Pioneering for You



## Wilo-Medana CH1-LC



en Installation and operating instructions

4234328 • Ed.03/02/2021



Fig. 2







Fig. 3a

Fig. 3b











I

I

Fig. 6



~3







Fig. 8







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#### General 1

1.1 About this document

The installation and operating instructions are an integral part of the product. Read these instructions before carrying out any work and keep them at hand at all times. Strict adherence to these instructions is a precondition for the correct installation and application of the product. Comply with all indications and signs appearing on the product.

The language of the original installation and operating instructions is English. All other languages of these instructions are translations of the original installation and operating instructions.

EC-Declaration of conformity:

- A copy of the EC-Declaration of conformity is an integral part of these installation and operating instructions.
- If a technical modification is made to the series named herein without our agreement, this declaration loses its validity.

2 Safety This chapter contains essential instructions that must be followed during the different phases of the pump's service life. Non-observance of these instructions may constitute a danger to persons, the environment and the product, and may invalidate the warranty. Non-observance may lead to the following hazards:

- Injuries due to electrical, mechanical and bacteriological factors and electromagnetic fields.
- Damage to the environment due to leakage of hazardous materials.
- Damage to the installation.
- Failure of important product functions.

Also comply with the indications and safety instructions in other chapters!

2.1 **Symbols**  Symbols:



General safety symbol



WARNING **Electrical risks** 



NOTICE Notes

#### Warnings:



DANGER

Imminent danger.

May result in death or severe injuries if the hazard is not prevented.



1

#### WARNING

Non-observance may result in (very) severe injury.



#### CAUTION

The product risks becoming damaged. "Caution" is used when there is a risk to the product if the user does not observe procedures.

## NOTICE

Note containing useful information for the user about the product. It assists the user in the case of an issue.

2.2	Personnel qualifications	The installation, application and maintenance personnel must have the appropriate quali- fications to complete this work. The operator must ensure the personnel's areas of re- sponsibility, terms of reference and their supervision. If the personnel are not in possession of the necessary knowledge, they are to be trained and instructed. If necessary, this train- ing can be carried out by the product's manufacturer on the operator's behalf.
2.3	Safety consciousness on the job	The existing directives for accident prevention must be adhered to. Danger from electrical current must be eliminated. Local directives or general directives [e.g. IEC, VDE etc.] and instructions from local energy supply companies must be respected.
2.4	Safety instructions for the oper- ator	This device is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or a lack of experience or knowledge, unless they are mon- itored or have been given detailed instructions concerning use of the device by a person re- sponsible for their safety.
		<ul> <li>Children must be supervised to ensure that they do not play with the device.</li> <li>If hot or cold components of the product or installation pose a danger, it is the customer's responsibility to guard them against being touched.</li> <li>Guards protecting against touching moving components (such as the coupling) must not be removed whilst the product is in operation.</li> <li>Hazardous fluids (i.e. which are explosive, toxic or hot) which have leaked (e.g. from the shaft seals) must be disposed of so that they pose no danger to persons or to the environment. National statutory provisions must be respected.</li> <li>Danger from electrical current must be eliminated. Local directives or general directives [e.g. IEC, VDE etc.] and instructions from local energy supply companies must be respected.</li> </ul>
2.5	Safety instructions for installation and maintenance work	The operator must ensure that all maintenance and installation work is carried out by au- thorised and qualified personnel, who are sufficiently informed from their own detailed study of the installation and operating instructions. Work on the product/unit must only be carried out when at a standstill. The procedures described in the installation and operating instructions for deactivating the product/installation must always be complied with. Immediately on conclusion of the work, all safety and protective devices must be put back in position and recommissioned.
2.6	Unauthorised modification of components and use of unauthor- ised spare parts	Unauthorised modification of components and use of unauthorised spare parts will impair the safety of the product/personnel, and will render the manufacturer's declarations re- garding safety void. Modifications to the product are only permissible following consulta- tion with the manufacturer.
		of other parts absolves the manufacturing company of any and all liability.
2.7	Improper use	The operational reliability of the supplied product is only guaranteed for conventional use in accordance with Chapter 4 of the Installation and operating instructions. The limit values must on no account fall below or exceed the values specified in the catalogue/data sheet.

