Pioneering for You

Wilo-Atmos IHD-S

en Installation and operating instructions

41366-Ed.01 / 2025-03-Wilo

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1 Introduction

1.1 Product identification

Product	Atmos IHD-S
Type designation	Atmos IHD-S 1500-065.5 R5VXP1L1QV-11.0-1450BD
Product type	Vertical centrifugal pump
Year of construction	2019

1.2 Manufacturer

Manufacturer	WILO SE
street	Wilopark 1
Postcode, City	44263 Dortmund
Country	Germany
Telephone	T +49 (0)231 4102-0
Fax	T +49 (0)231 4102-7363
E-mail	wilo@wilo.com
Web	www.wilo.com

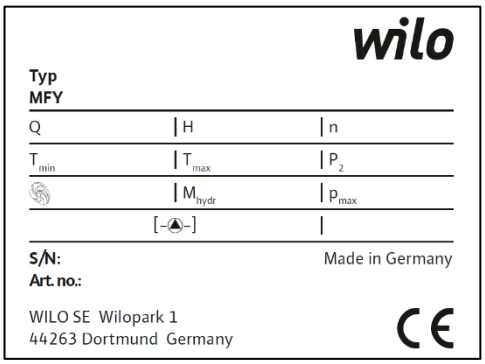
1.3 CE marking

CE

The CE mark shown on the right is affixed to the product.

The mark indicates the conformity of the product with all EG directives in force at the time of placing on the market that were applicable to the product.

1.4 Name plate

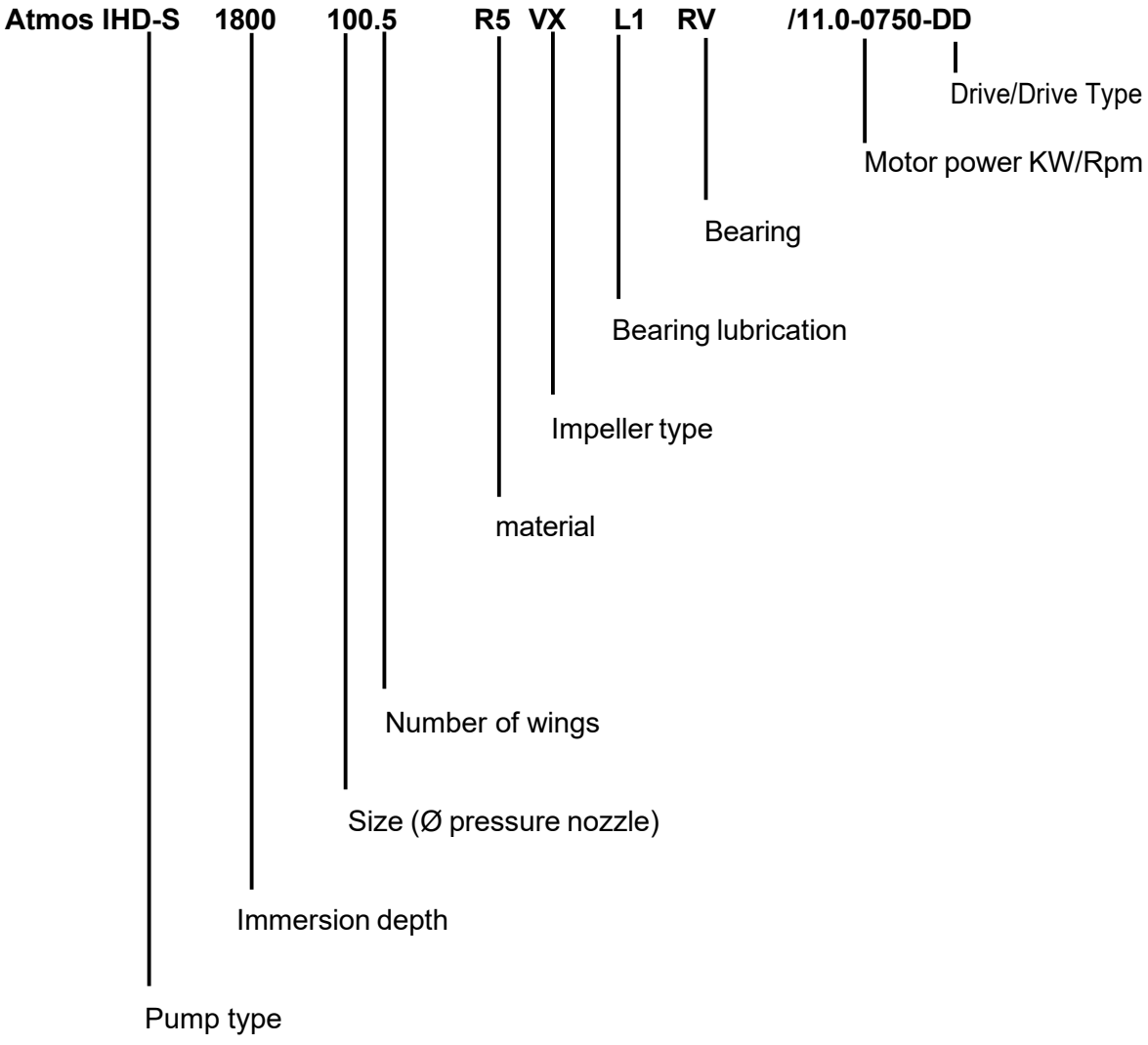


The name plate shown on the left is attached to the product.

This contains the identification data, which you can find in Chapters **1.6** of these instructions.

Figure 1 Type plate

1.4.1 Type key



1.5 Further characteristics

series	vertical centrifugal pump
material	GU = Rubber R5 = High Chrome Alloy
Bearing	L1 = Self-lubricating bearings L4 = heavy bearing oil lubrication
Bearing bracket	PV QV RV SV TV
Type of drive	DD=Direct drive BD=Belt drive

1.6 Marking of the pump

Careful observance of the instructions contained in this manual ensures permanent, trouble-free operation of the WILO pump. A name plate is attached to the bearing chair of each WILO pump, on which its serial number and identification code are stamped.

The recognition code of the pump consists of numbers and letters arranged as follows:

Digits Digits Letters Letters

1 suction nozzle

2 pressure nozzles

3 Size

4 Pump type

1 suction nozzle

The suction nozzle is indicated in inches and expressed by a number such as .B. 80.

2 pressure nozzles

The pressure nozzle is given in inches and expressed by a number such as .B 60. The pressure nozzle is usually smaller than the suction nozzle; in some pumps, however, both are the same size.

3 Size

The size includes the bearing chair and the bearing assembly. The size of the pump is identified by one or two letters such as B.E or EE.

4 Pump type

The pump type is indicated by one or more letters. Some of them are:

-AH sludge pump for extremely heavy use

Examples:

Atmos IHD-S 1800-100.5 R5 VX L1 RV

Atmos IHD-S	=	Vertical Centrifugal Pump
1800	=	Immersion depth
100	=	Size (Ø pressure nozzle)
.5	=	Number of wings
R5	=	Material Metal
VX	=	Impeller type
L1	=	Bearing lubrication
RV	=	Bearing

2 About this manual

2.1 Target groups

This operating manual is aimed at the following target groups:

- Operator
- Maintenance personnel
- Specialist staff

At the beginning of each chapter, it is described which target group may carry out the described activities, insofar as not all target groups are affected.

2.1.1 Operator

The operator:

- is authorized by the operator to operate the machine;
- is physically and mentally able to operate the machine without creating additional hazards;
- is proficient in the national language, spoken and written, in order to be able to understand the instructions as well as the user interface;
- knows the risks of working with the machine based on the instruction and experience received on the machine.

2.1.2 Maintenance technicians

The maintenance technician:

- is qualified by training and experience to carry out work on the machine;
- has basic experience with the system (e.i. electrical control) on which he is to carry out work;
- has extended experience with the system (e.i. functional safety) on which he is to carry out work;
- also has the qualifications of the operator.

2.1.3 Special staff

The special staff:

- is qualified by training and experience to carry out work on the machine;
- has basic experience with the system (e.i. electrical control) on which work is to be carried out;
- has extended experience with the system (e.i. functional safety) on which work is to be carried out;

- has additional qualifications and experiences related to the relevant stages of work.

2.2 Presentation of hints

Safety instructions are represented in the instructions by a pictogram and a keyword.

The content of the notes is structured as follows:
Type/source of danger!

Possible consequences!

➢ Measures to avoid

⚠ DANGER!

"DANGER" is used when death or serious damage to health **will** occur if the instruction / notice is not observed.

⚠ WARNING!

"WARNING" is used when death or serious damage to health **may** occur if the instruction / notice is not observed.

⚠ CAUTION!

"CAUTION" is used when moderate or mild damage to health may occur if the instruction / notice is not observed.

Attention

"ATTENTION" is used when damage to the machine or environment may occur if the instruction is not observed.

Advice

Helpful instructions and information for the use of the product.

Cross-reference to a special document.

2.3 Presentation of enumerations

Bulleted lists are presented as a list of bullet points. For example:

- Point 1
- Point 2

2.4 Presentation of calls to action

2.4.1 Calls to action with order to follow

Calls to action to be executed are numbered and displayed in a list. The system reaction of the product to the respective action is shown in italics and marked by a check mark. example:

Call to Action

1. Activity, e.i. Press the button "Horn on".
2. Activity, e.i. Press the button "Horn off".

☑ *Reaction 1, e.i. "the beep goes out"*

2.4.2 Calls to action without any order to follow

Calls to action without a fixed order are represented by an arrow. The system reaction of the product to the respective action is shown in italics and marked by a check mark. For example:

Call to Action

➢ Activity, e.i. Press button "Horn off".

☑ *Reaction 1, e.i. "the beep goes out"*

3 Safety

3.1 General safety instructions

- Damage caused by incorrect handling of the product. The product is manufactured according to the currently valid state of the art and taking into account relevant legal regulations. Nevertheless, dangers for persons and/or the environment may occur. Use only trained personnel.
- Failure to follow these instructions can have serious consequences for persons or the environment. Always follow the operating instructions.
- Improper use of the machine can lead to serious damage to man and machine. Use the machine exclusively as intended.

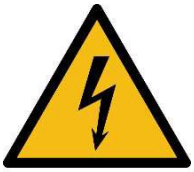
3.2 Intended use

- The Atmos IHD-S armored pump is used for conveying liquid media in industry. The armored pump is driven by a clutch or a belt drive with a motor and is part of a conveyor circuit for cooling, lubrication and transport of liquid media.
- The armored pump is designed for a maximum permissible surface temperature of 100 °C.
- The armored pump is designed for the use of hot liquids up to 100°C.
- The armored pump is intended exclusively for industrial use.

3.3 Reasonably foreseeable misuse

- All applications that do not meet the requirements of the best immune use are prohibited.
- The pumps are not designed for use in the food sector.
- Work on parts under tension or pressure is prohibited. Before working on the hydraulic system, the existing residual pressure, i.e. in the pressure accumulator, must be properly reduced.
- In case of damage, the operation is prohibited.
- Any method of operation aimed at circumventing or rendering protective devices ineffective shall be refrained from.
- Functional or structural changes are prohibited.
- In the event of a change or deviation from the specified connection values, operation is prohibited.

3.4 General risks



Electric shock

➢ In order to avoid heavy injuries, ensure that the power supply of the plant is switched off and blocked before the commissioning of cooling and/or adjustment work and that the plant does not receive any discharge.

3.4.1 Protective devices

Rotating components

Due to unprotected moving parts (impeller & shaft), there are various crushing hazards for the operator.

➢ The product shall be operated exclusively with a fully functional protective device. In the event of missing and/or defective protective devices, the product must be stopped immediately.

3.4.2 Repair Restrictions / Safety

During the warranty period, repairs of any kind are prohibited and the individual components may not be opened under any circumstances. If a component fails within the warranty period, contact the manufacturer. The warranty expires if it is determined that a component has been opened during the warranty period.

3.4.3 Hot surfaces and liquids

The armoured pump is designed for the use of hot liquids up to 100 °C, so that touching the surfaces and contacting the liquids, e.i. in the event of leakage, can lead to burns.

- ➢ On the customer's side, measures must be taken to avoid contact with hot surfaces and liquids if hot liquids are to be used.
- ➢ E.i. attach a heat protection and/or a pictogram "Warning of hot surfaces" and extend the operating instructions accordingly. Refer to Table 2 "Maximum permissible temperatures for unprotected surfaces on the pump/pump unit during normal operation" of standard EN 809:1998+A1:2009+AC:2010.

3.4.4 Maintenance and repair work

In order to carry out maintenance and repair work, the maintenance personnel may have to be in the danger zone of the machine and/or protective devices or interlocks must be dismantled. There is an increased potential for danger here.

- ➢ Before starting maintenance and repair activities, ensure that the armored pump is in a stress-free and pressure-free state and is completely emptied.
- ➢ Maintenance and service work can only be carried out by competent personnel and in compliance with safety regulations.
- ➢ On the customer's side, a lockable mains separation device must be installed on the pump so that an unwanted restart is prevented.
- ➢ Have work on electrical equipment carried out only by electricians from the manufacturer or by specially commissioned, trained electricians and in compliance with safety regulations.
- ➢ After completion of the maintenance and servicing work, return the machine to a safe condition. All guards and interlocks must be firmly screwed and professionally mounted.

3.4.5 Exposure to noise

Depending on the medium used, the sound pressure level may increase.

➢ Wear appropriate hearing protection.

3.5 Conversion and spare parts production

The unauthorized conversion or modification of the pump is only permitted in consultation with the manufacturer. Only original spare parts from the manufacturer are to be used. The installation of third-party parts can result in safety and functional impairment and excludes liability.

