Pioneering for You

wilo

Wilo-Crono... IL/DL/BL
Wilo-Vero... IPL-N/DPL-N

de Zusatzanleitung ATEX
en Supplementary instructions ATEX
fr Notice complémentaire ATEX
nl Extra handleiding ATEX

2 140 021-Ed.02 / 2017-02-Wilo

1 General 17

2 Safety 17
2.1 Indication of instructions in the operating instructions 17
2.2 Personnel qualifications 18
2.3 Danger in the event of non-observance of the safety instructions 18
2.4 Safety consciousness on the job 18
2.5 Safety instructions for the operator 18
2.6 Safety instructions for installation and maintenance work 19
2.7 Unauthorised modification and manufacture of spare parts 19
2.8 Improper use 19
2.9 Residual hazards 19

3 Transport and interim storage 20

4 Intended use 20

5 Specifications concerning products and operating conditions 21
5.1 Identification marking 21
5.2 Authorised operating conditions 22
5.3 Operation with flammable liquids and explosion protection 23

6 Instructions concerning installation and commissioning 24
6.1 Coupling/coupling protection 24
6.2 Unobstructed movement of the drive shaft 24
6.3 Electrical connection 24
6.4 Earthing 24
6.5 Dry-running protection 24
6.6 Test run with the product 24

7 Operating instructions 25
7.1 Improper use 25
7.2 Explosion protection 25

8 Maintenance instructions 28
8.1 Motor bearings 29
8.2 Static gaskets 29
8.3 Coupling protection 29
8.4 Mechanical seal 29
8.5 Unobstructed movement of the drive shaft 29

1 General

About this document

The language of the original operating instructions is German. All other languages of these instructions are translations of the original operating instructions.

The installation and operating instructions (or the supplementary installation and operating instructions) are an integral part of the product. They must be kept readily available at the place where the product is installed. Strict adherence to these instructions is a precondition for the proper use and correct operation of the product.

The installation and operating instructions correspond to the relevant version of the product and the underlying safety regulations and standards valid at the time of going to print.

EC declaration of conformity:

A copy of the EC declaration of conformity is a component of these installation and operating instructions.

If a technical modification is made on the designs named there without our agreement or the declarations made in the installation and operating instructions on product/personnel safety are not observed, this declaration loses its validity.

2 Safety

These supplementary installation and operating instructions contain basic instructions concerning utilisation in potentially explosive areas that are to be observed during installation, operation, monitoring and maintenance. For this reason, these supplementary installation and operating instructions must, without fail, be read by the service technician and the responsible specialist/operator before installation and commissioning.

It is not only the general safety instructions listed under the main point “safety” that must be adhered to but also the special safety instructions with danger symbols included under the following main points.

In addition to the present supplementary installation and operating instructions, the following other installation and operating instructions also apply; it is imperative that they be complied with in order to avoid dangers:

- Installation and operating instructions for the pump series
- Installation and operating instructions for the motor

The present installation and operating instructions do not take into account any local regulations for the compliance with which the operator is responsible – also with respect to any installation personnel called in.

In the event that additional information or instructions are required, as well as in case of damage, please contact the International Service Department at WILO SE.

2.1 Indication of instructions in the operating instructions

Symbols

General danger symbol

Danger due to electrical voltage

Special safety information in regard to explosion protection

NOTE

Signal words

DANGER!
Acutely dangerous situation.
Non-observance results in death or the most serious of injuries.

WARNING!
The user can suffer (serious) injuries. 'Warning' implies that (serious) injury to persons is probable if this note is disregarded.

CAUTION!
There is a risk of damaging the product/unit. 'Caution' concerns possible damage to the product that could occur if this note is disregarded.

NOTE:
Useful information on handling the product. It draws attention to possible problems.

Information that appears directly on the product, such as:

- Direction of rotation arrow
- Identification for fluid connections
- Rating plate
- Warning sticker

must be strictly complied with and kept in legible condition.

2.2 Personnel qualifications

The installation, operating and maintenance personnel must have the appropriate qualifications for this work. Area of responsibility, terms of reference and monitoring of the personnel are to be ensured by the operator. If the personnel are not in possession of the necessary knowledge, they are to be trained and instructed. This can be accomplished if necessary by the manufacturer of the product at the request of the operator.

2.3 Danger in the event of non-observance of the safety instructions

Non-observance of the safety instructions can result in risk of injury to persons and damage to the environment and the product/unit. Non-observance of the safety instructions results in the loss of any claims to damages. Non-observance of the safety instructions can result in the loss of any claims to damages.

In detail, non-observance can, for example, result in the following risks:

- Danger to persons from electrical, mechanical and bacteriological influences
- Damage to the environment due to leakage of hazardous materials
- Property damage
- Failure of important product/unit functions
- Failure of required maintenance and repair procedures.

2.4 Safety consciousness on the job

The safety instructions included in these installation and operating instructions, the existing national regulations for accident prevention together with any internal working, operating and safety regulations of the operator are to be complied with.

If the product is utilised in potentially explosive areas, the sections of these supplementary installation and operating instructions marked with the Ex symbol are to be observed in particular.

2.5 Safety instructions for the operator

Wilo devices are not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the devices.

- If hot or cold components on the product/the unit lead to hazards, local measures must be taken to guard them against touching.
- Guards protecting against touching moving components (such as the coupling) must not be removed whilst the product is in operation.
- Leakages (e.g. from the shaft seals) of hazardous fluids (which are explosive, toxic or hot) must be led away so that no danger to persons or to the environment arises. National statutory provisions are to be complied with.
- Danger from electrical current must be eliminated. Local directives or general directives [e.g. IEC, VDE etc.] and local energy supply companies must be adhered to.

2.6 Safety instructions for installation and maintenance work

The operator must ensure that all installation and maintenance work is carried out by authorised and qualified personnel, who are sufficiently informed from their own detailed study of the operating instructions.

Work to the product/unit must only be carried out when at a standstill. It is mandatory that the procedure described in the Installation and operating instructions for shutting down the product/unit be complied with.

Immediately on conclusion of the work, all safety and protective devices must be put back in position and/or recommissioned.

2.7 Unauthorised modification and manufacture of spare parts

Unauthorised modification and manufacture of spare parts will impair the safety of the product/personnel and will make void the manufacturer's declarations regarding safety.

Modifications to the product are only permissible after consultation with the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safety. The use of other parts will absolve us of liability for consequential events.

2.8 Improper use

The operational reliability of the supplied product is only guaranteed when used properly in accordance with the section in the installation and operating instructions titled “Intended use”. The limit values must on no account fall under or exceed those specified in the catalogue/data sheet.

2.9 Residual hazards

The following residual hazards could be caused by the pumps:

The pumps and equipment parts, such as the installation flange and the sealing (mechanical seal, flat gasket including the pipework), can be subject to pressure or high temperatures resulting from the fluids and gases.

Even when all necessary precautionary safety measures have been implemented, there still exists a residual danger caused by leakiness or mechanical damage on the pump body. Gases, vapours or fluids could escape unnoticed at seals or screwed connections.

An uncontrolled chemical reaction could take place in the product area when the pump is at a standstill caused by motor or coupling failure.

An electrostatic charging of the circulating fluid and thus the danger of ignition is possible as a result of the operation of the pump, as is the case with all closed circuit circulation processes involving flammable liquids.

- **Implement corresponding precautionary measures, see chapter 6.4 “Earthing” on page 24 and chapter 8.3 “Coupling protection” on page 29.**

3 Transport and interim storage

The instructions listed in the installation and operating instructions of the respective pump series are to be complied with.

