sieve (blue coloured plastic)
- 3) Cover bolts
- 4) O-Ring
- 5) Oil Pump Cover
- 6) Cover Gasket



Pressure maintaining and non-return valve

The combined pressure maintaining / non-return valve is located in the system directly after the final filter housing



Pressure Maintaining Valve

Pressure maintaining valve

The pressure maintaining valve serves to keep the pressure in the final filter housing at a minimum of 150 to 180 bar. This high pressure creates more condensation in the separator/housing that can be mechanically removed (opening the drain valve) before the air is finally purified in the final filter, thus extending the life of the filter cartridge.

When the compressor is started, the pressure will build up in each stage as the compressor runs. The pressure in the final filter housing will increase until the pressure maintaining valve set pressure is reached. As a result of this function, the filling pressure gauge will not show any pressure for approx 1 min after the compressor is started and no air will flow out of the filling valve if opened.

Once the pressure maintaining valve opens, the pressure gauge will respond by climbing quite rapidly (within a few seconds) to the set pressure of the pressure maintaining valve (default 150 to 180 bar).

Adjusting the pressure maintaining valve:

- Open the filling valve to vent the system completely, close the filling valve (*Pressure gauge reads 0 bar*)
- Start the compressor
- Monitor the pressure gauge
- The valve will open and the pressure the gauge climbs to quickly to the set pressure, this should be 150 – 180 bar
- If the pressure setting is outside this valve, adjust the pressure maintaining valve as follows:

Increase the pressure setting:

- Stop the compressor and open the drain valves
- Open the filling valve to vent the system after the pressure maintaining valve (*Pressure gauge reads 0 bar*)
- Loosen the locking screw on the pressure maintain valve
- Using a suitable tool, screw the valve setting screw clockwise to increase the spring tension
- Start the compressor and check the pressure setting, adjust as necessary
- Re-tighten the locking screw
- Check the pressure maintaining opening pressure once again

Decrease the pressure setting:

- Stop the compressor and open the drain valves
- Open the filling valve to vent the system after the pressure maintaining valve (*Pressure gauge reads 0 bar*)
- Loosen the locking screw on the pressure maintain valve
- Using a suitable tool, screw the valve setting screw anti-clockwise to decrease the spring tension
- Start the compressor and check the pressure setting, adjust as necessary
- Re-tighten the locking screw
- Check the pressure maintaining opening pressure once again

Warning:

If the pressure maintaining valve is set at a higher pressure than the maximum working pressure, the final safety valve will blow off before the pressure maintaining valve opens, the pressure gauge will read 0 bar!

After repair work where the pressure maintaining valve is not yet adjusted, the basic setting is the setting screw approx 3 turns in to the housing.

Non-return valve

The non-return valve is located in the system after the pressure maintaining valve and prevent air from flowing back from the filling lines into the final filter housing/compressor block. The non-return valve is operating correctly if the pressure gauge on the filling valve remains constant when the drain valves on the compressor are opened.

ELECTRONIC COMPRESSOR CONTROL

LW ECC

Various L&W compressors are equipped with the all-electrical computer supported control system LW ECC – as an option.
It is easy to operate and allows multiple and individual settings.

LW ECC Features:

- LCD-Display with key pad
- Coloured LEDs for ON / OFF / Main Voltage indication
- Automatic- & semi-automatic operation mode
- Automatic dump system
- Integrated counter for operation hours
- Integrated counter for load cycles
- Maintenance intervals automatically displayed
- Required service part numbers automatically displayed
- Fully adjustable pressure ranges for start and stop
- Various warning messages will be displayed
- Check of end-pressure safety valve possible
- Auto switch-off when system is not running
- Extentable by additional modules (external filling panel)
- Easy to operate menu
- Warning messages ("Housing Open" / "Emergency Switch")
- Load-free start cycles
- Star / Delta start

LW ECC OPTIONS:

- Oil Pressure Control
- Oil Temperature Control
- Cylinder Head Temperature Control
- Inter Stage Pressure Monitoring
- PIN Controlled Access
- Ambient Air Temperature Control
- Master / Slave Option
(if more than one ECC equipped compressors are combined)



ECC CONTROLLER

Immediately after the compressor has been connected to power, the ECC-display comes up with the following menu:

MAINMENU

Charging	0 min
Total	0,0 h
Start : 1	Stop : 0
Help: *	OFF
Final Press	0 bar

Present filling time in minutes
Total operation hours
Key 1 to start compressor / Key 0 to stop compressor
** Key leads to submenus Current operation state = Off*

Present filling pressure

The following keys can now be used:

<i>Key</i>	<i>Function</i>
1	Start - Starts the compressor
0	Stop - Stops the compressor
*	Leads to the submenus

After typing the * key the following menu appears:

SELECTION MENU **M100**

	Selection:
2	Display
3	Settings
4	Test
5	Statistics
6	Maintenance
7	Operation Mode
(M100)	Return: #

Key 2 leads to submenu "Display"
Key 3 leads to submenu "Settings"
Key 4 leads to submenu "Test"
Key 5 leads to submenu "Statistics"
Key 6 leads to submenu "Maintenance"
Key 7 leads to submenu "Operation mode"
Key # leads back to submenu "Mainmenu"

(M100) tells that you are currently on menu page 100.

Remark:

Beside the listed numbers, the compressor unit can always be started / stopped by using keys 1 and 0.

DISPLAY MENU

M200

Display I:	
2	Press. Stage 1
3	Press. Stage 2
4	Press. Stage 3
5	Cyl. Head Temp.
6	Oil Temp.
7	Display II
(M200)	Return#

Key 2 shows current pressure of the 1st stage*
 Key 3 shows current pressure of the 2nd stage
 Key 4 shows current pressure of the 3rd stage
 Key 5 shows temperature of the final stage cylinder head
 Key 6 shows the oil temperature
 Key 7 shows Display II
 Key # leads back to "Mainmenu"

By pressing key 2 the following informations appear:

Charging	0 min
Total	0,0 h
Start:1	Stop: 0
Help:*	OFF
Press.	0 bar
1 st Stage	0,0 bar

Use keys 3 to 6 to change between values displayed in this line

* = Option

Option:

If the compressor unit features two different pressure ranges, both pressures can be displayed in the main menu by pressing key 8.
 (text of line 3 changes to „Press. 200/300”).

Display II:			
Press.	Temp.		
4: 0	C:	0	
5: 0	D:	0	
6: 0	E:	0	
7: 0	F:	0	
bar		°C	

Key # leads back to "Mainmenu".

SETTINGS

M300

Settings:	
Automatic	
2	Stop pressure
3	Restart Press.
Semi-Automatic	
4	Stop Pressure
9	Close
(M300)	Return: #

Key 2 leads to submenu "Set Stop Pressure" (in automatic mode)

Key 3 leads to submenu „Set Restart Pressure" (in automatic mode)

Key 4 leads to submenu „Set Stop Pressure" (in the semi-automatic mode)

Key 9 leads back to "Selection menu"

Key # leads back to "Mainmenu"

Remark:

Use menu M700 to change between "Automatic" and "Semi-Automatic" mode. Restart pressure can only be setted in "Automatic Mode".

SET STOP PRESSURE (Automatic Mode)

M320

(Only in automatic mode, see menu M700))

Set	
Stop Pressure:	
Actual: 330 bar	
7	New Value:
	>> XXX bar
	(050,, 333)
8	Confirm
(M320)	Return: #

Current restart pressure

Key 7 if restart pressure should be changed

XXX indicates modified stop pressure

Chooseable pressure range for restart pressure

Key 8 confirms new restart pressure

Key # leads back to „Mainmenu"

SET RESTART PRESSURE (Automatic Mode)

M330

(Only in automatic mode, see menu M700)

Set	
Restart Pressure:	
Actual: 180 bar	
7	New value:
	>> XXX bar
	(030,, 310)
8	Confirm
(M330)	Return : #

*Current restart pressure
Key 7 if restart pressure should be changed
XXX indicates modified restart pressure
Chooseable pressure range for restart pressure
Key 8 confirms new restart pressure
Key # leads back to „Mainmenu“*

Remark:

Restart pressure must be at least 20 bar lower that current stop pressure.

SET STOP PRESSURE (Semi-Automatic Mode)

M340

(Only in semi-automatic mode, see menu M700)

Set	
Stop Pressure:	
Actual: 180 bar	
7	New Value:
	>> XXX bar
	(030,, 310)
8	Confirm
(M340)	Return : #

*Current stop pressure
Key 7 if stop pressure should be changed
XXX indicates modified stop pressure
Chooseable pressure range for stop pressure
Key 8 confirms new stop pressure
Key # leads back to “Mainmenu”*

TEST MENU

M400

Test:	
2	Solenoids
3	Safety Valve
4	Test-Stop
9	Close
(M400)	Return : #

*Key 2 leads to submenu “Test Solenoids”
Key 3 leads to submenu “Test Safety Valve”
Key 4 leads to submenu “Test Stop without Venting”

Key 9 leads back to submenu “Selection”
Key # leads back to „Mainmenu“*

TEST SOLENOIDS**M420****Test Solenoids**

3 open
7 close
9 Close
(M420) Return : #

Key 3 opens solenoids

Key 7 closes solenoids

Key 9 leads back to submenu „Test“

Key # leads back to „Mainmenu“

Remark:

This menu can not be left unless solenoids have been closed by key 7

TEST SAFETY VALVE**M430****Test
Safety Valve**

Close Filling
Valves!
5 Start 0 Stop
9 Close
(M430) Return : #

Key 5 to start test

Key 0 to stop test

Key 9 leads back to submenu „Test“

Key # leads back to „Mainmenu“

Remark:

Close all filling valves /-panels before you run the safety valve test.

Compressor will run up to its maximum pressure, which is limited by the setting of the end-pressure safety valve.

It will not stop at “Stop Pressure” (see menu M320).

TEST STOP**M440****Test Stop
without Venting**

5 Stop
 6 Vent
 Pressure | 0 bar
 9 Close
 (M440) Return : #

Key 5 stops compressor during test run

Key 6 vents compressor after leak search has been finished

Shows current filling pressure

Key 9 leads back to submenu „Test“

Key # leads back to „Mainmenu“

Remark:

Test Stop can only be carried out after compressor has been started (key 1). Main purpose of it is to check compressor unit for air leaks.

STATISTICS MENU**M500****Statistics**

Operation Hours:
 15,2 h
 Start cycles:
 48
 Max Press 338 bar
 9 Close
 (M500) Return : #

Total operation hours of compressor unit

Total number of compressor starts

Maximum working pressure of unit (set by safety valve test)

Key 9 leads back to submenu „Selection“

Key # leads back to „Mainmenu“

Remark:

Press key 5 to get information on which ECC software version is currently installed on your system (M505), i.e.: .

By pressing key 2 you get the total load cycles of the filter housing.

MAINTENANCE MENU

M600

Hours remaining	
Oil change	14 h
Sinter filt	989 h
Silencer	4989 h
Valves	5989 h
Oil filter	1000 h
8 Change done	
(M600) Return : #	

*Shows remaining hours of listed components
(i.e. next oil change in 14 hours,...)*

*Key 8 leads to submenu "Receipt Maintenance"
Key # leads back to „Mainmenu“*

Remark:

System will display message when any of the listed parts should be replaced, plus in addition matching L&W spare part numbers.

CONFIRM MAINTENANCE

M680

Confirm Maintenance	
2	Oil change
3	Sinter filters
4	Silencer
5	Valves
6	Oil filter
(M680) Return : #	

Key 2 receipts oil change

Key 3 receipts change of sinter filters

Key 4 receipts change of silencer

Key 5 receipts change of valves

Key 6 receipts oil filter

Key # leads back to „Mainmenu“

Display confirms any reset of „Hours remaining” with the following message:

Confirm Maintenance	
Operation Hours Meter Set	
9	Close
(M680) Return : #	

Key 9 leads back to submenu "Hours remaining"

Key # leads back to „Mainmenu“

OPERATION MODE MENU

M700

Operation Mode:	
2	Automatic
3	Semi-Automatic
9	Close
(M700)	Return : #

Key 2 activates automatic mode
Key 3 activates semi-automatic mode

Key 9 leads back to submenu „Selection“
Key # leads back to „Mainmenu“

Remark:

See also menu 300.

Activated modes are always displayed in bolt letters

(above example: Semi-Automatic)

Attention:

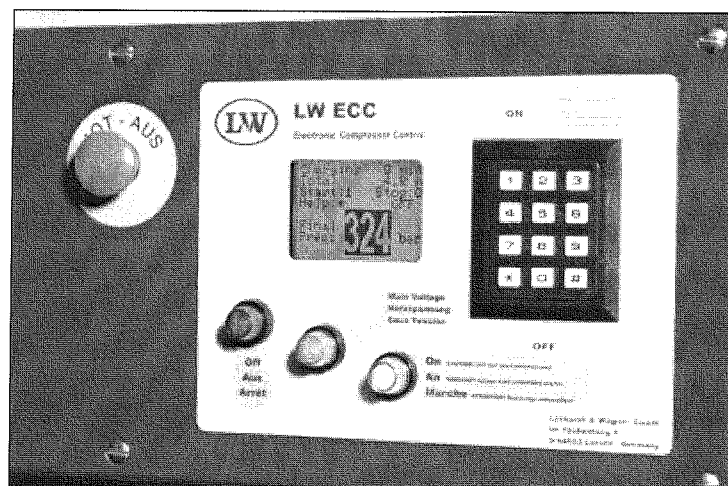
Compressor can start automatically if automatic mode is activated

(depending on restart pressure, see M330) !!

Never work on a unit which is connected to main power!

Always pull main plug before doing any maintenance work!

RISK OF ACCIDENT during maintenance work!!



ECC Display



Symptom	Problem	Trouble Shooting
Final pressure is not reached	Connections leaking	Re-tighten, clean and/or replace
	Final pressure safety valve blows off	Replace
	Cooling pipe leaking	Replace
	Condensation drain valves	Check tightness, clean and/or replace
	Final pressure switch cuts off (option)	Re-set final pressure cut off
Compressor vibrates excessively	V-Belt tension insufficient	Tighten V-Belts
	Compressor block and/or prime mover mounting screws loose	Re-tighten
	Shock absorbing feet worn down	Replace
	Uneven surface	Move compressor accordingly
Compressor overheats	Inlet filter cartridge blocked	Replace
	Ambient temperature too high	Improve ambient conditions or run for shorter periods
	Cooling air feed/exhaust not sufficient	Adhere to the installation data
	Inlet hose too long	Reduce the length and/or increase the diameter
	Inlet hose diameter too small	Increase diameter
	Compressor turning in the wrong direction	Ensure correct rotation (phase)
Suction/pressure valve blocked	Clean and/or replace	
Safety valve blows off	Suction / pressure valve in the following stage defect	Clean and/or replace
	Sinter filter in the following stage blocked	Replace
	Safety valve leaks	Replace (do not tamper)
Air tastes of oil	Molecarbon filter needs replacing	Replace
	Incorrect compressor oil	Use only authorised oil type
	Non conform type of filter	Replace with correct filter
	Cylinders and / or piston rings worn	Replace
Delivery rate too low	Suction/pressure valve blocked	Clean and/or replace
	Cylinder / piston rings worn	Replace
	Also see section „final pressure is not reached“	
Automatic condensation drain not functioning (Option)	Solenoids defect	Replace
	Cable/wiring defect	Repair
	Timer defect	Replace
	Sinter filter from pneumatic valve blocked	Replace
	Piston in the pneumatic valve blocking	Dismantle pneumatic valve
Automatic condensation drain operates between cycles	Pilot pressure for pneumatic valve too low	Replace suction/pressure valve / safety valve
	Piston seat in the pneumatic valve damaged/contaminated	Clean / Replace
	Timer settings incorrect	Set default settings



Symptom	Problem	Trouble Shooting
<i>(Option)</i>	Timer defective	Replace
Compressor switches off before final pressure is reached <i>(Option)</i>	Final pressure switch not properly set	Reset
	Pressure maintaining valve set too high	Reset
	Fuse/breaker tripped	Refer to the correct fuse ratings for the supply
Filter cartridges times too short	Pressure maintain valve set too low	Reset to 170 bar
	Non conform type of filter	Use only correct filters
	Shelf life exceeded	Adhere to date of expiry
	Packing damaged and / or filter packing opened too long before use	Store properly and open immediately before use
	Ambient temperature too high	Ensure correct and sufficient cooling air feed and exhaust
	Cylinder / piston rings worn	Replace
Excessive oil consumption	Cylinder / piston rings worn	Replace
	Incorrect compressor oil	Use only authorised oil type
	Operating temperature too high	Adhere to operating parameters
	Oil leak in the compressor block	Check relevant components especially shaft seal and replace/re-tighten



Tightening Torques

LW 160 E	LW 190 B	LW 225 E V3	LW 245 B V3
LW 170 D - Nautic	LW 170 E - Nautic	LW 200 E - Nautic	

Cylinder Head Bolts	1 st Stage	22 - 24 Nm
Cylinder Head Bolts	2 nd & 3 rd Stage	28 Nm
Nuts M10	(8.8)	44 Nm
Cooling Fan Bolts	(8.8)	20 Nm
Slider Guide Bolt		10 Nm

LW 230 E / ES

LW 280 E / ES

Cylinder Head Bolts	1 st Stage	37.5 Nm
Cylinder Flange Bolts	1 st Stage	35 Nm
Cylinder Head Bolts	2 nd Stage	30 Nm
Cylinder Head Bolts	3 rd Stage	30 Nm
Guide Cylinder Flange Bolts	2 nd & 3 rd Stage	41 Nm
Block Fixing Bolts M10	(8.8)	44 Nm

LW 450 D / E / ES

LW 570 E / ES

Cylinder Head Bolts	1 st Stage	37.5 Nm
Cylinder Head Bolts	2 nd Stage	32 Nm
Cylinder Head Bolts	3 rd Stage	32 Nm
Cylinder Head Bolts	4 th Stage	32 Nm
Cylinder Flange Bolts	1 st Stage	35 Nm
Cylinder Flange Bolts	2 nd Stage	35 Nm
Cylinder Flange Bolts	3 rd Stage	35 Nm
Block Fixing Bolts M10	(8.8)	44 Nm

M A I N T E N A N C E L I S T

LW 570 ES

Routine Service	Intervals	Qty.	Order No.
Replace filter cartridge	every 38 working hours (@ +20°C)	1	000003
Check oil level	before each day of use		
Oil changes	1 st after 50 working hours 2 nd after 75 working hours 3 rd after 200 working hours thereafter every 200 working hours - but at least once a year	2,500 ml	000001 (1 litre)
Replacing air inlet filter	depends on degree of pollution - but at least once a year	1	000170
Check V-belts	every 200 working hours	2	50 Hz: 001413 60 Hz: 002559
Replace in- & outlet valves	every 2,000 working hours	1 st stage: 1 2 nd stage: 1 3 rd stage: 1 4 th stage: 1	000259 000256 000542 000543
Check pressure maintaining / non-return valve	every 200 working hours		
Check safety devices	at least once a year		
Check pressure pipes for air leaks	every 200 working hours		
Clean pressure pipes	Depends on degree of pollution - but at least once a year		
Check condition of filling hoses	before each use - once a year by an expert		
Replace oil suction hose	every 5,000 working hours	1	000376
Clean sieve of oil pump	every 1,000 working hours		
Replace sintered filter of condensate valve	after 1,000 working hours - thereafter every 5,000 working hours	1	000188
Replace sintered filter of water-separators	every 1,000 working hours	2 2	000184 000173

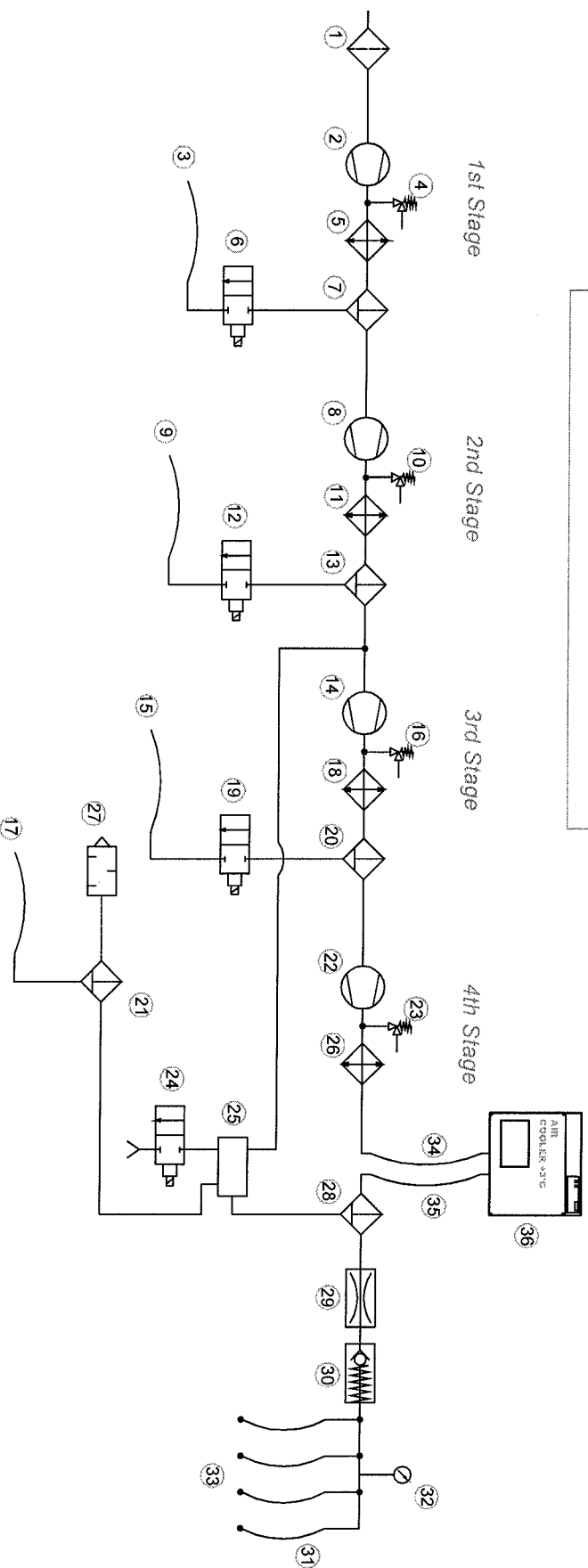
M A I N T E N A N C E L I S T

LW 570 ES

Routine Service	Intervals	Qty.	Order No.
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Clean oil / water-separators and check for corrosion	every 1,000 working hours		
Check connections and fixings for correct torque	after 15 working hours - thereafter every 500 working hours		
Replace 3rd and 4th stage small end roller bearings	every 4,000 hours	2	003836
Replace silencer	every 3,000 hours	1	000178