3.6 Obligation for the operator

The operator has the obligation to comply with the national and, if applicable, existing regional requirements for occupational safety.

The operator is obliged to contact the persons working with the product beforehand

- to have these instructions read,
- to instruct about the contents of these instructions,
- to provide information on basic provisions for occupational safety and accident prevention,
- provide personal protective equipment for the safe use of the product.

3.7 Commitment to staff

All persons working with the production are obliged to:

- to have read and understood these instructions before the first use,
- to refrain from working methods that adversely affect machine safety,
- to report defects in the machine immediately and to have them corrected professionally,
- operate the machinery only with protective devices,
- to prevent and report obviously erroneous actions of third parties.

3.8 Qualification of staff

The staff employed must be sufficiently experienced in terms of qualifications, training and further education as well as the professional experience acquired in order to be able to carry out the intended work. The experience is largely defined by the skills of the staff for the prevention of damage to human and machine skills.

For different activities that have to be carried out with or on the product, different qualifications of the personnel are required according to the following matrix:

Qualification activity	Operator	Maintenance technicians	Special staff
Transport	✗	✗	✓
Assembly	✗	✗	✓
Initial commissioning	✗	✓	✗
Commissioning	✓	✓	✗
Troubleshooting	✓	✓	✗
Maintenance	✓	✓	✗
Restoration	✗	✓	✗
Decommissioning	✗	✓	✓
dismantling	✗	✓	✓

3.9 Personal protective equipment

The following personal protective equipment must be available:

	**REQUIREMENT**	Wear safety glasses!
	**REQUIREMENT**	Wear a safety helmet!
	**REQUIREMENT**	Wear hearing protection!
	**REQUIREMENT**	Wear safety shoes!
	**REQUIREMENT**	Wear protective clothing!
	**REQUIREMENT**	Wear protective gloves!

3.10 Safety markings on the product

There are safety instructions on the product that indicate residual risks that cannot be avoided by design.

The manner of presentation corresponds to the form shown below.

Which hazards and information are actually attached to the product can be found in the chapter "Residual risks".

Symbol	KEYWORDS	Additional description
	**DANGER**	Description of the type and source of hazard and, if applicable, possible consequences.

3.11 Bid sign

List of bid signs used on the product or in this instruction manual:

	**General bid sign** This symbol is only used with a separate note in text form.
	**Follow the operating instructions** A reference to the documentation or a special documentation.

3.11.1 Warning sign

List of warning signs used on the product or in this instruction manual:

	**Warning of a danger point** This symbol is only used with a separate note in text form.
	**Warning of risk of moving in** There are entry points that can pull in the body/parts of the body.
	**Warning of dangerous electrical voltage** The electrical voltage is so high that this voltage can permanently negatively affect the human organism.

	**Warning of hand injuries** There are danger points that allow a hand injury.
	**Hot Surface Warning** The surface temperature is so high that injuries are possible.
	**Hovering heavy load Warning** There are floating loads.

4 Product description

This chapter describes the structure and functions of the product and its operating points as well as the technical data. If possible, read it on the machine. This allows you to familiarize yourself optimally with the machine.

4.1 Variants

The pump is available in different versions:

- In chrome-steel version
- In rubberized version

4.2 Product

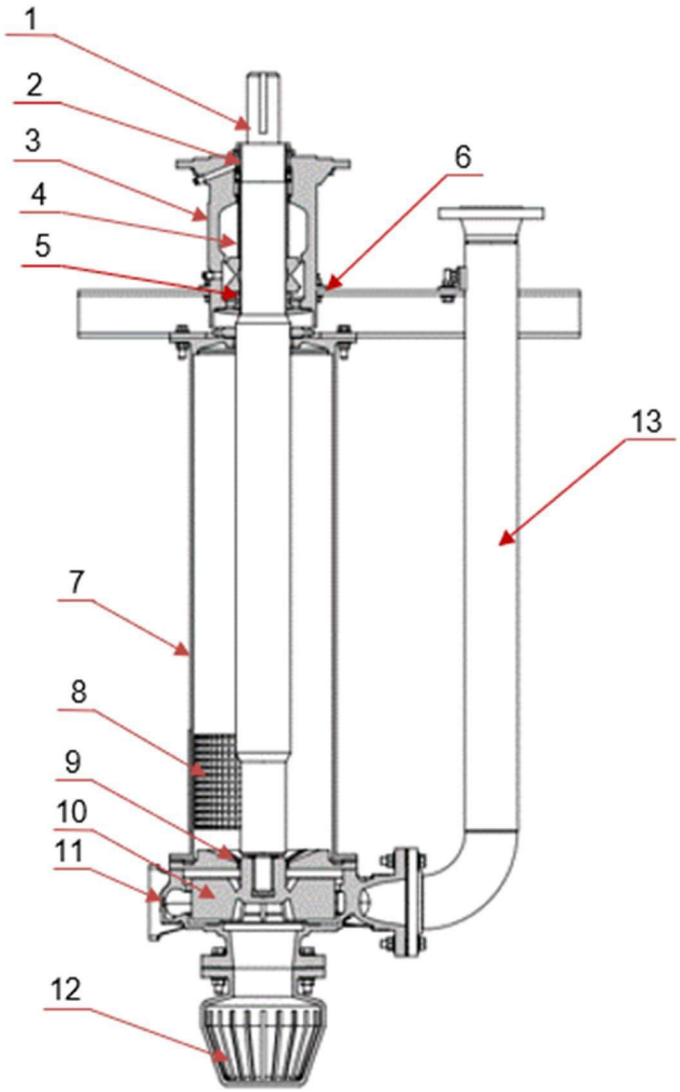


Figure 2 Product Overview

Pos.	Designation
1	Motor shaft for connecting a motor (steel or rubberized)
2	Upper bearing
3	Bearing housing
4	Distance socket
5	Lower bearing
6	Adjustment plate for adjusting the impeller
7	Immersion tube (steel or rubberized)
8	Upper sieve/inlet
9	Recirculation
10	Impeller (steel or rubberized)

Pos.	Designation
11	Pump housing (steel or rubberized)
12	Lower sieve basket/ inlet
13	Pressure

The ATMOS IHD-S armored pump is used for conveying liquid media from industry (not in the food sector).

The armored pump is driven by a clutch with motor and is part of a conveyor circuit for cooling, lubrication and transport of liquid media. For this purpose, the liquid medium is sucked in at the inlet side and output to the pressure line. The armored pump is optionally supplied with or without base frame. The delivery of the engine is also optional.

5 Technical specifications

5.1 General

Length x Width x Height	2013 x 500 x 500 (Atmos IHD-S 0900-040) to 4030 x 1200 x 1200 (Atmos IHD-S 1500-200) mm
Net weight: gross/net	205 kg to 5875 kg
Air flow	up to 1800 m³/h*
Head	up to 50 m*
maximum allowable pressure	16 bar
Temperature limits	- 40 °C to +100 °C
liquid temperature	100 °C
Temperature operation	-30 to +95 °C
Temperature Storage	-24°C to +55°C
altitude	1000 m
mode	Mechanical external drive

* *Head and flow rate: The pump has been designed and manufactured according to the specifications of the operator/customer. The operating point of the pump (delivery capacity and head) can be individually changed by changing the speed and impeller diameter.*

5.2 Pump characteristic curve

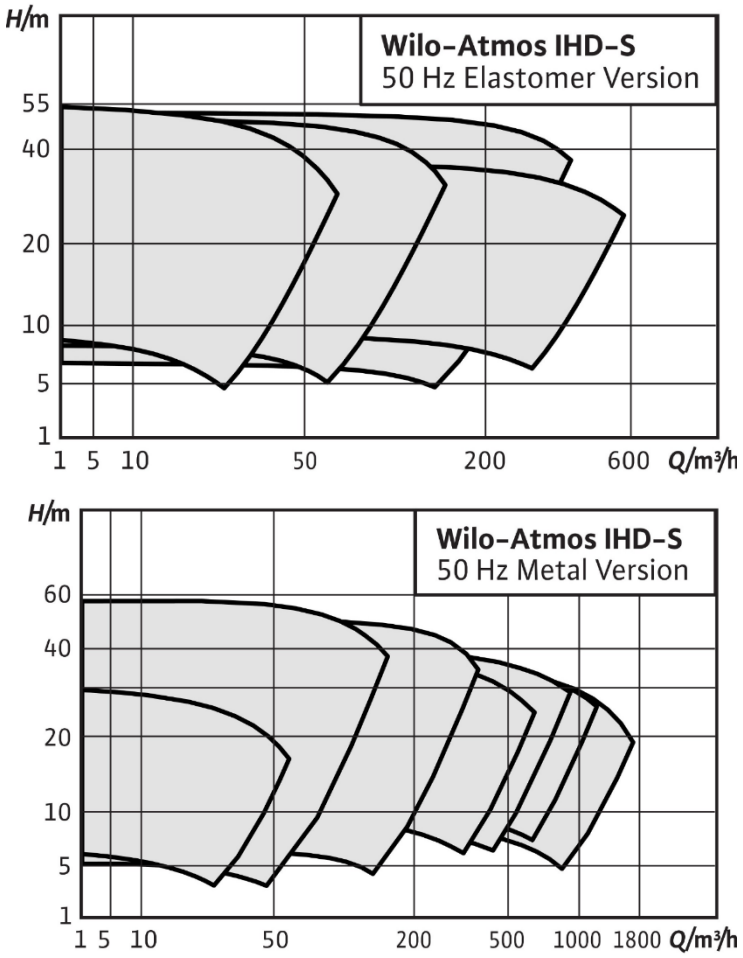


Figure 3 Pump characteristic curve

5.3 Auxiliary and operating materials

It is recommended that the grease used for lubricating the bearings has the following properties:

- Lithium soap grease with EP additives and oxidation inhibitors
- N.L.G.I. Consistency No: 2
- Dropping point > 170 °C
- Workpiece penetration 25 °C A.S.T.M.265 – 295

shell	ALVANIA EP GREASE 2, CASTROL EPL2 or equivalent.

6 Transport and packaging

Target group: Crane operators, forwarding companies

6.1 Special safety instructions

⚠ WARNING!

Falling components

Unsuitable means of transport can lead to serious injury or death.

➢ Use appropriate means of transport.

➢ The product is transported exclusively in individual product parts.

➢ Use only suitable and tested slings and hoists for transport.

⚠ WARNING!

Risk due to increased loads

➢ Wear a safety helmet and safety shoes during transport and handling of the system.

➢ Before transport, remove all auxiliary and operating materials from the system and store them professionally or dispose of them in accordance with local regulations and guidelines. Observe the safety data sheets of the auxiliary and operating materials

➢ Ensure that there are no people under the floating loads.

➢ Expel unauthorized persons from the danger zone.

6.2 Choose a means of transport

Attention

Falling components

Improper transport can lead to property damage.

➢ When choosing the means of transport, consider the technical data of the machine and its individual components.

All lifting equipment must have a load capacity corresponding to the weight of the individual and overall unit.

Maximum load capacity, material and manufacturer must be named on the lifting equipment.

Call to Action

➢ Check the center of gravity before lifting and transporting.

➢ Remove the total gross and net weight on the product, packaging or from the delivery documents.

➢ Pay attention to balance when transporting with forklifts and pallet trucks.

The following means of transport are required for the transport and assembly of the product:

- 4 heavy-duty castors
- forklift
- crane
- Stop chains
- Lifting eyelets

6.3 Prepare transportation

Call to Action

➢ Define the transport route and remove possible obstacles.

➢ Keep unauthorized persons away from the transport route and the installation site.

➢ Lock off the workspace.

➢ Check the transport safety on the machine and its components.

➢ Check the perfect condition of the parts and the outer packaging.

➢ Check that all parts are firmly screwed and that the transport fuse has been properly fastened.

6.4 Loading/Unloading

The pump can be purchased with various options (e.i. with base plate or motor). Depending on the option, there are different types of lifting. Below you will find three lifting suggestions of the pump:

- Lifting with base plate
- Lifting without base plate
- Lifting with base plate and motor

6.4.1 Lift Vertical

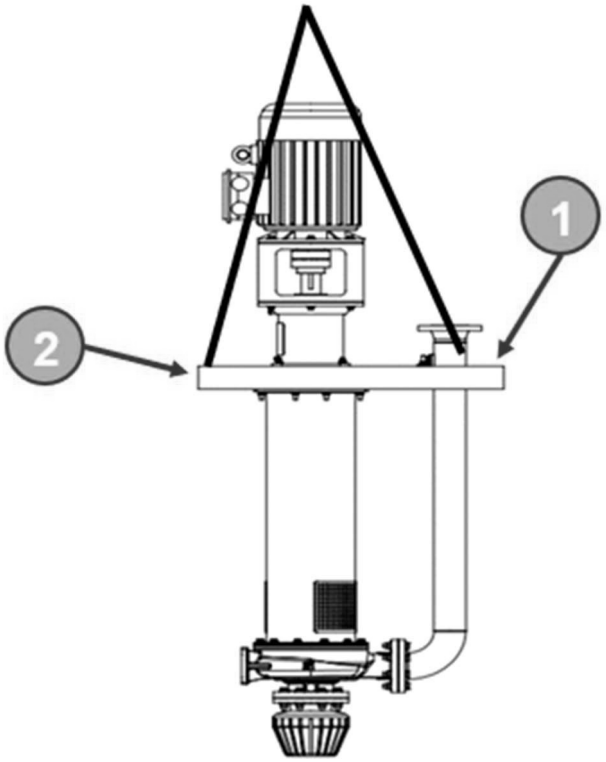


Figure 4 Lifting Vertical

Call to Action

➢ Stop chains with two lifting eyelets under the suction flange (Pos. 1) and at the base plate (Pos. 2) attach the pump and lift it with a crane.