### 3 Product information

## 3.1 Type key

Example:	Medana CH1-LC.404-5/E/A/10T
Wilo	Brand
Medana	Multistage centrifugal pump
C	Commercial series
Н	Horizontal pump
1	Series level (1 = entry level, 3 = standard level, 5 = premium level)
LC	L = Long shaft
	C = Pump housing in cast iron
4	Delivery rate in m <sup>3</sup> /h
04	Number of impellers
5	Pump housing in cast iron + hydraulics in 1.4307 stainless steel
E	EPDM seal

Example:	Medana CH1-LC.404-5/E/A/10T
A	A = Frequency 50 Hz / single-phase / 230 V
	B = Frequency 60 Hz / single-phase / 220 V
	C = Frequency 60 Hz / single-phase / 230 V
	D = Frequency 50 Hz / three-phase / 400 V
	E = Frequency 50 Hz / three-phase / 230 - 400 V
	F = Frequency 60 Hz / three-phase / 220 - 380 V
	G = Frequency 60 Hz / three-phase / 265 – 460 V
	I = Frequency 60 Hz / three-phase / 460 V
10	Maximum pressure of the pump in bar
Т	Screwed connections

#### 3.2 Data table

Maximum utilisation pressure	
Maximum operating pressure	See pump type key on rating plate and paragraph 3.1
Maximum suction pressure	6 bar
Notice: the suction pressure (P input) + the pressure at zero delivery rate (P zero delivery rate) must always be lower than the maximum permitted operating pressure (P max). P input + P zero delivery rate $\leq$ P max. Refer to the pump rating plate for the maximum operating pressure: P max.	
Temperature range	
Fluid temperature	-20 °C to +120 °C with EPDM seals
	-20 °C to +90 °C with VITON seals
Ambient temperature	-15 °C to +50 °C
Electrical data	
Motor protection rating	See rating plate
Insulation class	See rating plate
Frequency	See rating plate
Voltage	See rating plate
Motor efficiency	See rating plate
Other characteristics	
Humidity	< 90 % without condensation
Altitude	≤ 1000 m (> 1000 m on request)

Noise level

Motor power (kW)	Frequency (Hz)	Phase	dB(A) at 1 m, BEP tolerance 0 – 3 dB(A)
0.37	50	3	54
0.55	50	3	54
0.75	50	3	55
1.1	50	3	55
1.5	50	3	56
1.85	50	3	57
2.5	50	3	58
3	50	3	59
4.2	50	3	61
0.55	60	3	58
0.75	60	3	58
1.1	60	3	59
1.5	60	3	59

1.85	60	3	60
2.5	60	3	61
3	60	3	62
4.2	60	3	64
5.5	60	3	66
0.37	50	1	52
0.55	50	1	53
0.75	50	1	53
1.1	50	1	54
1.5	50	1	56

#### 3.3 Scope of delivery

High-pressure multistage centrifugal pump

Installation and operating instructions for the pump

Installation and operating instructions for the frequency converter

3.4 Accessories

Please consult Wilo catalogue for the list of accessories.

4 Transport and interim storage

When receiving the product, check that it has not been damaged during transport. If any damage is found, take all necessary measures with the carrier in the time provided.



## CAUTION

#### Risk of material damage

If the delivered material is to be installed at a later date, store it in a dry place and protect it from impacts and any external influences (humidity, frost etc.). Temperature range for transport and storage: –30 °C to +60 °C.

Handle the product with care so as not to damage it prior to installation.

5 Application

This product has been designed to pump hot or cold water, water/glycol mixtures or other low-viscosity fluids that are free of mineral oil, solid or abrasive substances, or materials containing long fibres.

#### CAUTION

#### **Risk of motor heating**

A technical opinion is required prior to pumping fluid that is denser than water.

#### DANGER

#### **Risk of explosion**

Do not use this pump to convey flammable or explosive liquids.