LW 570 E / LW 570 ES
LENHARDT & WAGNER GMBH



FLIESSDIAGRAMM - FLOW DIAGRAM

- 1 Ansaugfilter / Air Intake Filter
- 2 1. Verdichterstufe / 1st Pressure Stage
- 3 Kondensatablassschlauch / Condensate Release Hose (Ø8 x 1mm)
- 4 Sicherheitsventil 1. Stufe / Safety Valve 1st Stage
- 5 Wärmetauscher / Heat Exchanger
- 6 Kondensatventil / Condensate Valve
- 7 Öl-/Wasserabscheider / Oil-Water Separator
- 8 2. Verdichterstufe / 2nd Pressure Stage
- 9 Kondensatablassschlauch / Condensate Release Hose (Ø8 x 1mm)
- 10 Sicherheitsventil 2. Stufe / Safety Valve 2nd Stage
- 11 Wärmetauscher / Heat Exchanger
- 12 Kondensatventil / Condensate Valve
- 13 Öl-/Wasserabscheider / Oil-Water Separator
- 14 3. Verdichterstufe / 3rd Pressure Stage
- 15 Kondensatablassschlauch / Condensate Release Hose (Ø8 x 1mm)
- 16 Sicherheitsventil 3. Stufe / Safety Valve 3rd Stage
- 17 Kondensatablassschlauch / Condensate Release Hose (Ø8 x 1mm)
- 18 Wärmetauscher / Heat Exchanger

- 19 Kondensatventil / Condensate Valve
- 20 Öl-/Wasserabscheider / Oil-Water Separator
- 21 Kondensatabscheider / Condensate Separator
- 22 4. Verdichterstufe / 4th Pressure Stage
- 23 Sicherheitsventil 4. Stufe / Safety Valve 4th Stage
- 24 Kondensatventil / Condensate Valve
- 25 Pneumatisches Kondensatventil / Pneumatic Condensate Valve
- 26 Wärmetauscher / Heat Exchanger
- 27 Schalldämpfer Kondensatablaß / Silencer Condensate Release
- 28 Öl-/Wasserabscheider / Oil-Water Separator
- 29 Druckhalteventil / Pressure Maintaining Valve
- 30 Rückschlagventil / Non-Return Valve
- 31 Hochdruckschlauch / HP-Hose (Option on ES models)
- 32 Druckmanometer / Pressure Gauge
- 33 Füllanschlüsse / Filling Connection (Option on ES models)
- 34 Hochdruckschlauch / HP-Hose (Option)
- 35 Hochdruckschlauch / HP-Hose (Option)
- 36 Air Cooler (Option)

Spare Part List LW 570 ES

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Bezeichnung	Description	Part No.
Rohrleitung	Pipe	000286
Rohrleitung	Pipe	000287
Rohrleitung	Pipe	000288
Rohrleitung	Pipe	000289
Rohrleitung	Pipe	000290
Rohrleitung	Pipe	000291
	Cover Lid	000292
	Fuel Tank LW 570 D	000293
	Tank Bracket	000294
	Rubber Mountings	000295
	Rubber Mountings	000296
	Tank Filler Cap	000297
	Compressor Housing LW 570 D	000298
	Service Cover	000299
	Frontgrating	000300
	Service Cover Battery	000301
	Control Box LW 570 D	000302
	2-way Push Button (green)	000303
	Electro Box, complete	000304
Kondensatablassschlauch	Condensate Pipe	002485
Rohrleitung	Pipe	000306
Rohrleitung	Pipe	000307
Rohrleitung	Pipe	000308
Rohrleitung	Pipe	000309
Kühlerhalterung	Bracket Air Radiator	000310
Kühlerhalterung	Bracket Air Radiator	000311
	Main Bracket Cooling Pipe (left hand side)	000312
	Main Bracket Cooling Pipe (right hand side)	000313
	Oil Hose Bracket	000314
1. Kühlrohr zwischen Kühlern der 4. Stufe	1.Cooling Pipe between the 4th Stages	002486
Kühlrohr 3.Stufe	Cooling Pipe 3 rd Stage	002483
Kühlrohr 4.Stufe	Cooling Pipe 4 th Stage	002484
Schwungrad	Flywheel	000317

Spare Part List LW 570 ES

0 8 7 0 4 -

Bezeichnung	Description	Part No.
	Fixing Ring Fan Blades	000318
	Air Radiator 1st Stage	000319
	Connection	000320
	Bracket Diesel Radiator	000321
	Bracket Diesel Radiator	000322
	Engine Bracket	000323
	Engine Bracket	000324
	Engine Bracket	000325
	Upper Engine Plate	000326
	Lower Engine Plate	000327
	V-Belt Tensioning Bolt	000328
	Exhaust Plex Pipe	000329
	Exhaust Clamp	000330
	Bracket Heat Exchanger 2 nd Stage	000331
	Heat Exchanger 2 nd Stage	000332
	Rail	000333
	Plastic Hose Heat Exchanger	000334
	Pipe	000335
	Pipe	000336
	Pipe	000337
	Pipe	000338
	Solenoid 3 rd & 4 th Stage	000339
	Spacer	000340
	Crankcase	000341
	Valve Head 3 rd Stage	000342
	Cylinder 3 rd Stage	000343
	Guide Cylinder 3 rd Stage	000344
	Cylinder 4 th Stage	000346
	Guide Cylinder 4 th Stage	000347
	Valve Head 1 st Stage	000348
	Upper Gasket Valve 1 st Stage	000349
	Lower Gasket Valve 1 st Stage	000350
	Cylinder 1 st Stage	000351
	Circlip	000353
	Circlip	000354
	Oil Pressure Pipe	000355

Spare Part List LW 570 ES

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Bezeichnung	Description	Part No.
	Oil Pressure Pipe	000356
	Oil Outlet Pipe	000357
	Crankshaft LW 570, complete	000358
	Piston 1 st Stage	000359
	Piston Rings 1 st Stage, complete set	000360
	Piston Pin	000361
	Piston 2 nd Stage	000362
	Piston Rings 2 nd Stage, complete set	000363
	Circlip	000364
	Piston Rings 3 rd Stage, complete set	000365
	Piston 3 rd Stage	000366
	Piston Rings 4 th Stage, complete set	000367
	Piston 4 th Stage	000368
	Valve 1 st Stage, complete	000369
	Electronic Unit 1	000371
	Electronic Unit	000372
	Piston Pin	000373
	Crankshaft Shims	000374
	Circlip	000375
	Oil Hose	000376
	Plastic Clamp Oil Drain Hose	000377
	Oil Drain Valve	000378
	Top Water Separator	000379
	Safety Valve 2 nd Stage	000380
	Safety Valve 3rd Stage	000381
	Bolt	000382
	Brass Adapter Filter Cartridge	000383
	Jet Filter Housing	000384
	Filling Hose	000385
	Plastic Washer	000386
	Spring	000387
	Screw	000388
	Washer V-Belt tensioning Bolt	000390
	Seal Ring safety Valve G3/8"	000391
	Bolt	000392
	Bracket Condensate Separator	000395

Spare Part List LW 570 ES

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Bezeichnung	Description	Part No.
	Bolt	000396
	Elbow Connection	000397
	Bolt Engine Plate (long)	000398
	Bolt Engine Plate (short)	000399
Schlauch Ausgang 1. Stufe zum 1. Kühler	Hose Outlet 1st Stage to Cooler	002481
Schlauch Ausgang 1. Kühler zum 1. Wasserabscheider	Hose 1st Stage Cooler / Water Separator	002482
	Alloy Clamp 8mm Pipe	000402
	Threaded Rivet M6	000403
	Earth Strap	000404
	Bolt Engine Mounting	000405
	Shells Exhaust Pipe	000406
	Exhaust Bracket	000407
	V-Belt LW 570 D	000408
	O-Ring Cylinder Flange	000409
	Connection Rod	000410
	Connecting Rod 1st Stage	000411
	O-Ring	000412
	Bolt	000413
	Ring	000413
	Spacer	000414
	Bolt	000499
	Main Spring Pressure Maintaining Valve	000506
	Gasket Ring Pressure Maintaining Valve	000508
	Lock Nut Pressure Maintaining Valve	000511
	Spindle Pressure Maintaining Valve	000512
	Spring Adapter Pressure Maintaining Valve	000513
	Pin Pressure Maintaining Valve	000514
	Housing Pressure Maintaining Valve	000515
	Seal Ring Pressure Maintaining Valve	000516
	Spring Pressure Maintaining Valve	000517
	Brass Washer Pressure Maintaining Valve	000518

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
	Plastic Piston Pressure Maintaining Valve	000519
	Inlet Connection Pressure Maintaining Valve	000520
	Alloy Valve Cap 4 th Stage Valve	000533
	Alloy Valve Cap 3 rd Stage Valve	000534
	Alloy Seal Ring In- & Outlet Valve	000540
	In- & Outlet Valve 3 rd Stage, complete	000544
	In- & Outlet Valve 4 th Stage, complete	000545
	T-Piece Connection	0101
	Connection Condensate Hose, straight	0131
	T-Piece Connection	0158
	Needle Bearing	0261
	Alloy Ring Solenoids	0393
	Connection	0409
	Connection	0410
	Connection	0414
	T-Piece Connection	0429
	Elbow 8L	0431
	Plug G1/4"	0443
	Plug	0444
	Connection	0451
	Elbow Condensate Hose	0457
	Bulkhead Connection	0461
	Bolt	0507
	Washer	0508
	Screw	0509
	Bolt	0512
	Bolt	0517
	Filter Tool	20
	Fan Blades	260 0045
	Plug	260 0124
	Bolt	260 0153
	Screw	260 0154

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
	T-Piece Connection	260 0158
	Washer	260 0162
	Washer	260 0171
	Alloy Filling Block	260 0175
	Tank Connector DIN 200 bar	4044
	Handwheel DIN 200 bar (black)	4045
	Handwheel DIN 300 bar (red)	4046
	Tank Connector DIN 300 bar	4048
	Top of Water Separator	450 10001
	Twist Disc	450 10002
	Filter Protection	450 10003
	Sinter Filter	450 10004
	Centre Disc	450 10005
	Plastic Disc	450 10006
	Nut	450 10007
	O-Ring Water Separator	450 10008
	Fixing Ring	450 10010
	Twist Disk	450 10017
	Filter Protector	450 10018
	Sinter Filter Water Separator	450 10019
	Centre Disk	450 10020
	O-Ring Water Separator	450 10021
	Ring Water Separator	450 10022
	Main Tube Water Separator	450 10023
	Cover Lid Brass Bushes	450 1014
	Spring Washer	450 1015
	Fixing Screw	450 1016
	Pressure Gauge 0-400 bar, Ø63 mm	450 1025 B
	Pressure Gauge	450 1025 A
	Rubber Engine Mounting	450 1046
	Solenoid 1 st & 2 nd Stage	450 2009
	Endpressure Switch LW 570 D	450 2013 A
	Silencer Condensate Separator	450 2014
	Condensate Bowl	450 2015
	Inlet Adapter 1 st Stage	450 3000
	Elbow Connection	450 3001

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
	Elbow Connection	450 3002
	Connection	450 3003
	Connection	450 3004
	Connection	450 3007
	Adapter Oil Suction Hose	450 3009
	Elbow Connection 8L	450 3010
	Elbow Connection	450 3011
	Connection	450 3016
	Reduction G1/2" / G1/4"	450 3021
	Connection G8L	450 3022
	T-Piece Connection	450 3025
	Battery Rail	450 4032
	Battery Bracket Bolts	450 4033
	Nut	450 6004
	Nut	450 6005
	Nut	450 6006
	Nut	450 6007
	Screw	450 6009
	Washer	450 6010
	Washer	450 6011
	Washer	450 6012
	Clamp Filter Housing	450 6021
	Screw	450 6026
	Nut	450 6027
	Bolt	450 6028
	Alloy Bracket Filter Housing	450 6030
	O-Ring	450 7004 A
	Valve Head 4 th Stage	450 7006
	Endpressure Safety Valve 225 bar (G3/8")	450 7007
	Endpressure Safety Valve 330 bar (G3/8")	450 7008
	Main Roller Bearing	450 7009
	Paper Gasket	450 7010
	Oil Pump Drive Adapter	450 7012
	Oil Pump Flange	450 7013

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
	Bolt	450 7014
	Air Intake Filter Housing, complete	450 7016
	Air Intake Filter Cartridge	450 7017
	Oil Pump, complete	450 7018
	Oil Level Indicator	450 7021
	Circlips	450 7026 A
	Gasket Cylinder Flange	450 7028 A
	Valve Head 2nd Stage	450 7032
	Safety Valve 1st stage	450 7033
	Main Bearing Flange	450 7035
	Crankshaft Seal	450 7037
	Bolt	450 7042
	Bolt	450 7044
	Bolt	450 7044
	Bolt	450 7046
	Bolt	450 7051
	Crankshaft Washer	450 7052
	Bolt	450 7064
	Valve 2nd Stage, complete	450 7065
	Lower Valve Gasket 2nd Stage	450 7066 A
	Upper Valve Gasket 3rd Stage	450 7066 B
	Oil Drain Hose	450 7068
	Woodruff Key	450 7074
	Copper Washer	450 7075
	Seal Ring 8mm pipe	450 7079
	Nut 8L	450 7080
	Seal Ring	450 7081
	Nut	450 7082
	Seal Ring 18mm Pipe	450 7083
	Connection Nut 18L	450 7084
	Adapter Crankcase Breather Hose	450 7090
	Adapter Bolt	450 7092
	Battery	450 7099
	Pressure Maintaining Valve, complete	450 8006 B
	Washer	450 8010

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
	O-Ring Filter Housing	450 8011
	Support Ring	450 8012
	Filter Housing 2.3 ltr., complete	450 8021
	Filter Cartridge Breathing Air	450 8022
	Filling Valve Body	LW 160 / 190 240
	Connection M16 x 1.5 mm / 10 L	LW 160 / 190 245
	Bleed Valve Stem	LW 160 / 190 246
	Shut-Off Valve Stem	LW 160 / 190 247
	Shut-Off Valve Collar	LW 160 / 190 248
	Hand Wheel Nut	LW 160 / 190 249
	Filling Valve Wheel \varnothing 35 mm	LW 160 / 190 250
	Bleed Valve Wheel \varnothing 27 mm	LW 160 / 190 251
	HP Seat	LW 160 / 190 255
	Packing Washer	LW 160 / 190 256
	Washer Copper \varnothing 8 x 14 x 1 mm	LW 160 / 190 257
	Washer Copper \varnothing 4 x 6 x 3 mm	LW 160 / 190 258
	Worm Screw M3 x 8 mm	LW 160 / 190 259
	O-Ring	LW 160 / 190 260
	O-Ring	LW 160 / 190 261
	O-Ring Filling Valve Neck 200 bar	LW 160 / 190 262
	O-Ring Filling Valve Neck 300 bar	LW 160 / 190 264
	Washer	LW 160 / 190 276
	Bolt	LW 160 / 190 125
	Screw	LW 160 / 190 143
	Bolt	LW 160 / 190 21
	Block for Safety Valve G3/8"	SHVS
2. Kühlrohr zwischen Kühlern der 4. Stufe	2. Cooling Pipe between the 4th Stages	002487
Steuerluftschlauch zum Kondensatventil LW 570 ES	Hose from 3rd stage to solenoid valve LW 570 ES	002488
Kühlrohr 4.Stufe zum Sicherheitsventil	Cooling Pipe 4 th Stage to safety valve	002489
Druckrohr zwischen Filtergehäuse und Druckhalteventil	Pressure pipe filter housing to pressure maintenance valve	002490
Rohrbogen 180° Wasserabscheider 3. Stufe	180° pipe water separator 3 rd stage	002491

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
Kühlrohr aus 3. Stufe zu Wasserabscheider 3. Stufe LW 570 ES	Cooling pipe 3rd stage to water separator 3rd stage	002492
Kondensatschlauch Filtergehäuse zum Kondensatventil LW 570 ES	Condensate hose filter housing to condensate valve LW 570 ES	002493
Rohr vom Sicherheitsventil zum Filtergehäuse	Pipe safety valve to filter housing	002494
Ausgangsrohr Druckhalterückschlagventil	Pipe outlet pressure maintaining valve	002495
Ausgangsrohr Kühler 3. Stufe LW 570 ES	Pipe outlet Cooler 3rd stage LW 570 ES	002496
Kondensatschlauch zum Kondensatventil LW 570 ES	Condensate hose to condensate valve LW 570 ES	002497
Hochdruckschlauch , 2000mm, 10L	High pressure outlet hose, 2000mm, 10L	001441
Klemme für Kühlrohr 4. Stufe	Clamp cooling pipe 4th stage	002498
Ausgangsschlauch Sicherheitsventil zum Filtergehäuse LW 570 ES	Outlet hose safety valve to filter housing LW 570 ES	002499
Befestigungsblech für Kühlrohrklemmen LW 570 ES	Sheet for cooling clamps LW 570 ES	002500
Rohr Wasserabscheider zur 3.Stufe Kompressor LW 570 ES	Pipe water separator to compressor 3rd stage LW 570 ES	002501
Taster blau für MSA Kondensattest	Button blue (MSA condensate test)	002502
Taster rot für MSA Kondensattest	Button red (MSA condensate test)	002503
Taster grün für MSA Kondensattest	Button green (MSA condensate test)	002504
Manometerschlauch 700mm für Frontplatte (Manometer 0-400bar)	Manometer hose 700mm for front plate (Gauge 0-400bar)	4501027
Manometerschlauch 600mm für Frontplatte (Manometer 0-400bar)	Manometer hose 600mm for front plate (Gauge 0-10 / 0-40 / 0-100 / bar)	4501027
Frontplatte für 4 Manometer	Front plate (4 gauges version)	002505
Manometerschlauch 600mm	Gauge hose 600mm	001445
Einbaumanometer, 0-100bar, Ø63mm, M12x1,5 Axial, KL 1,6 Glyzeringef., Pressmessinggeh.,	Gauge, 0-100bar, Ø63mm, M12x1,5 Axial, KL1,6 filled with glycerine,	002506
Einbaumanometer, 0-10bar, Ø63mm, M12x1,5 Axial, KL 1,6	Gauge, 0-10bar, Ø63mm, M12x1,5 Axial, KL1,6 filled with glycerine	002507

Spare Part List LW 570 ES

0 6 / 0 4 -

Bezeichnung	Description	Part No.
Glyzeringef., Pressmessinggeh.,		
Frontplatte für ECC	Front plate (ECC)	002508

Spare Part List LW 570 ES

0 6 / 0 4 -

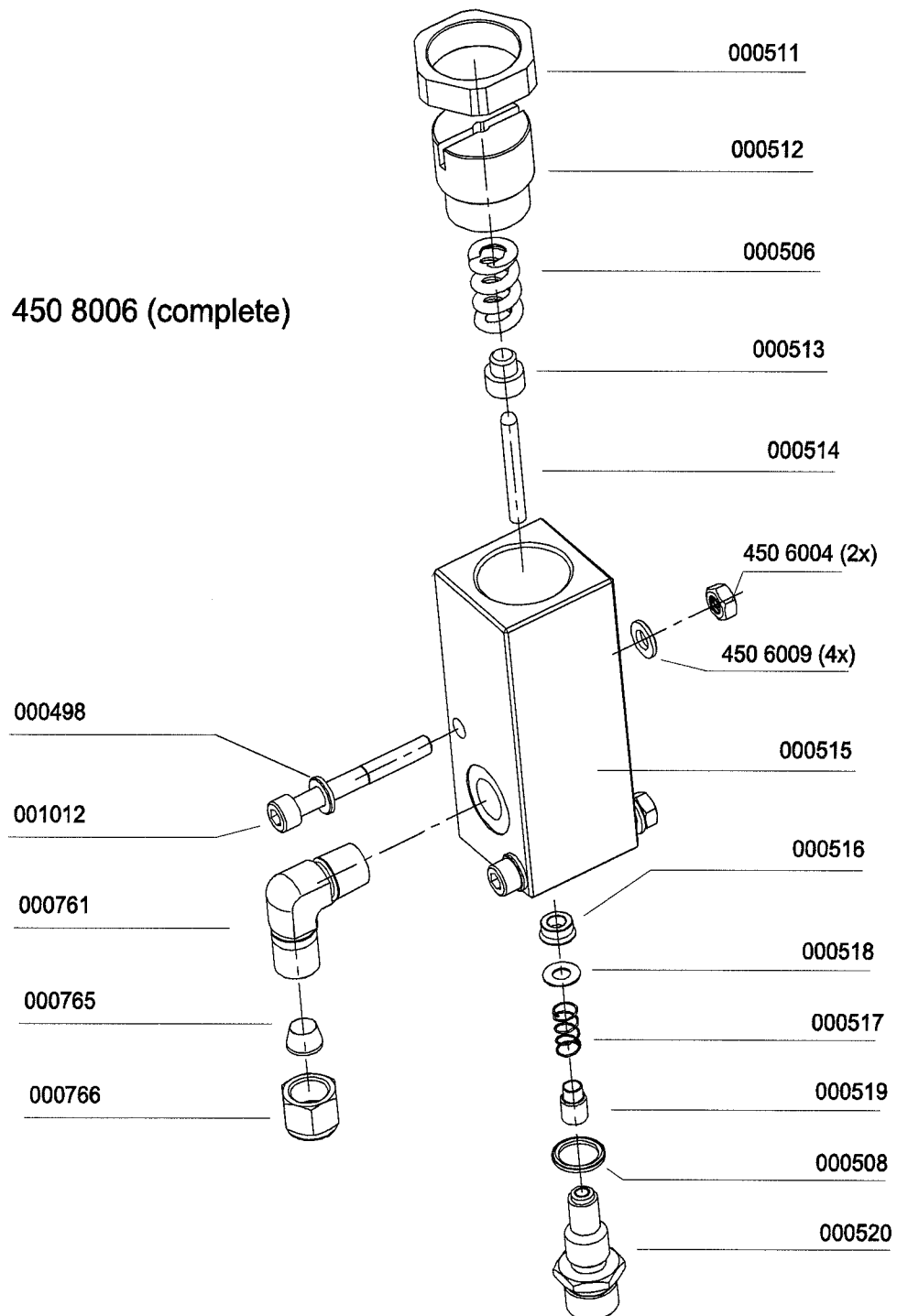
Bezeichnung	Description	Part No.
Procon-Display	Procon-display	002509
Hinweisblech für ECC	Sheet plate with descriptions for ECC	002510
ECC-Tastenfeld	Keyboard of ECC	002511
Haltesatz für Motor	Fixing kit for motor base	002512
M10, Hutmutter, DIN 1587	dome nut, M10, DIN 1587	002513
Feder, DIN 2090, für M10 Gewindestange	spring, DIN 2090, for M10 thread	002517
Gewindestange, M10	Threaded bar, M10	002518
Gabelstück für Gewindestange Motorhalterung	forked clamp for threaded bar (fixing kit for motor base)	002519
Stift für Haltesatz Motorplatte LW 450 ES, LW 570ES	pin for fixing kit of motor base	002520
Stift für Haltesatz Motorplatte LW 450 ES, LW 570 ES	pin for fixing kit of motor base LW 450 ES, LW 570 ES	002521
Ventilatorring	Ventilator ring	002522
Ventilatorblech	Sheet for ventilator ring	002524
Halteblech für Motorkonsole LW 450 ES, LW 570 ES	Fixing sheet for motor base LW 450 ES, LW 570 ES	002529
Querboden mitte LW 450 ES, LW 570 ES	Panel middle LW 450 ES, LW 570 ES	002531
Rahmen für Querboden mitte LW 450 ES, LW 570 ES	Frame for panel middle LW 450 ES, LW 570 ES	002533
Befestigungswinkel für Ventilatorblech LW 450 ES, LW 570 ES	Angel sheet (for fixing the ventilator sheet) LW 450 ES, LW 570 ES	002534
Motorplatte LW 450 ES, LW 570 ES	Motor plate LW 450 ES, LW 570 ES	002536
Wartungsdeckel seitlich LW 260 ES, LW 570 ES	Service access panel LW 260 ES, LW 570 ES	002537
Dämmmatte Wartungsdeckel LW 260 ES, LW 570 ES	Insulation service access panel LW 260 ES, LW 570 ES	002538
Deckel Elektroschaltkasten LW 570 ES	Switch box cover LW 570 ES	002539
Seitenwand rechts LW 570 ES	Side cover right LW 570 ES	002540
Dämmmatte Seitenwand rechts LW 570 ES	Insulation side cover rechts LW 570 ES	002541
Tür vorne LW 570 ES	Front access door LW 570 ES	002542
Dämmmatte Tür vorne LW	Insulation front access door LW 570	002543