6.4.2 Lifting Horizontal

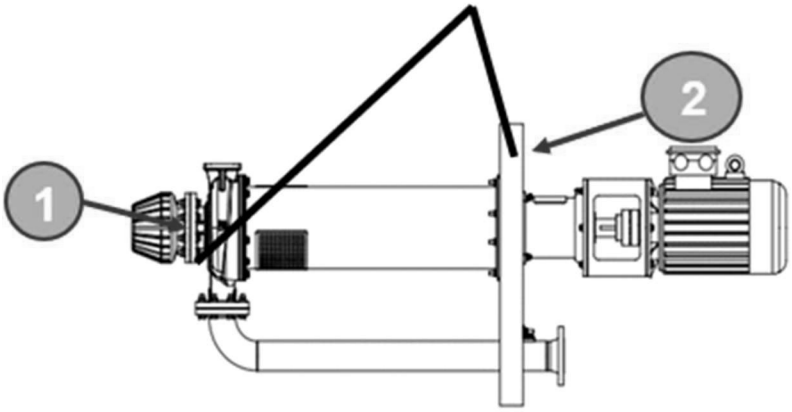


Figure 5 Lifting Horizontally

Call to Action

➢ Stop chains under the bearing carrier (Pos. 1) and under the suction flange (Pos. 1) attach the pump and lift with a crane.

6.5 Inspect goods

Call to Action

- ➢ After acceptance of the equipment, check it for completeness with the delivery and shipping documents.
- ➢ Carry out a visual inspection for possible transport damage.
- ➢ Immediately notify the forwarding agent and the manufacturer of any damage or missing parts and have them confirmed in writing within two weeks of receipt of the shipment. After the deadline, no complaints can be accepted.
- ➢ Check packaging and boxes with regard to spare parts and accessories that may be individually attached to the equipment.

7 Assembly

Target group: Assembly personnel

7.1 Special safety instructions

⚠ WARNING!

Rotating components

Due to unprotected moving parts (impeller & shaft), there are various crushing hazards for the operator.

➢ Ensure that the product is operated with functional protective devices.

7.2 Preparing the foundation

Call to Action

➢ Choose the location for the foundation of the pump unit in such a way that there is sufficient space for installation and subsequent maintenance work.

➢ Make sure that the foundation is designed in such a way that it has the load-bearing capacity to withstand the weight of the pump unit and the resulting forces such as any vibrations caused by the piping system. Observe the foundation plan.

➢ When manufacturing the foundation, make sure that the contact surface for the pump unit has no unevenness and is weighed.

➢ Make sure that the length and width of the foundation are about 20% above the dimensions of the base frame.

Hint / Advice

The selection of the appropriate fastening anchors for the base frame (dimensions, size and manufacturer) is subject to the executing plant planner.

7.3 Installing the pump

⚠ WARNING!

Risk of accident due to unwanted start-up

➢ When mounting with an electrically connected motor, ensure that a sudden start-up of the motor is excluded.

Attention

Property damage due to incorrect lifting equipment

➢ For lifting and transport, use only approved lifting equipment with appropriate marking.

Call to Action

1. Place the pump unit by means of the crane on the level foundation (item 1) and check whether the pump is straight. The pump is anchored to the base plate (item 2, colored red) with the foundation. Align with U sheets if necessary.

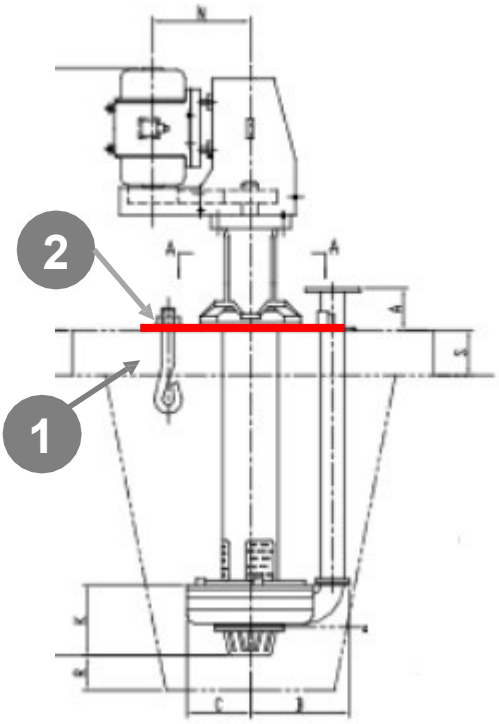


Figure 6 Example Assembly

2. Attach and pot the pump unit with the intended anchorage to the places marked with "X".

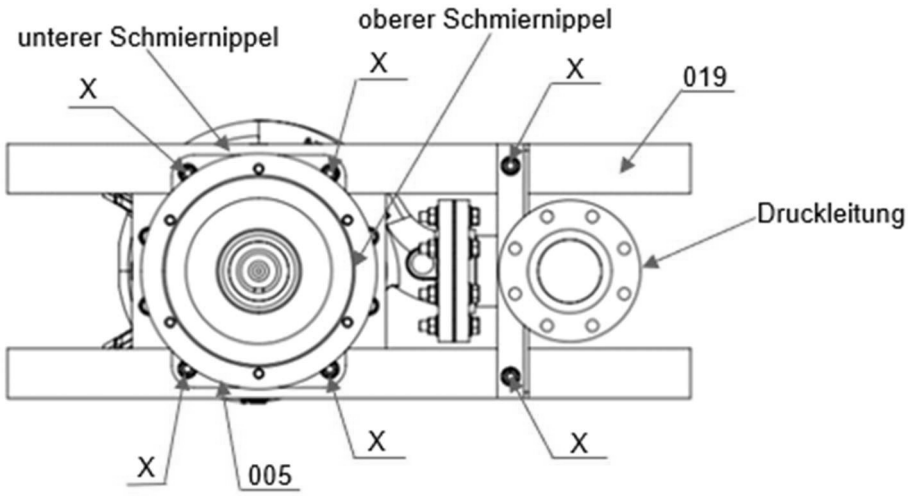


Figure 7 Anchorage (top view)

3. After fastening and casting, check the coupling for misalignment and compensate if necessary.

7.4 Mount the motor

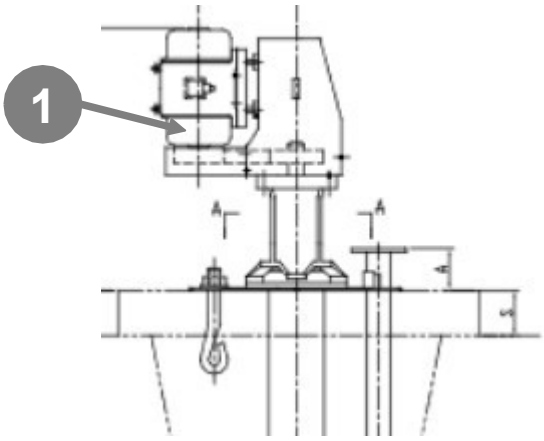


Figure 8 Mounting the motor (Item 1)

Call to Action

1. Slide the clutch half supplied on the motor side onto the shaft and let the front surface of the clutch be closed evenly with the shaft.
2. Screw the clutch half with the threaded pin to the key of the shaft.
3. Check whether the motor (item 1) is on the middle of the mounting holes and as close as possible to the pump.
4. Align the clutch according to the manufacturer's instructions and attach the engine. If necessary, loosen the pump to achieve accurate adjustment of the clutch.

5. As soon as both units are tightened, check the clutch again for its accuracy.
6. The coupling intermediate piece (support unit) is attached to the coupling halves of the pump and the motor according to the manufacturer's specifications.
7. Perform fine adjustment with a laser or dial gauge.

7.5 Laying and connecting the pipe system

Attention

Property damage due to backflow

➢ If a backflow can occur during a standstill of the pump, a check valve must be installed in the output line.

Attention

Property damage due to incorrect installation

➢ Do not use the pump as a support for the pipeline.

The pipe system is not part of the scope of delivery and must be provided by the customer. The following points must be taken into account:

Call to Action

➢ Install the pipe system intended for the pump in such a way that no stresses and forces act on the pump flanges and the pump housing. When arranging, fastening and supporting, take into account a possible thermal expansion.

➢ Align the pipe system exactly to the pump. Make sure that the pipe system is stress-free.

➢ Professionally lay and install the pipe system in accordance with the generally applicable regulations.

7.5.1 Connecting the suction tank

A suction line is not necessary, as this type of pump is a submersible pump, which is in the medium with the conveying unit.

attention

Property damage due to backflow

➢ If a possible backflow can occur during a standstill of the pump, a check valve must be installed in the output line.

Call to Action

➢ It is imperative to ensure that the conveying unit up to the upper sieve/inlet (Pos. 8) is always sufficiently covered with the medium. As a rule of thumb, half the length of the pump shaft can be used.

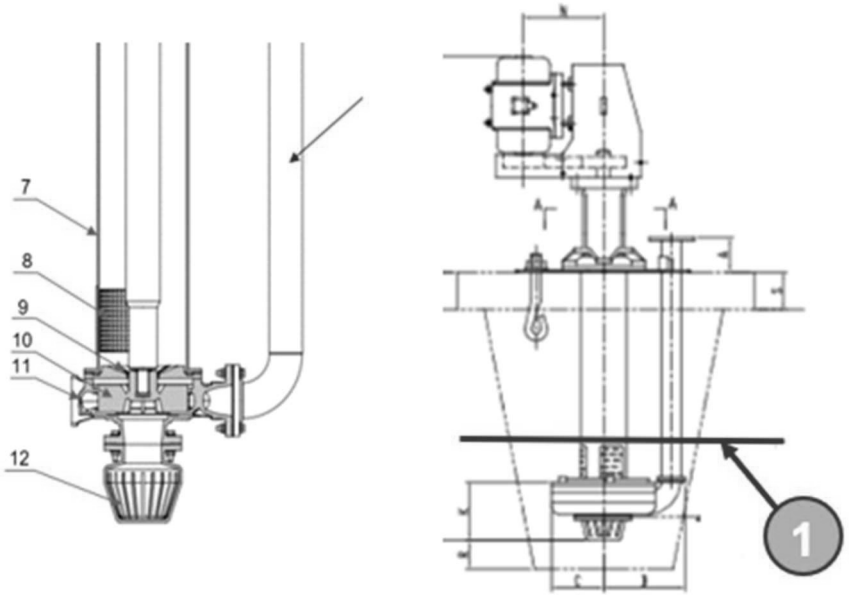


Figure 9 Minimum height medium (item 1)

7.5.2 Pressure

All piping work must be carried out by a specialist company in accordance with the legal requirements.

Call to Action

➢ Install a shut-off valve in the pressure line to avoid emptying the entire pipeline during subsequent maintenance and repair work.

7.6 Piping Shaft Seal Type P1

The pump does not require conventional shaft sealing. A special CHEMOPAC lip seal located in front of the bearing unit prevents splashing water from entering the bearing unit.

7.7 Piping Shaft seal type PXX

Call to Action

➢ Verify that the following points are met.

- In some applications, a flushing, barrier or cooling water connection must be installed for the safe functioning of the shaft seal.
- In the case of pressurized seals, the nominal pressure shall match the pressure of the pump and the temperature.
- In the case of a quench connection, the pipeline must be arranged in such a way that there are no accumulation points (throttling) that cause pressure. V-ring seals (such as seal type P1) are not designed for pressurized sealing fluids.
- For the use of rinsing, blocking or cooling water, clean water must always be used to avoid damage to the seal.
- Use a sealing water monitor to regulate the required quantity and pressure.

7.8 Electrical connection of the motor

Call to Action

➢ For the electrical connection of the motor, follow the operating instructions of the motor supplier and connect accordingly.

8 Commissioning

Target group: Maintenance technicians, operators

8.1 Special safety instructions

⚠ WARNING!

Wrong direction of rotation

Operating the pump with the wrong direction of rotation can lead to damage and thus to serious injuries. If the direction of rotation is incorrect, the screwed-on impeller detaches from the shaft.

➢ Observe the direction of rotation. The direction of rotation is marked with an arrow on the housing.

➢ Never operate the pump against the direction of rotation.

⚠ WARNING!

Static charge!

Static charging of the pumps can cause an ignition spark to form.

➢ Before each switch-on, all groundings on the pumps must be checked for completeness and professional installation.

⚠ WARNING!

Rotating components

Due to unprotected moving parts (impeller & shaft), there are various crushing hazards for the operator.

➢ The product shall be operated exclusively with a fully functional protective device. In the event of missing and/or defective protective devices, the product must be stopped immediately.

8.2 Put the product into operation

Initial commissioning may only be carried out by trained specialist personnel. During this time, the operating personnel are instructed in detail about possible hazards, unauthorized operating methods and safety instructions.

Call to Action

1. Check by manual turning that there are no foreign objects in the pump and that it can be rotated freely.
2. Check that all guards are attached to the pump.
3. Check that the motor is connected according to the electrical regulations and that the direction of rotation is correct as indicated. The direction of rotation is marked with an arrow on the housing. To do this, remove the belts or move out the clutch and check the direction of rotation of the engine. This must correspond to the arrow direction applied to the pump.
4. After ensuring the correct direction of rotation, mount and align the belts on the pulleys or clutch in compliance with the necessary preload (see chapter "Aligning and tensioning pulleys").
5. Check that the shut-off devices installed on the suction and pressure side are ready for operation.
6. Check that no leakage is visible at a standstill with the suction and pressure line filled.
7. Check that the shaft sealing piping is correctly mounted depending on the application.
8. Ensure that the bearing unit has been filled with oil or lubricated with grease.
9. Fill bearing carrier with oil according to the lubricant table in the technical data.
10. Ensure that the suction line is completely open and the pressure line is closed.
11. Ensure that the minimum height of the medium (item 1) is reached.