#### Fields of application:

Version with housing in cast iron:

## MEDANA CH1-LC

Distribution and boosting

Industrial systems

Cooling water circulation systems

Cleaning and irrigation systems

6 Description and function

6.1 Description of the product

See Fig. 1

1. Suction port

- 2. Pressure port
- 3. Filler screw
- 4. Drainage screw
- 5. Stage casing
- 6. Impeller
- 7. Hydraulic shaft
- 8. Suction housing
- 9. Mechanical seal
- 10. Terminal box
- 11. Lantern
- 12. Condensate plugs

#### See Fig. 3a

- 1. Valve on the suction side
- 2. Valve on the end pressure side
- 3. Non-return valve
- 4. Filler screw
- 5. Drainage screw
- 6. Piping or clamp holders
- 7. Strainer
- 8. Tank
- 9. Mains water supply
- 10. Motor protection switch
- 11. Lifting hook

#### 6.2 Product characteristics

- Multistage centrifugal pump with horizontal axle (2 to 7 stages depending on the model), non self-priming.
- Suction/pressure ports with screwed connections. Axial suction, radial discharge upwards.
- Shaft sealing with standardised mechanical seal.
- Integrated thermal motor protection (single-phase version), automatic reset.
- Condenser integrated into the terminal box (single-phase version).

#### 7 Installation and electrical connection

## All installation and electrical connection work must be carried out solely by authorised and qualified personnel, in accordance with applicable regulations.



## WARNING

#### **Physical injuries**

The applicable regulations for the prevention of accidents must be complied with.



## WARNING

#### **Risk of electric shock**

Hazards from electric current must be prevented.

#### 7.1 Receipt of the product

7.2 Installation

Unpack the pump and recycle or dispose of the packaging in an environmentally responsible manner.

The pump must be installed in a dry, well-ventilated location free of frost on a flat, rigid surface using the appropriate screws.



## CAUTION

#### Risk of damaging the pump

The presence of foreign matter or impurities in the pump housing may affect the functioning of the product.

It is recommended to perform any welding and soldering work before installing the pump.

Rinse the circuit completely before installing and commissioning the pump.

- The pump must be installed in a place easy to access for the purposes of inspection or replacement.
- Install the pump on a smooth floor.

- The pump must be fixed in place using the 2 holes on the bearing bracket (Ø M8 screw) (Fig. 2).
- Ensure there is a minimum distance between the motor fan and any surfaces (Fig. 4).
- For heavy pumps, install a lifting hook (Fig. 3a, pos. 11) in line with the pump axis to facilitate its disassembly.
- Remove the condensate plugs (Fig. 1, pos. 12) when the pump is in a condensing environment. In this case, the motor protection class IP55 will no longer be guaranteed.



#### WARNING

#### Risk of accident due to hot surfaces!

The pump must be installed in such a way that no one can touch the hot surfaces of the product when it is in operation.



## WARNING

#### **Risk of tipping**

Ensure that the pump is secured to a flat, rigid surface.



#### CAUTION

#### Risk of foreign matter in the pump

Ensure that all blanking plugs are removed from the pump housing before installation.



#### NOTICE

Each pump may have been factory-tested to verify its hydraulic performance, and water may be present in the product. For hygiene purposes, the pump should be rinsed before use.

Install insulating material (cork or reinforced rubber) under the pump to avoid noise pollution and vibrations being transmitted to the installation.

- The weight of the piping should not be borne by the pump (Fig. 5).
- Permitted pump installation positions (Fig. 8).
- We recommend installing gate valves on the suction and pressure sides of the pump.
- Use expansion joints to mitigate noise and vibration from the pump if required.
- The pipe cross-section must be at least equal to the diameter of the suction port on the pump housing.
- The installation of a non-return valve in the discharge pipe is recommended to protect the pump against pressure surges.
- If connected directly to the public potable water mains, the suction pipe socket must also be fitted with a non-return valve and a stop valve.
- If connected indirectly via a tank, the suction pipe socket must be fitted with a suction strainer to stop impurities from entering the pump, and a non-return valve.

#### 7.4 Electrical connection

Mains connection

7.3



## DANGER

#### Risk of electrocution

In case of a non-compliant electrical connection, there is a risk of electrocution.