Spare Part List LW 570 ES

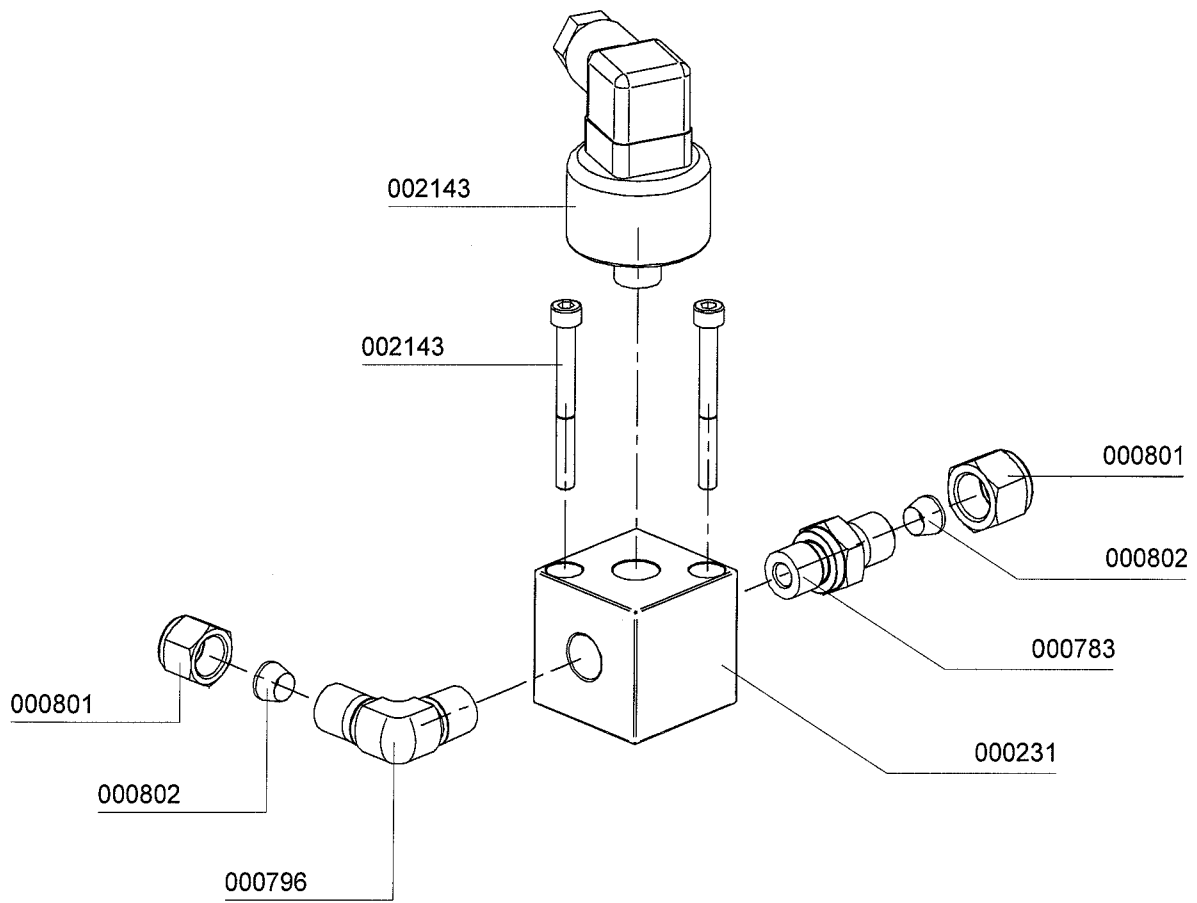
0 6 / 0 4 -

Bezeichnung	Description	Part No.
570 ES	ES	
Seitenwand links LW 570 ES	Side cover left LW 570 ES	002544
Dämmmatte Seitenwand links LW 570 ES	Insulation side cover left LW 570 ES	002545
Rückwand LW 570 ES	Rear access door LW 570 ES	002546
Dämmmatte Rückwand LW 570 ES	Insulation side cover left LW 570 ES	002547
Quertraverse hinten LW 450 ES, LW 570 ES	Rear housing panel LW 450 ES, LW 570 ES	002548
Dämmmatte Quertraverse hinten LW 450 ES, LW 570 ES	Insulation rear housing panel LW 450 ES, LW 570 ES	002549
Türschalter LW 570 ES	Safety switch compressor housing LW 570 ES	002550
Vorreiber komplett, LW 450 ES, LW 570 ES	Catch and lock complete LW 450 ES, LW 570 ES	002551
Blechdeckel oben LW 450 ES, LW 570 ES	Cover sheet top LW 450 ES, LW 570 ES	002552
Dämmmatte für Blechdeckel oben, LW 450 ES, LW 570 ES	Insulation cover sheet top LW 450 ES, LW 570 ES	002553
Oberer Zwischenboden, LW 570 ES	Upper panel, LW 570 ES	002554
Haltewinkel für obere Zwischenboden, LW 570 ES	Angel sheet for upper panel, LW 570 ES	002555
Dämmmatte für Zwischenboden, LW 570 ES	Insulation for upper panel, LW 570 ES	002556
Vordere Quertraverse, LW 450 ES, LW 570 ES	Front housing panel, LW 450 ES, LW 570 ES	002557
Dämmmatte für vordere Quertraverse, LW 570 ES	Front housing panel, LW 450 ES, LW 570 ES	002558
Schlüssel für Vorreiber	Nut	001679

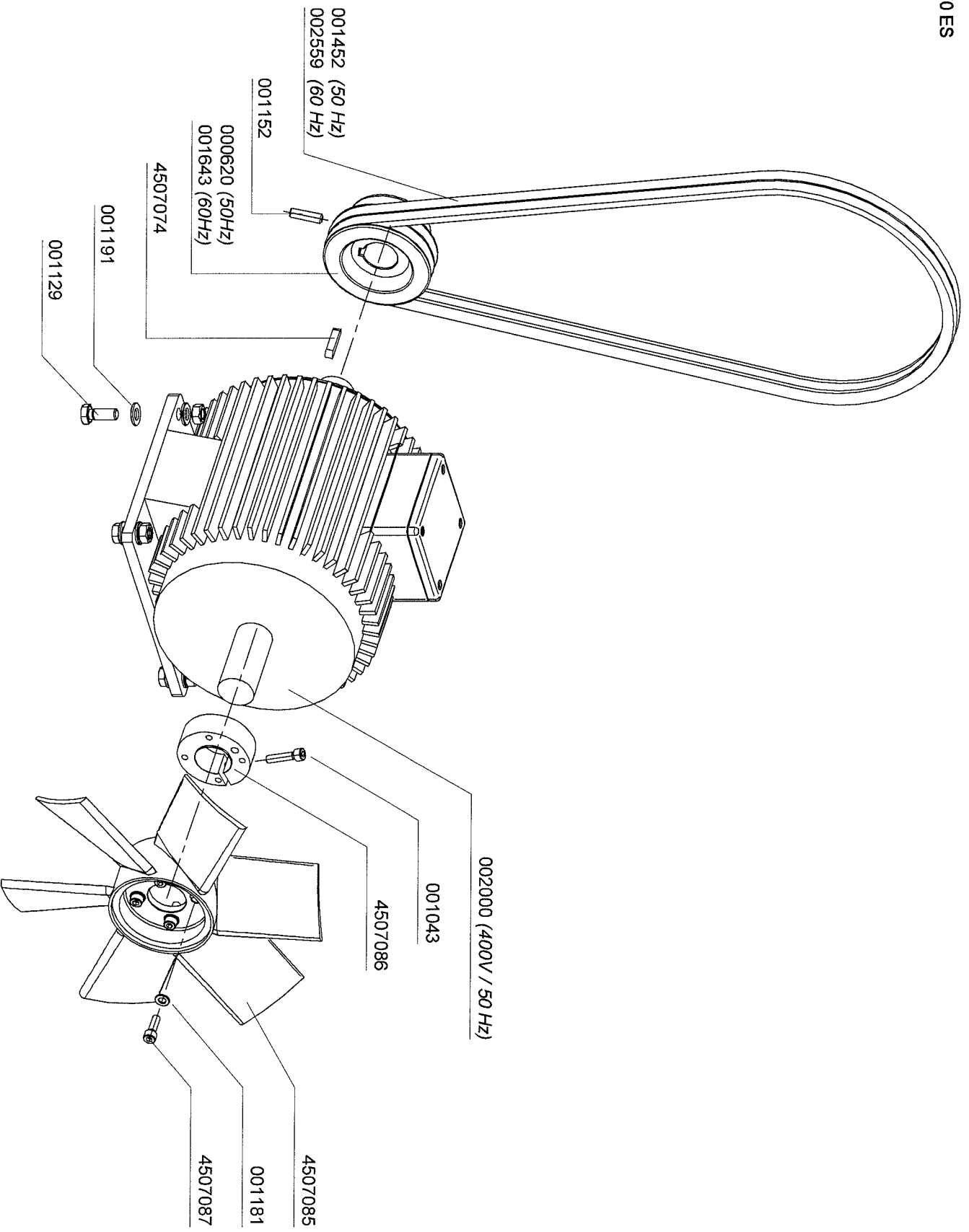
Kompressor: L&W 570 ES
Baugruppe: Druckhalteventil
Assembly: Pressure Maining Valve



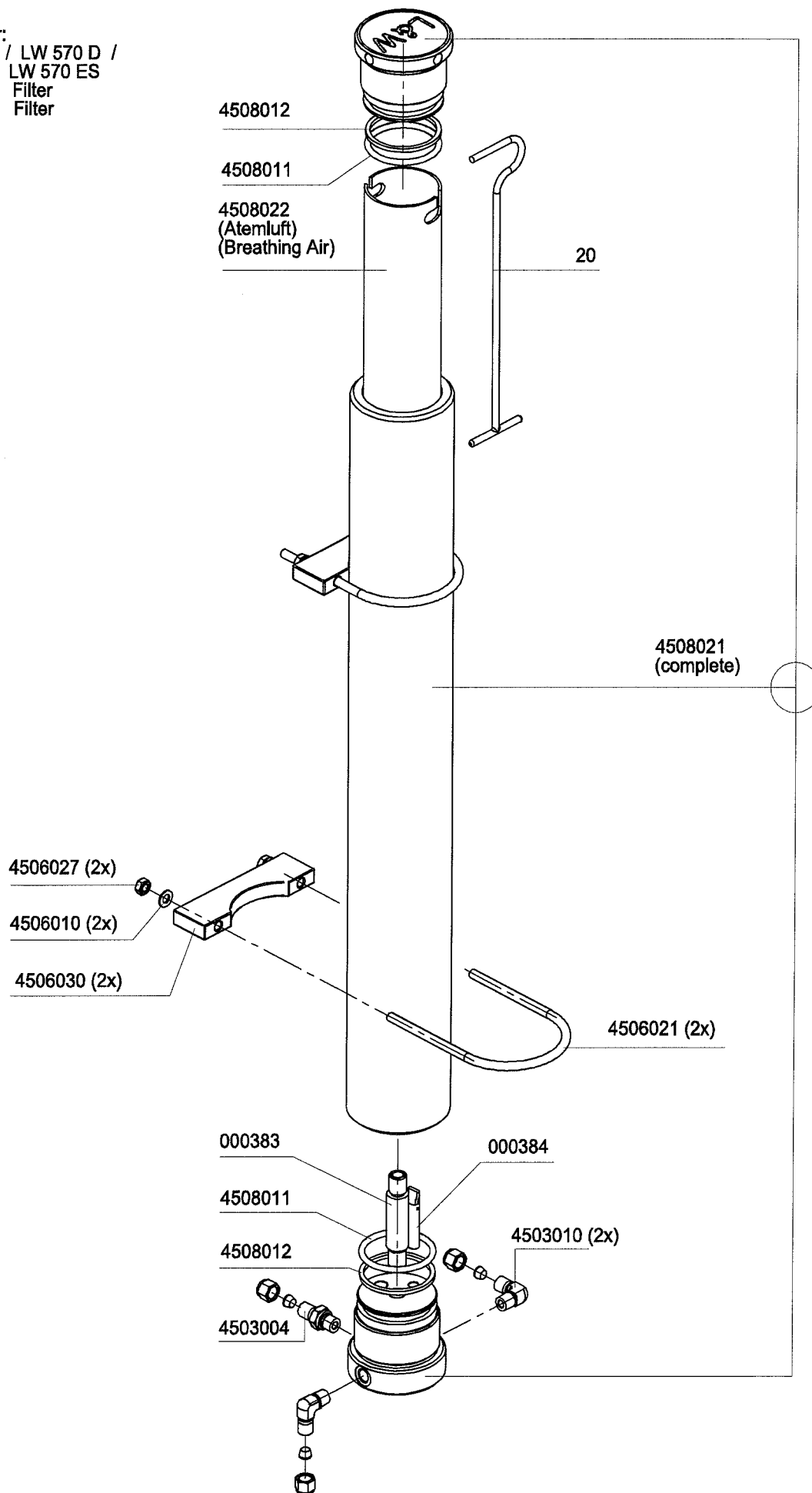
Kompressor: L&W 570 ES
Baugruppe: ECC-Sensor
Assembly: ECC-Sensor