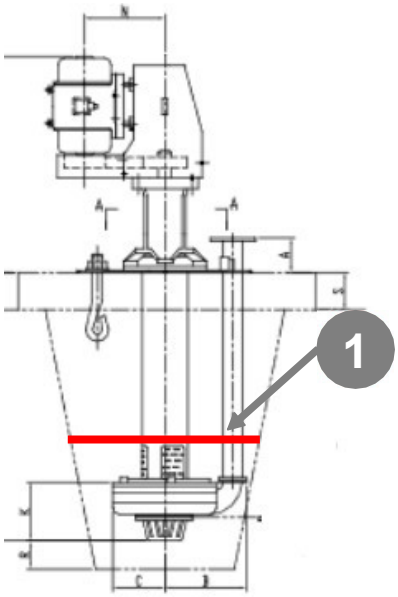


Figure 10 Ensuring minimum height of the medium

12. Start the engine according to the engine manufacturer's operating instructions.
13. Slowly open the shut-off valve on the pressure side until the required flow rate is reached.
14. Check the shaft seal for possible leak.
    Mechanical seals are usually leak-free.
15. After starting, check the display setup on the print page. If no rapid increase in pressure becomes visible, turn off the pump and check the cause.

Observe information from the documentation of the manufacturers of the supplier components.

8.3 Aligning and tensioning pulleys

If the pump is driven by a pulley belt drive, the pump and motor shafts must be precisely aligned with each other. Belt drives that are not aligned parallel to each other cause excessive wear on the belts.

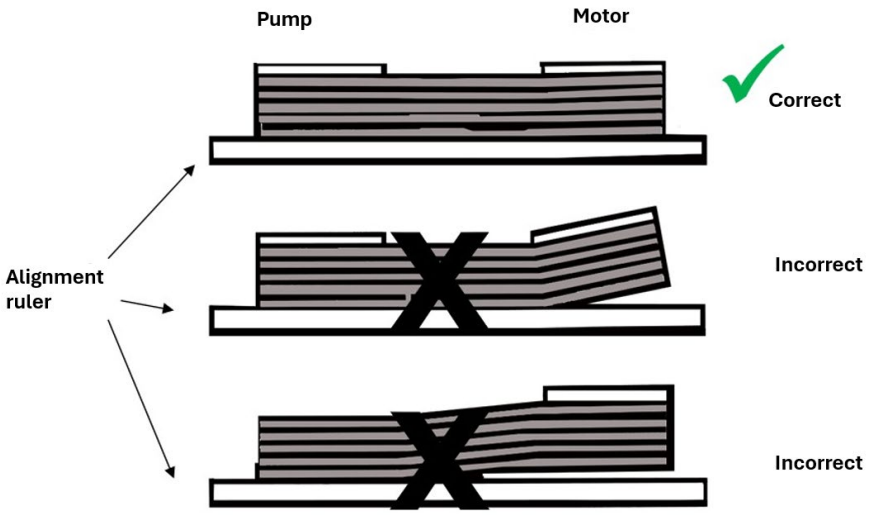


Figure 11 Belt Alignment

Call to Action

1. Completely clean the pulleys from oil, grease or other greases and remove any rust or burr from the grooves.
2. Reduce the axis spacing by adjusting the motor towards the pump using the supplied adjustment screws until the belt can be placed on the profile grooves of the pulleys without effort.
3. Place an alignment ruler over the outer surfaces of the motor and pump pulleys. It is important that both pulleys are aligned with each other with a tolerance where virtually no light or minimal light can be seen between the pulleys and the alignment ruler.

8.3.1 Tension in belts

The correct tension of the drive belt extends the service life of the belt as well as that of the roller bearings. The drive must be rotated while the belt is tightened so that the tension is even. The high performance requirements placed on a modern belt drive can only be met with the right tension.

Under-tension can cause vibrations. This results in damage to the bearing cartridge and a reduction in transmission performance.

In addition, under-tension of the belts can slip and/or overheat, which leads to fatigue of the belt and significantly shortens its service life.

Overv-tension can shorten the life of the belt. In addition, the bearings are overheated by excessive radial forces acting on the roller elements, which leads to the premature failure of the bearings.

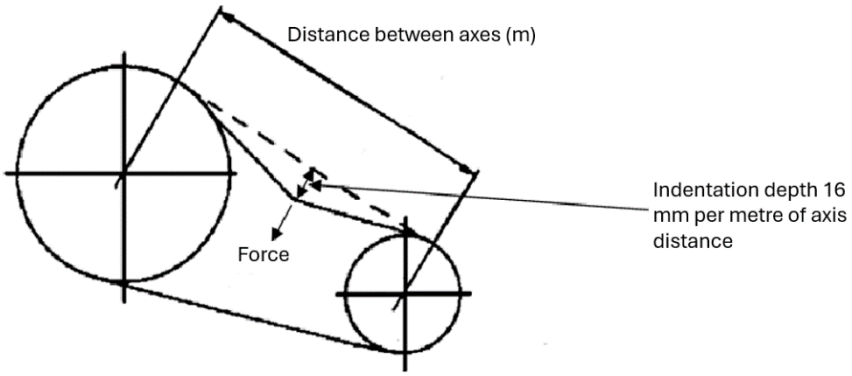


Figure 12 Indentation Depth

Call to Action

➢ The correct tension of the belt is checked according to the figure as follows:

- The axis distance (m) is measured.
- A belt section is pressed in by a force acting on the belt at right angles in the center of the axis distance around the required deviation. Indentation depth (mm) = axis distance (m) x 16
- The required force is compared to the value given in the table.

Belt profile	force required to indent the belt by 16 mm per 1 meter span		
	Diameter of small pulley (mm)	Newton **(N)**	Kilopond (kp)
SPZ	67-95	10-15	1,0-1,5
	100-140	15-20	1,5- 2,0
SPA	100-132	20-27	2,0- 2,7
	140-200	28-35	2,8- 3,5
SPB	160 - 224	35-50	3,5- 5,1
	236-315	50-65	5,1- 6,6
SPC	224-355	60-90	6,1- 9,2
	375-560	90- 120	9,2- 12,2

➢ If the measured force is within the values given in the table, the belt tension is fine.

However, if it is outside the values, the belt must be tightened or loosened accordingly.

➢ A new belt drive must be tensioned according to the higher value in order to take into account the standard decrease in belt tension during the run-in time.

➢ After a 30-minute run-in, the tension must be checked and adjusted again to the higher value.

8.4 Check during and after commissioning

Call to Action

➢ Check the stuffing box pack for temperature and leakage.

➢ Check the pump for vibrations and abnormal noise. In the event of excessive noise, the system must be switched off and the cause must be sought.

➢ Check the bearing carrier in the area of the bearings for temperature and vibrations.

➢ After a sufficiently long running time, check the temperatures of the pump and motor for excessive heating.

➢ Check the clutch alignment according to the specifications of the clutch manufacturer.

8.5 Switch off the pump

Call to Action

1. Switch off the engine according to the engine manufacturer's operating instructions and close the valves on the suction and pressure side.
2. Switch off the supply of sealing water in the event of a prolonged standstill.
3. If the pump is running backwards due to reflux, do not restart the engine.

9 Maintenance Work Operator

Target group: Operators

9.1 Special safety instructions

⚠ WARNING!

Improper maintenance

During maintenance work, troubleshooting and assembly activities, it must be ensured that the machine is switched off in a safety-related way and secured against re-activation. Improperly performed maintenance and repair activities can have serious consequences for persons, the environment and the product itself.

- ➢ Before all maintenance work, remove all electrical fuses and lock the motor switches.
- ➢ Work on electrical equipment may only be carried out by electricians from the manufacturer or by specially commissioned, trained electricians and in compliance with safety regulations.
- ➢ After completion of the maintenance and repair work, the entire machine must be returned to a safe condition. All guards and interlocks must be firmly screwed and professionally mounted.
- ➢ Use only original spare parts.

⚠ WARNING!

Hot surfaces and liquids

The armored pump is designed for the use of hot liquids up to 100 °C, so that touching the surfaces and contacting the liquids, e.i. in the event of leakage, can lead to burns.

- ➢ Allow the pump to cool sufficiently before all work.

⚠ CAUTION!

Deviating intervals

Frequency of use and environmental conditions can lead to deviations in the intervals of the described activities and thus to injuries or property damage.

➢ Instruct the persons responsible for the maintenance of the product accordingly.

Attention

Undescribed work

Work that is not described may only be carried out by authorized customer service, otherwise it may lead to damage to the machine.

➢ Contact Customer Service to change parameters and programs.

9.2 Customer service

Manufacturer	WILO SE
street	Wilopark 1
Postcode, City	44263 Dortmund
Country	Germany
Telephone	T +49 (0)231 4102-0
Fax	T +49 (0)231 4102-7363
E-mail	wilo@wilo.com
Web	www.wilo.com

9.3 Maintenance

This guide divides maintenance into the following areas:

- maintenance
- cleaning

Maintenance includes the following work:

- Monitoring of the shaft seal for possible leakage
- Monitoring of bearing lubrication
- Verification of storage temperatures

- Regular inspection of the fittings
- Monitoring for possible noise and vibrations
- Monitoring of conveying capacity and delivery pressure

Details on the maintenance intervals listed below can be found in the corresponding chapters of this guide.

Some of the work mentioned depends on the use and environmental conditions. The cycles mentioned are minimum. In individual cases, different maintenance cycles are possible. In this case:

➢ correct the information in these instructions,

➢ instruct the operating personnel accordingly.

Maintenance	Interval
Check all seals	weekly
Check oil level	
Check storage temperature	
Lubricating bearings	According to chapter "Lubrication intervals in hours"

9.4 Testing seals

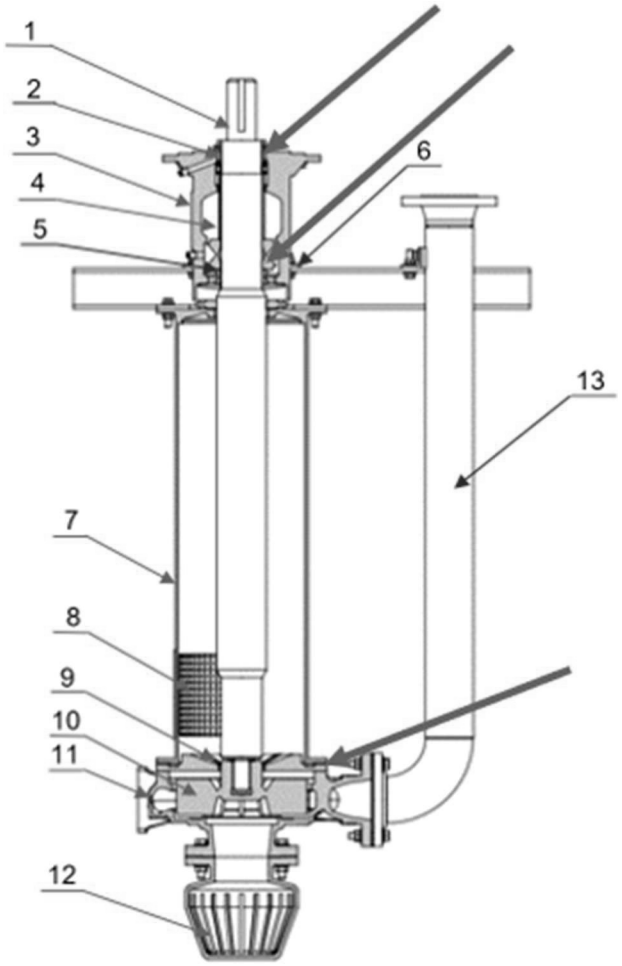


Figure 13 Position Seals

Call to Action

- ➢ Check CHEMOPAC lip seal seals regularly for leakage. However, these seals usually have no leakage. They are usually maintenance-free but can be damaged if the pump is operated improperly.
- ➢ Regularly check mechanical seals for leakage. They usually have no leakage. They are usually maintenance-free but can be damaged if the pump is operated improperly.

9.5 Bearing lubrication and temperature control

Call to Action

➢ Regularly check the lubrication and the lubrication level.

➢ Check the storage temperatures for excessive heating at regular intervals. Strong warming could herald an incipient bearing damage.

9.5.1 Lubricant

Attention

Material damage

Mixed greases do not ensure proper lubrication of the bearings.

➢ Never use different types of fat with each other.

Suitable lubricants can be found in the technical data.

9.5.2 Grease

The use of lubricating greases depends on the respective application and the temperature conditions.

The grease-lubricated bearings are already filled with grease when the pumps are delivered.

The table contained in the chapter "Lubrication intervals in hours" is based on normal operating conditions and serves as a guide. Changes to lubrication intervals may need to be made during in-service observations. For comparison: one shot from a standard grease gun corresponds to about 1 gram.

The table in the chapter "Lubricant quantity" indicates the recommended total filling quantity of the bearings. Overfilling with grease should be avoided.

Lubrication interval for bearings with regular maintenance (maintenance should not be more than 12 monthsapart).