4 Intended use

Purpose

In potentially explosive areas of Categories 2 and 3, Atmosphere G, which are covered by EU Directive 2014/34/EU, no pumps may be utilised except those whose designs have been approved for the specific utilisation purpose intended.

The EC-Type Examination Certificates prescribed pursuant to Directive 2014/34/EU must be available for the drive motor and the electrical apparatus; in addition, these components must also be correspondingly marked as such. The equipment must be certified for the respective temperature class. The relevant standards according to the motor examination certificate are to be used as the basis for the setting up and operation of the motor.

The glanded pumps of the following series

- Wilo-CronoLine-IL
- Wilo-CronoTwin-DL
- Wilo-CronoBloc-BL
- Wilo-VeroLine-IPL-N
- Wilo-VeroTwin-DPL-N

are intended for use as circulation pumps in building services.

Fields of application

The above mentioned glanded pumps may only be used for:

- Hot water heating systems
- Cooling and cold water circulation systems
- Process water systems
- Industrial circulation systems
- Heat carrier circuits

Restrictions

Glanded pumps are not approved for generator operation!
Due to the speeds that are possible in this context, there is a danger of overheating and thus exceedance of the permitted temperature range.

- **Both operating conditions and permitted fluids can be found in the following chapter 5.2 “Authorised operating conditions” on page 22 of these installation and operating instructions.**

5 Specifications concerning products and operating conditions

5.1 Identification marking

Explosion-protected glanded pumps are marked as follows for interior pump space and environment.

Example:

- for interior pump space and environment:
  II2 Gcb IIA T3/T4 / II2 Gcb IIC T3/T4
- for the motor:
  CE 123 II2 G Ex e/d/nA/de IIA T3/T4

Explanation of markings based on the following examples:

Flag	Explanation
CE	CE marking
123	Name or symbol of the testing authority
II	Device group
2	Device category
G	Ex-atmospheres due to gases, vapours and mist
Ex	General marking of an explosion-proof motor
C	Design safety (protection due to safe design)
b	Ignition source monitoring with T4
IIC / IIB / IIA	Explosion group, corresponding to the distribution of gases and vapours as a function of the ignition temperature (MESG=gap width limit): MESG <0.5 mm: II C 0.5 mm < MESG <0.9 mm: II B MESG > 0.9 mm: II A
T1-T4	Temperature class with maximum surface temperature: T1 = 450 °C T2 = 300 °C T3 = 200 °C T4 = 135 °C
e/d/nA/de	Motor ignition protection class: e = increased safety d = pressure-resistant enclosure nA = non-sparking equipment de = pressure-resistant enclosure, increased terminal box safety

Tab. 1: Identification marking

Pumps and mechanical seals must be additionally protected against dry running in the T4 temperature range. This can be achieved by monitoring the differential pressure or the rated motor power (see chapter 6.5 “Dry-running protection” on page 24 and chapter 7 “Operating instructions” on page 25).
The pump may not be operated against closed valves, orifice plates, slide valves or other check valves in the media circulation. If these cannot be excluded, then a volume flow monitor must be installed.

5.2 Authorised operating conditions

5.2.1 For the IPL-N/DPL-N series

Fluid	Mechanical seal	Limitation of maximum permissible fluid temperature		
		Number of motor poles	T4 p=10 bar	T3 p=10 bar
Heating water in accordance with VDI 2035	Standard (AQ1EGG)	2	120 °C	120 °C
		4	120 °C	120 °C
Semi-desalinated water with conductivity >80 µs, silicates <10 mg/l, pH value >9	Standard (AQ1EGG)	2	120 °C	120 °C
		4	120 °C	120 °C
Mineral oil	with fluorine-rubber secondary seal, e.g. Viton (AQ1VGG)	2	105 °C	120 °C
		4	115 °C	120 °C
Heating water with conductivity <850 µs, silicates <10 mg/l, solid matter content <10 mg/l	Standard (AQ1EGG)	2	120 °C	120 °C
		4	120 °C	120 °C
Condensate	Standard (AQ1EGG)	2	100 °C	100 °C
		4	100 °C	100 °C
Cooling brine, inorganic; pH value >7.5, inhibited	Standard (AQ1EGG)	2 and 4	30 °C	30 °C
Water with oil contamination	with fluorine-rubber secondary seal, e.g. Viton (AQ1VGG)	2 and 4	90 °C	90 °C
Cooling water with frost protection (pH value: 7.5-10; no galvanised components)	Standard (AQ1EGG)	2 and 4	40 °C	40 °C
Water-glycol mixture (20 %-40 % glycol)	Standard (AQ1EGG)	2 and 4	40 °C	40 °C

Tab. 2: Authorised operating conditions for the IPL-N/DPL-N series

5.2.2 For the IL/DL/BL series

Fluid	Mechanical seal	Limitation of maximum permissible fluid temperature				
		Number of motor poles	T4 p=10 bar	T4 p=16 bar	T3 p=10 bar	T3 p=16 bar
Heating water in accordance with VDI 2035	Standard (AQ1EGG)	2	100 °C	90 °C	140 °C	120 °C
		4	115 °C	110 °C	140 °C	120 °C
Semi-desalinated water with conductivity >80 µs, silicates <10 mg/l, pH value >9	Standard (AQ1EGG)	2	100 °C	90 °C	140 °C	120 °C
		4	115 °C	110 °C	140 °C	120 °C
Mineral oil	with fluorine-rubber secondary seal, e.g. Viton (AQ1VGG)	2	75 °C	50 °C	140 °C	115 °C
		4	95 °C	80 °C	140 °C	120 °C
Heating water with conductivity <850 µs, silicates <10 mg/l, solid matter content <10 mg/l	Standard (AQ1EGG)	2	100 °C	90 °C	120 °C	120 °C
		4	115 °C	110 °C	120 °C	120 °C
Condensate	Standard (AQ1EGG)	2	100 °C	90 °C	100 °C	100 °C
		4	100 °C	100 °C	100 °C	100 °C
Cooling brine, inorganic; pH value >7.5, inhibited	Standard (AQ1EGG)	2 and 4	20 °C	20 °C	20 °C	20 °C
Water with oil contamination	with fluorine-rubber secondary seal, e.g. Viton (AQ1VGG)	2 and 4	90 °C	90 °C	90 °C	90 °C
Cooling water with frost protection (pH value: 7.5-10; no galvanised components)	Standard (AQ1EGG)	2 and 4	40 °C	40 °C	40 °C	40 °C
Water-glycol mixture (20 %-40 % glycol)	Standard (AQ1EGG)	2 and 4	40 °C	40 °C	40 °C	40 °C

Tab. 3: Authorised operating conditions for the IL/DL/BL series

The use of solvents is not permissible, since these may corrode the elastomers in the seals. In turn, this can lead to uncontrolled leakage!

5.3 Operation with flammable liquids and explosion protection

All relevant regulations are to be complied with for the operation of a pump with flammable liquids. These include, in particular:

- Technical rules for operational reliability (TRBS)
- Technical rules for hazardous substances (TRGS)
- Directive 2014/34/EU for equipment and protective systems intended for use in potentially explosive atmospheres Areas
- Machinery Directive (2006/42/EC)
- Ordinance on Industrial Safety and Health (BetrSichV) in accordance with Directive 2009/104/EC
- Explosion Protection Ordinance (11. ProdSV), in accordance with Directive 2014/34/EU
- Hazardous Substances Ordinance (GefStoffV)

The possibility of an electrostatic charging of the fluid must be taken into account during utilisation of the pump, as is the case with all closed circuit circulation processes involving flammable liquids. Ignition hazards could arise as a result.