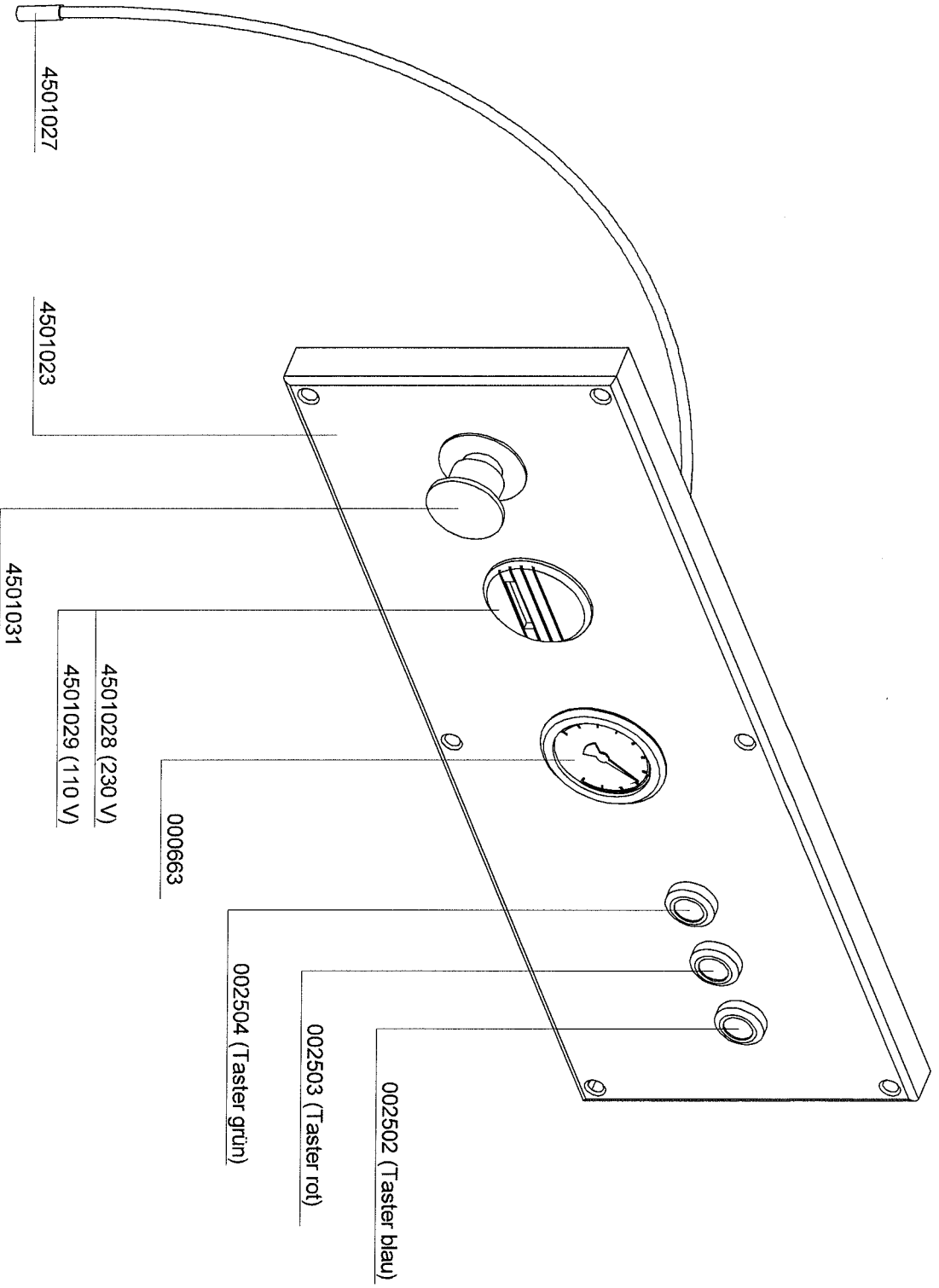


Kompressor: L&W 570 ES
Baugruppe: E-Motor
Assembly: E-Motor

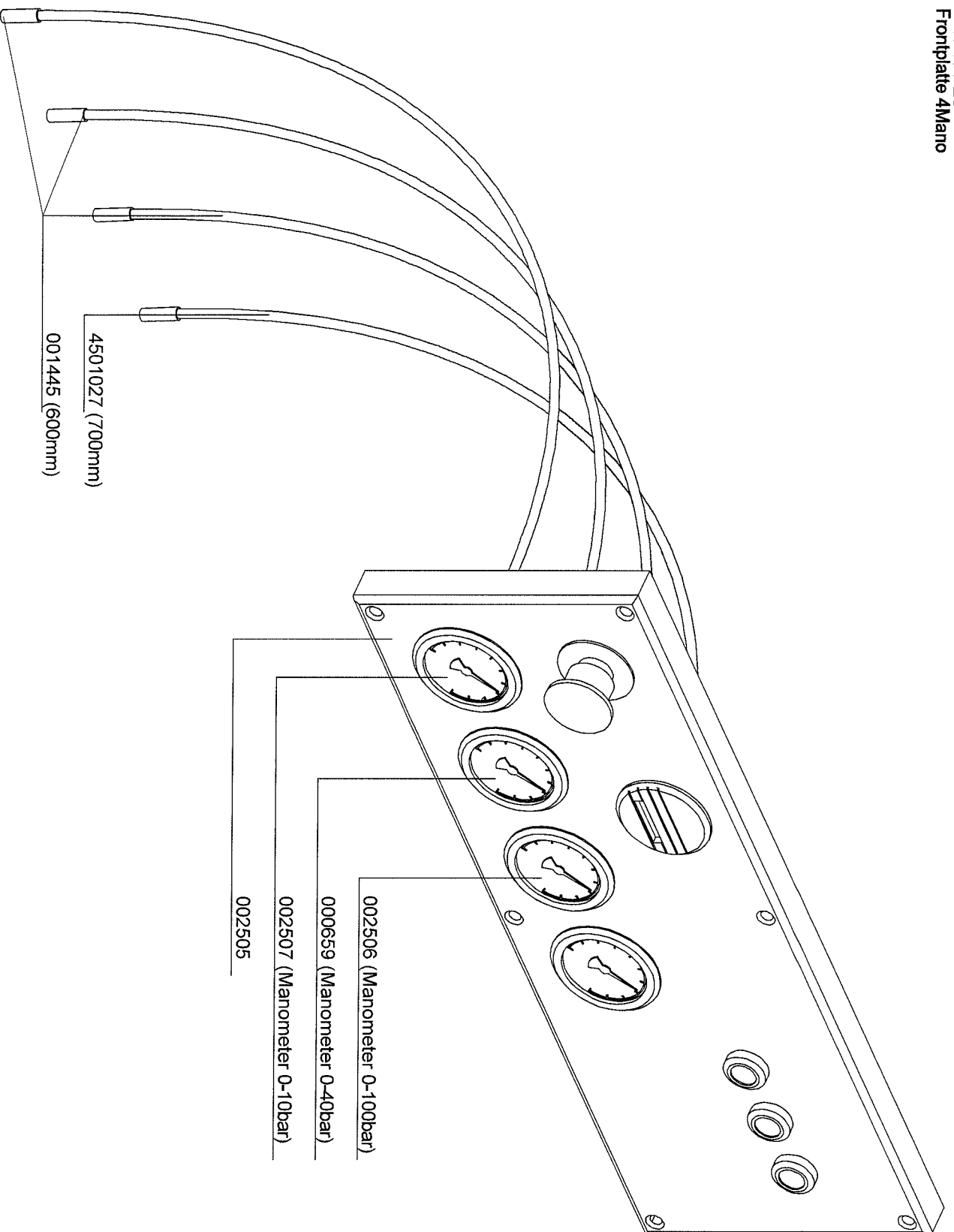


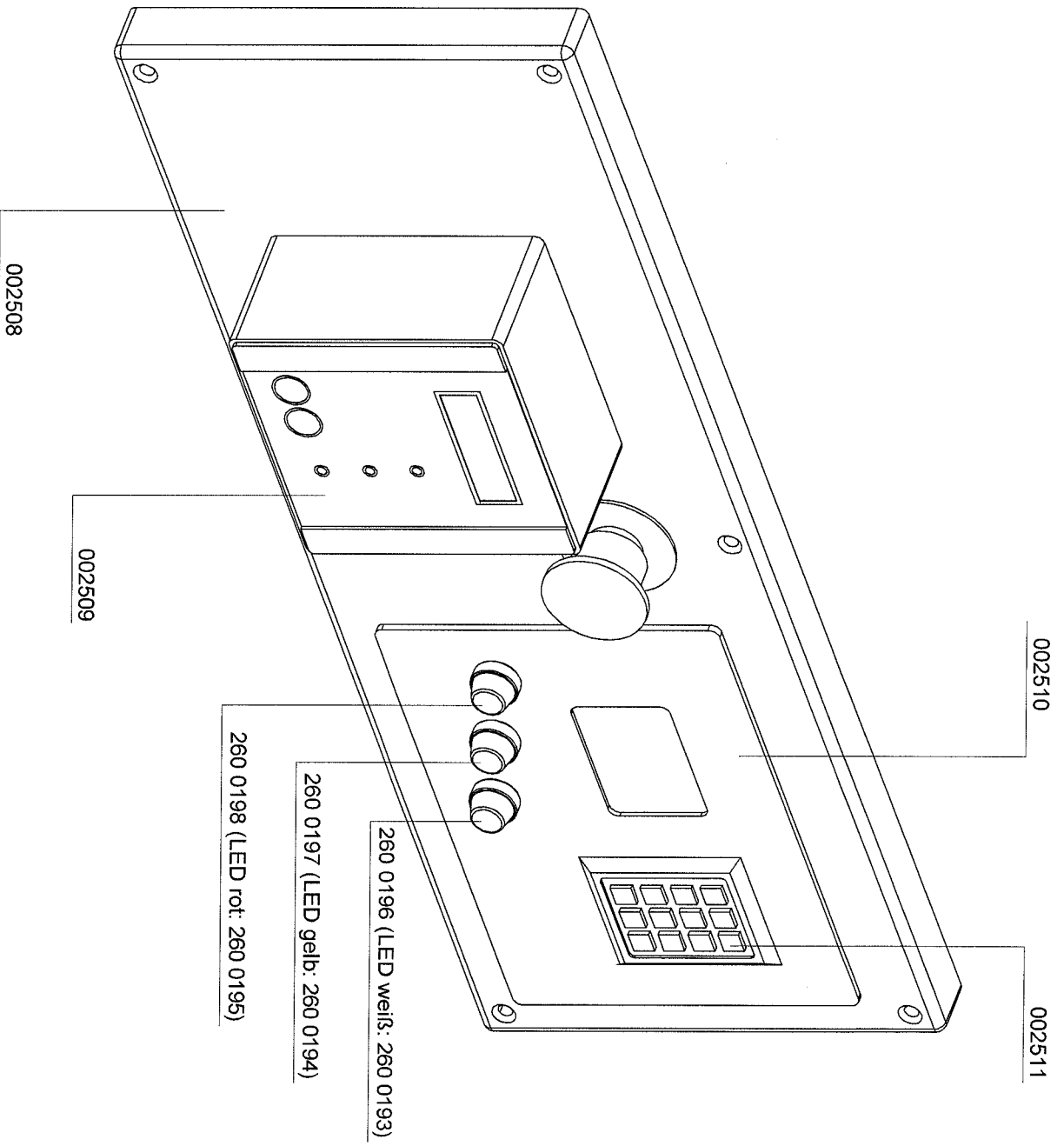
Kompressor:
LW 450 ES / LW 570 D /
LW 570 E / LW 570 ES
Baugruppe: Filter
Assembly: Filter

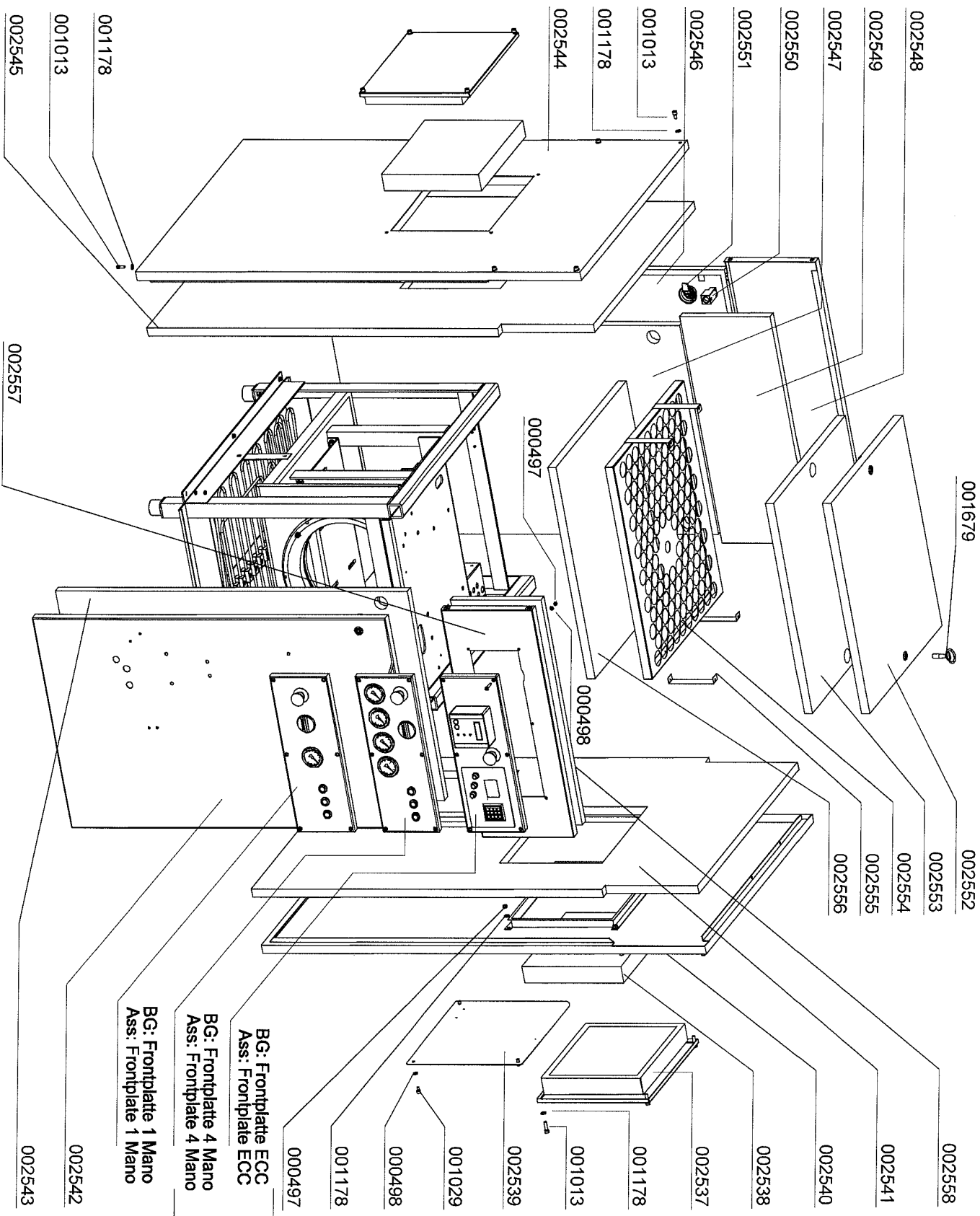




Kompressor: L&W 570 ES
Baugruppe: Frontplatte 4Mano
Assembly:



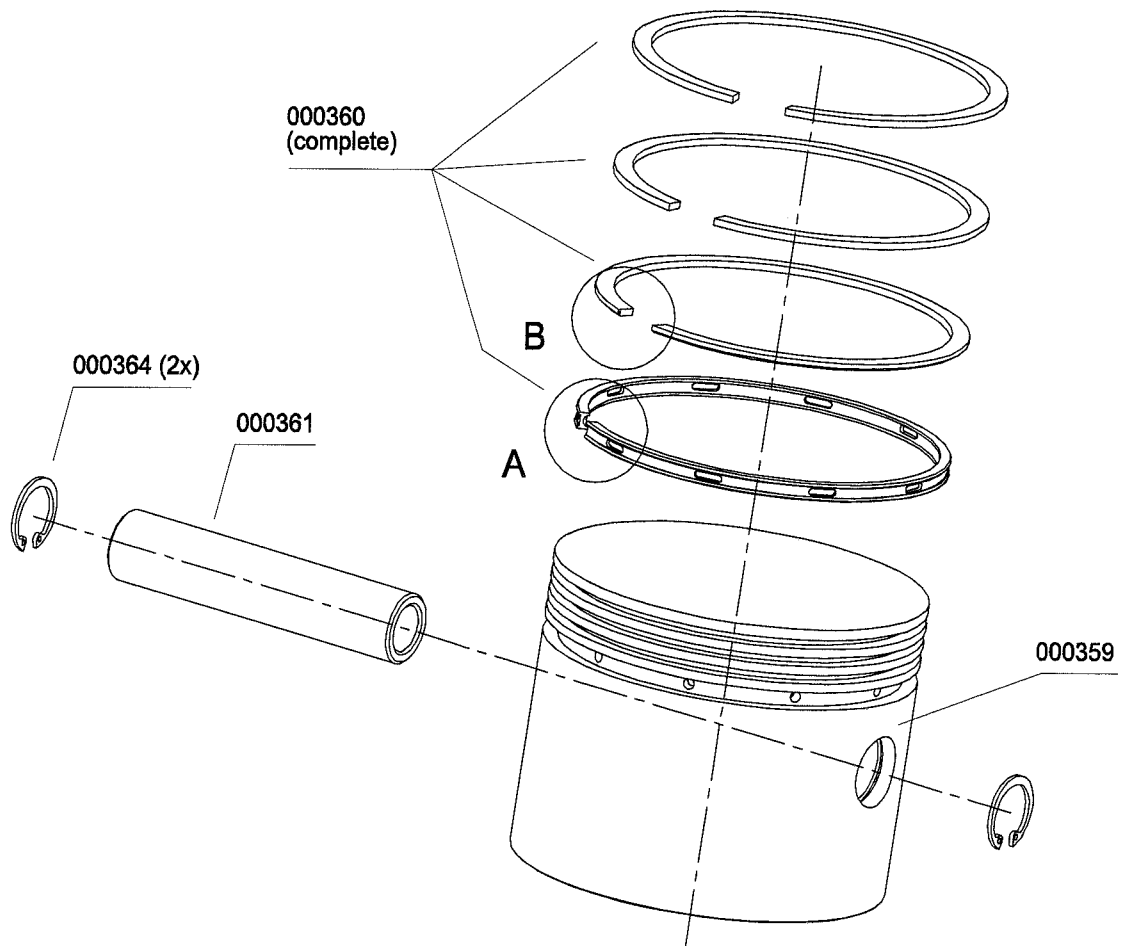




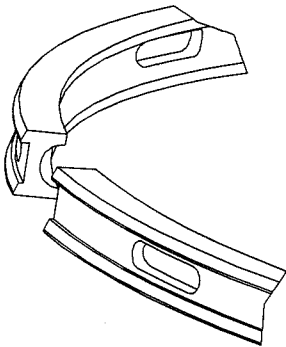
BG: Frontplatte ECC
 Ass: Frontplatte ECC
 BG: Frontplatte 4 Mano
 Ass: Frontplatte 4 Mano
 BG: Frontplatte 1 Mano
 Ass: Frontplatte 1 Mano

optional

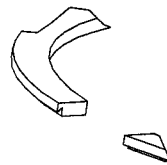
Kompressor: L&W 570 ES
Baugruppe: Komplettkolben Stufe 1
Assembly: Piston 1st Stage



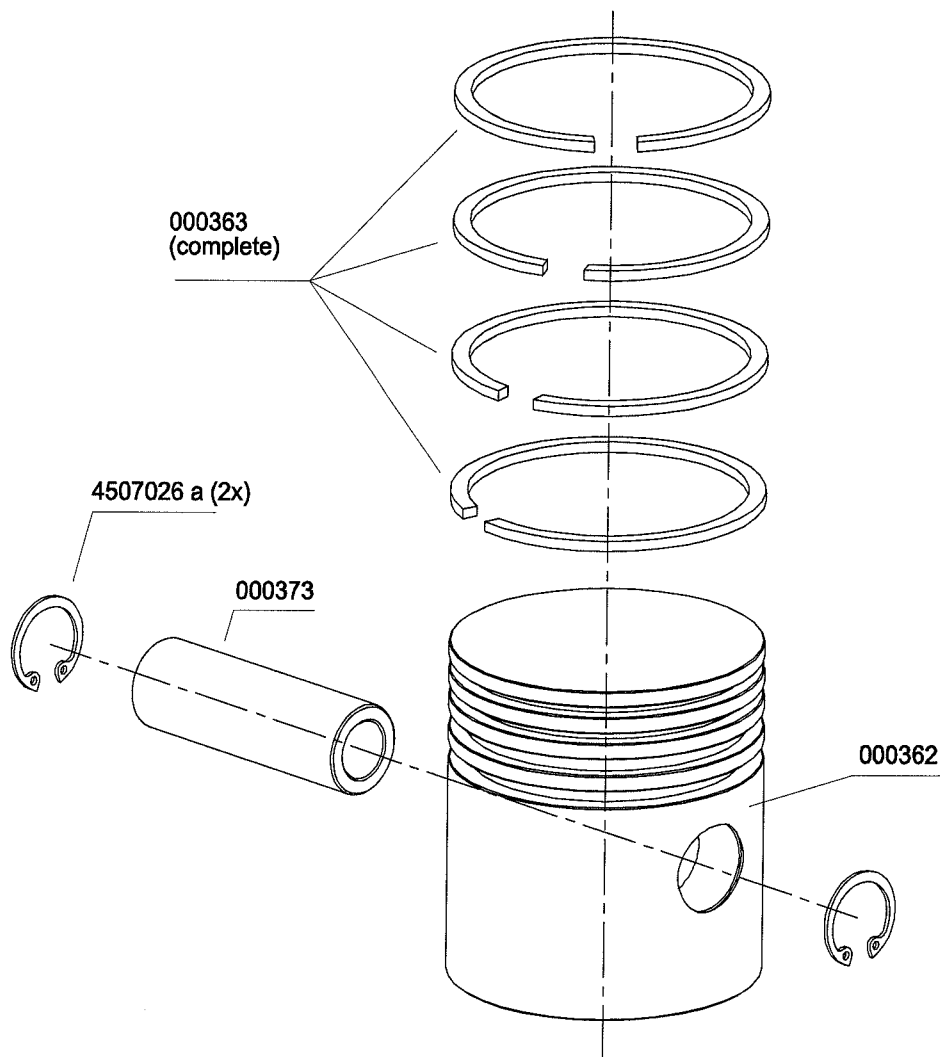
A (2:1)



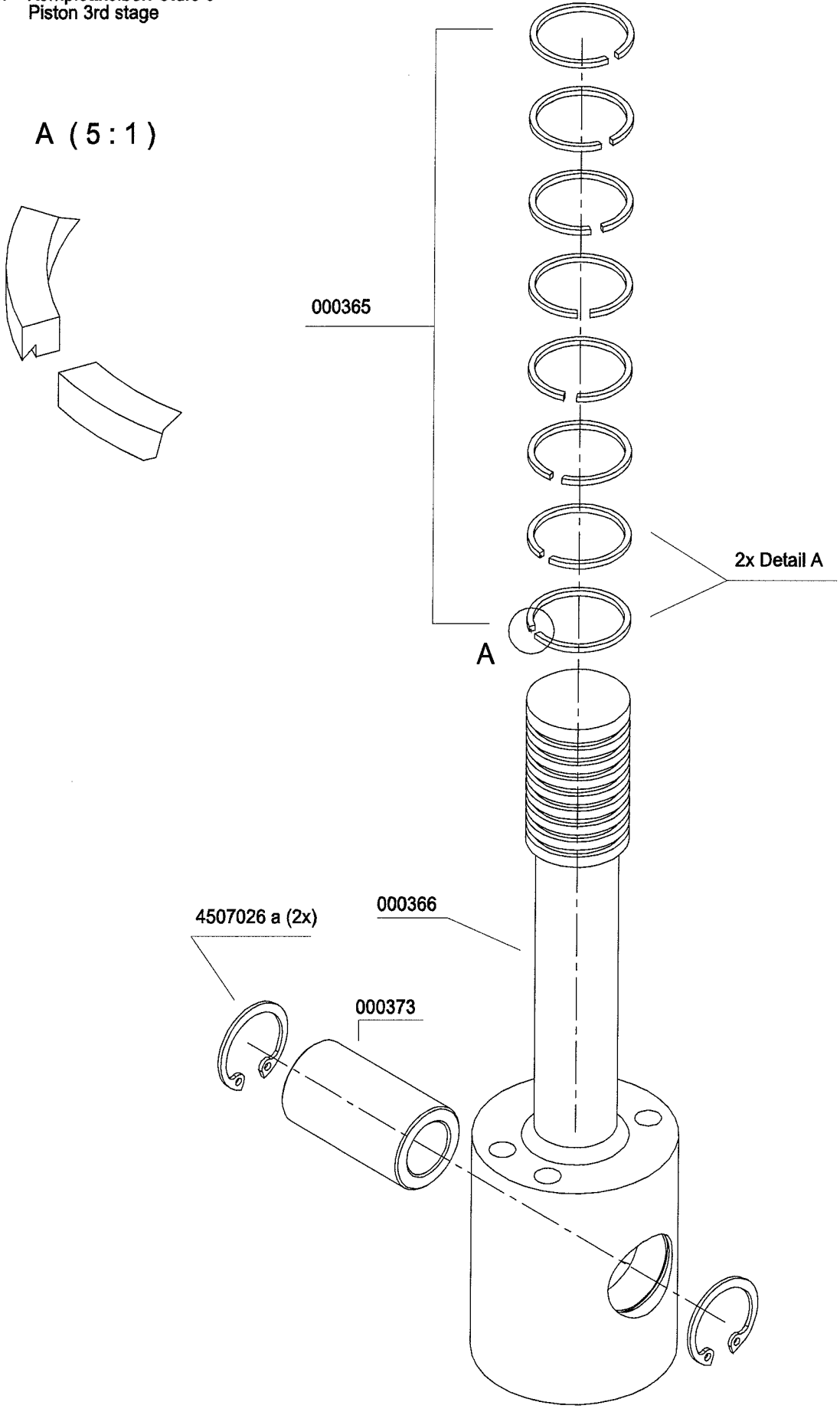
B (1:1)



Kompressor: L&W 570 ES
Baugruppe: Komplettkolben Stufe 2
Assembly: Piston 2nd Stage

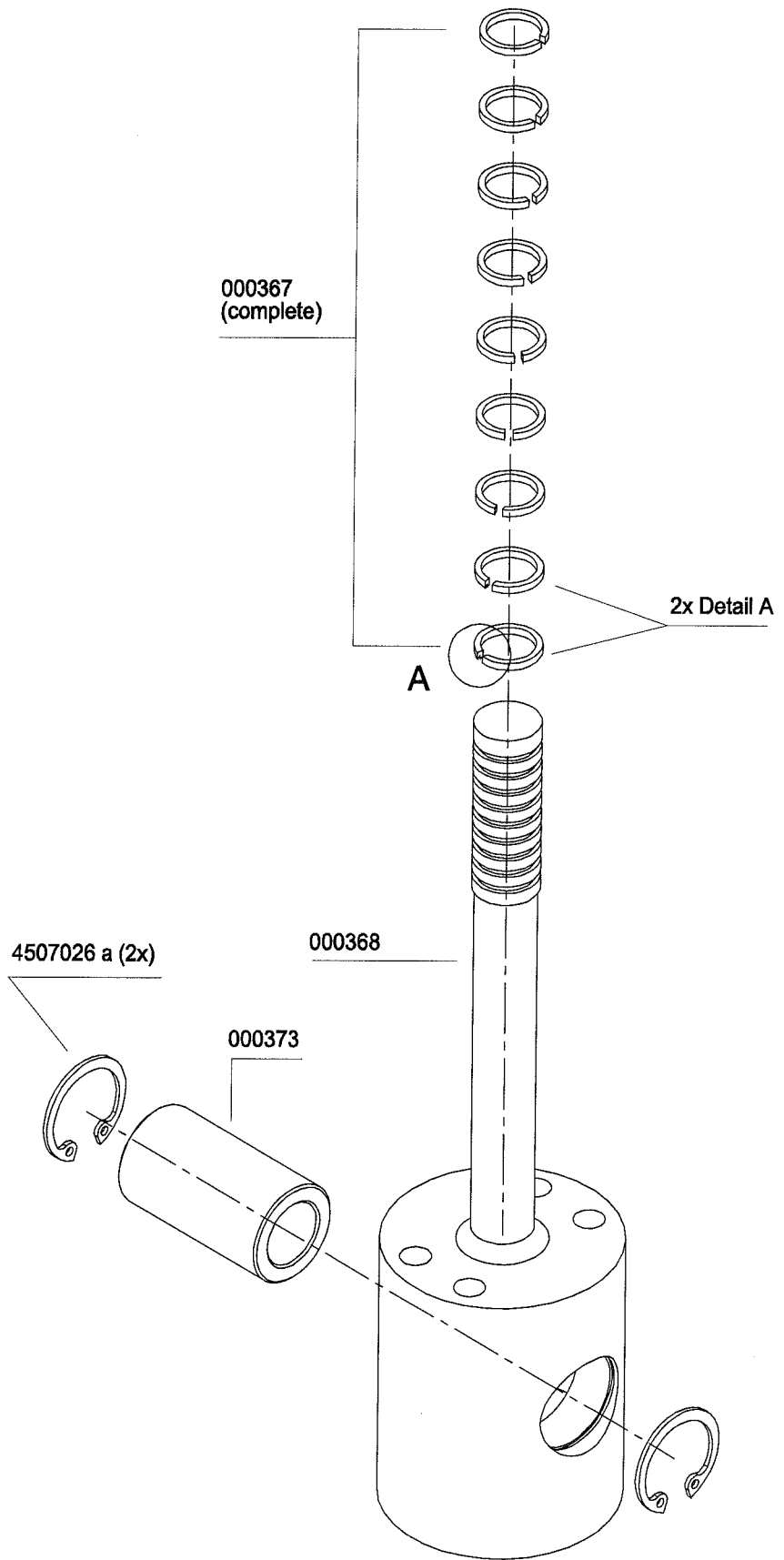
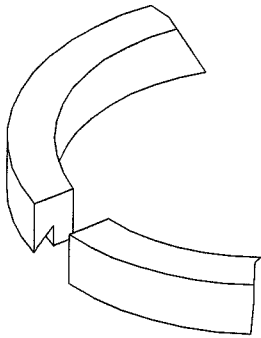