9.5.3 Lubrication intervals in hours

	to be filled	Revolutions per minute									
	gram	400	600	800	1000	1200	1400	1600	1800	2000	22,00
P-bearing pump-side	30				1700	1400	1200	1000	900	800	750
Q-bearing pump-on the side	55			1800	1400	1100	800				
R-bearing pump-on the side	85	3200	3200	1400	1100	800					
S-bearing pump-on the side	115	-	1500	1000	700						
T-bearing pump-on the side	250	-	1200	700							
P-bearing Drive-on the side	15	-	-	-	8000	7000	6000	5000	4500	3500	3000
Q-bearing Drive-on the side	25	-	-	8000	7500	6000	5000	4000			
R-bearing Drive-on the side	40	4000	9000	7500	6000	4000					
S-bearing Drive-on the side	60	1000	7000	6000	4000						
T-bearing Drive-on the side	120	1000	5000	4000							

9.5.4 Grease nipple

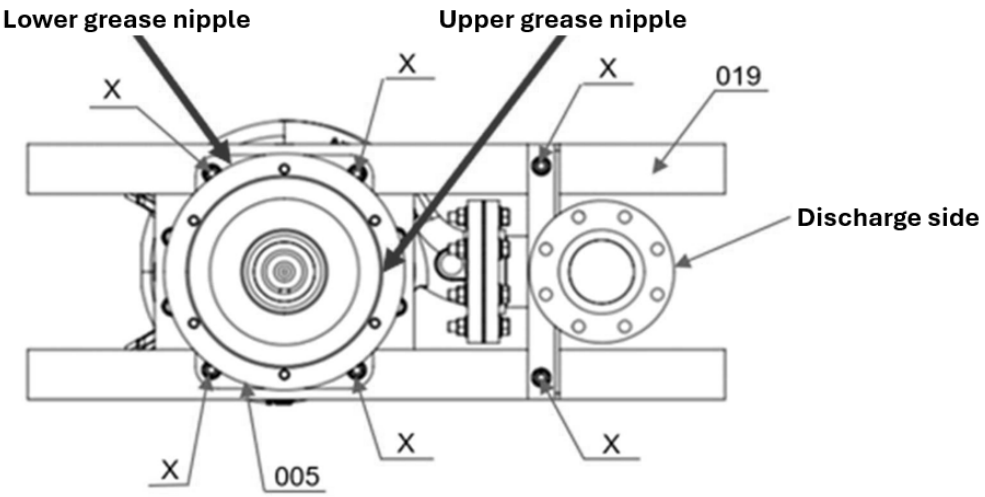


Figure 14 Lubrication nipples (top view)

9.5.5 Lubricant quantity

Recommended total fat quantity in grams per storage side:

PV Bearing	60 gm drive side	90 gm pump side
QV Bearing	130 gm drive side	225 gm pump side
RV Bearing	300 gm drive side	450 gm pump side
SV Bearing unit	400 gm drive side	550 gm pump side
TV Bearing unit	450 gm drive side	2200 gm pump side

Upon delivery, the bearing carriers are filled with the amount of grease specified in the "Lubricant quantity" table.

10 Maintenance work Technician

Target group: Maintenance technicians

10.1 Special safety instructions

⚠ WARNING!

Improper maintenance

During maintenance work, troubleshooting and assembly activities, it must be ensured that the machine is switched off in a safety-related way and secured against re-activation. Improperly performed maintenance and repair activities can have serious consequences for persons, the environment and the product itself.

- ➢ Before all maintenance work, remove all electrical fuses and lock the motor switches.
- ➢ Work on electrical equipment may only be carried out by electricians from the manufacturer or by specially commissioned, trained electricians and in compliance with safety regulations.
- ➢ After completion of the maintenance and repair work, the entire machine must be returned to a safe condition. All guards and interlocks must be firmly screwed and professionally mounted.
- ➢ Use only original spare parts.

⚠ WARNING!

Hot surfaces and liquids

The armored pump is designed for the use of hot liquids up to 100 °C, so that touching the surfaces and contacting the liquids, e.i. in the event of leakage, can lead to burns.

- ➢ Allow the pump to cool sufficiently before all work.

⚠ CAUTION!

Deviating intervals

Frequency of use and environmental conditions can lead to deviations in the intervals of the described activities and thus to injuries or property damage.

➢ Instruct the persons responsible for the maintenance of the product accordingly.

Attention

Undescribed Works

Work that is not described may only be carried out by authorized customer service, otherwise it may lead to damage to the machine.

➢ Contact Customer Service to change parameters and programs.

10.2 Dismantling of pump components

The procedure for disassembling the pump is generally carried out in reverse order as when assembling the pump components. The assembly of the pump components is explained in detail in chapter 10.3.

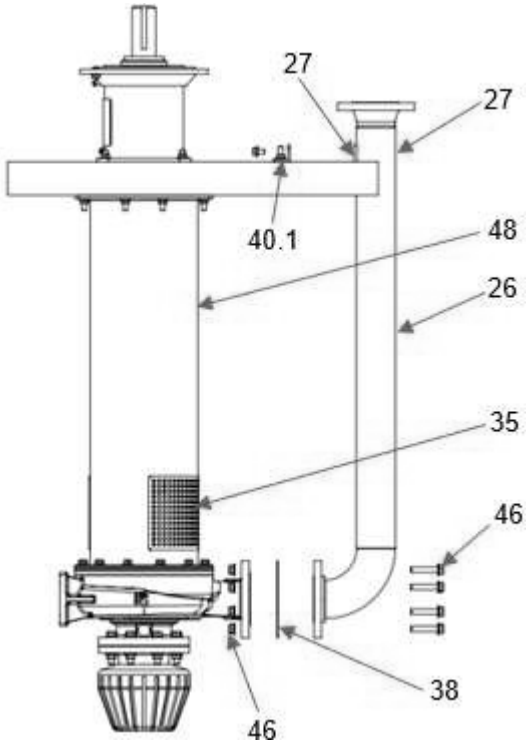


Figure 15 Pump components

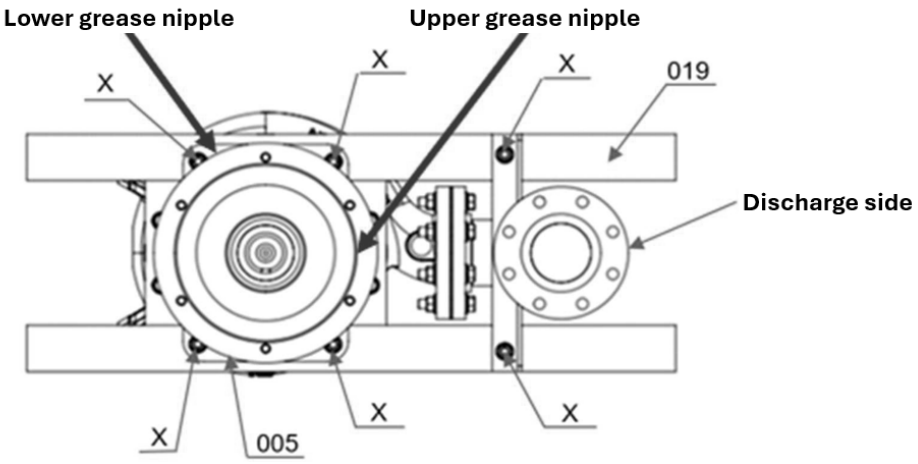


Figure 16 Pump components (top view)

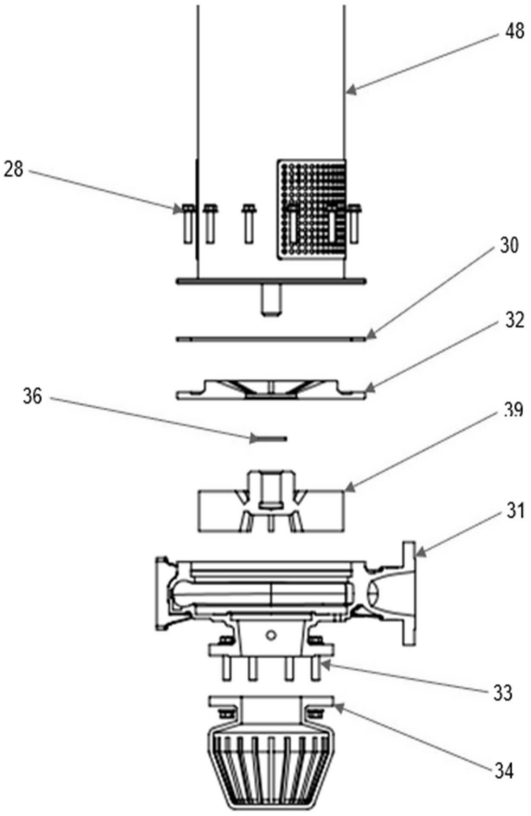


Figure 17 Overview

Call to Action

1. Dismantle the riser pipe (26).
2. Secure the pump with a hoist and detach it from the base plate (19).
3. Pull up pump from sump to allow access to the hydraulics.
4. Dismantle the housing (31).
5. Dismantle the impeller (39). On all Atmos IHD-S series pumps, the impellers are mounted on the shafts with a right-hand thread attachment. The removal of the impeller requires the application of a jerky torque load on the impeller, while the shaft must be held back separately from the rotation.
6. Dismantle backliner (32).
7. Dismantle the suction sieve (34).

10.3 Assembly of pump components

Sump pumps of type ATMOS IHD-S can be equipped with either standing bearing assemblies in standard load or heavy load design.

10.3.1 Standard load bearing assembly: Installation of the column and base plate

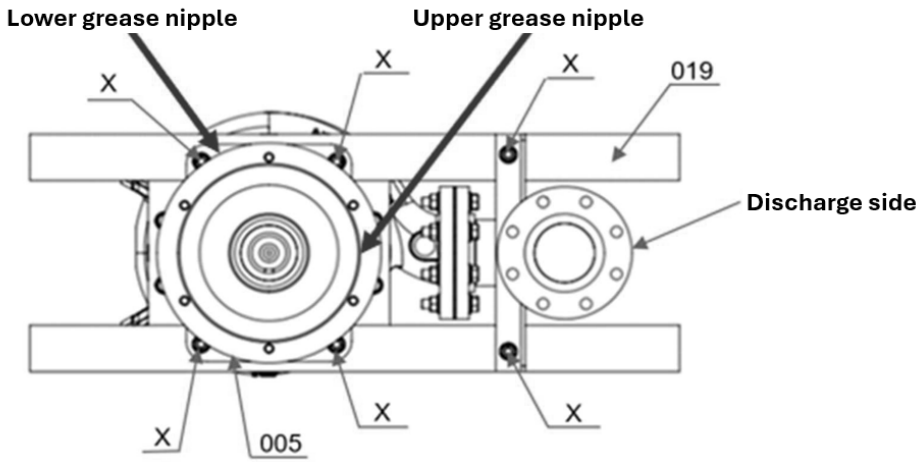


Figure 18 Standard Storage group (top view)

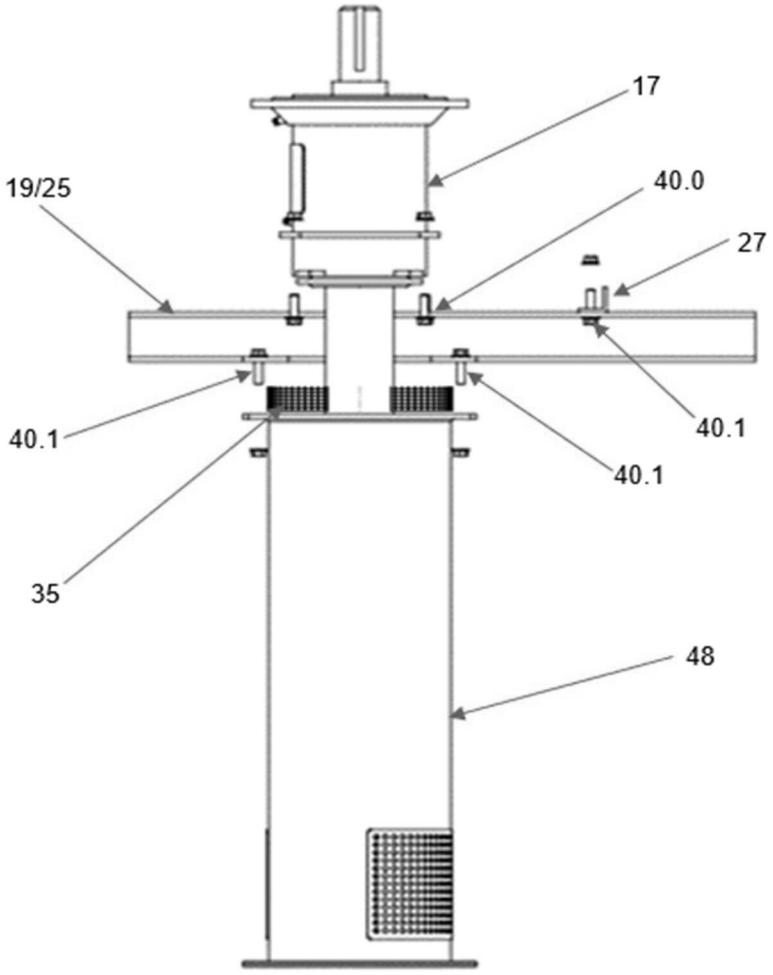


Figure 19 Standard Storage group

Call to Action

1. Completely assemble the bearing assembly (item 17).
2. For bearing assemblies with top-mounted lubrication nipples, attach the base plate (19/25) to the bearing assembly and ensure that they are aligned as shown in the figure.
3. **Attention!** Property damage due to incorrect installation. Take special care during pump assembly to avoid damage to the exposed lubrication pipes. Pay attention to the alignment of the lubrication nipples and lubrication tubes.
4. Attach four spacers (40.0) between the mounting flange of the bearing assembly and the top of the base plate flange to each screw hole.
5. Fasten the screws of the bearing housing and tighten them evenly.
6. Fasten the angle bar of the drain pipe holder (27) to the
7. base plate. Make sure that the corresponding holes match in each case. The upward facing flange of the drain pipe bracket should be positioned away from the bearing assembly (see illustration).