WARNING! Danger of personal injury!
Even when all necessary precautionary safety measures have been implemented, there still exists a residual danger caused by leakiness or mechanical damage. Gases, vapours or fluids could escape unnoticed at seals or screwed connections.

- **Keep a safe distance from the pump during commissioning.**
- **Wear protective clothing, protective gloves and protective goggles.**

6 Instructions concerning installation and commissioning

6.1 Coupling/coupling protection

In accordance with the Ordinance on Industrial Safety and Health and the Machinery Directive, the pump may not be operated without coupling protection.

Unintended spark formation could result from contact between the coupling and tools or other metal objects.

6.2 Unobstructed movement of the drive shaft

The unobstructed movement of the drive shaft is to be checked prior to establishing the electrical connection. The coupling protection must be removed for this purpose and the shaft must be rotated manually to the height of the coupling. The movement of the shaft must be unobstructed. No audible grinding sounds are permitted.

The grinding of the impeller could result in a non-permitted temperature increase at the pump housing or to a blocking of the pump.

The coupling protection is to be remounted after the check has been completed.

6.3 Electrical connection

Wilo recommends using a motor protection apparatus as an additional protective device; this must be according to EN 60079 Part 14. Electrical installation in accordance with EN 60079 Part 14 is necessary in potentially explosive areas.

6.4 Earthing

In order to prevent dangers caused by static charging, the unit must be earthed at the earthing connection provided for this purpose.

6.5 Dry-running protection

In order to avoid non-permitted temperatures arising from dry running of the mechanical seal, we recommend the installation of a device for monitoring pressure difference or motor power which will switch off the pump in the event of a sudden drop in pressure or motor power.

Pumps and mechanical seals must be additionally protected against dry running in the T4 temperature range. This can be accomplished by monitoring the differential pressure or the rated motor power (see chapter 7.2.3 “Operating mode of the pump” on page 26).

6.6 Test run with the product

Test runs without fluid (dry run) are not permitted, because this will lead not only to pre-existing damage to the mechanical seal but also to temperatures in the area of the mechanical seal in excess of 140 °C!

The instructions contained in chapter 7.2.1 “Filling/venting the pump” on page 25 are to be observed without fail!

The instructions contained in the installation and operating instructions for the pump series concerning commissioning, particularly with regard to venting the pump, are to be observed without fail!

A test run is to be carried out outside of the Ex-atmosphere as a part of the commissioning process. The following points are to be noted in particular during this test run:

- Quiet, vibration-free running of the pump
- Current consumption of the motor. Compare the values with the specifications contained in the installation and operating instructions of the motor
- Noise and temperature developments for the drive unit
- Leakage at the flange connections
- Leakage at the gasket
- Monitoring of the direction of rotation (note direction of rotation arrow on the fan cover)

In order to avoid possible temperature increases in the event of contact between rotating and stationary parts, the monitoring of the direction of rotation may not under any circumstances be carried out by briefly switching on the unfilled pump.

7 Operating instructions

7.1 Improper use

Operational reliability is not ensured except in conjunction with intended use as outlined in chapter 4 “Intended use” on page 20 of these Supplementary installation and operating instructions.

The instructions listed in chapter 5 “Specifications concerning products and operating conditions” on page 21 concerning operating conditions are to be complied with.

Any exceeding of the permissible operating conditions, as well as any non-permitted operating mode, can lead to an exceeding of the defined temperatures (see chapter 7.2.3 “Operating mode of the pump” on page 26 and chapter 7.2.7 “Temperature limits” on page 27).

7.2 Explosion protection

If the units are utilised in potentially explosive areas with requirements in accordance with Directive 2014/34/EU, then it is imperative for ensuring explosion protection that the measures and instructions contained in the following chapters are observed:

- Chapter 7.2.1 “Filling/venting the pump” on page 25
- Chapter 7.2.7 “Temperature limits” on page 27

7.2.1 Filling/venting the pump

The instructions contained in the installation and operating instructions for the pump series concerning commissioning, particularly with regard to venting the pump, are to be observed without fail!

A hose is to be connected to the ventilation valve for venting, particularly in connection with operations involving fluids that are hazardous to humans or to the environment, in order to ensure that uncontrolled drainage of the fluid into the surrounding environment can be prevented.

WARNING! Risk of injury and damage to property!
Fluids which pose a risk to persons and the environment can cause injuries if touched, and can cause damage to the environment!

- **Fluid escaping in an uncontrolled manner is to be disposed of taking the legal regulations into account.**
- **Wear protective clothing, protective gloves and protective goggles for the ventilation procedure.**

It is assumed for the operation of the pump that the suction and pressure pipe system, and thus the interior of the pump that has contact with the fluid, including the sealing chamber, will be continuously filled with conveyance fluid, in order to ensure that no

explosive atmosphere will be able to be present there.
If the operator is unable to ensure this, then appropriate monitoring measures are to be implemented.

The self-ventilation feature of the sealing chamber could be impaired in the event of incorrect installation, which could then cause gas bubbles to remain in the pump and dry running at the mechanical seal.

The system is to be operated in such a way that no underpressure can occur on the suction side. It is for that reason particularly important to observe the correct configuration and maintenance of filters and diaphragm vessels, in addition to the compliance with and monitoring of system pressure.

If underpressure occurs on the suction side, then this indicates a non-permitted operating mode, which could be connected with air being drawn in through the shaft seal and thus with gas bubbles in the pump. This could lead to dry running of the mechanical seal. Suitable measures are to be implemented as necessary.

Because of reasons of design, however, one cannot always avoid having certain residual volume left over that is not filled with fluid following filling for initial commissioning. This volume will however be immediately filled with conveyance fluid by the onset of the pumping effects of the pump once the motor is switched on.

The careful filling of the sealing chambers and the auxiliary systems of the mechanical seal are to be observed.
The chapters of the installation and operating instructions for the pump series concerning commissioning are to be observed without fail.

7.2.2 Fluid

Only the fluids listed in chapter 5.2 “Authorised operating conditions” on page 22 are permitted to be pumped.

Abrasive constituents are not permitted in the fluid. The ingress of such constituents in the pump can lead to a blockage of the pump. A filter should therefore be installed in the inlet in the event that there is a danger of solid particles entering the pump.

7.2.3 Operating mode of the pump

It is to be ensured that the pump is always started with a completely opened check valve on the suction side and a slightly opened check valve on the pressure side. The pump can however be started up against a closed non-return valve mounted on the pressure side.

The check valve on the pressure side is not be regulated to the duty point until full speed has not been reached.

The pump may not be operated against closed valves, orifice plates, slide valves or other check valves. If the possibility cannot be excluded, then a volume flow monitoring device must be used to ensure that the required minimum quantity of $Q_{min} = 0.1 \times Q_{max}$ (as a function of the pump curve) of the respective pump type is pumped. The pump must switch off if this minimum amount is not achieved. The monitoring control must at least satisfy the requirements of EN 13463-6 for a minimum functional failure rate of FFR 1.

A pressure relief apparatus should be set up in the pressure pipe.

If this is not complied with, then there is a danger within a very short time of high surface temperatures arising on the pump housing caused by rapid heating of the fluid in the interiors of the pump.

If the check valves are closed on both the suction and pressure sides, then there is an additional danger of overstraining, even to the point of bursting, as a result of the rapid increase in pressure inside the pump that this situation causes!

The specified minimum amounts are in reference to water and water-like liquids. If, however, fluids are present which exhibit physical parameters differing from this, then a check is to be made as to whether the danger of additional heating exists, which would therefore necessitate an increase of the minimum amount.