Kompressor: L&W 570 ES
Baugruppe: Komplettkolben-Stufe 3
Assembly: Piston 3rd stage

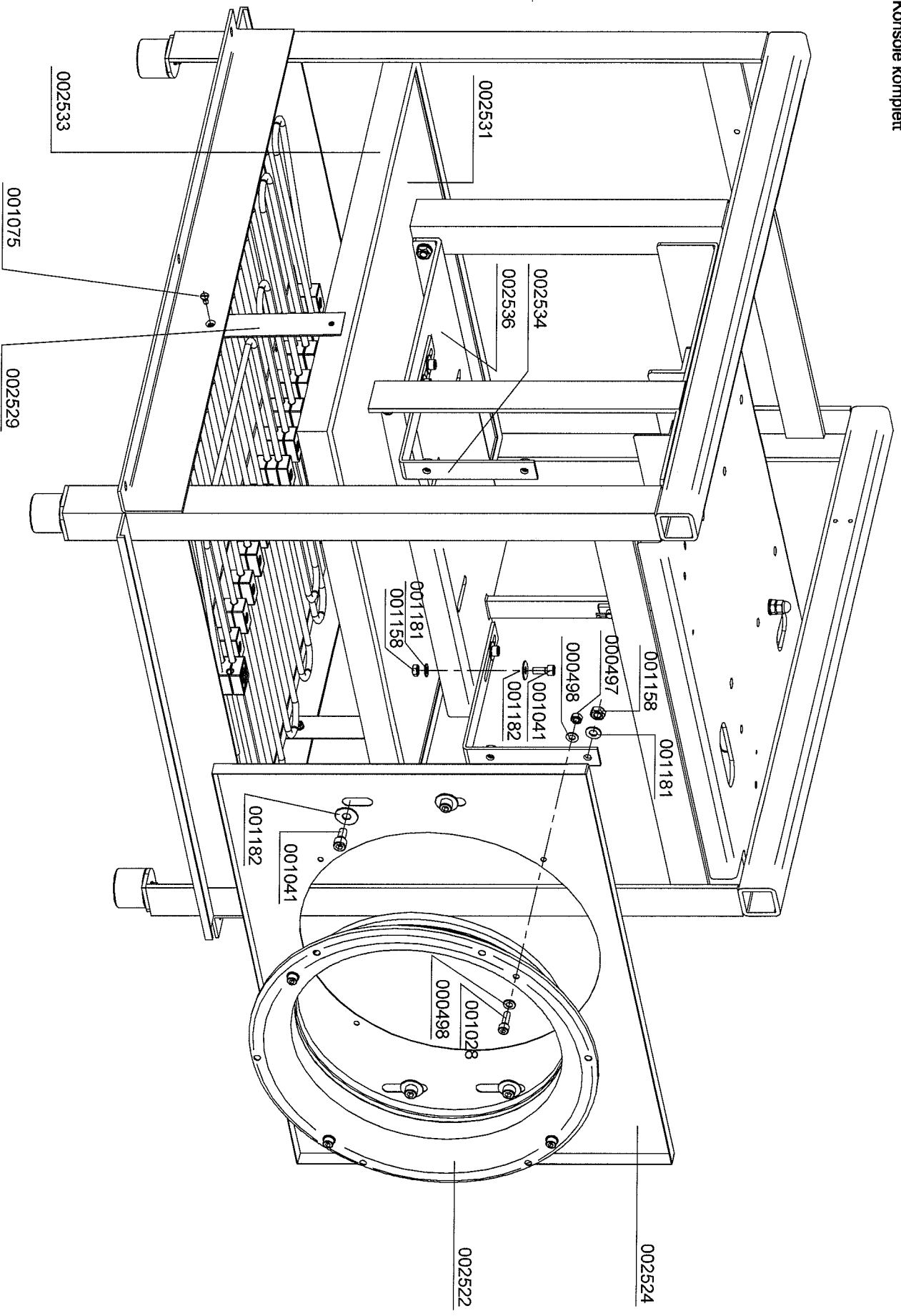


Kompressor: L&W 570 ES
Baugruppe: Komplettkoiben-Stufe 4
Assembly: Piston 4th Stage

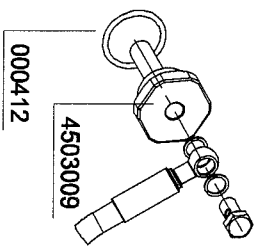
Detail A (5 : 1)



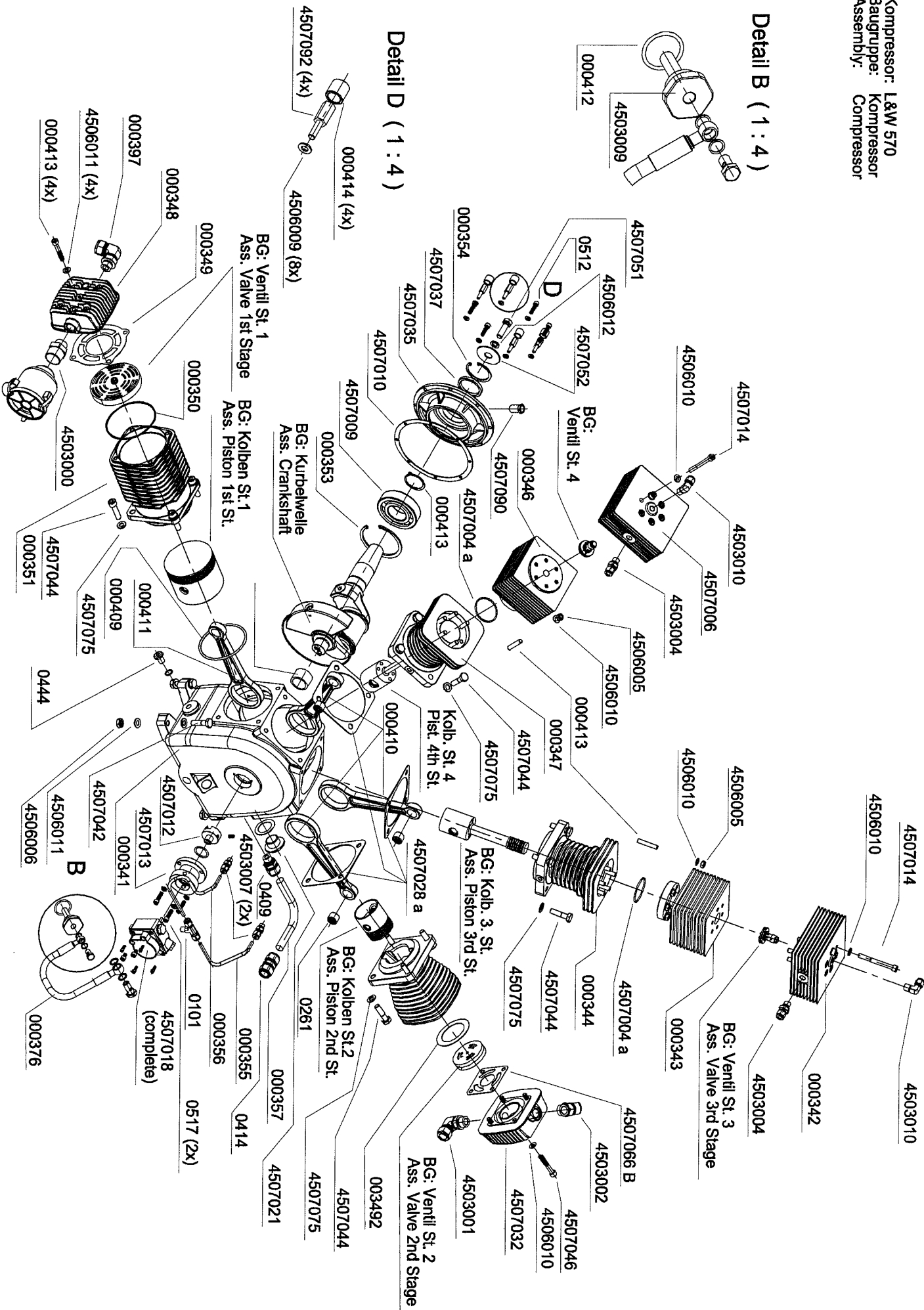
Kompressor: L&W 570 ES
Baugruppe: Konsole komplett
Assembly:



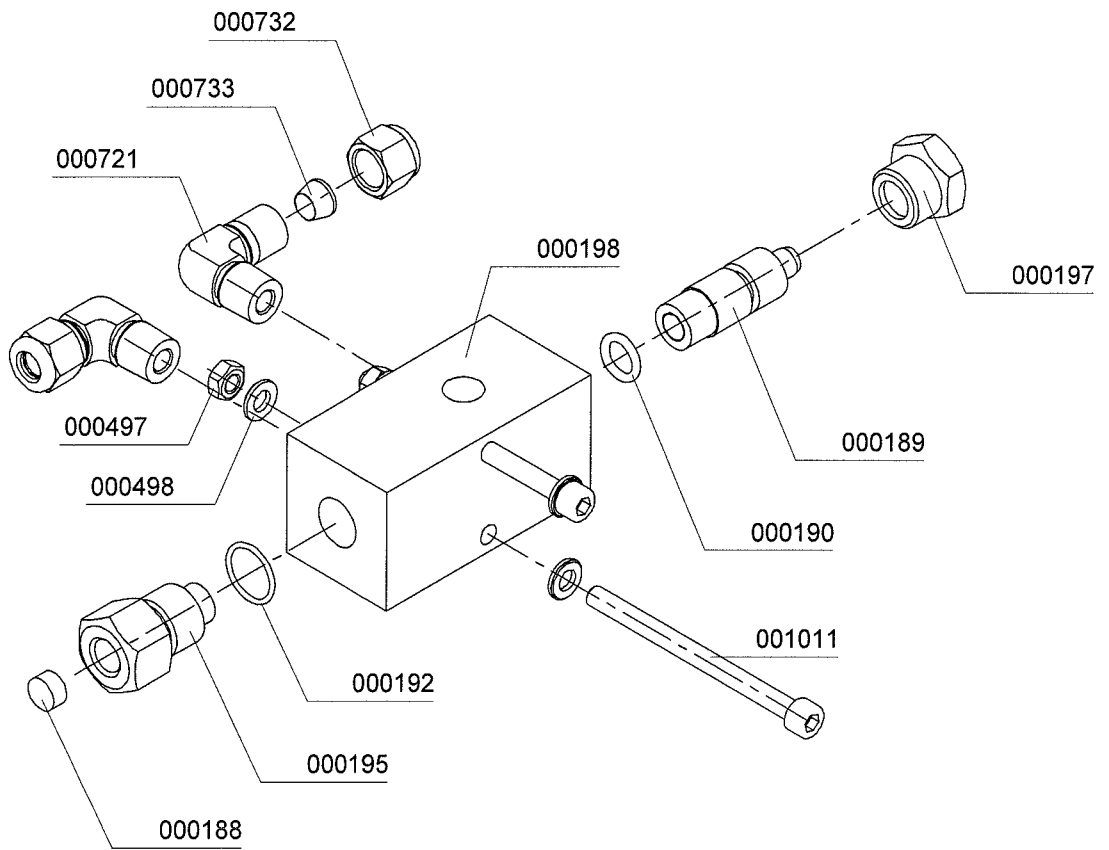
Detail B (1:4)



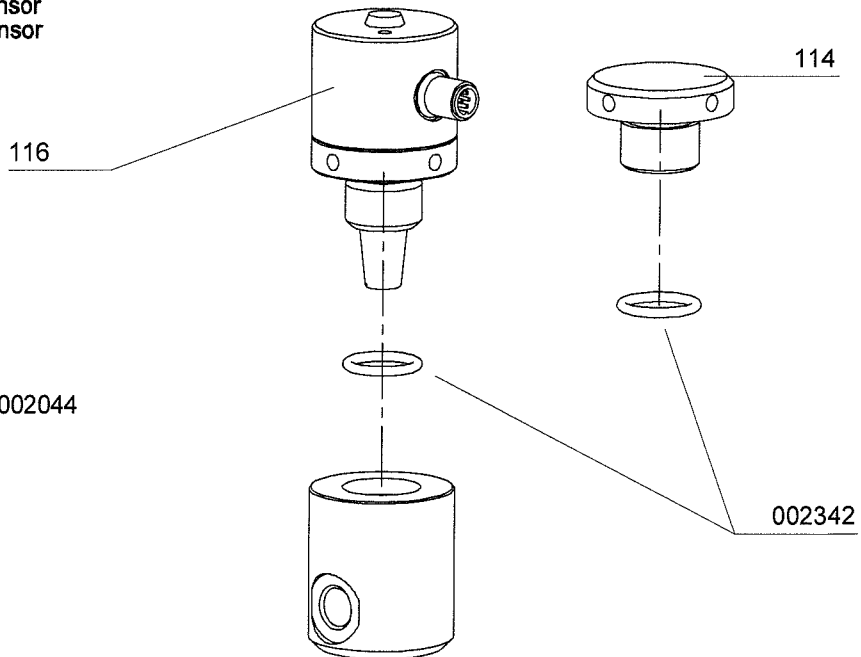
Detail D (1:4)



Kompressor: L&W 570 ES
Baugruppe: Kondensatabscheidung
Assembly: Condensat-Separator