8. Mount the two drain pipe mounting screws for attaching the drain pipe bracket to the base plate and tighten them evenly.
9. If a sieve filter (35) is to be mounted: Mount the sieve filter (35) inside the drive end of the pump body (48) and push it to the other end until the end of the filter rests on the end flange of the column. The inlet openings of the pump body (48) should be completely covered by the filter network.
10. Push the pump body (48) over the shaft and this
screw to the lower flange of the base plate using the screws (40.1). Make sure that the bolt holes are aligned.

10.4 Mount impeller, backliner, housing and suction strainer

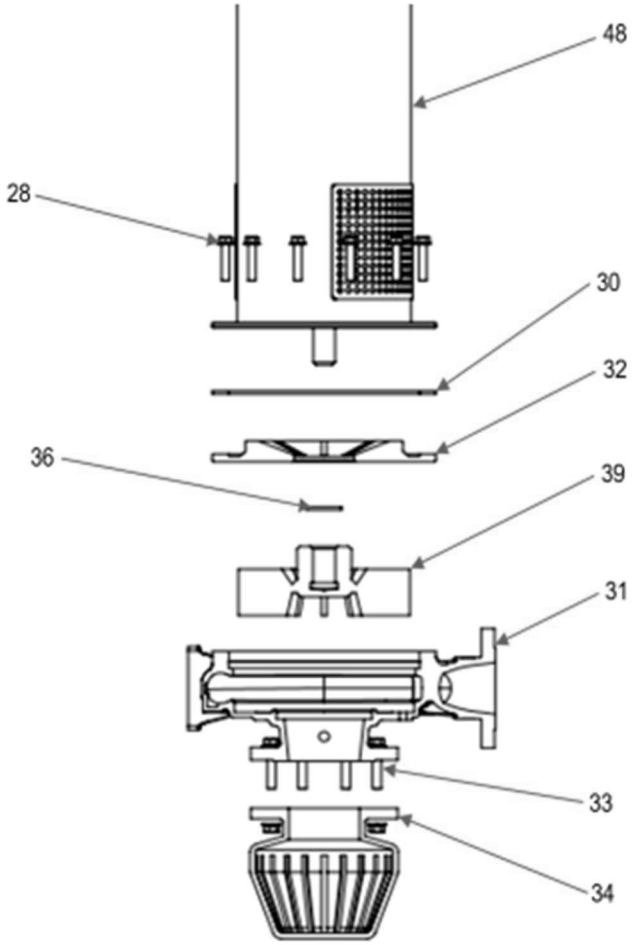


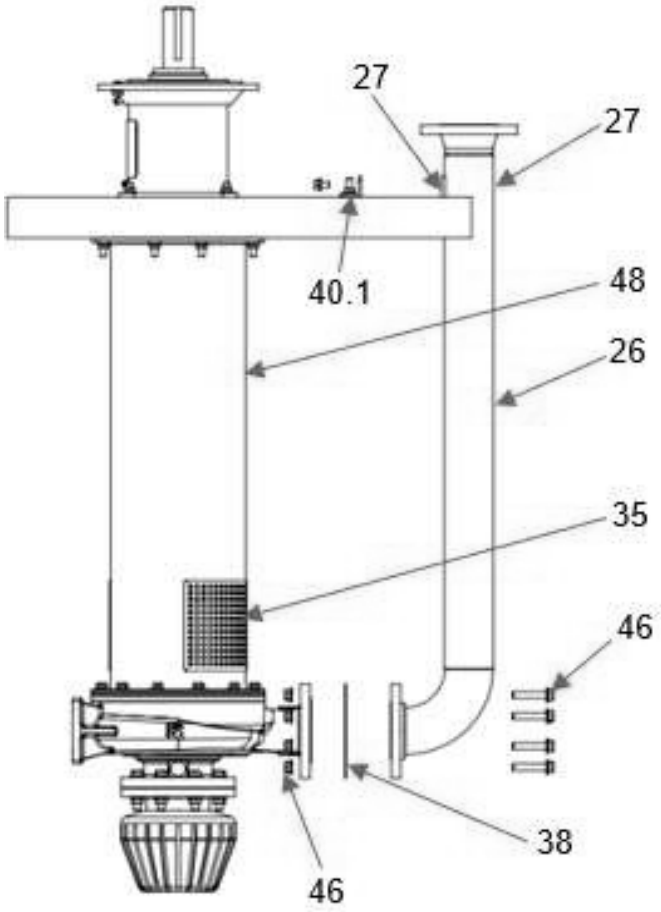
Figure 20 Impeller (39), Backliner (32), Housing (31), Suction Sieve (34)

Call to Action

Note: It is recommended that the partially mounted unit is turned over for the purpose of mounting the pump housing parts (e.B. by supporting the assembly on a hoist with the impeller end facing upwards).

1. Mount the backliner seals (30) in the appropriate groove on the end surface of the pump tube (48).
2. Place the backliner (32) over the end of the shaft and connect the pin of the backliner with the bore of the column end surface. Ensure that the backliner touches the seal evenly.
3. Slide the O-ring of the impeller (39) into the groove at the end of the shaft. To do this, add some grease to the groove of the O-ring to hold the O-ring, which seals against the back of the impeller.

4. Generously apply grease or lubricant to the shaft thread.
5. Place the impeller (39) with the thread facing upwards on a flat surface.
6. Put grease or lubricant on the thread of the impeller.
7. Screw the impeller onto the shaft.
8. Position the key into the keyway at the end of the drive and screw it to the shaft. Secure the shaft against spinning. To do this, secure the impeller by means of a rod or screwdriver, whichare inserted between the blades of the impeller. Do not tighten the key too tightly.
9. Mount the inlet sieve (34) on the housing (31) and screw both parts together using the screws (33/34).
10. Lift the housing with hoist and position it at the end of the pump housing. Align as shown in the figure.



11. Check whether the impeller (39) rotates freely without touching the surfaces of the housing (31).
12. If necessary, add or remove spacers (40.0) between the column flange and the bearing assembly.

13. Mount the screws for attaching the housing (31) to the pump body (48) and tighten them evenly.
14. Check that the entire pump unit can be rotated freely. To do this, turn the shaft at the end of the bearing carrier (17). No scratching or grinding noises must be heard.
15. If necessary, fit with additional spacers (40.0) between the column flange and bearing assembly.

NOTE: All screw connections should be tightened only moderately to compress the backliner seal (30) and seal the housing and end surface of the pump body. Do not tighten screw connections excessively.

10.5 Impeller adjustment

No periodic adjustment of the final tolerances of the impeller is provided in ATMOS IHD-S type sump pumps.

During pump assembly, spacers (040) are used between the column flange and the bearing assembly to provide satisfactory final tolerances of the impeller in the housing and to compensate for manufacturing tolerances.

If the wear of the impeller and housing has progressed to such an extent that the pump performance is reduced to an insufficient level, the pump housing should be removed and the worn parts replaced.

10.5.1 Install pressure line

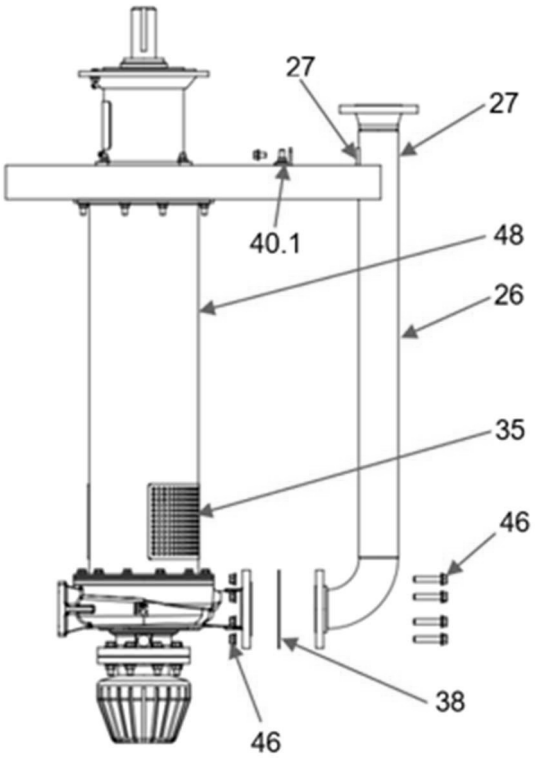


Figure 21 Installing a pressure line

Call to Action

1. Position the pump horizontally with the drain pipe facing upwards.
2. Place the seal (38) between the pressure flange of the pump housing (31) and the end surface of the riser pipe (26).
3. Easily tighten the screws (46) by hand.
4. Align the riser pipe so that the fasteners (40.1 & 27) can be fixed with the upper part of the riser pipe.
5. Tighten all screw connections tightly.

☑ *The pump assembly is now complete and ready for attaching the drive parts*

11 Restoration

Target group: Maintenance technicians

If have any doubts about customer service (see Chapter 9 9).

11.1 Special safety instructions

⚠WARNING!

Improper installation

During repair work, troubleshooting and assembly activities, it must be ensured that the machine is switched off in a safety-related way and secured against re-activation. Repair activities that are not carried out properly can have serious consequences for persons, the environment and the product itself.

- ➢ Before all repair work, remove all electrical fuses and lock the motor switch.
- ➢ Work on electrical equipment may only be carried out by electricians from the manufacturer or by specially commissioned, trained electricians and in compliance with safety regulations.
- ➢ After completion of the maintenance and repair work, the entire machine must be returned to a safe condition. All guards and interlocks must be firmly screwed and professionally mounted.
- ➢ Use only original spare parts.

⚠

Hot surfaces and liquids

The armored pump is designed for the use of hot liquids up to 100 °C, so that touching the surfaces and contacting the liquids, e.B. in the event of leakage, can lead to burns.

➢ Allow the pump to cool sufficiently before all work.

11.2 Debugging

Unknown fault messages

Unknown faults and attempts to rectification may cause damage to the machine.

➢ If a fault is present and is not displayed in the fault report list, inform customer service.

Malfunctions in a pump system are generally due to the following causes:

- Fault at the pump
- Faults in the line
- improper commissioning / assembly
- wrong pump selection

The following overview provides information about malfunctions, their causes and remedies:

Frequently occurring disorders	Possible causes
Pump does not supply liquid	1, 2, 3, 4, 5, 6, 7, 9, 10, 13, 14, 17, 19, 20, 21, 29
Insufficient volume throughput	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 19, 20, 21, 28, 29
The funding height is insufficient	2, 4, 5, 13, 14, 17
The pump switches off after commissioning	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
The power consumption of the pump is higher than normal	12, 15, 16, 17, 18, 22, 23, 24, 25, 26, 27, 32, 34, 38, 39
The power consumption of the pump is lower than normal	13, 14, 15, 16, 17, 18, 20, 21, 28, 29

Frequently occurring disorders	Possible causes
The mechanical seal has to be replaced too often	6, 7, 23, 25, 26, 30, 32, 33, 34, 35, 36, 41
Pump vibrates or makes noise	1, 9, 10, 11, 15, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 37, 38, 39, 40
Bearings wear out too quickly or get hot	23, 24, 25, 26, 27, 37, 38, 39, 40, 42
Pump runs heavy and gets hot or solid	23, 24, 25, 26, 27, 34, 37, 38, 39, 40, 42

11.3 Possible causes

1	Pump or suction line insufficiently filled and vented
2	There is air or gas coming out of the liquid
3	Air bag in the suction line
4	Air leak in suction line
5	Foot valve or suction line insufficiently immersed
6	Rotation Speed too high
7	Rotation Speed too low
8	The manometric suction height is too large
9	Suction line or suction basket clogged
10	Foot valve or suction line is insufficiently immersed during operation
11	Available minimum inlet pressure (NPSH) too low
12	Rotation Speed too high
13	Rotation Speed too low
14	Wrong direction of rotation
15	Pump does not work at the correct operating point
16	The liquid does not have the calculated specific mass
17	The liquid does not have the calculated viscosity

18	Pump works when fluid flow is too low
19	Wrong pump choice
20	Blockage in the impeller or pump housing
21	Blockage in the piping system
22	Incorrect installation of the pump system
23	Pump and motor not properly aligned
24	Striking of a rotating part
25	Unbalance in rotating parts (e.i. impeller)
26	Pump shaft striking
27	Bearing damaged or worn
28	Sealing rings damaged or worn
29	Impeller damaged
30	Running surfaces of the mechanical seal are worn or damaged
37	Axial fuse of the impeller or pump shaft damaged
38	Bearing incorrectly mounted
39	Too much or too little bearing lubrication
40	Incorrect or contaminated lubricant
42	Too high axial force, because the back blades are worn or the inlet pressure is too high
43	Too high pressure in the shaft sealing chamber due to play in the throttle socket, clogged circulation line or worn back blades

12 Spares

Spare parts for the Atmos IHD-S pumps are primarily linings, impellers, bearings, shaft protection sleeves, seals and shaft seal parts.

In order to ensure the greatest possible benefit of the pump, a certain number of spare parts should be kept in stock, depending on the expected service life of each part.

In larger plants, it is customary to have an additional bearing assembly in stock for every four pumps of the same size. The removed bearing assembly can then be inspected in a workshop, overhauled if necessary and made available for the next pump.

Alternatively, the bearing assembly can be returned to the manufacturer for repair.