Pumps for the temperature range T4 may only be operated with a device for monitoring pressure difference or motor power as a safety feature in case of non-permitted temperature increases.

Switch-off criterion for differential pressure is Δp=0.15 bar; Switch-off criteria for the rated motor power P_{2Nom} are

- **$P < 0.2 \times P_{2Nom}$ in cases of 2-pole drives and**
- **$P < 0.4 \times P_{2Nom}$ in cases of 4-pole drives.**

The monitoring control must at least satisfy the requirements of EN 13463-6 for a minimum functional failure rate of FFR 1.

7.2.4 Protective devices

WARNING! Danger of personal injury!
Covers made of plastic are fitted to the lantern as shields against touching.

- **The pump is not permitted to be operated without these covers.**
- **Rotating components of the pump are to be secured in such a way that direct access to rotating components is prevented.**
- **The regulations for protective devices in accordance with DIN EN 12100 are to be complied with.**

7.2.5 Machine noise

WARNING! Danger of personal injury!
Depending on local conditions, a continuous sound pressure level can occur which causes noise-induced hearing loss.

- **In such cases the operating personnel is to be equipped with the required protective equipment or protected by means of safety measures (e.g. by hearing protection, warning signs, etc.).**

The continuous sound pressure level is to be measured at the operating, monitoring and/or maintenance stations.

7.2.6 Structural modifications to the machine

All conversions require written authorisation from Wilo.

CAUTION! Risk of damage to property!
Trouble-free pump operation can only be guaranteed when original spare parts are used. There is no guarantee that third-party parts are designed and manufactured in accordance with appropriate safety and operational requirements.

- **Only use original Wilo spare parts.**
- **Information to be provided when ordering spare parts:**
  All data on the pump and motor rating plate

7.2.7 Temperature limits

In the normal operating state, the highest temperatures are to be expected on the surface of the pump housing, on the shaft seal and in the vicinity of the bearings.

The surface temperature that occurs on the pump housing corresponds to the temperature of the fluid to be conveyed, unless additional heating is applied. This is based on the assumption that there is open contact between the surface and the atmosphere.

In any event, the operator of the system is responsible for complying with the defined fluid temperature (operating temperature). The maximum permitted temperature of the fluid is dependent on the respective applicable temperature class and on the increase in heat in the pump.

Specifications concerning the maximum permitted temperature of the fluid as a function of fluid, mechanical seal, motor speed, temperature class conveyed and pressure can be found in chapter 5.2 "Authorised operating conditions" on page 22.

Considerably higher temperatures could occur in the event of incorrect operation and/or malfunctions. The specifications contained in chapter 7 "Operating instructions" on page 25 are to be noted in this regard.

In the case of mechanical seals, the permitted temperature limits could be exceeded because of dry running. Dry running can not only occur with insufficiently filled sealing chambers, but also with excessively high percentages of gas in the fluid. The operation of the pump outside of the permitted operating range can also lead to a dry run.

Mechanical seals are to be checked regularly for leakage.

8 Maintenance instructions

In addition to a number of other factors, the operational reliability and service life of the pump are also dependent on correct maintenance and repair work.

The maintenance regulations contained in the installation and operating instructions for the pump series, the motor and the mechanical seal are to be observed in addition to the maintenance instructions listed below for these supplementary installation and operating instructions.

The following basic principles are to be observed:

- Perform the prescribed maintenance and inspection tasks on schedule.
- Inform operating personnel before beginning maintenance and repair work.
- Secure all of the system parts and operating fluids upstream and downstream from the machine against unsupervised commissioning.
- Switch the machine voltage-free for all maintenance, inspection and repair work. Secure the main switch against being unexpectedly switched back on.
  - Lock a the main switch and remove the key.
  - Hang up a sign warning against switching on again.
  - Observe safety regulations for the fluid to be pumped.
  - Consult the Safety data sheet and other sources for personal safety measures.
  - Exclude hazards caused by contact or breathing in dangerous liquids, gases, mists, vapours and dusts by implementing appropriate protective measures.
- Fasten and secure larger-sized assemblies carefully to hoisting gear when replacing them.
- Replace deficient machine parts immediately.
- Check screwed connection for firm placement, observe torques.

Check functioning of protective devices after completion of the maintenance tasks.

Wilo recommends that Wilo personnel perform first-time repair work on the pump. Your own maintenance personnel can be trained at the same time this is done. Wilo also recommends the compilation of a maintenance schedule.

Observe chapter 6 "Instructions concerning installation and commissioning" on page 24 for renewed commissioning following completion of maintenance or repair work. All liability and warranties on the part of WILO SE are excluded for damages resulting from the use of non-original spare parts.The following special features are to be observed:

8.1 Motor bearings

The service life of the motor bearings achieved in practice depends strongly on the operating mode and the operating conditions. The statements contained in the installation and operating instructions for the motor concerning maintenance and service life are to be complied with.

The bearings of the motors of this series are designed for 20,000 (2-pole) or 30,000 (4-pole) operating hours. The bearings must be replaced after this number of operating hours has been reached.

Generally speaking, the motor bearings are to be checked daily with respect to conspicuous noises which could indicate early damage to the bearings.The installation and operating instructions of the motor manufacturer are to be observed with respect to required motor components.

8.2 Static gaskets

Essential static gaskets are the gaskets between pump housing and lantern and those between the pump flanges and the pipes. These gaskets are to be inspected daily for possible leakage.

8.3 Coupling protection

Coupling protection and other covers of rapidly rotating parts are to be inspected daily for correct seating, deformations and sufficient clearance from rotating parts.

In order to avoid electrostatic charging of the plastic covers, cleaning is permitted only with a moist cloth.

8.4 Mechanical seal

The function of the mechanical seal is to be ensured by means of daily inspection for possible leakage. The seal is to be replaced without fail after a dry run.

The procedure outlined in the installation and operating instructions for the pump series is to be followed without fail when replacing mechanical seals. The seal between pump housing and lantern is also to be replaced in any case.

In the case of pumps of the Wilo-VeroLine- IPL-N or Wilo-VeroTwin-DPL-N series, an inspection should be made of the bore holes for flushing the mechanical seal to ensure that they are both unobstructed and clean at the time the seal is replaced. These bore holes are located in the lantern (from the ventilation valve to the seat of the counter ring of the mechanical seal) and in the brass spacer between impeller and the rotating part of the mechanical seal.

It is also necessary to check that the pump shaft is unobstructed at the conclusion of the process.

8.5 Unobstructed movement of the drive shaft

The pump is to be checked daily with respect to the unobstructed movement of the drive shaft. Conspicuous noises are to be watched for which might indicate a grinding or blocking of the impeller.

Technical information subject to change without prior notice!

EU/EG KONFORMITÄTSERKLÄRUNG
EU/EC DECLARATION OF CONFORMITY
DECLARATION DE CONFORMITE UE/CE

Als Hersteller erklären wir hiermit, dass die Pumpenbauarten der Baureihen
We, the manufacturer, declare that the pump types of the series
Nous, fabricant, déclarons que les types de pompes des séries

IL...EEX...
DL...EEX...
BL...EEX...

(Die Seriennummer ist auf dem Typenschild des Produktes nach Punkten b) & c) von §1.7.4.2 und §1.7.3 des Anhanges I der Maschinenrichtlinie angegeben. / The serial number is marked on the product site plate according to points b) & c) of §1.7.4.2 and §1.7.3 of the annex I of the Machinery directive. / Le numéro de série est inscrit sur la plaque signalétique du produit en accord avec les points b) & c) du §1.7.4.2 et du §1.7.3 de l'annexe I de la Directive Machines.)