- Have the electrical connection established by an electrician approved by the local energy supply company in accordance with local regulations.
   Prior to the electrical connection, the pump must be voltage-free and protected against unauthorised restart.
- To ensure safe installation and operation, the pump must be earthed correctly with the earth terminals of the power supply (Fig. 6).
- Verify that the rated current, voltage and frequency used match the information on the pump's rating plate.
- The pump must be connected to the power supply using a cable fitted with a socket or a main switch.

- The three-phase motors must be connected to an authorised protection system. The setting rated current must match the value indicated on the motor's sticker.
- Single-phase motors are equipped as standard with thermal motor protection, which stops the pump if the permissible winding temperature is exceeded and starts it up again automatically once it has cooled down.
- The connection cable must be placed in such a way that it never comes into contact with the main sewer system and/or the pump housing and motor frame.
- The pump/installation should be earthed in accordance with local regulations.
- Appropriate measures for protection against insulation malfunctions must be taken. For example, the use of a residual-current device. The breaking capacities of the overcurrent protection devices must be greater than the assumed short-circuit current at the devices.
- The power supply connection must comply with the wiring diagram (Fig. 6).



#### WARNING

## Risk of injuries and water penetration in the connection area

Observe the tightening torques (Fig. 7) Observe the diameter value of the cable gland wiring to ensure IP55 protection (see Fig. 7 [E]):  $M20 = min. \phi 6 - max. \phi 12$  $M25 = min. \phi 13 - max. \phi 18$ 

7.5 Operation with a frequency converter It is possible to adjust the speed of the pump using a frequency converter. The limit values for adjusting the speed are as follows:

40 % rated  $\leq n \leq 100$  % rated. The installation and commissioning instructions for the frequency converter must be followed when connecting it and starting operation. To avoid overloading the motor winding, which could lead to damage and unwanted noise, the frequency converter cannot produce voltage rise speed stages higher than 500 V/µs or voltage spikes U > 650 V.

To make such voltage rise speed stages possible, an LC filter (motor filter) should be installed between the frequency converter and the motor. The specifications for this filter must be provided by the manufacturer of the frequency converter / filter. Control devices with a frequency converter delivered by Wilo have an integrated filter.

- 8 Commissioning
- 8.1 Filling and deaeration

Check whether the water level in the tank and the inlet pressure are sufficient.



## WARNING

**Risk of infection** 

Our pumps may be factory-tested to verify their hydraulic performance. If some water remains, the pump should be rinsed before use for hygiene reasons.

## CAUTION

#### Risk of damage to the pump

Never run the pump dry. The pump must be filled before starting.



## CAUTION

#### Risk of damage to the pump

Observe the tightening torques of the filler screw (Fig. 1, pos. 4) and drain plug (Fig. 1, pos. 5).

#### Pump in horizontal position below the water line (Fig. 3a)

Close the gate valves (pos. 1+2).

Unscrew the filler screw (pos. 4).

Slowly open the valve on the suction side (pos. 1).

en

Close the filler screw again once the water has exited via the screw port (air removed) (pos. 4).

Open the valve on the suction side completely (pos. 1).

Open the valve on the end pressure side (pos. 2).

#### Pump in horizontal position in suction mode (Fig. 3b)



## NOTICE

Ensure that the suction pipe does not trap air at the transitions and bends.

It may take a long time for the pump and suction pipe to fill.

Close the gate valve (pos. 2).

Open the gate valve (pos. 1).

Unscrew the filler screw (pos. 4).

Using a funnel inserted into the filling port, slowly and completely fill the pump and the suction pipe. Close the filler screw once the air has escaped and the liquid is flowing in the pump (pos. 4).

After checking the deblocking function and the direction of rotation of the motor:

- Briefly start the motor with an impulse then wait for a few seconds to allow the air to settle.
- Slightly unscrew the filler screw (pos. 4) to remove the air. If a trickle of water does not appear, remove this screw to fill the right water level in the pump. Put this screw back in place before restarting.
- If necessary, repeat this operation.