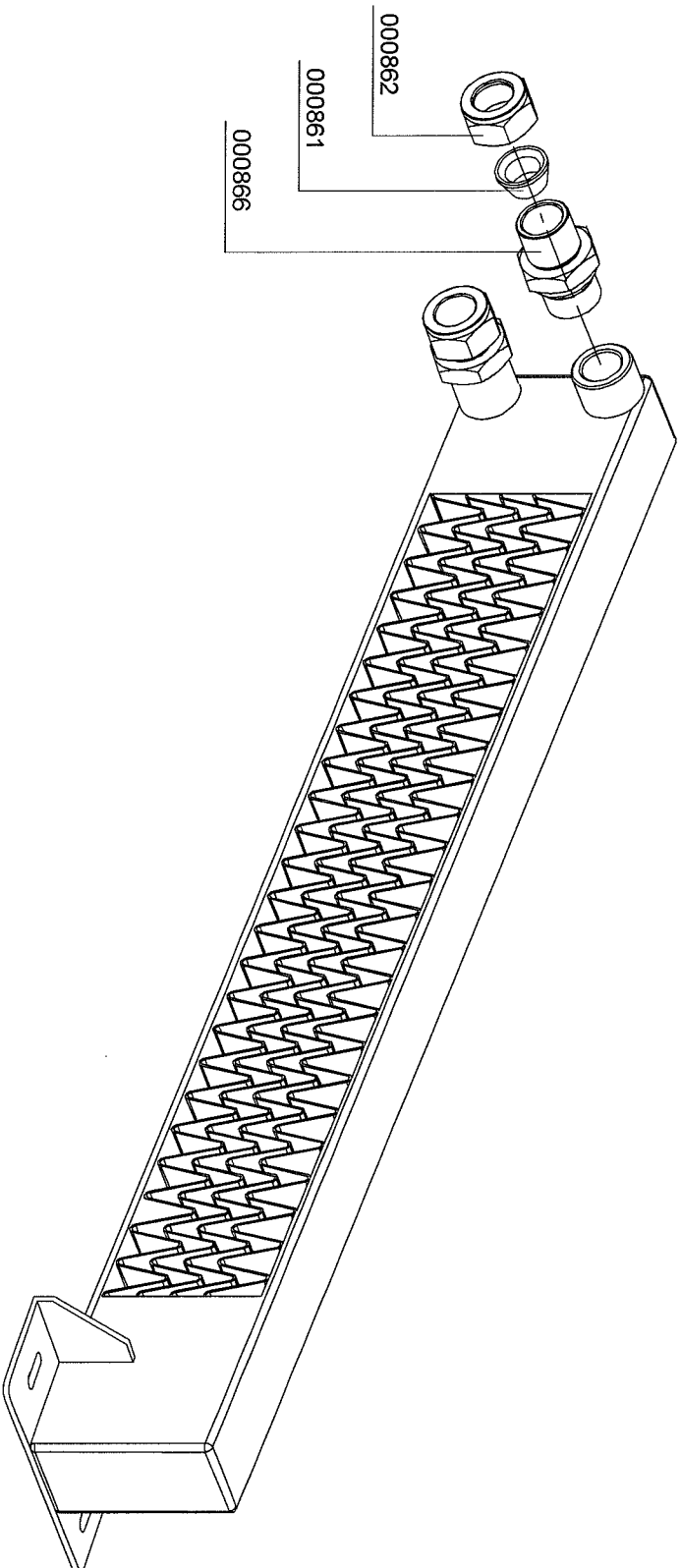


Kompressor: L&W 570 ES
Baugruppe: Puracon-Sensor
Assembly: Puracon-Sensor

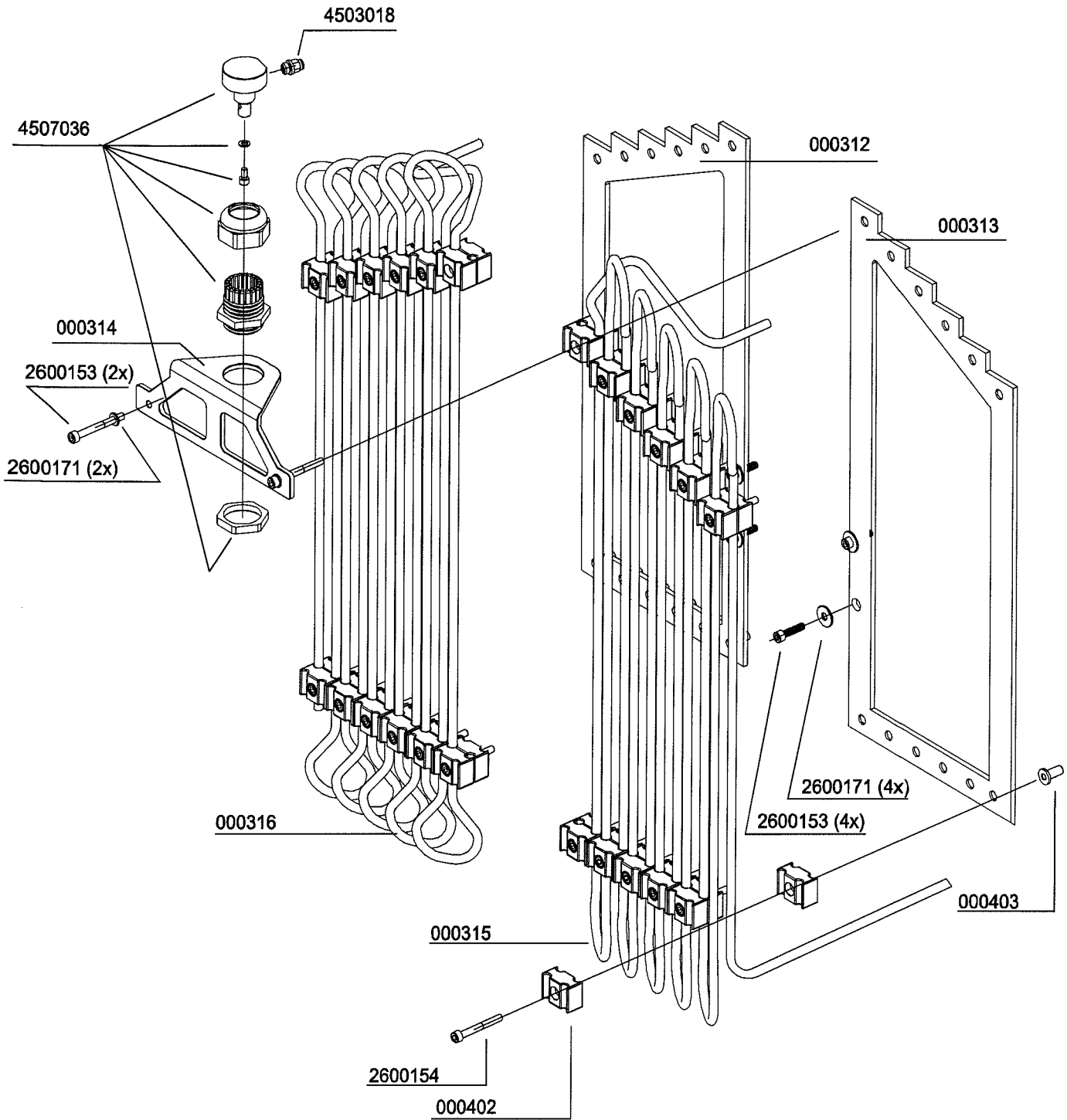


Complete Puracon Unit: 002044

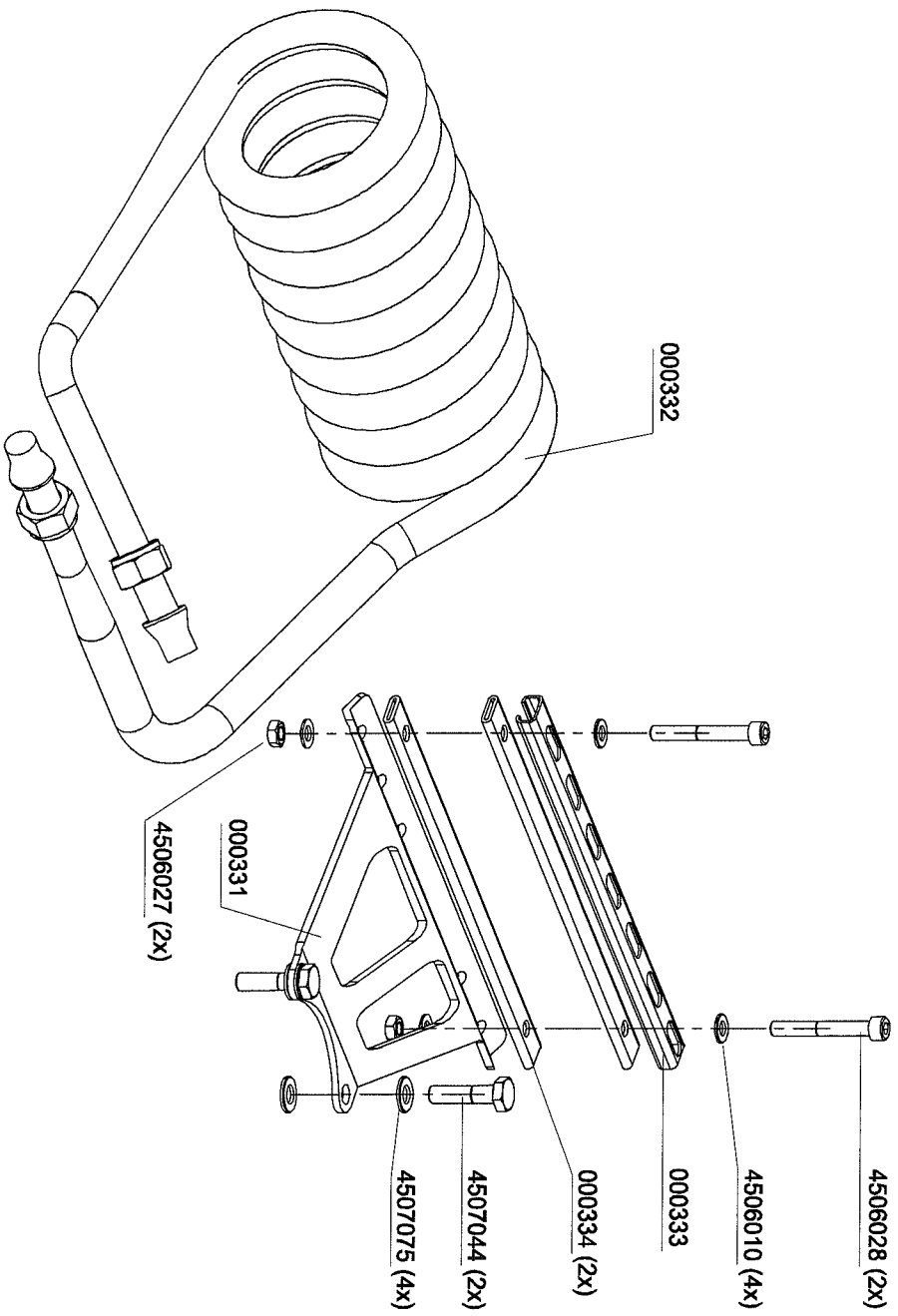
Kompressor: L&W 570 ES
Baugruppe: Kühler St. 1
Assembly: Cooler St. 1



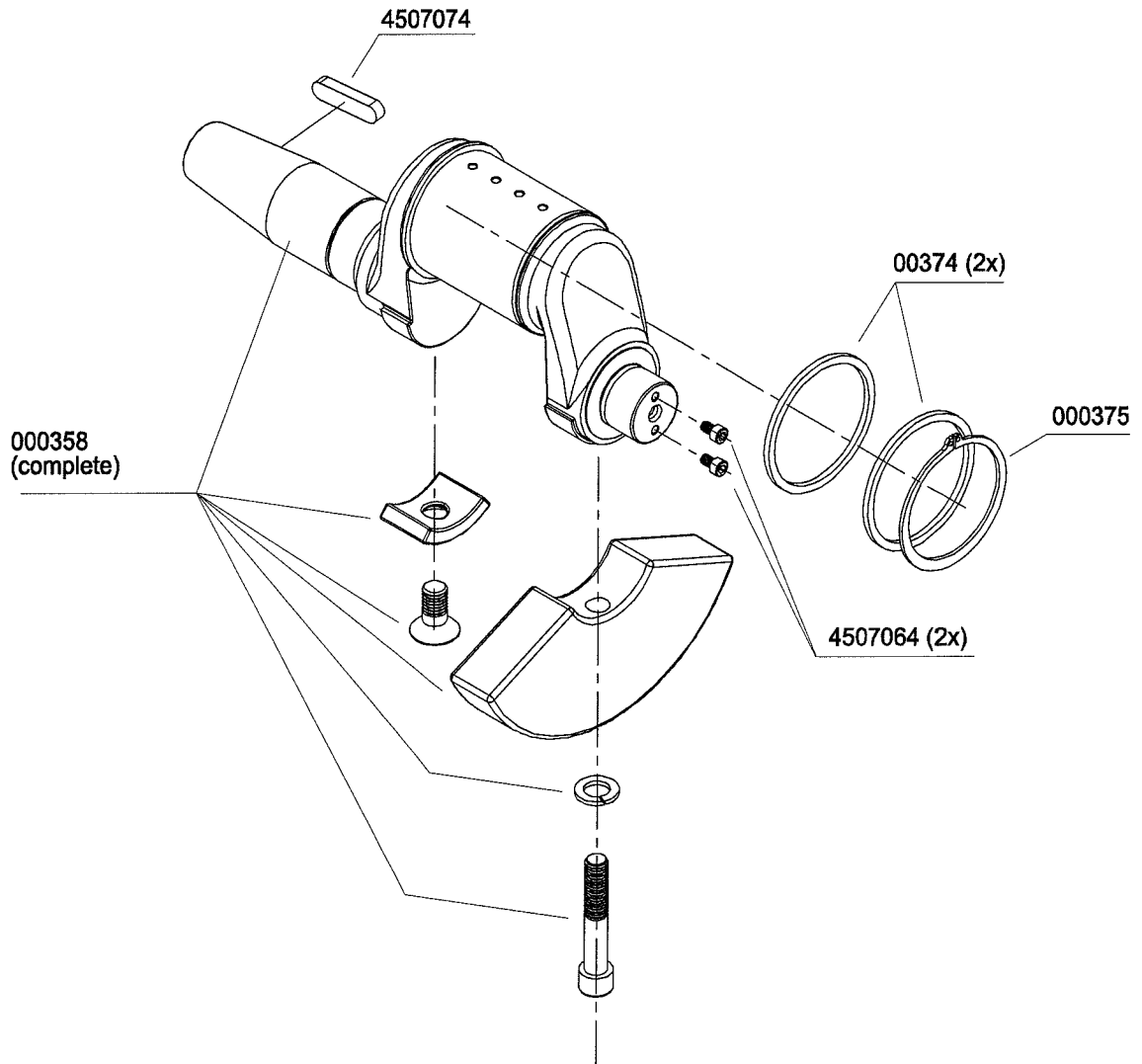
Kompressor: L&W 570 E
Baugruppe: Kühler Stufe 3 & 4
Assembly: Cooling Pipes 3rd & 4th Stage



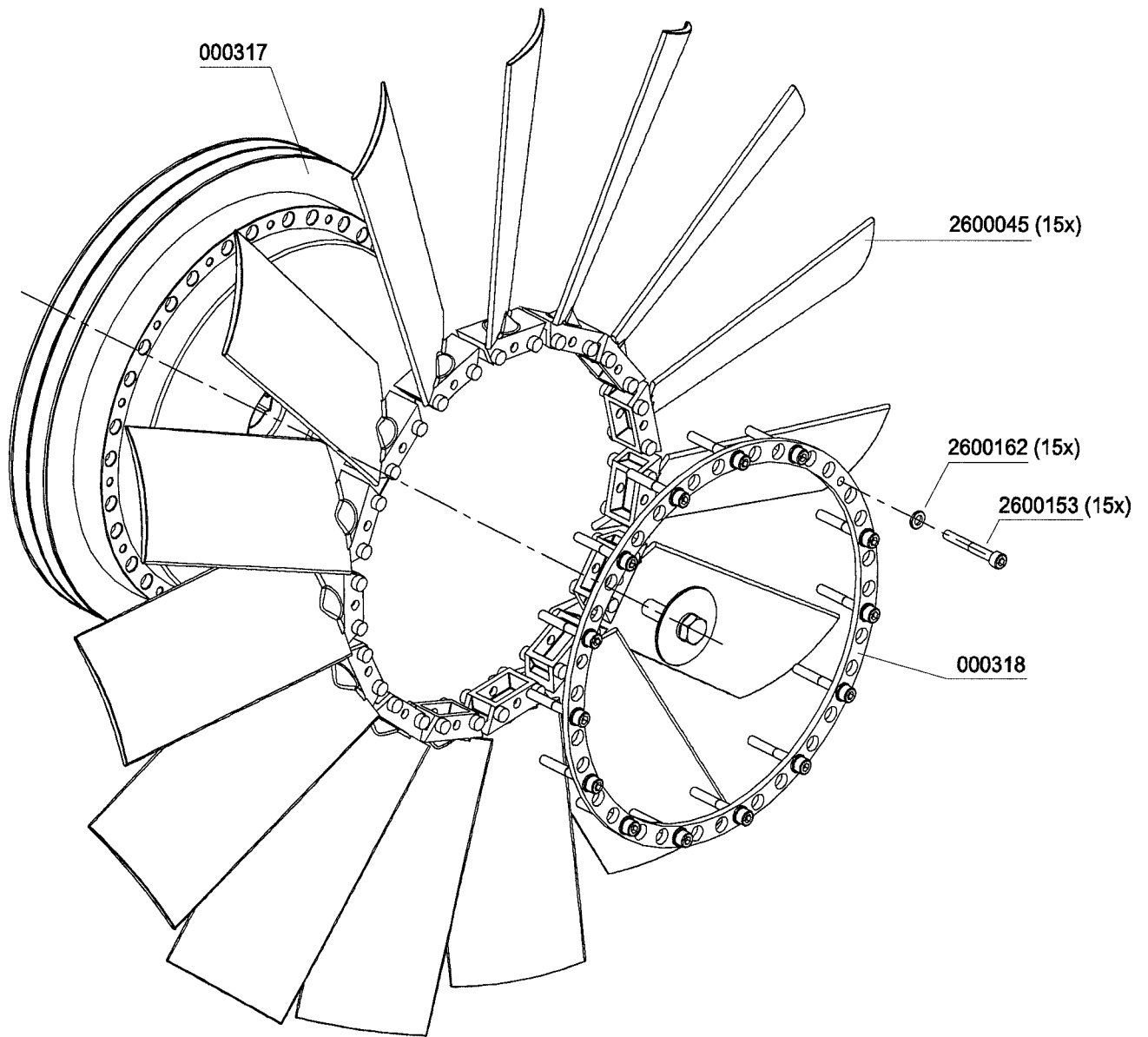
Kompressor: L&W 570 ES
Baugruppe: Kühlwendel-Stufe 2
Assembly: Cooling Pipe 2nd Stage



Kompressor: L&W 570
Baugruppe: Kurbelwelle
Assembly: Crankshaft



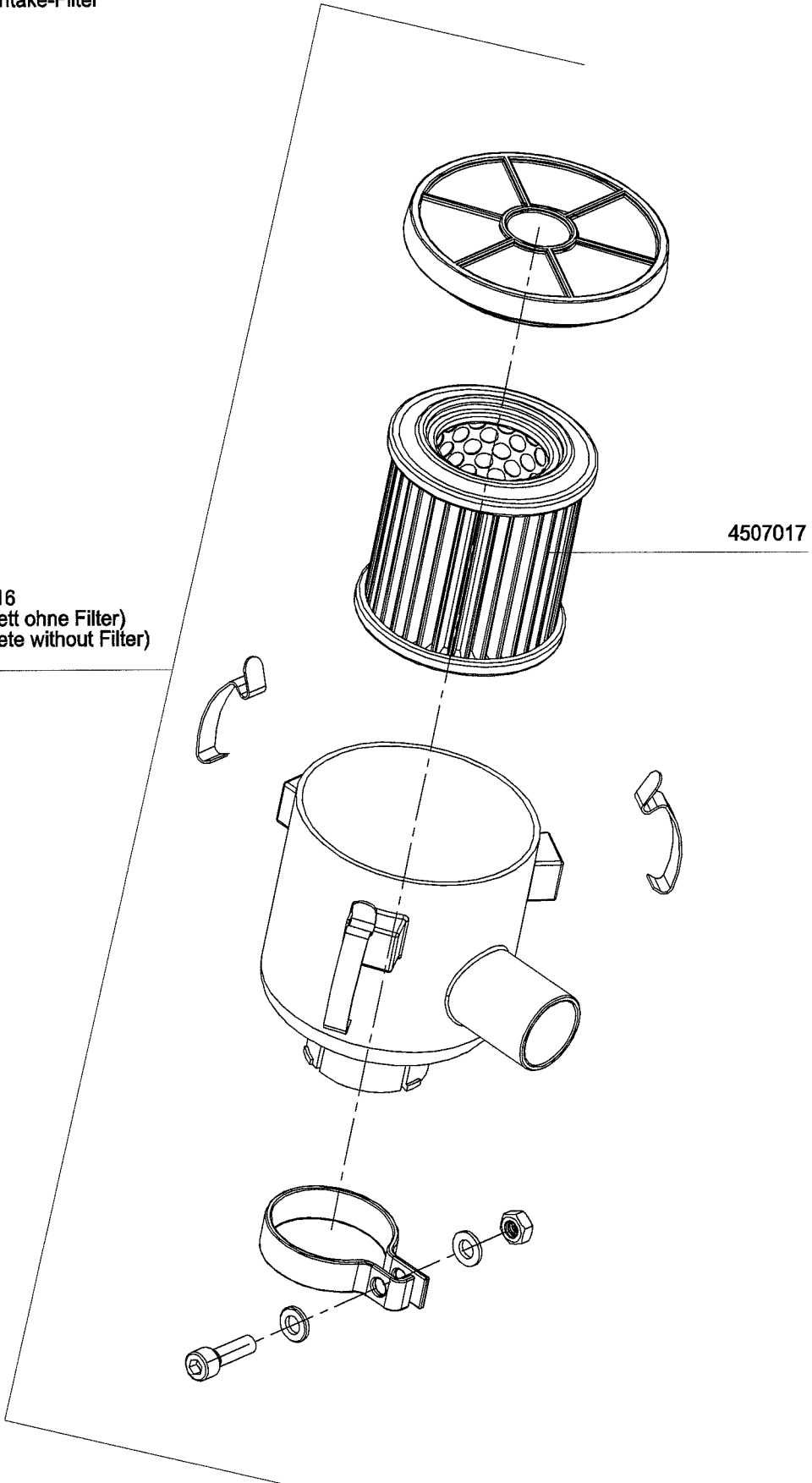
Kompressor: L&W 570
Baugruppe: Lüfterrad
Assembly: Flywheel & Cooling Fan



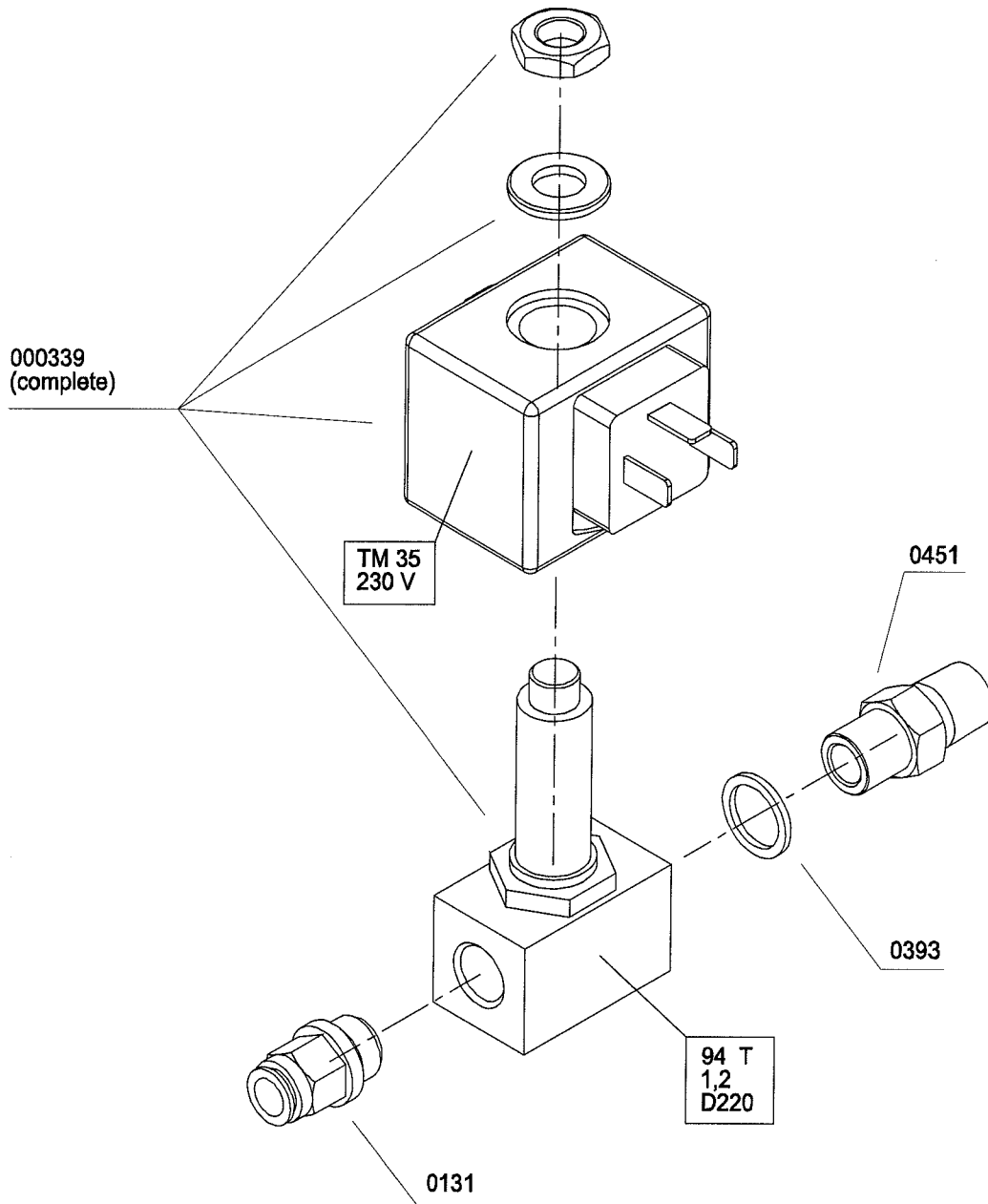
Kompressor: L&W 570
Baugruppe: Luftfilter
Assembly: Air-Intake-Filter

4507016
(komplett ohne Filter)
(complete without Filter)