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entsprechen :
In their delivered state comply with the following relevant directives :
dans leur état de livraison sont conformes aux dispositions des directives suivantes :

_ Maschinenrichtlinie 2006/42/EG
_ Machinery 2006/42/EC
_ Machines 2006/42/CE
und gemäss Anhang 1, §1.5.1, werden die Schutzziele der Niederspannungsrichtlinie 2014/35/EU ab 20 April 2016 eingehalten
and according to the annex 1, §1.5.1, comply with the safety objectives of the Low Voltage Directive 2014/35/EU from April 20th 2016
et, suivant l'annexe 1, §1.5.1, respectent les objectifs de sécurité de la Directive Basse Tension 2014/35/UE à partir du 20/04/2016

_ Elektromagnetische Verträglichkeit-Richtlinie 2014/30/EU ab 20 April 2016
_ Electromagnetic compatibility 2014/30/EU from April 20th 2016
_ Compabilité électromagnétique 2014/30/UE à partir du 20 avril 2016

_ Richtlinie energieverbrauchsrelevanter Produkte 2009/125/EG
_ Energy-related products 2009/125/EC
_ Produits liés à l'énergie 2009/125/CE
Nach den Ökodesign-Anforderungen der Verordnung 547/2012 für Wasserpumpen,
This applies according to eco-design requirements of the regulation 547/2012 for water pumps,
suivant les exigences d'éco-conception du règlement 547/2012 pour les pompes à eau

_ Richtlinie "Explosionsgefährdeten Bereichen" 2014/34/EU ab 20 April 2016
_ Directive "Potentially explosive atmospheres" 2014/34/EU from April 20th 2016
_ Directive "Atmosphères explosibles" 2014/34/UE

und entsprechender nationaler Gesetzgebung,
and with the relevant national legislation,
et aux législations nationales les transposant,

sowie auch den Bestimmungen zu folgenden harmonisierten europäischen Normen :
comply also with the following relevant harmonized European standards :
sont également conformes aux dispositions des normes européennes harmonisées suivantes :

EN 809+A1 **EN 60034-1** **EN 60204-1** **EN 13463-1** **EN 13463-5**

Technische Dokumentation Referenz Technical documentation ref. Réf. de la documentation technique	Benannte Stelle Notified Body Organisme notifie	Kennzeichnung Marking Marquage
TÜV 03 ATEX 7020 X	TÜV Anlagentechnik GmbH TÜV Cert-Zertifizierungsstelle Für Ex-Schutz - ID: 0035 Am Grauen Stein 1 D-51101 KÖLN	Innenraum/*Internal space/Espace intérieur* : Ex **II2 G c b IIA T3/T4** Umgebung/*Environment/Environnement* : Ex **II2 G c b IIC T3/T4**

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen ist:
Person authorized to compile the technical file is :
Personne autorisée à constituer le dossier technique est :

Division HVAC
Quality Manager - PBU Circulating Pumps
WILO SE
Nortkirchenstraβe 100
D-44263 Dortmund

Dortmund,

ppa.

Digital unterschrieben von holger.herchenhein@wilo.com
Datum: 2016.09.21 09:54:57 +02'00'

H. HERCHENHEIN
Senior Vice President - Group ITQ

WILO SE
Nortkirchenstraβe 100
44263 Dortmund - Germany

N°2117820.02 *(CE-A-S n°2172489)*

Original-erklärung / Original declaration / Déclaration originale

F_GQ_013-20

EU/EG KONFORMITÄTSERKLÄRUNG
EU/EC DECLARATION OF CONFORMITY
DECLARATION DE CONFORMITE UE/CE

Als Hersteller erklären wir hiermit, dass die Pumpenbauarten der Baureihen
We, the manufacturer, declare that the pump types of the series
Nous, fabricant, déclarons que les types de pompes des séries

IPL...N...EEX...
DPL...N...EEX...

(Die Seriennummer ist auf dem Typenschild des Produktes nach Punkten b) & c) von §1.7.4.2 und §1.7.3 des Anhanges I der Maschinenrichtlinie angegeben. / The serial number is marked on the product site plate according to points b) & c) of §1.7.4.2 and §1.7.3 of the annex I of the Machinery directive. / Le numéro de série est inscrit sur la plaque signalétique du produit en accord avec les points b) & c) du §1.7.4.2 et du §1.7.3 de l'annexe I de la Directive Machines.)

in der gelieferten Ausführung folgenden einschlägigen Bestimmungen entsprechen :
In their delivered state comply with the following relevant directives :
dans leur état de livraison sont conformes aux dispositions des directives suivantes :

_ Maschinenrichtlinie 2006/42/EG
_ Machinery 2006/42/EC
_ Machines 2006/42/CE

und gemäss Anhang 1, §1.5.1, werden die Schutzziele der Niederspannungsrichtlinie 2014/35/EU ab 20 April 2016 eingehalten
and according to the annex 1, §1.5.1, comply with the safety objectives of the Low Voltage Directive 2014/35/EU from April 20th 2016
et, suivant l'annexe 1, §1.5.1, respectent les objectifs de sécurité de la Directive Basse Tension 2014/35/UE à partir du 20/04/2016

_ Elektromagnetische Verträglichkeit-Richtlinie 2014/30/EU ab 20 April 2016
_ Electromagnetic compatibility 2014/30/EU from April 20th 2016
_ Compabilité électromagnétique 2014/30/UE à partir du 20 avril 2016

_ Richtlinie energieverbrauchsrelevanter Produkte 2009/125/EG
_ Energy-related products 2009/125/EC
_ Produits liés à l'énergie 2009/125/CE

Nach den Ökodesign-Anforderungen der Verordnung 547/2012 für Wasserpumpen,
This applies according to eco-design requirements of the regulation 547/2012 for water pumps,
suivant les exigences d'éco-conception du règlement 547/2012 pour les pompes à eau

_ Richtlinie "Explosionsgefährdeten Bereichen" 2014/34/EU ab 20 April 2016
_ Directive "Potentially explosive atmospheres" 2014/34/EU from April 20th 2016
_ Directive "Atmosphères explosibles" 2014/34/UE à partir du 20 avril 2016

und entsprechender nationaler Gesetzgebung,
and with the relevant national legislation,
et aux législations nationales les transposant,

sowie auch den Bestimmungen zu folgenden harmonisierten europäischen Normen :
comply also with the following relevant harmonized European standards :
sont également conformes aux dispositions des normes européennes harmonisées suivantes :

EN 809+A1 **EN 60034-1** **EN 60204-1** **EN 13463-1** **EN 13463-5**

Technische Dokumentation Referenz Technical documentation ref. Réf. de la documentation technique	Benannte Stelle Notified Body Organisme notifie	Kennzeichnung Marking Marquage
TÜV 03 ATEX 7117 X	TÜV Anlagentechnik GmbH TÜV Cert-Zertifizierungsstelle Für Ex-Schutz - ID: 0035 Am Grauen Stein 1 D-51101 KÖLN	Innenraum/*Internal space/Espace intérieur* : Ex **II2 G c b IIA T3/T4** Umgebung/*Environment/Environnement* : Ex **II2 G c b IIC T3/T4**

Bevollmächtigter für die Zusammenstellung der technischen Unterlagen ist:
Person authorized to compile the technical file is :
Personne autorisée à constituer le dossier technique est :

Division HVAC
Quality Manager - PBU Circulating Pumps
WILO SE
Nortkirchenstraβe 100
D-44263 Dortmund

Dortmund,

ppa.