12.1 Spare parts list

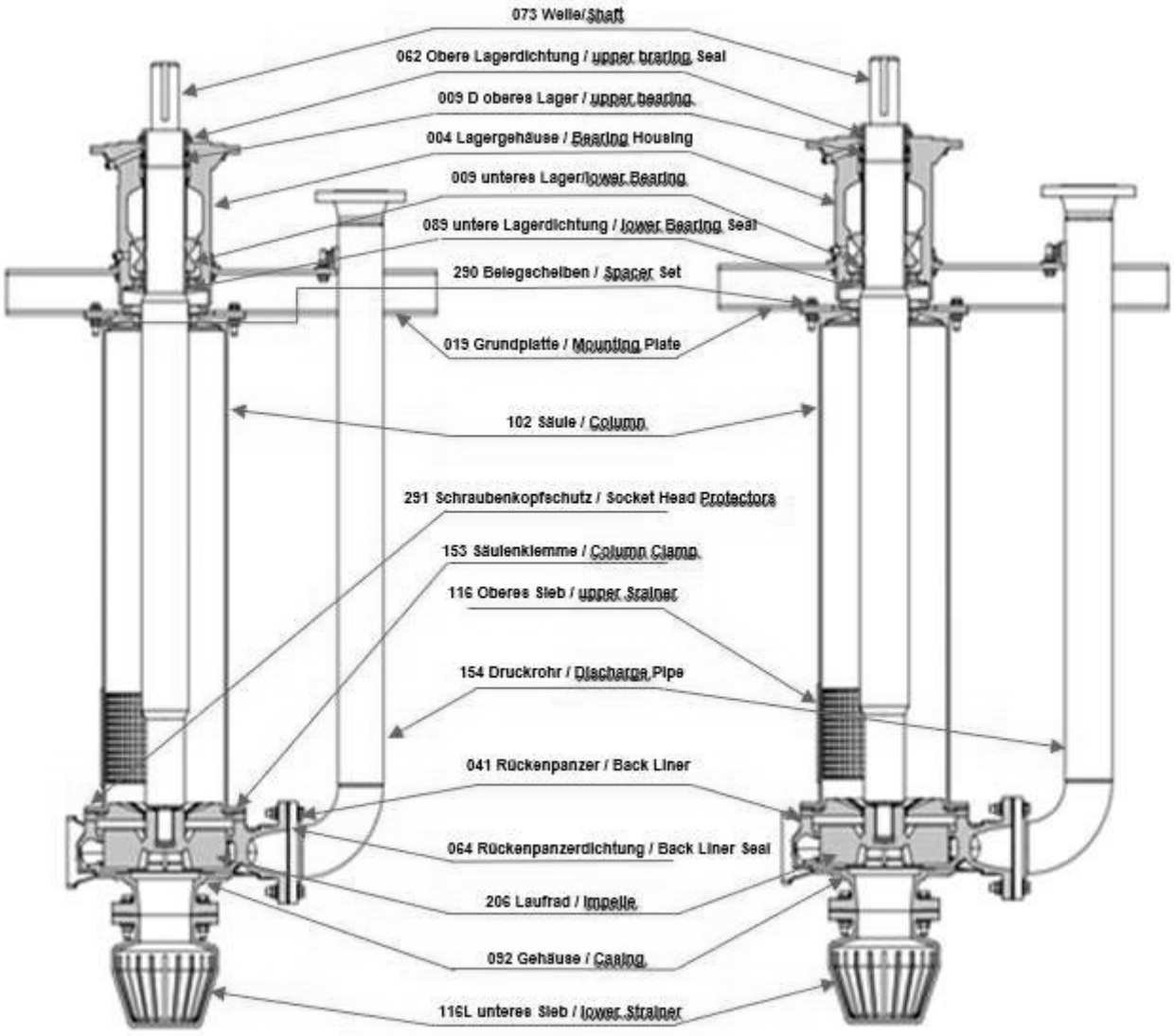


Figure 22 Spare Parts Overview

Spare part no.:	MATERIAL CODE	Description
017	-	Bearing Assembly
019/025	ST	Baseplate

032	HCA5	Backliner
030	FKM	Impeller O-ring
070	ST	key
031	HCA5	Housing
048	ST	Pump body
035	R10A	Filter
034	ST	Screening basket
030	NBR	Backliner seal
026	ST	standpipe
038	SIL	Riser pipe seal
40.0	ST	Distance piece
027	ST	Riser tube holder
430	CU	Nut covers
-	-	Bearing housing bolts
40.1b	-	Nut pump body
40.1a	ST	Screw pump body
	ST	Drain flange bolts
40.1c	ST	Nut riser pipe
40.1e	ST	Screw riser tube
40.1e	ST	Riser tube mounting screws
039	HCA5	Impeller
-	-	Inlet flange bolts

12.2 Spare parts recommendation

The manufacturer recommends the storage of the following spare parts:

- Spiral Enclosures (31)
- Backliner (32)
- Impeller (39)
- Backliner seal (30)
- O-ring (36)

When ordering spare parts, please enter the data entered on the type plate (name plate) of the pump.

13 Storage

Target group: Maintenance technicians, operators

Short-term storage:

- Maximum 6 months for the pump unit
- Maximum 12 months for spare parts made of plastic and rubber.

Long-term storage:

Maximum 24 months for metal spare parts.

➢ For long-term storage of the pump for up to 12 months: Contact the manufacturer.

Call to Action

➢ Store the pump for intermediate, short and long-term storage in a clean, dry place and protect against damage.

➢ Before delivery, the oil lubrication of the bearing unit is removed by the manufacturer. Fill the storage unit with oil for storage or provide it with a rust protection agent for storage. Protect the pump shaft and coupling against rusting with the appropriate means.

➢ Any protective measures of the drive unit can be found in the enclosed description.

➢ Turn the pump shaft by hand at least once a week during storage time to prevent rusting and fixing of the bearings.

➢ Do not remove the caps on the suction and pressure nozzles so that no foreign objects and dirt get into the inside of the pump.

hint

After long-term storage, the lubricating grease/lubricating oil must be changed before commissioning.

14 Shutdown

Target group: Maintenance technicians

14.1 Stop product

➢ Turn off the product and prevent it against re-activation. In the case of relocation to another storage location, proceed as follows:

Call to Action

1. Separate product from all power supply systems.
2. Empty all storage containers.
3. Clean product.

Forthe disposal of auxiliary andoperating materials, observethe regional regulations and information from the safetydata sheets.

15 Disposal

Target group: Maintenance technicians, special staff

Call to Action

➢ Dispose of auxiliary and operating materials professionally according to information from the safety data sheets.

➢ Separate materials by type and recycle them in accordance with local regulations.

Forthe disposal of auxiliary and operating materials, observe the local regulations and information from the safety data sheets.

In case of doubt about the disposal route, contact the manufacturer or the local waste disposal company.

16 Appendix

16.1 Supplier documentation

⚠ WARNING!

Operator error due to incomplete information

Failure to comply with information from the documentation of supplier parts can cause serious damage to persons, the environment or the product.

➢ Observe supplier documentation.

If have any doubts, contact the customer service or the manufacturer.

No.	Component/Assembly:	manufacturer:
1		
2		
3		
4		
5		
6		

16.2 Safety Data Sheets

⚠ WARNING!

Operator error due to incomplete information

Failure to comply with information from safety data sheets can lead to serious injury and death.

➢ Observe safety data sheets.

If have any doubts, contact the customer service or the manufacturer.

16.3 Instruction Protocol

Template!

➢ First copy, then fill in.

date	name	Type of instruction	Instruction is carried out by	signature

17 Index

18 EG Declaration of Conformity

DECLARATION OF CONFORMITY
KONFORMITÄTSERKLÄRUNG

We, the manufacturer, declare under our sole responsibility that the pump types of the series,
Als Hersteller erklären wir unter unserer alleinigen Verantwortung, dass die Pumpenbauarten der Baureihen,

Atmos IHD-S

(The serial number is marked on the product site plate)
(Die Seriennummer ist auf dem Typenschild des Produktes angegeben)

in their delivered state comply with the following relevant directives and with the relevant national legislation:
in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entsprechen 'und entsprechender nationaler Gesetzgebung:

_ 2006/42/EC - MACHINERY
_ 2006/42/EC - MASCHINENRICHTLINIE

_ 2009/125/EC - ENERGY-RELATED PRODUCTS
(and according to the regulation 2019/1781 on electric motors and variable speed drives)
_ 2009/125/EC - ENERGIEVERBRAUCHSRELEVANTER PRODUKTE - RICHTLINIE
(und entsprechend der geänderten Verordnung 2019/1781 über Elektromotoren und Drehzahlregelungen)

_ 2011/65/EU + 2015/863 - RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES
_ 2011/65/EU + 2015/863 - BESCHRÄNKUNG DER VERWENDUNG BESTIMMTER GEFÄHRLICHER STOFFE-RICHTLINIE

comply also with the following relevant standards:
sowie auch den Bestimmungen zu folgenden harmonisierten europäischen Normen:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Person authorized to compile the technical file is:
Bevollmächtigter für die Zusammenstellung der technischen Unterlagen ist:

WILO SE
Group Quality
Wilopark 1
D-44263 Dortmund, Deutschland

Dortmund, 2024-12-12

Signiert von:
i. V. Christoph Teschers
6390AFA148A744C...

Christoph TESCHERS
Group Vice President - Product Quality

WILO SE
Wilopark 1
D-44263 Dortmund, Deutschland

Declaration n°2224103-rev01

PC As-Sh n°2236065-EU-rev01

ORIGINAL DECLARATION / ORIGINAL-ERKLÄRUNG

F_GQ_013-86

EL

Επίσημη μετάφραση της Διακήρυξης

Εμείς, ο κατασκευαστής, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι οι τύποι αντλιών της σειράς,

(Ο σειριακός αριθμός σημειώνεται στο ταμπελάκι του προϊόντος)

Atmos IHD-S

στην κατάσταση παράδοσης συμμορφώνονται με τις ακόλουθες σχετικές οδηγίες και τη σχετική εθνική νομοθεσία:

|| 2006/42/EC - Μηχανήματα || 2009/125/EC - Συνδεόμενα με την ενέργεια προϊόντα || 2011/65/EU + 2015/863 - για τον περιορισμό της χρήσης ορισμένων επικίνδυνων ουσιών

συμμορφώνεται επίσης με εναρμονισμένα πρότυπα:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Πρόσωπο εξουσιοδοτημένο να συντάξει το τεχνικό αρχείο είναι: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

ES

Traducción oficial de la Declaración

Nosotros, el fabricante, declaramos bajo nuestra exclusiva responsabilidad que las bombas de la(s) serie(s)

(El nº de serie está marcado en la placa de características del producto)

Atmos IHD-S

cumple en la ejecución suministrada las siguientes disposiciones pertinentes y la legislación nacional correspondiente:

|| 2006/42/EC - Máquinas || 2009/125/EC - Productos relacionados con la energía || 2011/65/EU + 2015/863 - Restricciones a la utilización de determinadas sustancias peligrosas

así como las disposiciones de las siguientes normas europeas armonizadas:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Persona autorizada para la recopilación de los documentos técnicos: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

FR

Traduction officielle de la déclaration

Nous, fabricant, déclarons sous notre seule responsabilité que les types de pompes des séries,

Le numéro de série est inscrit sur la plaque signalétique du produit)

Atmos IHD-S

dans leur état de livraison sont conformes aux dispositions des directives suivantes et aux législations nationales les transposant :

|| 2006/42/EC - MACHINES || 2009/125/EC - PRODUITS LIES A L'ENERGIE (et conformément au règlement 2019/1781 amendé relatif aux moteurs électriques et aux variateurs de vitesse) || 2011/65/EU + 2015/863 - LIMITATION DE L'UTILISATION DE CERTAINES SUBSTANCES DANGEREUSES

sont également conformes aux dispositions des normes européennes harmonisées suivantes :

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Personne autorisée à constituer le dossier technique est : WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

IT

Traduzione ufficiale della Dichiarazione

Noi, il costruttore, dichiariamo sotto la nostra esclusiva responsabilità che i tipi di pompa della serie,

(Il numero di serie è riportato sulla targhetta del sito del prodotto)

Atmos IHD-S

allo stato di consegna sono conformi alle seguenti direttive pertinenti e alla legislazione nazionale pertinente:

|| 2006/42/EC - Macchine || 2009/125/EC - Prodotti connessi all'energia || 2011/65/EU + 2015/863 - sulla restrizione dell'uso di determinate sostanze pericolose

rispettare anche le seguenti norme pertinenti:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

La persona autorizzata a compilare il fascicolo tecnico è: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

PT

Tradução oficial da Declaração

Nós, o fabricante, declaramos sob nossa exclusiva responsabilidade que a(s) bomba(s) da(s) série(s),

(O nº de série está marcado na placa de características do produto)

Atmos IHD-S

está em conformidade com a versão fornecida nas seguintes disposições relevantes e de acordo com a legislação nacional

|| 2006/42/EC - Máquinas || 2009/125/EC - Produtos relacionados com o consumo de energia || 2011/65/EU + 2015/863 - relativa à restrição do uso de determinadas substâncias perigosas

assim como as seguintes disposições das normas europeias

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Pessoa autorizada para a elaboração de documentos técnicos: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

DA

Officiel oversættelse af erklæringen

Vi, producenten, erklærer under vores eget ansvar, at pumpetyperne i serien,

(Serienummeret er markeret på produktpladen) **Atmos IHD-S**

i deres leverede tilstand overholde følgende relevante direktiver og den relevante nationale lovgivning:

|| 2006/42/EC - Maskiner || 2009/125/EC - Energirelaterede produkter || 2011/65/EU + 2015/863 - Begrænsning af anvendelsen af visse farlige stoffer

også overholde følgende relevante standarder:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Person, der er autoriseret til at udarbejde den tekniske fil, er: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