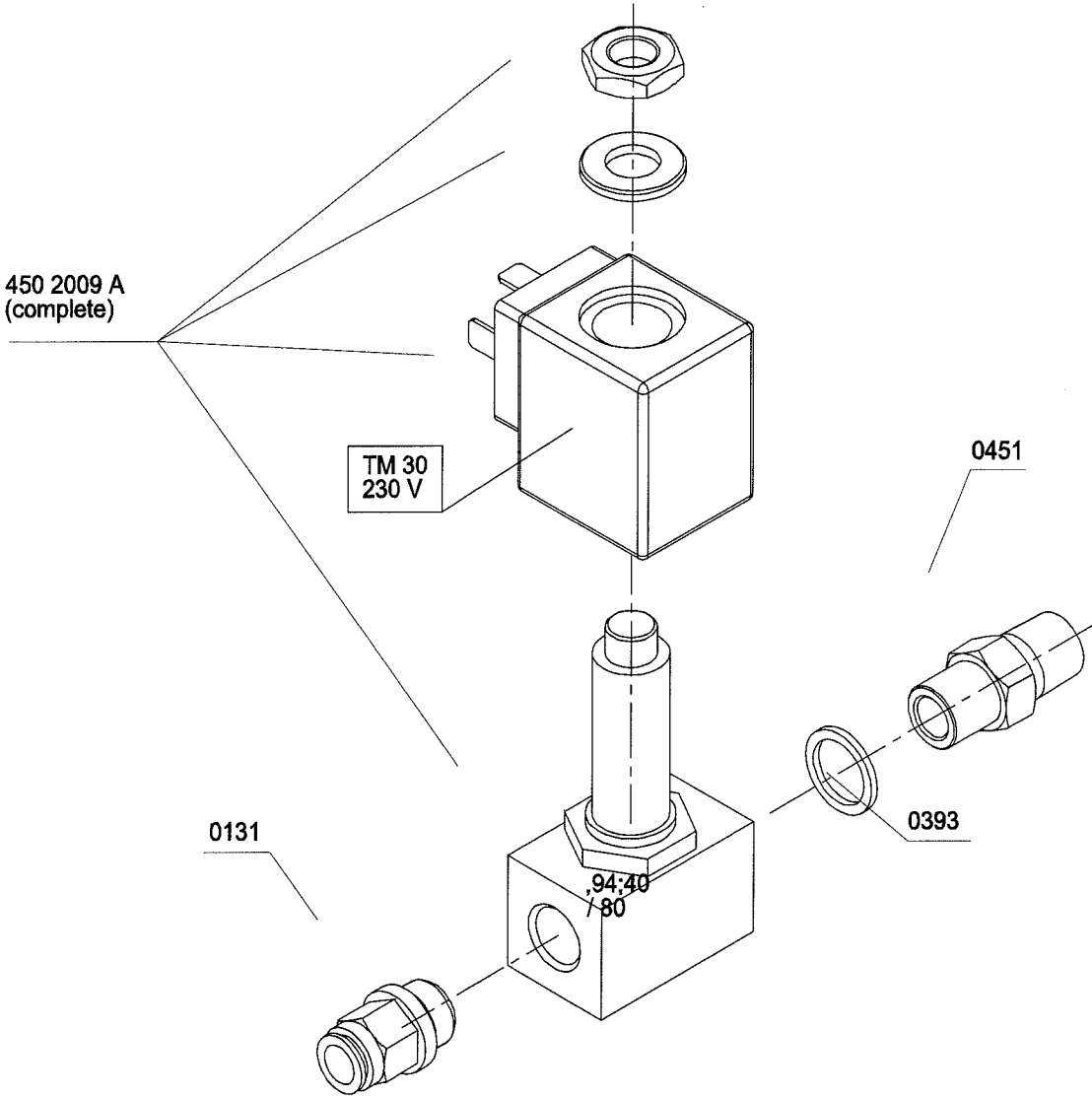
4507017



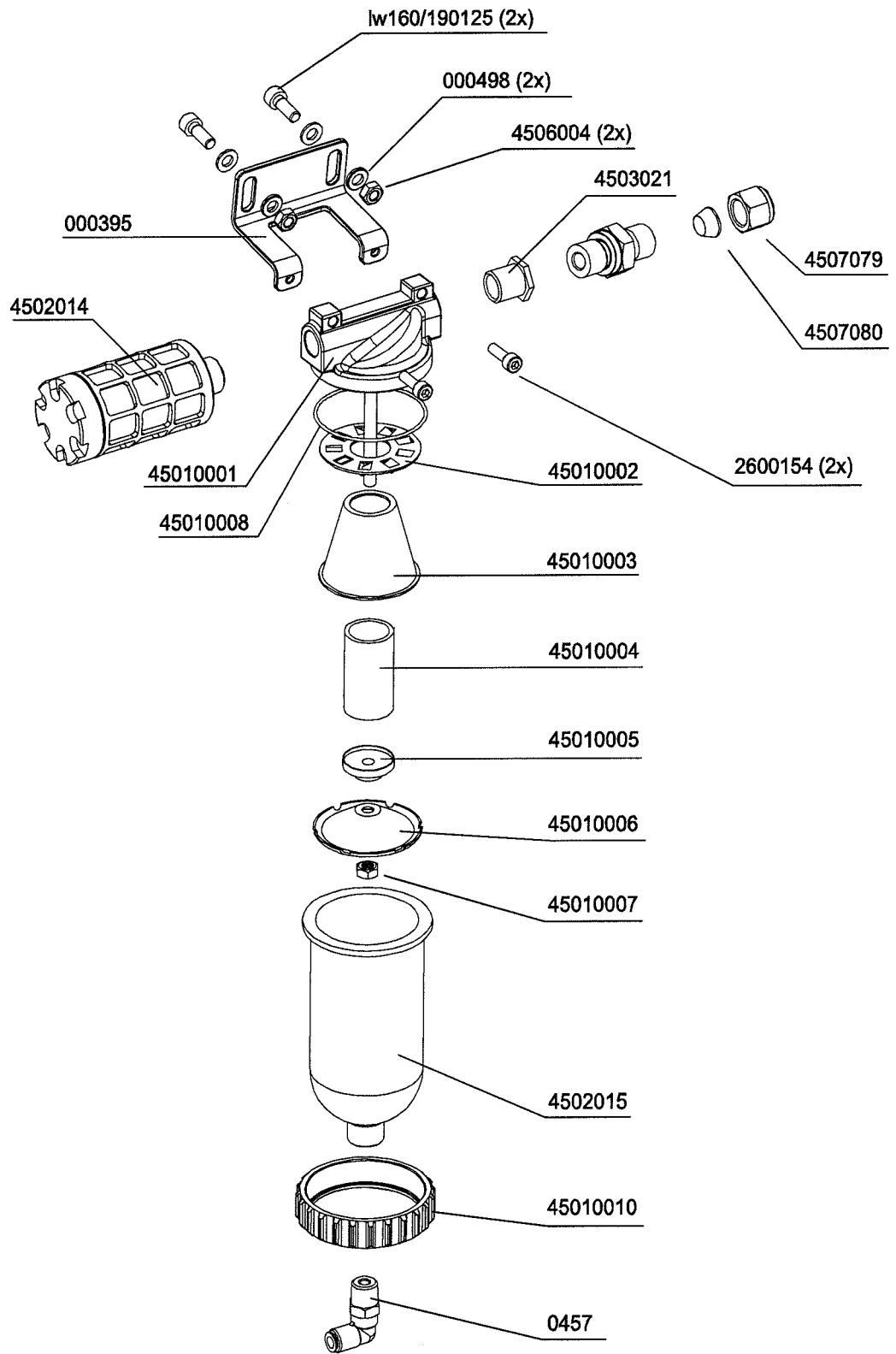
Kompressor: L&W 570
Baugruppe: Magnetventil Stufe 3
Assembly: Solenoid 3rd Stage



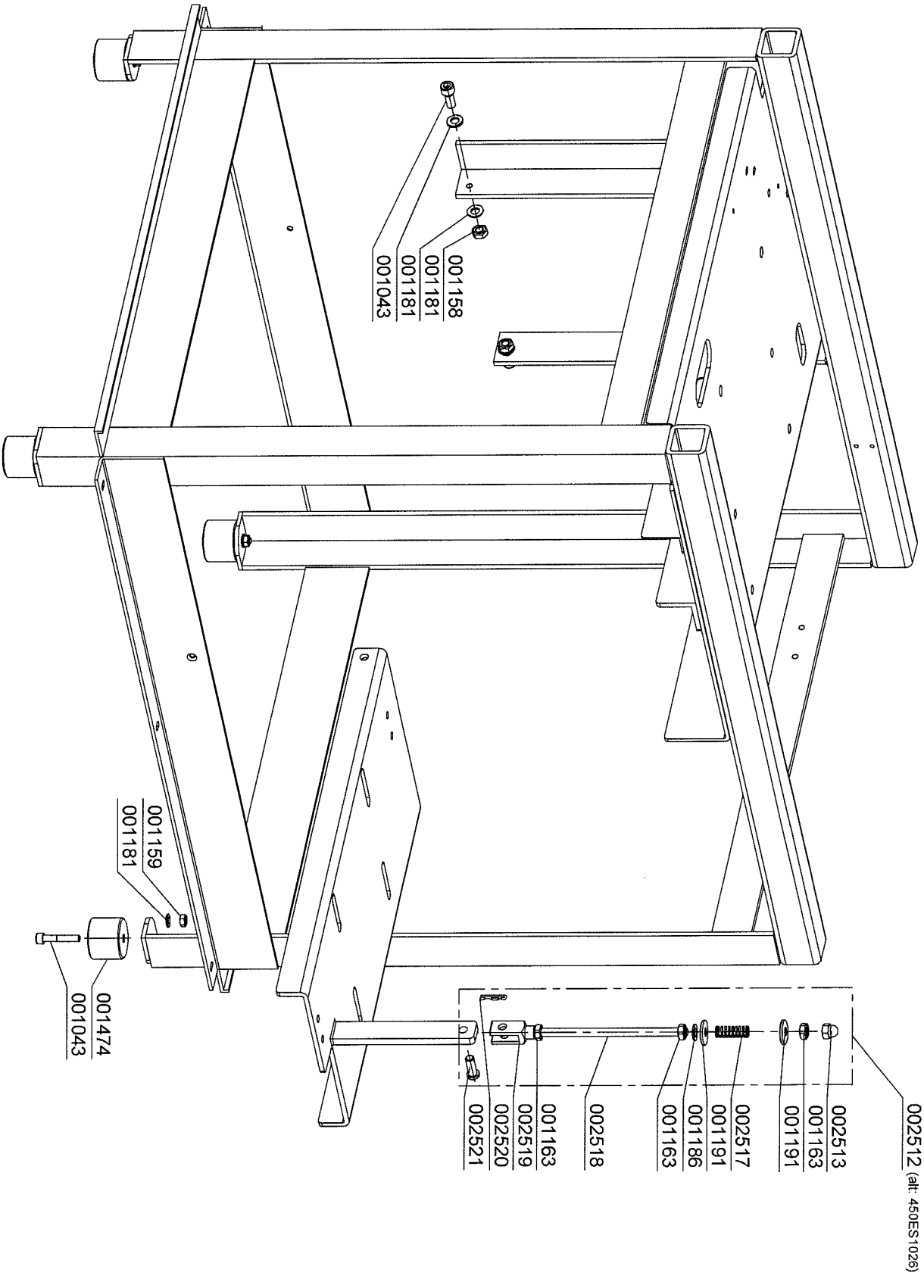
Kompressor: L&W 570 ES
Baugruppe: Magnetventil Stufe 1 + 2
Assembly: Solenoid 1st & 2nd Stage



Kompressor: L&W 570 ES
Baugruppe: Ölabscheider (Endstufe)
Assembly: Oil Separator (Final Stage)

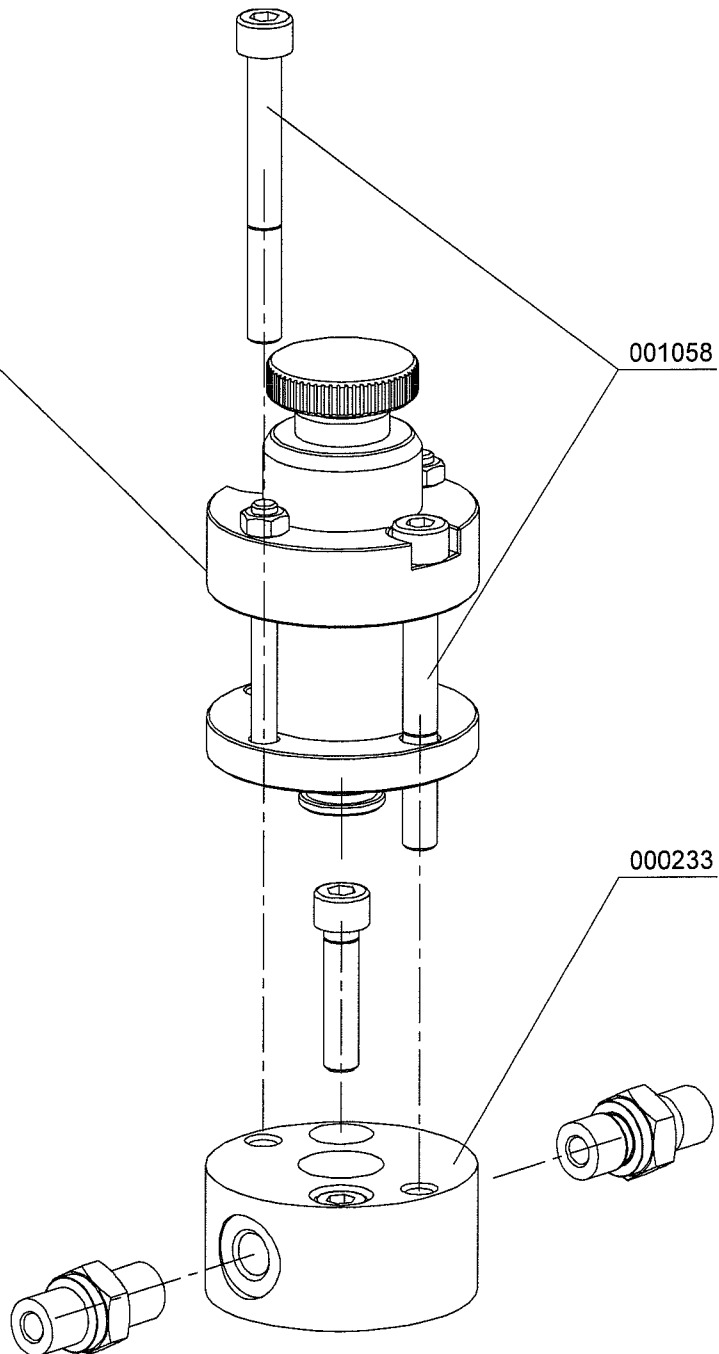


Kompressor: L&W 570 ES
 Baugruppe: Rahmen
 Assembly: Frame

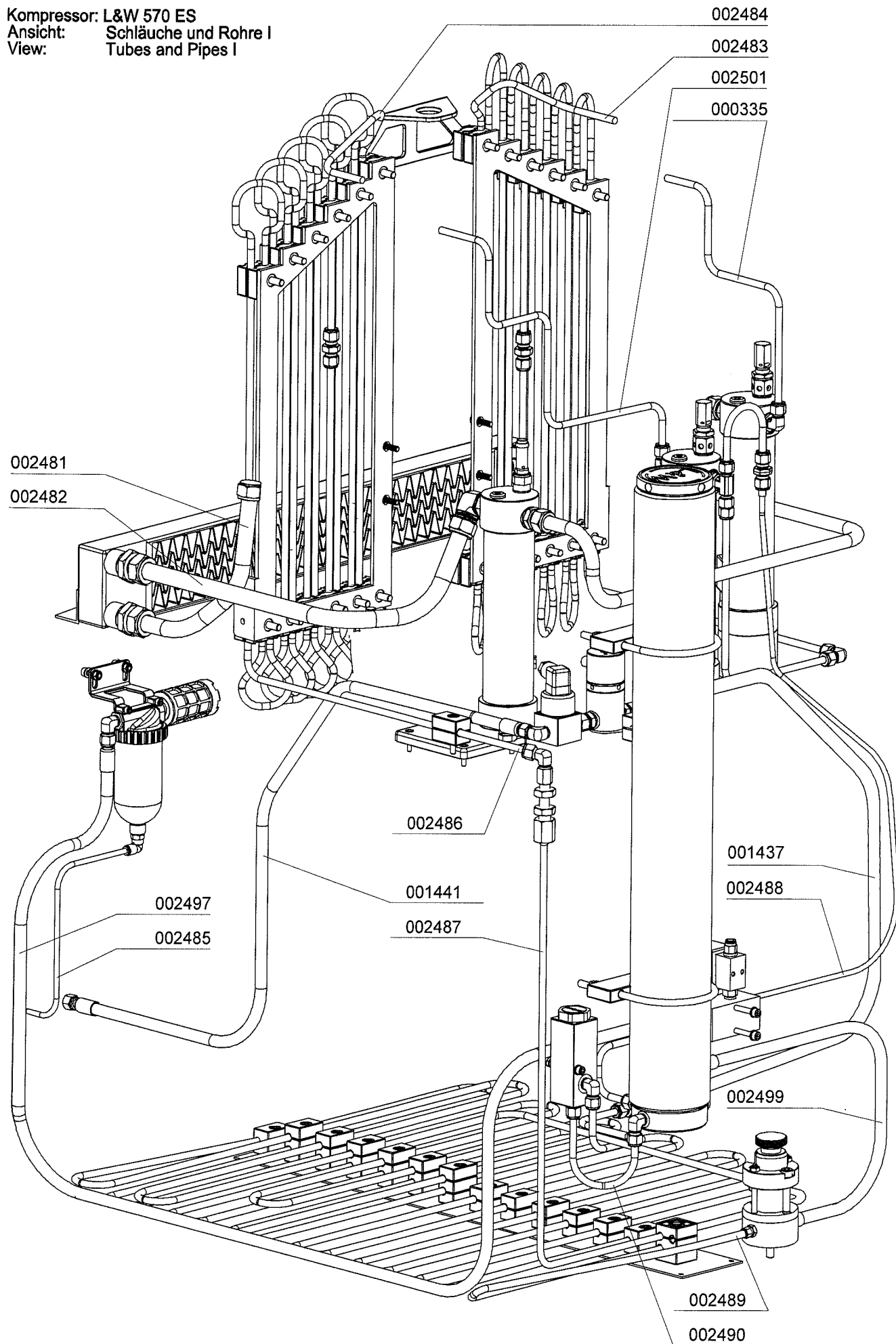


Kompressor: L&W 570
 Baugruppe: Sicherheitsventil
 Assembly: Safety Valve

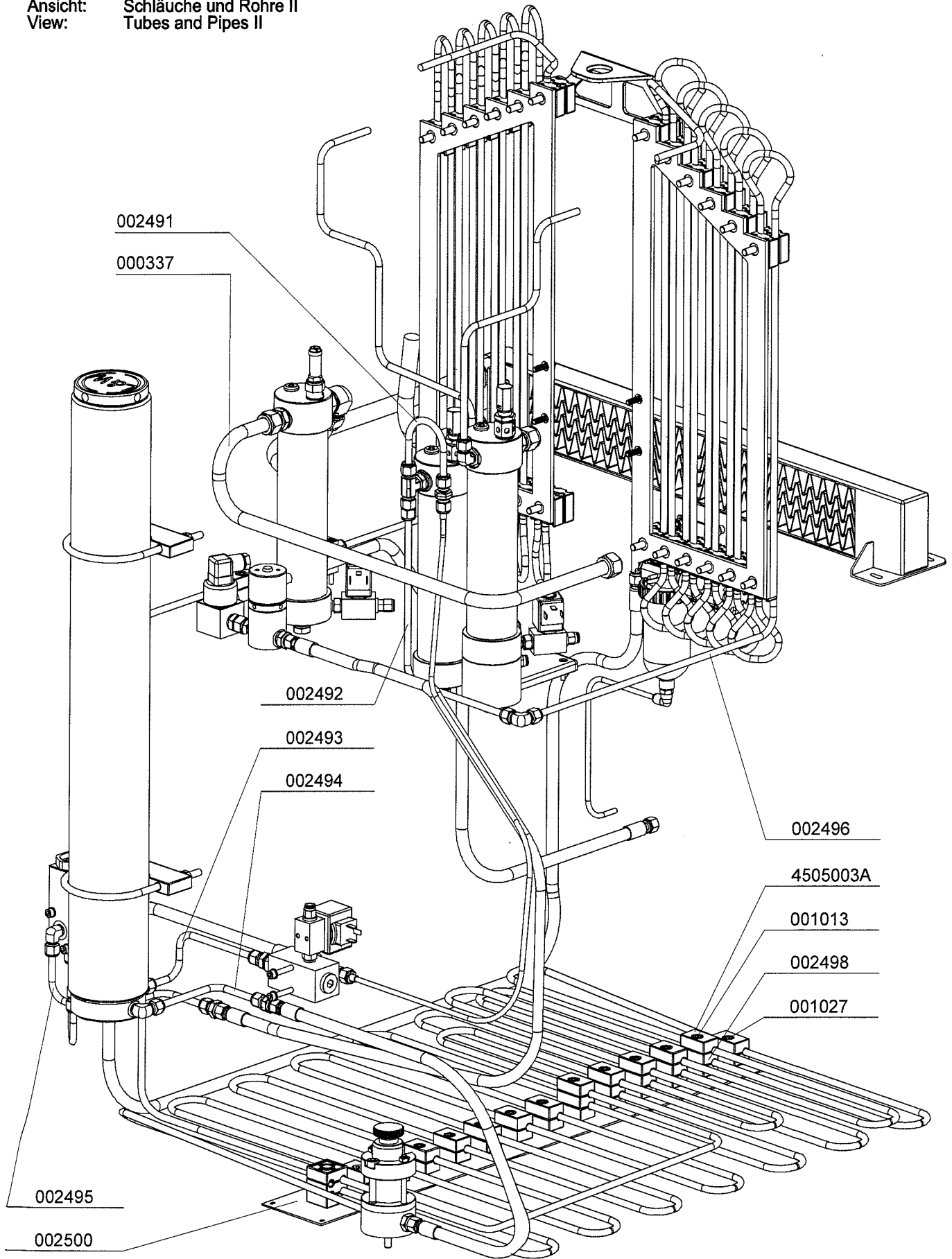
Druck / Pressure	SV-Ventile mit CE-Prüfung Safety Valves with CE-Approval	SV-Ventile mit TÜV-Prüfung Safety Valves with TÜV-Approval
225 bar	001814	000553
250 bar	001815	000554
285 / 300 bar		000555
330 bar	001816	000556
350 bar	001817	000557