Digital unterschrieben von holger.herchenhein@wilo.com
Datum: 2016.09.21 09:54:25 +02'00'

H. HERCHENHEIN
Senior Vice President - Group ITQ

WILO SE
Nortkirchenstraβe 100
44263 Dortmund - Germany

N°2117819.02 *(CE-A-S n°2172490)*

Original-erklärung / Original declaration / Déclaration originale

F_GQ_013-20

(BG) - български език
ДЕКЛАРАЦИЯ ЗА СЪОТЕТСТВИЕ ЕО

WILO SE декларират, че продуктите посочени в настоящата декларация съответстват на разпоредбите на следните европейски директиви и приелите ги национални законодателства:

Машини 2006/42/ЕО ; Електромагнитна съвместимост 2014/30/ЕО ; Продукти, свързани с енергопотреблението 2009/125/ЕО ; Потенциално експлозивна атмосфера 2014/34/ЕО

както и на хармонизираните европейски стандарти, упоменати на предишната страница.

(CS) - Čeština
ES PROHLÁŠENÍ O SHODĚ

WILO SE prohlašuje, že výrobky uvedené v tomto prohlášení odpovídají ustanovením níže uvedených evropských směrnic a národním právním předpisům, které je přejímají:

Stroje 2006/42/ES ; Elektromagnetická Kompatibilita 2014/30/ES ; Výrobků spojených se spotřebou energie 2009/125/ES ; Prostředí s nebezpečím výbuchu 2014/34/ES

a rovněž splňují požadavky harmonizovaných evropských norem uvedených na předcházející stránce.

(DA) - Dansk
EF-OVERENSSTEMMELSESERKLÆRING

WILO SE erklærer, at produkterne, som beskrives i denne erklæring, er i overensstemmelse med bestemmelserne i følgende europæiske direktiver, samt de nationale lovgivninger, der gennemfører dem:

Maskiner 2006/42/EF ; Elektromagnetisk Kompatibilitet 2014/30/EF ; Energirelaterede produkter 2009/125/EF ; Eksplosionsfarlig atmosfære 2014/34/EF

De er ligeledes i overensstemmelse med de harmoniserede europæiske standarder, der er anført på forrige side.

(EL) - Ελληνικά
ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΚ

WILO SE δηλώνει ότι τα προϊόντα που ορίζονται στην παρούσα ευρωπαϊκά δήλωση είναι σύμφωνα με τις διατάξεις των παρακάτω οδηγιών και τις εθνικές νομοθεσίες στις οποίες έχει μεταφερθεί:

Μηχανήματα 2006/42/ΕΚ ; Ηλεκτρομαγνητικής συμβατότητας 2014/30/ΕΚ ; Συνδεόμενα με την ενέργεια προϊόντα 2009/125/ΕΚ ; εκρήξιμες ατμόσφαιρες 2014/34/ΕΚ

και επίσης με τα εξής εναρμονισμένα ευρωπαϊκά πρότυπα που αναφέρονται στην προηγούμενη σελίδα.

(ES) - Español
DECLARACIÓN CE DE CONFORMIDAD

WILO SE declara que los productos citados en la presenta declaración están conformes con las disposiciones de las siguientes directivas europeas y con las legislaciones nacionales que les son aplicables :

Máquinas 2006/42/CE ; Compatibilidad Electromagnética 2014/30/CE ; Productos relacionados con la energía 2009/125/CE ; Atmósferas potencialmente explosivas 2014/34/CE

Y igualmente están conformes con las disposiciones de las normas europeas armonizadas citadas en la página anterior.

(ET) - Eesti keel
EÜ VASTAVUSDEKLARATSIOONI

WILO SE kinnitab, et selles vastavustunnistuses kirjeldatud tooted on kooskõlas alljärgnevate Euroopa direktiivide sätetega ning riiklike seadusandlustega, mis nimetatud direktiivid üle on võtnud:

Masinad 2006/42/EÜ ; Elektromagnetilist Ühilduvust 2014/30/EÜ ; Energiamõjuga toodete 2009/125/EÜ ; Plahvatusohtlikus keskkonnas 2014/34/EÜ

Samuti on tooted kooskõlas eelmisel leheküljel ära toodud harmoniseeritud Euroopa standarditega.

(FI) - Suomen kieli
EY-VAATIMUSTENMUKAISUUSVAKUUTUS

WILO SE vakuuttaa, että tässä vakuutuksessa kuvatut tuotteet ovat seuraavien eurooppalaisten direktiivien määräysten sekä niihin sovellettavien kansallisten lakiasetusten mukaisia:

Koneet 2006/42/EY ; Sähkömagneettinen Yhteensopivuus 2014/30/EY ; Energiaan liittyvien tuotteiden 2009/125/EY ; Räjähdysvaarallisissa tiloissa 2014/34/EY

Lisäksi ne ovat seuraavien edellisellä sivulla mainittujen yhdenmukaistettujen eurooppalaisten normien mukaisia.

(GA) - Gaeilge
EC DEARBHÚ COMHLÍONTA

WILO SE ndearbhaíonn an cur síos ar na táirgí atá i ráiteas seo, siad i gcomhréir leis na forálacha atá sna treoracha seo a leanas na hEorpa agus leis na dlíthe náisiúnta is infheidhme orthu:

Innealra 2006/42/EC ; Comhoiriúnacht Leictreamaighnéadach 2014/30/EC ; Fuinneamh a bhaineann le táirgí 2009/125/EC ; Atmaisféir inphléasctha 2014/34/EC

Agus siad i gcomhréir le forálacha na caighdeáin chomhchuibhithe na hEorpa dá dtagraítear sa leathanach roimhe seo.

(HR) - Hrvatski
EZ IZJAVA O SUKLADNOSTI

WILO SE izjavljuje da su proizvodi navedeni u ovoj izjavi u skladu sa sljedećim prihvaćenim europskim direktivama i nacionalnim zakonima:
EZ smjernica o strojevima 2006/42/EZ ; Elektromagnetna kompatibilnost - smjernica 2014/30/EZ ; Smjernica za proizvode relevantne u pogledu potrošnje energije 2009/125/EZ ; Potencijalno eksplozivnim atmosferama 2014/34/EZ
i usklađenim europskim normama navedenim na prethodnoj stranici.

(HU) - Magyar
EK-MEGFELELŐSÉGI NYILATKOZAT

WILO SE kijelenti, hogy a jelen megfelelőségi nyilatkozatban megjelölt termékek megfelelnek a következő európai irányelvek előírásainak, valamint azok nemzeti jogrendbe átültetett rendelkezéseinek:

Gépek 2006/42/EK ; Elektromágneses összeférhetőségre 2014/30/EK ; Energiával kapcsolatos termékek 2009/125/EK ; Robbanásveszélyes légkörben 2014/34/EK

valamint az előző oldalon szereplő, harmonizált európai szabványoknak.

(IS) - Íslenska
EB LEYFISYFIRLÝSING

WILO SE lýsir því yfir að vörurnar sem um getur í þessari yfirlýsingu eru í samræmi við eftirfarandi tilskipunum ESB og landslögum hafa samþykkt:

Vélartilskipun 2006/42/EB ; Rafseguls-samhæfni-tilskipun 2014/30/EB ; Tilskipun varðandi vörur tengdar orkunotkun 2009/125/EB ; Tilskipun "Sprengihættustaðir" 2014/34/EB

og samhæfða evrópska staðla sem nefnd eru í fyrri síðu.