#### Pump in vertical position in inlet mode (Fig. 3c)

Close the gate valves (pos. 1+2).

Unscrew the filler screw (pos. 4).

Slowly open the valve on the suction side (pos. 1).

Close the filler screw again once the water has exited via the screw port (air removed) (pos. 4).

Open the valve on the suction side completely (pos. 1).

Open the valve on the end pressure side (pos. 2).



## CAUTION

#### Risk of damaging the pump

The pump must not be operated at a zero flow rate flow (valve on the end pressure side closed) for more than 10 minutes.

We recommend maintaining a minimum discharge of 10 % of rated discharge.



## WARNING

#### **Risk of injury**

Depending on the operating conditions of the pump or the installation (the temperature of the discharged liquid and the volume flow), the pump assembly including the motor may become extremely hot. There is a real risk of burns when coming into contact with the pump.



## CAUTION

#### **Direction of rotation**

An incorrect direction of rotation will cause poor pump performance and may overload the motor.

Checking the direction of rotation (only for three-phase current motors)

By starting the pump up briefly, check whether the direction of rotation of the pump matches the arrow on the pump's rating plate. If the direction of rotation is incorrect, swap 2 phases in the pump's terminal box.



## NOTICE

Single-phase motors are intended to operate in the correct direction of rotation.

Open the valve on the end pressure side and stop the pump.

#### 9 Maintenance

#### All maintenance work must be carried out by authorised and qualified personnel!



## WARNING

#### **Risk of electric shock**

Danger from electrical current must be eliminated. Ensure that the pump's power supply is switched off and secured against unauthorised reactivation before performing any work on the electric system.



## WARNING

#### **Risk of burns**

In case of high water temperatures and high system pressures, close the guard valves upstream and downstream of the pump. First, allow pump to cool down.



## WARNING

#### **Risk of injury**

Depending on the operating conditions of the pump or the installation (the temperature of the discharged liquid and the volume flow), the pump assembly including the motor may become extremely hot. There is a real risk of burns when coming into contact with the pump.

- No special maintenance required during operation.
- Pumps that are not being used during periods of frost should be drained to avoid damage.

Close the gate valves, fully open the drainage and filler screws (Fig. 1, pos. 3 and 4) and empty the pump.



#### CAUTION

#### Risk of damaging the pump

Observe the tightening torques of the filler screw (Fig. 1, pos. 4) and drain plug (Fig. 1, pos. 5).

#### 10 Faults, causes and remedies



## WARNING

#### **Risk of electric shock**

Danger from electrical current must be eliminated. Ensure that the pump's power supply is switched off and secured against unauthorised reactivation before performing any work on the electric system.



## WARNING

### **Risk of burns**

In case of high water temperatures and high system pressures, close the guard valves upstream and downstream of the pump. First, allow pump to cool down.



## WARNING

#### **Risk of injury**

Depending on the operating conditions of the pump or the installation (the temperature of the discharged liquid and the volume flow), the pump assembly including the motor may become extremely hot. There is a real risk of burns when coming into contact with the pump.

Faults	Causes	Remedies
The pump is not functioning	No electrical power supply	Check fuses, switches and wiring
	The motor protection device has cut off the power	Eliminate any motor overload
The pump operates but does not discharge any fluid	Wrong direction of rotation	Swap 2 phases in the power supply
	The piping or parts of the pump are obstructed by foreign matter	Check and clean the piping and the pump
	Presence of air in the suction pipe	Make the suction pipe air-tight
	Suction pipe too narrow	Install wider suction pipe
	The pressure at the pump inlet is insufficient	Review the installation conditions and recom- mendations described in this manual
The pump discharges irregularly	The suction pipe has a smaller diameter than that of the pump	The suction pipe must have the same diameter as the pump suction opening
	The strainer and the suction pipe are partially blocked	Dismantle and clean them
	Incorrect choice of pump	Install more powerful pumps
	Wrong direction of rotation	For the three-phase current version, swap 2 phases in the power supply
Insufficient pressure	The flow rate is too low, the suction pipe is blocked	Clean the suction filter and the suction pipe
	The valve is not sufficiently open	Open the valve
	The pump is obstructed by foreign matter	Clean the pump
The pump is vibrating	Foreign matter in the pump	Remove all foreign matter
	The pump is not firmly secured	Tighten the anchor screws
The motor is overheating, the mo- tor protection engages	Insufficient voltage	Check the fusible cut-outs, the wiring and the connections
	Foreign matter present, bearing damaged	Clean the pump
		Get the pump repaired by customer service
	Ambient temperature too high	Provide cooling