Kompressor: L&W 570 ES
Ansicht: Schläuche und Rohre I
View: Tubes and Pipes I

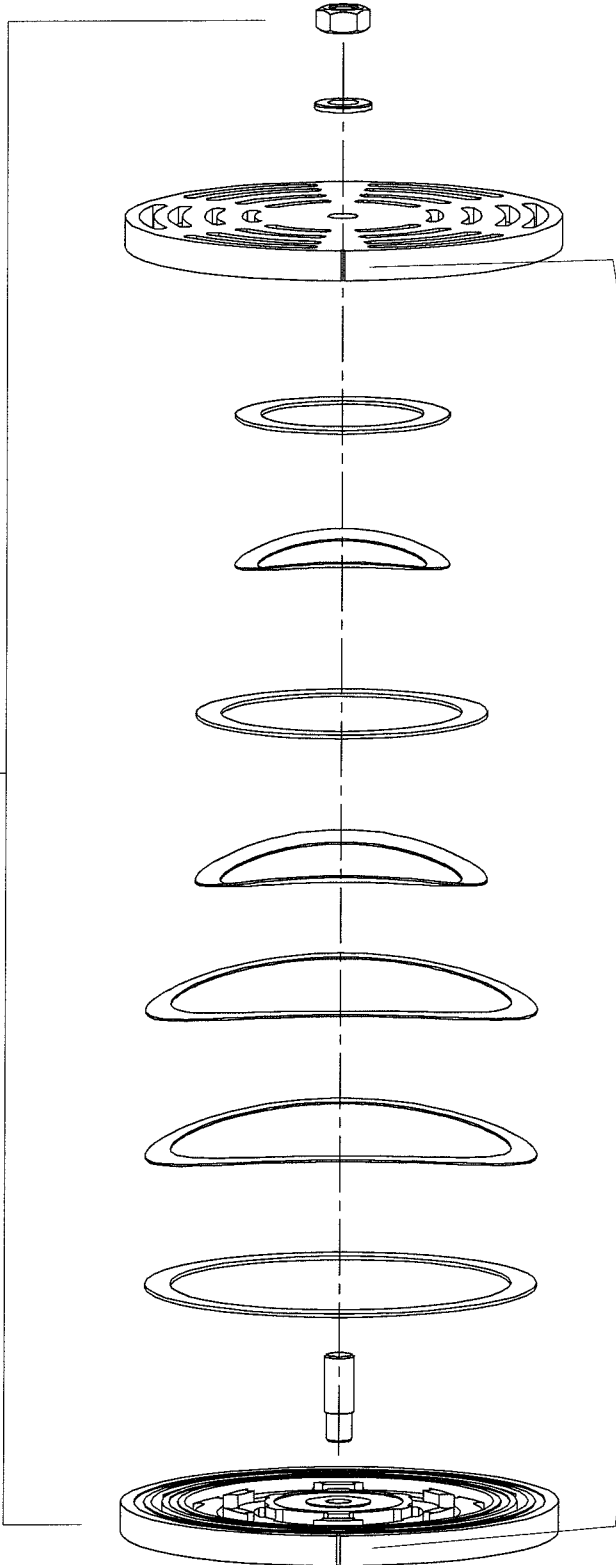


Kompressor: L&W 570 ES
Ansicht: Schläuche und Rohre II
View: Tubes and Pipes II



Kompressor: L&W 570 ES
Baugruppe: Ventil-Stufe 1
Assembly: Valve 1st Stage

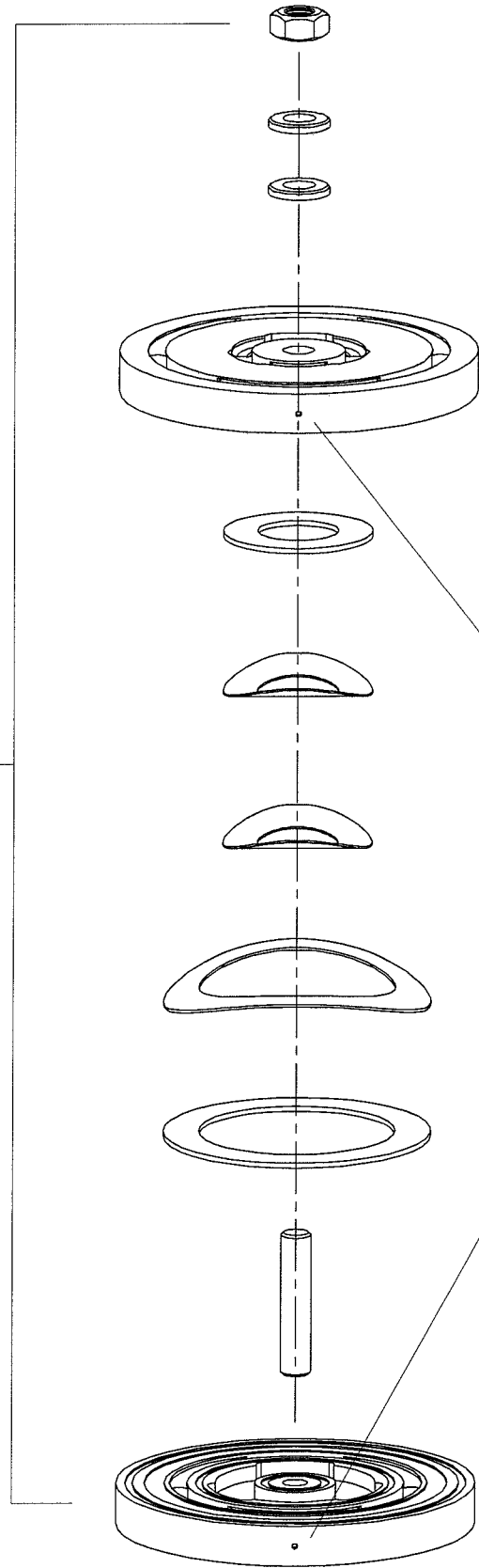
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Markierungen in
Deckung bringen
Align Marks

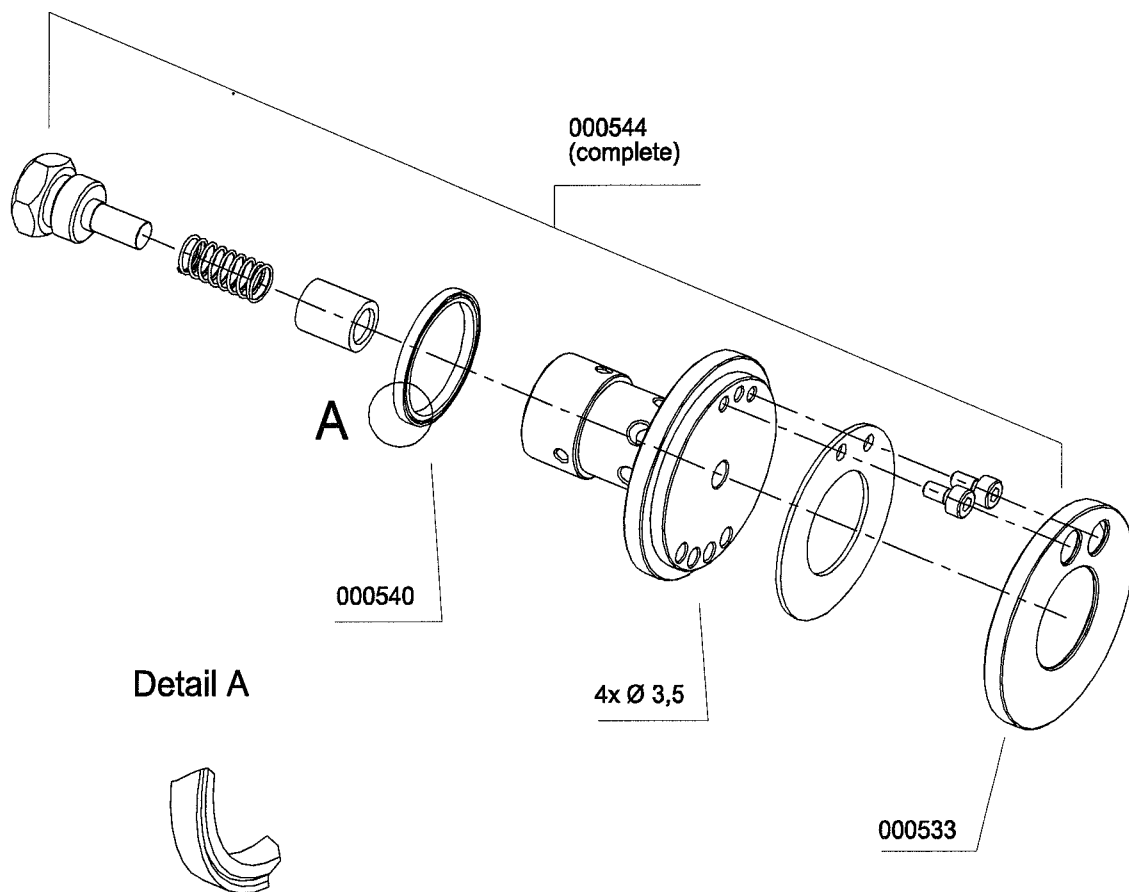
Kompressor: L&W 570 ES
Baugruppe: Ventil-Stufe 2
Assembly: Valve 2nd Stage

4507065
(complete)

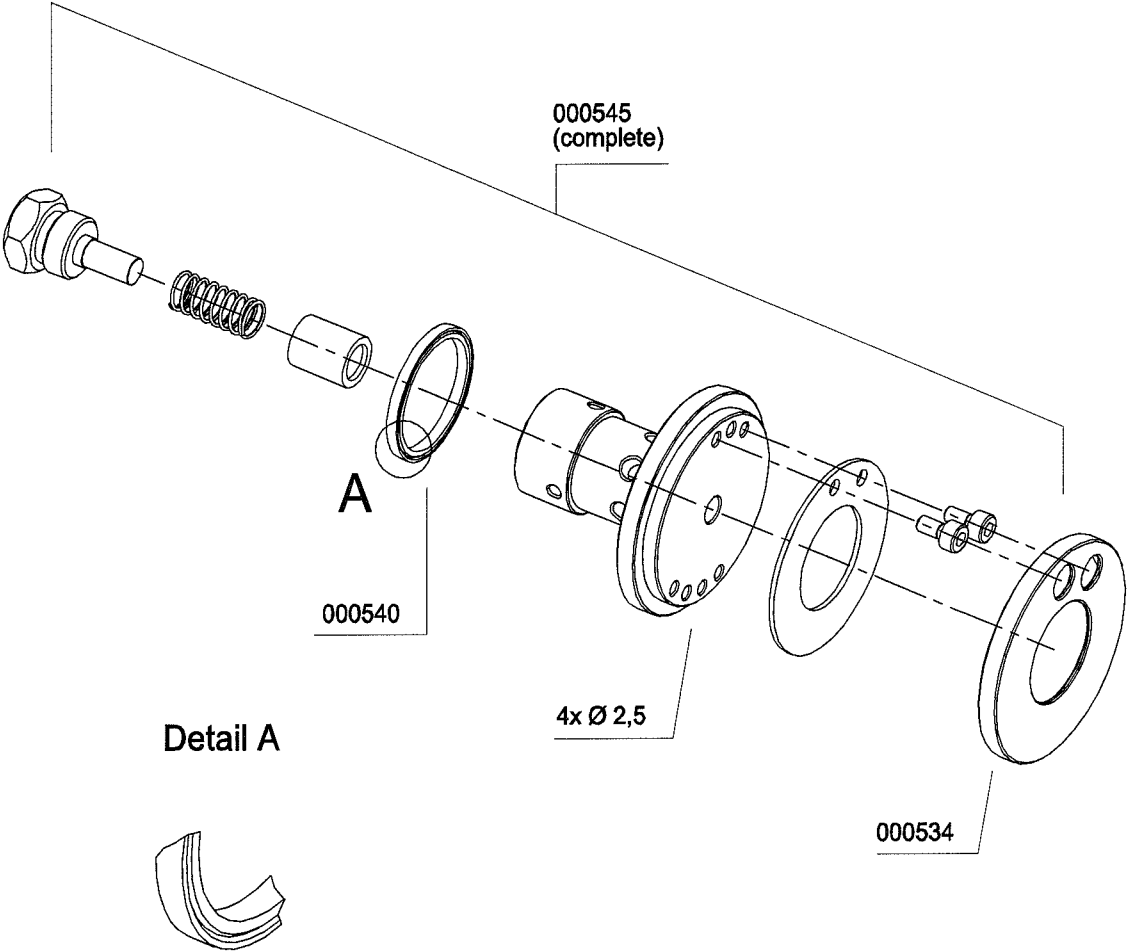


Markierungen zur
Deckung bringen
Align Marks

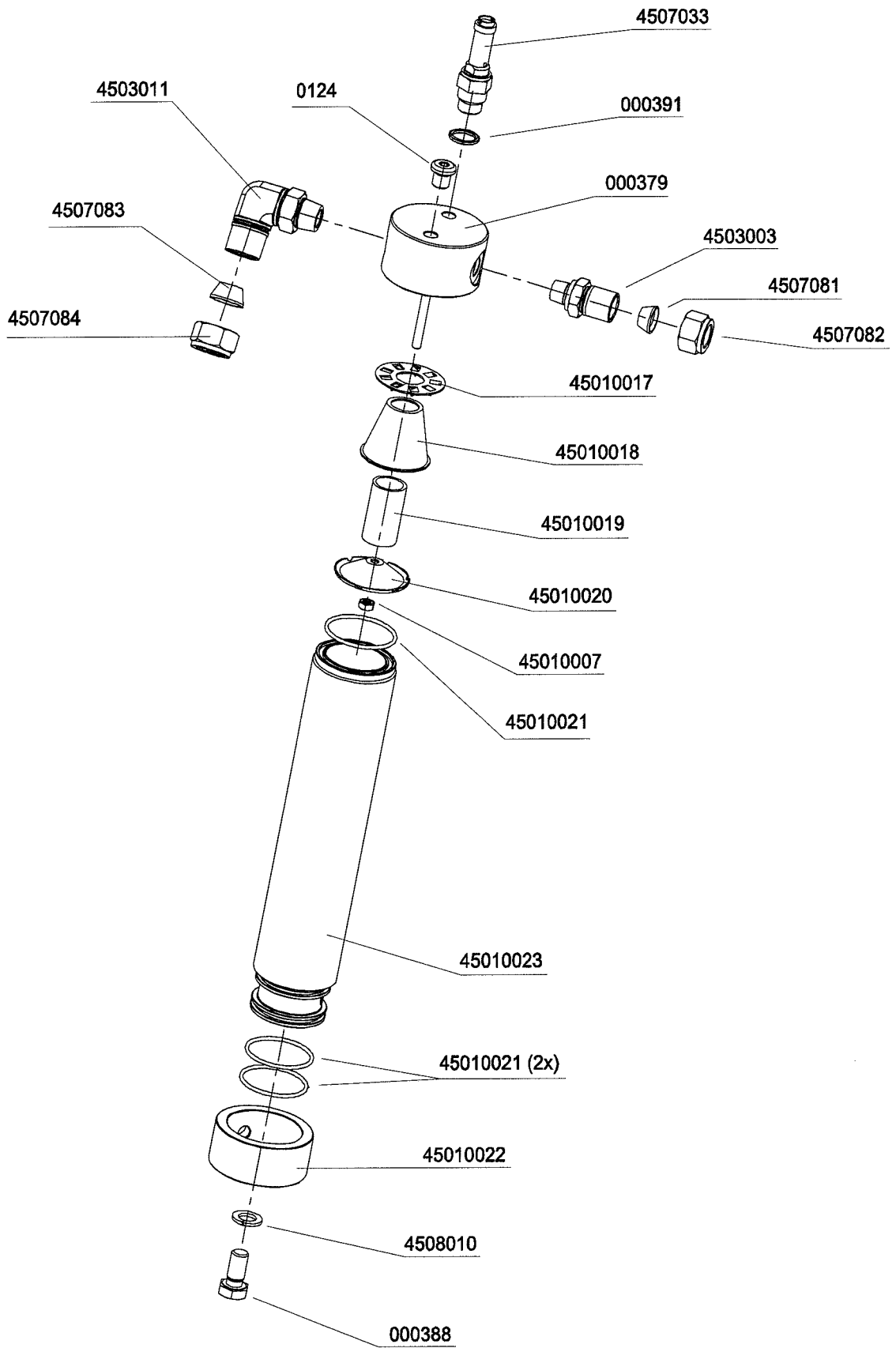
Kompressor: L&W 570 ES
Baugruppe: Ventil Stufe 3
Assembly: Valve 3rd Stage



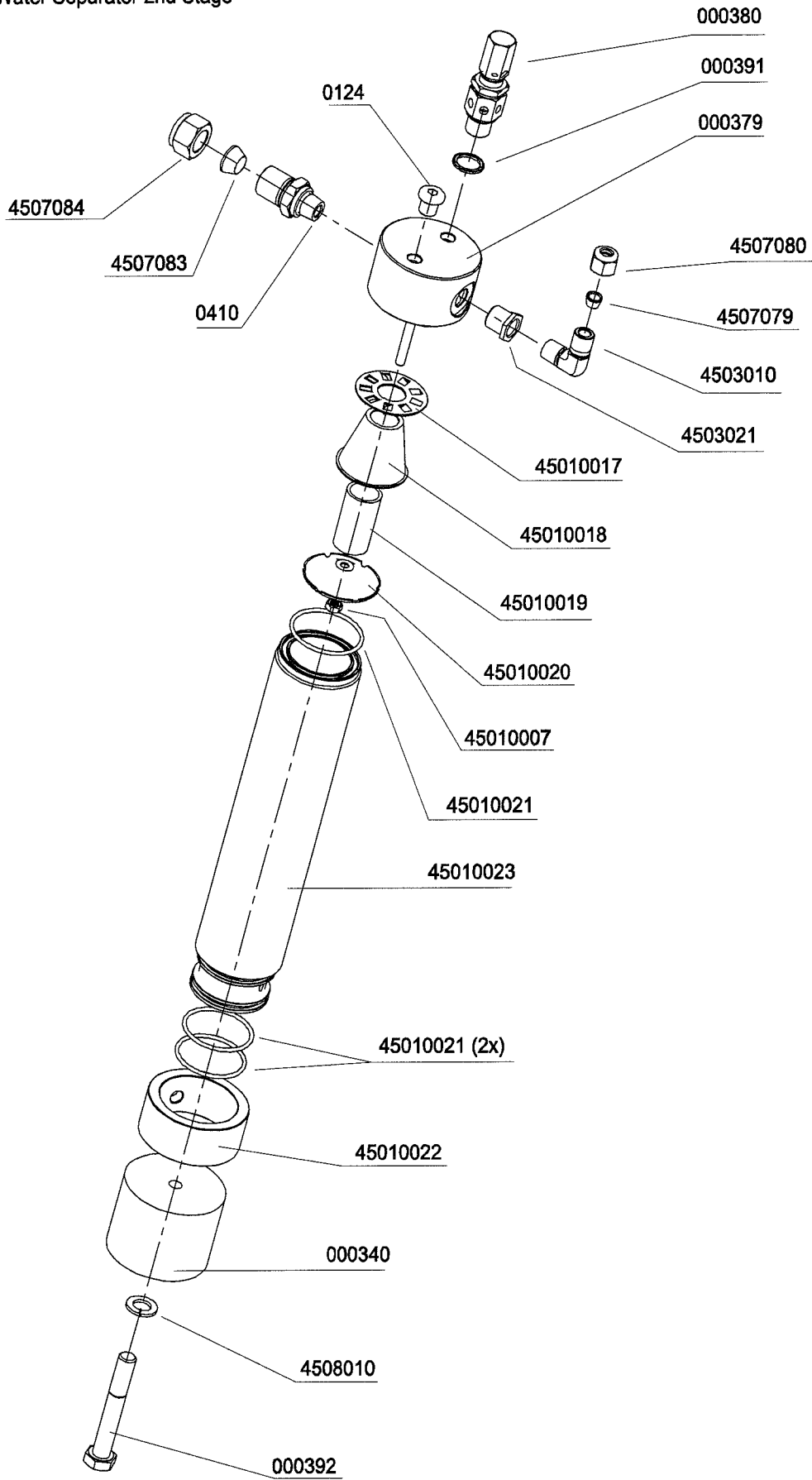
Kompressor: L&W 570 ES
Baugruppe: Ventil Stufe 4
Assembly: Valve 4th Stage



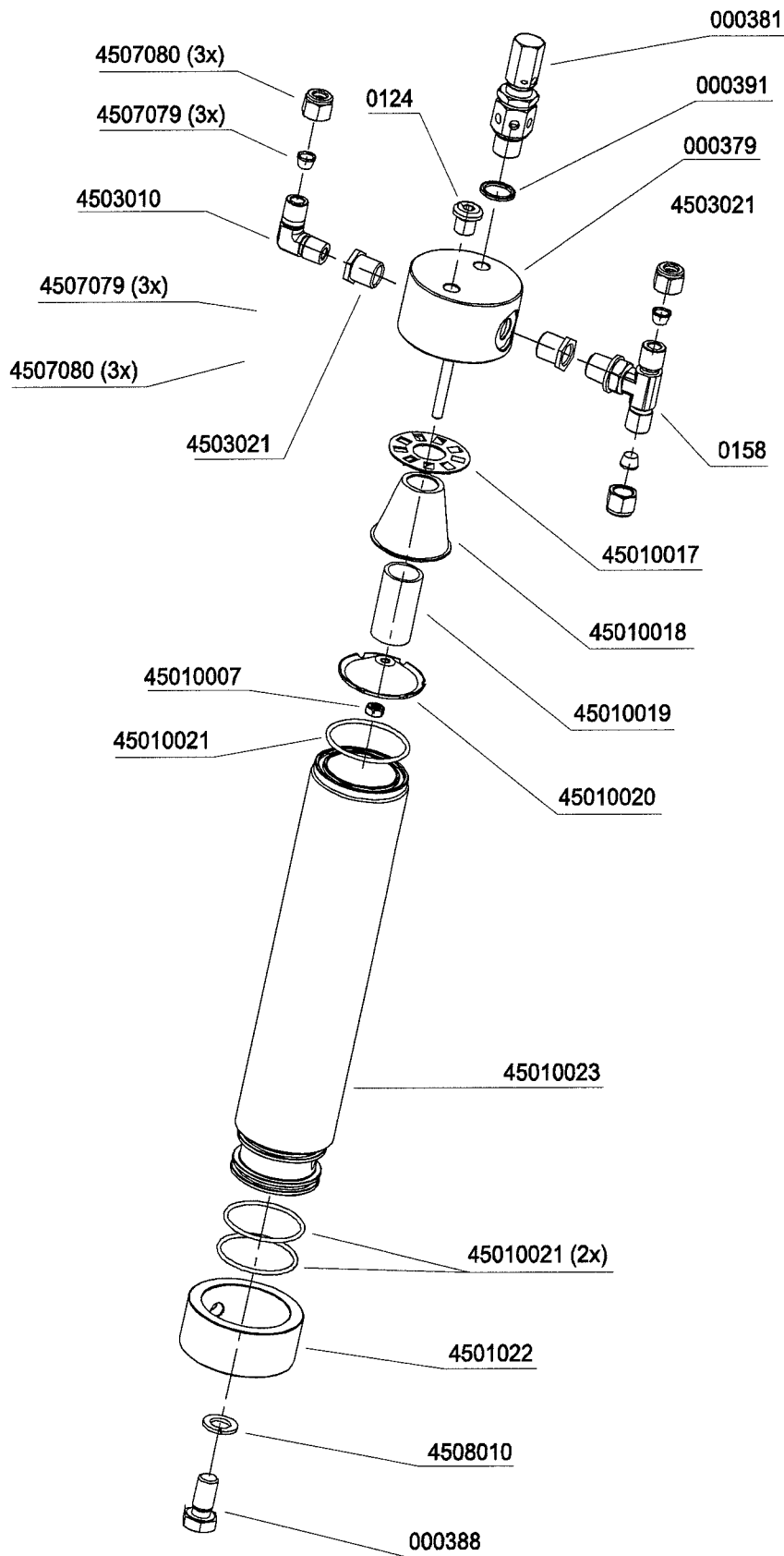
Kompressor: L&W 570
Baugruppe: Wasserabscheider Stufe 1
Assembly: Water Separator 1st Stage



Kompressor: L&W 570
Baugruppe: Wasserabscheider Stufe 2
Assembly: Water Separator 2nd Stage



Kompressor: L&W 570
Baugruppe: Wasserabscheider Stufe 3
Assembly: Water Separator 3rd Stage



Kompressor: L&W 570 ES
Ansicht: Kompressor komplett
View: Compressor complete