(IT) - Italiano
DICHIARAZIONE CE DI CONFORMITÀ

WILO SE dichiara che i prodotti descritti nella presente dichiarazione sono conformi alle disposizioni delle seguenti direttive europee nonché alle legislazioni nazionali che le traspongono :

Macchine 2006/42/CE ; Compatibilità Elettromagnetica 2014/30/CE ; Prodotti connessi all'energia 2009/125/CE ; Atmosfera potenzialmente esplosiva 2014/34/CE

E sono pure conformi alle disposizioni delle norme europee armonizzate citate a pagina precedente.

(LT) - Lietuvių kalba
EB ATITIKTIES DEKLARACIJA

WILO SE pareiškia, kad šioje deklaracijoje nurodyti gaminiai atitinka šių Europos direktyvų ir jas perkeliančių nacionalinių įstatymų nuostatus:

Mašinos 2006/42/EB ; Elektromagnetinis Suderinamumas 2014/30/EB ; Energija susijusiems gaminiams 2009/125/EB ; Potencialiai sprogioje aplinkoje 2014/34/EB

ir taip pat harmonizuotas Europas normas, kurios buvo cituotos ankstesniame puslapyje.

(LV) - Latviešu valoda
EK ATBILSTĪBAS DEKLARĀCIJU

WILO SEdeklarē, ka izstrādājumi, kas ir nosaukti šajā deklarācijā, atbilst šeit uzskaitīto Eiropas direktīvu nosacījumiem, kā arī atsevišķu valstu likumiem, kuros tie ir ietverti:

Mašīnas 2006/42/EK ; Elektromagnētiskās Saderības 2014/30/EK ; Enerģiju saistītiem ražojumiem 2009/125/EK ; Sprādzienbīstamā vidē 2014/34/EK

un saskaņotajiem Eiropas standartiem, kas minēti iepriekšējā lappusē.

(MT) - Malti
DIKJARAZZJONI KE TA' KONFORMITÀ

WILO SE jiddikjara li l-prodotti speċifikati f'din id-dikjarazzjoni huma konformi mad-direttivi Ewropej li jsegwu u mal-leġislazzjonijiet nazzjonali li japplikawhom:

Makkinarju 2006/42/KE ; Kompatibbiltà Elettromanjetika 2014/30/KE ; Prodotti relatati mal-enerġija 2009/125/KE ; Atmosferi potenzjalment esplussivi 2014/34/KE

kif ukoll man-normi Ewropej armoniżżati li jsegwu imsemmija fil-paġna preċedenti.

(NL) - Nederlands
EG-VERKLARING VAN OVEREENSTEMMING

WILO SE verklaart dat de in deze verklaring vermelde producten voldoen aan de bepalingen van de volgende Europese richtlijnen evenals aan de nationale wetgevingen waarin deze bepalingen zijn overgenomen:

Machines 2006/42/EG ; Elektromagnetische Compatibiliteit 2014/30/EG ; Energiegerelateerde producten 2009/125/EG ; Waar ontploffingsgevaar kan heersen 2014/34/EG

De producten voldoen eveneens aan de geharmoniseerde Europese normen die op de vorige pagina worden genoemd.

(NO) - Norsk
EU-OVERENSSTEMMELSESERKLAEING

WILO SE erklærer at produktene nevnt i denne erklæringen er i samsvar med følgende europeiske direktiver og nasjonale lover:

EG–Maskindirektiv 2006/42/EG ; EG–EMV–Elektromagnetisk kompatibilitet 2014/30/EG ; Direktiv energirelaterte produkter 2009/125/EF ; Direktivet "eksplosjonsfarlige områder" 2014/34/EF

og harmoniserte europeiske standarder nevnt på forrige side.

(PL) - Polski
DEKLARACJA ZGODNOŚCI WE

WILO SE oświadcza, że produkty wymienione w niniejszej deklaracji są zgodne z postanowieniami następujących dyrektyw europejskich i transponującymi je przepisami prawa krajowego:

Maszyn 2006/42/WE ; Kompatybilności Elektromagnetycznej 2014/30/WE ; Produktów związanych z energią 2009/125/WE ; Przestrzeniach zagrożonych wybuchem 2014/34/WE

oraz z nastepującymi normami europejskich zharmonizowanymi podanymi na poprzedniej stronie.

(PT) - Português
DECLARAÇÃO CE DE CONFORMIDADE

WILO SE declara que os materiais designados na presente declaração obedecem às disposições das directivas europeias e às legislações nacionais que as transcrevem :

Máquinas 2006/42/CE ; Compatibilidade Electromagnética 2014/30/CE ; Produtos relacionados com o consumo de energia 2009/125/CE ; Atmosferas potencialmente explosivas 2014/34/CE

E obedecem também às normas europeias harmonizadas citadas na página precedente.

(RO) - Română
DECLARAŢIE DE CONFORMITATE CE

WILO SE declară că produsele citate în prezenta declaraţie sunt conforme cu dispoziţiile directivelor europene următoare şi cu legislaţiile naţionale care le transpun :

Maşini 2006/42/CE ; Compatibilitate Electromagnetică 2014/30/CE ; Produselor cu impact energetic 2009/125/CE ; Atmosfere potențial explozive 2014/34/CE

şi, de asemenea, sunt conforme cu normele europene armonizate citate în pagina precedentă.

(RU) - русский язык
Декларация о соответствии Европейским нормам

WILO SE заявляет, что продукты, перечисленные в данной декларации о соответствии, отвечают следующим европейским директивам и национальным предписаниям:
Директива ЕС по машинному оборудованию 2006/42/EC ; Директива ЕС по электромагнитной совместимости 2014/30/EC ; Директива о продукции, связанной с энергопотреблением 2009/125/EC ; Директива по работе в потенциально взрывоопасных атмосферах 2014/34/EC и гармонизированным европейским стандартам, упомянутым на предыдущей странице.

(SK) - Slovenčina
ES VYHLÁSENIE O ZHODE

WILO SE čestne prehlasuje, že výrobky ktoré sú predmetom tejto deklarácie, sú v súlade s požiadavkami nasledujúcich európskych direktív a odpovedajúcich národných legislatívnych predpisov:

Strojových zariadeniach 2006/42/ES ; Elektromagnetickú Kompatibilitu 2014/30/ES ; Energeticky významných výrobkov 2009/125/ES ; potenciálne výbušnej atmosfére 2014/34/ES

ako aj s harmonizovanými európskych normami uvedenými na predchádzajúcej strane.

(SL) - Slovenščina
ES-IZJAVA O SKLADNOSTI

WILO SE izjavlja, da so izdelki, navedeni v tej izjavi, v skladu z določili naslednjih evropskih direktiv in z nacionalnimi zakonodajami, ki jih vsebujejo:

Stroji 2006/42/ES ; Elektromagnetno Združljivostjo 2014/30/ES ; Izdelkov, povezanih z energijo 2009/125/ES ; Potencialno eksplozivnih atmosferah 2014/34/ES

pa tudi z usklajenimi evropskih standardi, navedenimi na prejšnji strani.

(SV) - Svenska
EG-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE

WILO SE intygar att materialet som beskrivs i följande intyg överensstämmer med bestämmelserna i följande europeiska direktiv och nationella lagstiftningar som inför dem:

Maskiner 2006/42/EG ; Elektromagnetisk Kompatibilitet 2014/30/EG ; Energirelaterade produkter 2009/125/EG ; Explosionsfarliga omgivningar 2014/34/EG

Det överensstämmer även med följande harmoniserade europeiska standarder som nämnts på den föregående sidan.