#### If the fault cannot be resolved, please contact the Wilo customer service.

11 Spare parts

All spare parts should be ordered directly from the Wilo customer service. To prevent errors, always quote the data on the pump's rating plate when making an order. The spare parts catalogue is available at www.wilo.com

12 Disposal

#### Information on the collection of used electrical and electronic products.

Proper disposal and appropriate recycling of this product prevents damage to the environment and dangers to your personal health.



## NOTICE

#### Disposal as domestic waste is forbidden!

In the European Union, this symbol can appear on the product, the packaging or the accompanying documentation. It means that the electrical and electronic products in question must not be disposed of along with domestic waste.

- Only hand over these products at designated, certified collecting points.
- Observe the locally applicable regulations! Please consult your local municipality, the nearest waste disposal site, or the dealer who sold the product to you for information on proper disposal. For further information on recycling, go to www.wilo-recycling.com.

Subject to change without prior notice.

## **DECLARATION OF CONFORMITY** KONFORMITÄTSERKLÄRUNG **DECLARATION DE CONFORMITE**

We, the manufacturer, declare under our sole responsability that the pump types of the series, Als Hersteller erklären wir unter unserer alleinigen Verantwortung, daβ die Pumpenbauarten der Baureihen, Nous, fabricant, déclarons sous notre seule responsabilité que les types de pompes des séries,

## **MEDANA CH1-LC.** 02/04/06/10... (FIRST H)

(The serial number is marked on the product site plate. Die Seriennummer ist auf dem Typenschild des Produktes angegeben. Le numéro de série est inscrit sur la plaque signalétique du produit)

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:

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

MACHINERY 2006/42/EC / MASCHINENRICHTLINIE 2006/42/EG / MACHINES 2006/42/CE (and according to the annex 1, §1.5.1, comply with the safety objectives of the Low Voltage Directive 2014/35/EU / und gemäss Anhang 1, §1.5.1, werden die Schutzziele der Niederspannungsrichtlinie 2014/35/EU eingehalten / et, suivant l'annexe 1, §1.5.1, respectent les objectifs de sécurité de la Directive Basse Tension 2014/35/UE)

#### \_ ENERGY-RELATED PRODUCTS 2009/125/EC / ENERGIEVERBRAUCHSRELEVANTER PRODUKTE -RICHTLINIE 2009/125/EG / PRODUITS LIES A L'ENERGIE 2009/125/CE (and according to the amended regulation 640/2009 on induction electric motors / und entsprechend der geänderten Verordnung 640/2009 über Induktionsmotoren / et conformément au règlement 640/2009 amendé relatif aux moteurs électriques à induction)

**RESTRICTION OF THE USE OF CERTAIN HAZARDOUS SUBSTANCES 2011/65/EU + 2015/863 /** BESCHRÄNKUNG DER VERWENDUNG BESTIMMTER GEFÄHRLICHER STOFFE-RICHTLINIE 2011/65/EU + 2015/863 / LIMITATION DE L'UTILISATION DE CERTAINES SUBSTANCES DANGEREUSES 2011/65/UE + 2015/863