ET

Deklaratsiooni ametlik tõlge

Meie, tootja, kuulutame ainuisikulisel vastutusel, et seeria pumbatüübid,

(Seerianumber on märgitud toote saidi plaadile) **Atmos IHD-S**

oma tarnitud olekus järgima järgmisi asjakohaseid direktiive ja asjakohaseid siseriiklikke õigusakte:

|| 2006/42/EC - Masinad || 2009/125/EC - Energiamõjuga toodete || 2011/65/EU + 2015/863 - teatavate ohtlike ainete kasutamise piiramise kohta

vastama ka järgmistele asjakohastele standarditele:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Tehnilise toimiku koostamiseks on volitatud isik: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

FI

Julistuksen virallinen käännös

Valmistaja vakuuttaa yksinomaisella vastuullaan, että sarjan pumpputyypit,

(Sarjanumero on merkitty tuotekohtaiseen kilpeen) **Atmos IHD-S**

toimitetussa tilassa noudattavat seuraavia asiaankuuluvia direktiivejä ja asiaa koskevaa kansallista lainsäädäntöä:

|| 2006/42/EC - Koneet || 2009/125/EC - Energiaan liittyvien tuotteiden || 2011/65/EU + 2015/863 - tiettyjen vaarallisten aineiden käytön rajoittamisesta

noudattamaan myös seuraavia asiaankuuluvia standardeja:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Henkilö, jolla on valtuudet koota tekninen tiedosto, on: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

IS

Opinber þýðing á yfirlýsingunni

Við framleiðandinn lýsum því yfir undir ábyrgð okkar einungis að dælugerðir seríunnar,

(Raðnúmerið er merkt á plötunni á vörustaðnum) **Atmos IHD-S**

í afhentu ástandi í samræmi við eftirfarandi viðeigandi tilskipanir og viðeigandi innlenda löggjöf:

|| 2006/42/EC - Vélartilskipun || 2009/125/EC - Tilskipun varðandi vörur tengdar orkunotkun || 2011/65/EU + 2015/863 - Takmörkun á notkun tiltekinna hættulegra efna

uppfylla einnig eftirfarandi viðeigandi staðla:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Sá sem hefur heimild til að taka saman tækniskrána er: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

LT

Oficialus deklaracijos vertimas

Mes, kaip gamintojas, savo atsakomybės ribose deklaruojame, kad šios serijos siurblių modeliai,

(Serijos numeris pažymėtas ant produkto lentelės) **Atmos IHD-S**

taip kaip pristatyti, atitinka sekančias aktualias direktyvas ir nacionalines teisės normas bei reglamentus:

|| 2006/42/EC - Mašinos || 2009/125/EC - Energija susijusiems gaminiams || 2011/65/EU + 2015/863 - dėl tam tikrų pavojingų medžiagų naudojimo apribojimo

taip pat atitinka sekančius aktualius standartus:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Asmuo įgaliotas sudaryti techninius dokumentus yra: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

LV

Deklarācijas oficiālais tulkojums

Mēs, ražotājs, ar pilnu atbildību paziņojam, ka sūkņu sērijas,

(Sērijas numurs ir norādīts uz izstrādājuma plāksnītes) **Atmos IHD-S**

piegādātāja valstī atbilst šādām attiecīgām direktīvām un attiecīgiem valsts tiesību aktiem:

|| 2006/42/EC - Mašīnas || 2009/125/EC - Enerģiju saistītiem ražojumiem || 2011/65/EU + 2015/863 - par dažu bīstamu vielu izmantošanas ierobežošanu 2011/65/UE

atbilst arī sekojošiem attiecīgiem standartiem:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Persona pilnvarota sastādīt tehnisko dokumentāciju: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

NL

Officiële vertaling van de verklaring

Wij, de fabrikant, verklaren onder onze eigen verantwoordelijkheid dat de pomptypes van de serie,

(Het serienummer staat vermeld op het naamplaatje van het product) **Atmos IHD-S**

in de geleverde versie voldoen aan de volgende relevante bepalingen en aan de overeenkomstige nationale wetgeving:

|| 2006/42/EC - Machines || 2009/125/EC - Energiegerelateerde producten || 2011/65/EU + 2015/863 - betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen

voldoen ook aan de volgende relevante normen:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

De persoon die bevoegd is om het technische bestand samen te stellen is: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

NO

Offisiell oversettelse av erklæring

Vi som produsent erklærer herved at pumper under type serie,

(serienummeret er markert på pumpeskilt) **Atmos IHD-S**

I levert tilstand vil produkt overholde følgende direktiver og relevant nasjonal lovgivning

|| 2006/42/EC - Maskindirektiv || 2009/125/EC - Direktiv energirelaterte produkter || 2011/65/EU + 2015/863 - Begrensning av bruk av visse farlige stoffer

Oppfølger også relevante standarder

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Vedkommendesom er autorisert til å sammenstille teknisk fil er: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

SV

Officiell översättning av försäkran

Vi, tillverkaren, försäkrar under eget ansvar att pumparna i serien

(Serienumret finns utmärkt på produktens dataskylt) **Atmos IHD-S**

i det utförande de levererades överrenstämmer med följande relevanta direktiv och relevant nationell lagstiftning

|| 2006/42/EC -Maskiner || 2009/125/EC - Energirelaterade produkter || 2011/65/EU + 2015/863 - begränsning av användning av vissa farliga ämnen

överrenstämmer också med följande relevanta standarder:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Person behörig att sammanställa denna tekniska fil är: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

GA

Eadar-theangachadh oifigeil den Ghairm

Bidh sinn, an neach-dèanamh, a 'foillseachadh fon aon uallach againn gu bheil na seòrsaichean pumpa san t-sreath,

(Tha an àireamh sreathach air a chomharrachadh air clàr làrach an toraidh) **Atmos IHD-S**

anns an stàit lìbhrigidh aca gèilleadh ris na stiùiridhean buntainneach a leanas agus ris an reachdas nàiseanta buntainneach:

|| 2006/42/EC - Innealra || 2009/125/EC - Fuinneamh a bhaineann le táirgí || 2011/65/EU + 2015/863 - Srian ar an úsáid a bhaint as substaintí guaiseacha acu

gèilleadh cuideachd ris na h-inbhean iomchaidh a leanas:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Is e an neach le ùghdarras am faidhle teicnigeach a chur ri chèile: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

BG — **Официален превод на Декларация**

Ние, като производител, декларираме на собствена отговорност, че помпите от серията,

Серийните номера са обозначени на табелата на продукта

Atmos IHD-S

В доставения им вид са в съответствие приложимите за държавата директиви и законодателство

|| 2006/42/EC - Машини || 2009/125/EC - Продукти, свързани с енергопотреблението || 2011/65/EU + 2015/863 - относно ограничението за употребата на определени опасни вещества

Също така отговарят на следните изискуеми норми:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Лицето, упълномощено да състави техническия доклад е: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

CS — **Oficiální překlad Prohlášení**

My, výrobce, prohlašujeme na základě naší jediné odpovědnosti, že typy čerpadel řady,

(Sériové číslo je uvedeno na výrobním štítku)

Atmos IHD-S

ve svém dodaném stavu dodržovat následující relevantní směrnice a příslušnou národní legislativu:

|| 2006/42/EC - Stroje || 2009/125/EC - Výrobků spojených se spotřebou energie || 2011/65/EU + 2015/863 - Omezení používání některých nebezpečných látek

dodržovat také následující relevantní normy:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Osoba oprávněná sestavit technickou dokumentaci je: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

HR — **Službeni prijevod Deklaracije**

Mi, proizvođač, izjavljujemo pod isključivom odgovornošću da tipovi pumpi serije,

(Serijski broj je označen na tipskoj pločici proizvoda)

Atmos IHD-S

u isporučenom stanju odgovara sljedećim relevantnim direktivama i relevantnom nacionalnom zakonodavstvu:

|| 2006/42/EC - Smjernica o strojevima || 2009/125/EC - Smjernica za proizvode relevantne u pogledu potrošnje energije || 2011/65/EU + 2015/863 - ograničenju uporabe određenih opasnih tvari

u skladu također i sa sljedećim relevantnim standardima:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Osoba ovlaštena za sastavljanje tehničke dokumentacije: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

HU — **A Nyilatkozat hivatalos fordítása**

Mi, a gyártó, saját felelősségünkre kijelentjük, hogy a sorozat szivattyúi,

(A sorozatszámot a termék adattábláján feltüntetik)

Atmos IHD-S

leszállított kivitelükben feleljenek meg a következő vonatkozó irányelveknek és a vonatkozó nemzeti irányelveknek

|| 2006/42/EC - Gépek || 2009/125/EC - Energiával kapcsolatos termékek || 2011/65/EU + 2015/863 - egyes veszélyes való alkalmazásának korlátozásáról

megfeleljen a következő vonatkozó előírásoknak is:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

A műszaki dokumentáció összeállítására jogosult személy: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

PL — **Oficjalne tłumaczenie Deklaracji Zgodności**

Producent oświadcza na wyłączną odpowiedzialność, że pompy z serii

(Numer seryjny znajduje się na tabliczce znamionowej produktu)

Atmos IHD-S

w stanie dostarczonym są zgodne z następującymi dyrektywami i przepisami krajowymi mającymi zastosowanie:

|| 2006/42/EC - Maszyn || 2009/125/EC - Produktów związanych z energią || 2011/65/EU + 2015/863 - sprawie ograniczenia stosowania niektórych niebezpiecznych substancji

są również zgodne z następującymi specyfikacjami technicznymi mającymi zastosowanie:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Osoba upoważniona do sporządzenia dokumentacji technicznej: WILO SE Group Quality Wilopark 1 D-44263 Dortmund, Deutschland

RO

Traducere oficială a Declarației

Noi, producătorul, declarăm sub responsabilitatea noastră exclusivă că tipurile de pompe din seria

(Numărul serial este marcat pe plăcuta de identificare a produsului)

Atmos IHD-S

în starea lor livrată, respectă următoarele directive relevante și legislația națională relevantă:

|| 2006/42/EC - Mașini || 2009/125/EC - Produselor cu impact energetic || 2011/65/EU + 2015/863 - privind restricțiile de utilizare a anumitor substanțe periculoase

sunt conforme, de asemenea, cu următoarele standarde relevante

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Persoana autorizată sa compileze dosarul tehnic este:

WILO SE
Group Quality
Wilopark 1
D-44263 Dortmund,
Deutschland

SK

Oficiálny preklad vyhlásenia

My, výrobca, na vlastnú zodpovednosť vyhlasujeme, že typy čerpadiel radu,

(Sériové číslo je uvedené na štítku s výrobkom)

Atmos IHD-S

v dodanom stave zodpovedajú nasledujúcim relevantným smerniciam a príslušným národným právnym predpisom:

|| 2006/42/EC - Strojových zariadeniach || 2009/125/EC - Energeticky významných výrobkov || 2011/65/EU + 2015/863 - obmedzení používania určitých nebezpečných látok

spĺňať aj nasledujúce relevantné normy:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Osoba oprávnená zostaviť technickú dokumentáciu je:

WILO SE
Group Quality
Wilopark 1
D-44263 Dortmund,
Deutschland

SL

Uradni prevod izjave

Mi, kot proizvajalci, z polno odgovornostjo izjavljamo, da so črpalke serije,

(Serijska številka je označena na napisni tablici izdelka)

Atmos IHD-S

v stanju dostave ravnajo v skladu z naslednjimi ustreznimi direktivami in ustrezno nacionalno zakonodajo:

|| 2006/42/EC - Stroji || 2009/125/EC - Izdelkov, povezanih z energijo || 2011/65/EU + 2015/863 - o omejevanju uporabe nekaterih nevarnih snovi

izpolnjujejo tudi naslednje ustrezne standarde:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Oseba, pooblaščena za sestavo tehnične datoteke, je:

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Deutschland

TR

CE Uygunluk Beyanı

Biz üretici olarak, bu seri pompa tiplerinin tamamen kendi sorumluluğumuz altında olduğunu beyan ederiz.

Seri numarası ürünün üzerindedir.

Atmos IHD-S

teslim edildiği şekliyle aşağıdaki ilgili hükümler ile uyumludur;

|| 2006/42/EC - Makine Yönetmeliği || 2009/125/EC - Eko Tasarım Yönetmeliği || 2011/65/EU + 2015/863 - Belirli tehlikeli maddelerin bir kullanımını sınırlandıran

İlgili uyumlaştırılmış Avrupa standartları;

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Teknik dosyayı düzenleyen yetkili kişi;

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MT

Traduzzjoni uffiċjali tad-Dikjarazzjoni

Aħna, il-manifattur, niddikjaraw taħt ir-responsabbiltà unika tagħna li t-tipi ta 'pompa tas-serje,

(In-numru tas-serje huwa mmarkat fuq il-pjanċa tas-sit tal-prodott)

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fl-istat mogħtija tagħhom jikkonformaw mad-direttivi rilevanti li ġejjin u mal-leġislazzjoni nazzjonali relevanti:

|| 2006/42/EC - Makkinarju || 2009/125/EC - Prodotti relatati mal-enerġija || 2011/65/EU + 2015/863 - dwar ir-restrizzjoni tal-użu ta' ċerti sustanzi perikoluż

jikkonformaw ukoll mal-istandards rilevanti li ġejjin:

EN 809:1998+A1:2009; EN 60034-1:2010; EN 60204-1:2018; EN 60034-30-1:2014; EN IEC 63000:2018;

Persuna awtorizzata biex tiġbor il-fajl tekniku hija:

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