(TR) - Türkçe
CE UYGUNLUK TEYID BELGESI

WILO SEbu belgede belirtilen ürünlerin aşağıdaki Avrupa yönetmeliklerine ve ulusal kanunlara uygun olduğunu beyan etmektedir:

Makine Yönetmeliği 2006/42/AT ; Elektromanyetik Uyumluluk Yönetmeliği 2014/30/AT ; Eko Tasarım Yönetmeliği 2009/125/AT ; Patlayıcı Ortamlarda Kullanılan Ekipmanlar Yönetmeliği 2014/34/AT

ve önceki sayfada belirtilen uyumlaştırılmış Avrupa standartlarına.

Wilo – International (Subsidiaries)

Argentina
WILO SALMSON
Argentina S.A.
C1295ABI Ciudad
Autónoma de Buenos Aires
T +54 11 4361 5929
carlos.musich@wilo.com.ar

Australia
WILO Australia Pty Limited
Murrarrie, Queensland, 4172
T +61 7 3907 6900
chris.dayton@wilo.com.au

Austria
WILO Pumpen Österreich
GmbH
2351 Wiener Neudorf
T +43 507 507-0
office@wilo.at

Azerbaijan
WILO Caspian LLC
1065 Baku
T +994 12 5962372
info@wilo.az

Belarus
WILO Bel IOOO
220035 Minsk
T +375 17 3963446
wilo@wilo.by

Belgium
WILO NV/SA
1083 Ganshoren
T +32 2 4823333
info@wilo.be

Bulgaria
WILO Bulgaria EOOD
1125 Sofia
T +359 2 9701970
info@wilo.bg

Brazil
WILO Comercio e
Importacao Ltda
Jundiaí – São Paulo – Brasil
13.213-105
T +55 11 2923 9456
wilo@wilo-brasil.com.br

Canada
WILO Canada Inc.
Calgary, Alberta T2A 5L7
T +1 403 2769456
info@wilo-canada.com

China
WILO China Ltd.
101300 Beijing
T +86 10 58041888
wilobj@wilo.com.cn

Croatia
WILO Hrvatska d.o.o.
10430 Samobor
T +38 51 3430914
wilo-hrvatska@wilo.hr

Cuba
WILO SE
Oficina Comercial
Edificio Simona Apto 105
Siboney. La Habana. Cuba
T +53 5 2795135
T +53 7 272 2330
raul.rodriguez@wilo-cuba.
com

Czech Republic
WILO CS, s.r.o.
25101 Cestlice
T +420 234 098711
info@wilo.cz

Denmark
WILO Danmark A/S
2690 Karlslunde
T +45 70 253312
wilo@wilo.dk

Estonia
WILO Eesti OÜ
12618 Tallinn
T +372 6 509780
info@wilo.ee

Finland
WILO Finland OY
02330 Espoo
T +358 207401540
wilo@wilo.fi

France
Wilo Salmson France S.A.S.
53005 Laval Cedex
T +33 2435 95400
info@wilo.fr

Great Britain
WILO (U.K.) Ltd.
Burton Upon Trent
DE14 2WJ
T +44 1283 523000
sales@wilo.co.uk

Greece
WILO Hellas SA
4569 Anixi (Attika)
T +302 10 6248300
wilo.info@wilo.gr

Hungary
WILO Magyarország Kft
2045 Törökbálint
(Budapest)
T +36 23 889500
wilo@wilo.hu

India
Wilo Mather and Platt Pumps
Private Limited
Pune 411019
T +91 20 27442100
services@matherplatt.com

Indonesia
PT. WILO Pumps Indonesia
Jakarta Timur, 13950
T +62 21 7247676
citrawilo@cbn.net.id

Ireland
WILO Ireland
Limerick
T +353 61 227566
sales@wilo.ie

Italy
WILO Italia s.r.l.
Via Novegro, 1/A20090
Segrate MI
T +39 25538351
wilo.italia@wilo.it

Kazakhstan
WILO Central Asia
050002 Almaty
T +7 727 312 40 10
info@wilo.kz

Korea
WILO Pumps Ltd.
20 Gangseo, Busan
T +82 51 950 8000
wilo@wilo.co.kr

Latvia
WILO Baltic SIA
1019 Riga
T +371 6714-5229
info@wilo.lv

Lebanon
WILO LEBANON SARL
Jdeideh 1202 2030
Lebanon
T +961 1 888910
info@wilo.com.lb

Lithuania
WILO Lietuva UAB
03202 Vilnius
T +370 5 2136495
mail@wilo.lt

Morocco
WILO Maroc SARL
20250 Casablanca
T +212 (0) 5 22 66 09 24
contact@wilo.ma

The Netherlands
WILO Nederland B.V.
1551 NA Westzaan
T +31 88 9456 000
info@wilo.nl

Norway
WILO Norge AS
0975 Oslo
T +47 22 804570
wilo@wilo.no

Poland
WILO Polska Sp. z.o.o.
5-506 Lesznowola
T +48 22 7026161
wilo@wilo.pl

Portugal
Bombas Wilo-Salmson
Sistemas Hidraulicos Lda.
4475-330 Maia
T +351 22 2080350
bombas@wilo.pt

Romania
WILO Romania s.r.l.
077040 Com. Chiajna
Jud. Ilfov
T +40 21 3170164
wilo@wilo.ro

Russia
WILO Rus ooo
123592Moscow
T +7 495 7810690
wilo@wilo.ru

Saudi Arabia
WILO Middle East KSA
Riyadh 11465
T +966 1 4624430
wshoula@wataniaind.com

Serbia and Montenegro
WILO Beograd d.o.o.
11000 Beograd
T +381 11 2851278
office@wilo.rs

Slovakia
WILO CS s.r.o., org. Zložka
83106 Bratislava
T +421 2 33014511
info@wilo.sk

Slovenia
WILO Adriatic d.o.o.
1000 Ljubljana
T +386 1 5838130
wilo.adriatic@wilo.si

South Africa
Wilo Pumps SA Pty LTD
1685 Midrand
T +27 11 6082780
patrick.hulley@salmson.co.za

Spain
WILO Ibérica S.A.
8806 Alcalá de Henares
(Madrid)
T +34 91 8797100
wilo.iberica@wilo.es

Sweden
WILO NORDIC AB
35033 Växjö
T +46 470 727600
wilo@wilo.se

Switzerland
Wilo Schweiz AG
4310 Rheinfelden
T +41 61 836 80 20
info@wilo.ch

Taiwan
WILO Taiwan CO., Ltd.
24159 New Taipei City
T +886 2 2999 8676
nelson.wu@wilo.com.tw

Turkey
WILO Pompa Sistemleri
San. ve Tic. A.Ş.
34956 İstanbul
T +90 216 2509400
wilo@wilo.com.tr

Ukraina
WILO Ukraina t.o.w.
08130 Kiew
T +38 044 3937384
wilo@wilo.ua

United Arab Emirates
WILO Middle East FZE
Jebel Ali Free zone – South
PO Box 262720 Dubai
T +971 4 880 91 77
info@wilo.ae

USA
WILO USA LLC
Rosemont, IL 60018
T +1 866 945 6872
info@wilo-usa.com

Vietnam
WILO Vietnam Co Ltd.
Ho Chi Minh City, Vietnam
T +84 8 38109975
nkminh@wilo.vn

Further subsidiaries, representation and sales offices on www.wilo.com

wilo

Pioneering for You

WILO SE
Nortkirchenstraße 100
D-44263 Dortmund
Germany
T +49(0)231 4102-0
F +49(0)231 4102-7363
wilo@wilo.com
www.wilo.com