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

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

Dortmund,

H. HERCHENHEIN Senior Vice President - Group Quality & Qualification

Declaration n°2195366-rev02

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PC As-Sh nº4236149-EU-rev03

# CE

#### **DECLARATION OF CONFORMITY** KONFORMITÄTSERKLÄRUNG **DECLARATION DE CONFORMITE**

(BG) - български език	(CS) - Čeština
ДЕКЛАРАЦИЯ ЗА СЪОТЕТСТВИЕ ЕС/ЕО	EU/ES PROHLASENI O SHODE
WILO SE декларират, че продуктите посочени в настоящата декларация	WILO SE prohlašuje, że výrobky uvedené v tomto prohlášeni odpovidaji ustanovením níže uvedených evropských směrnic a národním právním
приелите ги национални законодателства:	předpisům, které je přejímají:
Машини 2006/42/ЕО; Продукти, свързани с енергопотреблението	Stroje 2006/42/ES; Výrobků spojených se spotřebou energie
2009/125/EO; относно ограничението за употребата на определени опасни вещества 2011/65/UE + 2015/863 ;	2009/125/ES; Omezení používání některých nebezpečných látek 2011/65/UE + 2015/863 ;
както и на хармонизираните европейски стандарти, упоменати на предишната страница.	a rovněž splňují požadavky harmonizovaných evropských norem uvedených na předcházející stránce.
(DA) - Dansk	(EL) - Ελληνικά
EU/EF-OVERENSSTEMMELSESERKLÆRING	ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΕ/ΕΚ
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:	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:
Maskiner 2006/42/EF; Energirelaterede produkter 2009/125/EF; Begrænsning af anvendelsen af visse farlige stoffer 2011/65/UE + 2015/863 ;	Μηχανήματα 2006/42/ΕΚ; Συνδεόμενα με την ενέργεια προϊόντα 2009/125/ΕΚ; για τον περιορισμό της χρήσης ορισμένων επικίνδυνων ουσιών 2011/65/UE + 2015/863 ;
De er ligeledes i overensstemmelse med de harmoniserede europæiske standarder, der er anført på forrige side.	και επίσης με τα εξής εναρμονισμένα ευρωπαϊκά πρότυπα που αναφέρονται στην προηγούμενη σελίδα.
<i>(ES) - Español</i> DECLARACIÓN DE CONFORMIDAD UE/CE	<i>(ET) - Eesti keel</i> EL/EÜ VASTAVUSDEKLARATSIOONI
WILO SE declara que los productos sitados on la procenta doclaración	WILD SE kinnitable at calles vastavustupnistuses kirjaldatud testad an
están conformes con las disposiciones de las siguientes directivas europeas y con las legislaciones nacionales que les son aplicables :	kooskõlas alljärgnevate Euroopa direktiivide sätetega ning riiklike seadusandlustega, mis nimetatud direktiivid üle on võtnud:
Máquinas 2006/42/CE; Productos relacionados con la energía 2009/125/CE; Restricciones a la utilización de determinadas sustancias peligrosas 2011/65/UE + 2015/863 ;	Masinad 2006/42/EÜ; Energiamõjuga toodete 2009/125/EÜ; teatavate ohtlike ainete kasutamise piiramise kohta 2011/65/UE + 2015/863 ;
Y igualmente están conformes con las disposiciones de las normas europeas armonizadas citadas en la página anterior.	Samuti on tooted kooskõlas eelmisel leheküljel ära toodud harmoniseeritud Euroopa standarditega.
(FI) - Suomen kieli	(GA) - Gaeilge
EU/EY-VAATIMUSTENMUKAISUUSVAKUUTUS	AE/EC DEARBHU COMHLIONTA
WILO SE vakuuttaa, että tässä vakuutuksessa kuvatut tuotteet ovat seuraavien eurooppalaisten direktiivien määräysten sekä niihin sovellettavien kansallisten lakiasetusten mukaisia:	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:
Koneet 2006/42/EY; Energiaan liittyvien tuotteiden 2009/125/EY; tiettyjen vaarallisten aineiden käytön rajoittamisesta 2011/65/UE + 2015/863 ;	Innealra 2006/42/EC; Fuinneamh a bhaineann le táirgí 2009/125/EC; Srian ar an úsáid a bhaint as substaintí guaiseacha acu 2011/65/UE + 2015/863 ;
Lisäksi ne ovat seuraavien edellisellä sivulla mainittujen yhdenmukaistettujen eurooppalaisten normien mukaisia.	Agus siad i gcomhréir le forálacha na caighdeáin chomhchuibhithe na hEorpa dá dtagraítear sa leathanach roimhe seo.
(HR) - Hrvatski	(HU) - Magyar
EU/EZ IZJAVA O SUKLADNOSTI	EU/EK-MEGFELELOSEGI NYILATKOZAT
WILO SE izjavljuje da su proizvodi navedeni u ovoj izjavi u skladu sa sljedećim prihvaćenim europskim direktivama i nacionalnim zakonima:	WILO SE kijelenti, hogy a jelen megfelelőségi nyilatkozatban megjelölt termékek megfelelnek a következő európai irányelvek előírásainak, valamint azok nemzeti jogrendbe átültetett rendelkezéseinek:
EZ smjernica o strojevima 2006/42/EZ; Smjernica za proizvode relevantne	Gépek 2006/42/EK: Energiával kapcsolatos termékek 2009/125/EK: egyes
u pogledu potrošnje energije 2009/125/EZ; ograničenju uporabe određenih opasnih tvari 2011/65/UE + 2015/863 ;	veszélyes való alkalmazásának korlátozásáról 2011/65/UE + 2015/863 ;
i usklađenim europskim normama navedenim na prethodnoj stranici.	valamint az előző oldalon szereplő, harmonizált európai szabványoknak.
(IT) - Italiano	(LT) - Lietuvių kalba
DICHIARAZIONE DI CONFORMITÀ UE/CE	ES/EB ATITIKTIES DEKLARACIJA
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 :	WILO SE pareiškia, kad šioje deklaracijoje nurodyti gaminiai atitinka šių Europos direktyvų ir jas perkeliančių nacionalinių įstatymų nuostatus:
Macchine 2006/42/CE; Prodotti connessi all'energia 2009/125/CE; sulla restrizione dell'uso di determinate sostanze pericolose 2011/65/UE + 2015/863 ;	Mašinos 2006/42/EB; Energija susijusiems gaminiams 2009/125/EB; dėl tam tikrų pavojingų medžiagų naudojimo apribojimo 2011/65/UE + 2015/863 ;
E sono pure conformi alle disposizioni delle norme europee armonizzate citate a pagina precedente.	ir taip pat harmonizuotas Europas normas, kurios buvo cituotos ankstesniame puslapyje.
(LV) - Latviešu valoda ES/EK ATRILSTĪBAS DEKLADĀCTILI	(MT) - Malti DIKIARAZZIONI TA' KONEOPMITÀ HE/KE
WILO SEdeklarē, ka izstrādājumi, kas ir nosaukti šajā deklarācijā, atbilst	WILO SE jiddikiara li l-prodotti spećifikati f'din id-dikiarazzioni huma
šeit uzskaitīto Eiropas direktīvu nosacījumiem, kā arī atsevišķu valstu likumiem, kuros tie ir ietverti:	konformi mad-direttivi Ewropej li jsegwu u mal-leģislazzjonijiet nazzjonali li japplikawhom:
Mašīnas 2006/42/EK; Enerģiju saistītiem ražojumiem 2009/125/EK; par dažu bīstamu vielu izmantošanas ierobežošanu 2011/65/UE + 2015/863 ;	Makkinarju 2006/42/KE; Prodotti relatati mal-enerģija 2009/125/KE; dwar ir-restrizzjoni tal-użu ta' ćerti sustanzi perikoluži 2011/65/UE + 2015/863 ;
un saskaņotajiem Eiropas standartiem, kas minēti iepriekšējā lappusē.	kif ukoll man-normi Ewropej armoniżżati li jsegwu imsemmija fil-paġna precedenti.

# CE

#### DECLARATION OF CONFORMITY KONFORMITÄTSERKLÄRUNG DECLARATION DE CONFORMITE

(NL) - Nederlands	(PL) - Polski
EU/EG-VERKLARING VAN OVEREENSTEMMING	DEKLARACJA ZGODNOSCI UE/WE
WILO SE verklaart dat de in deze verklaring vermelde producten voldoen	WILO SE oświadcza, że produkty wymienione w niniejszej deklaracji są
aan de bepalingen van de volgende Europese richtlijnen evenals aan de	zgodne z postanowieniami następujących dyrektyw europejskich i
nationale wetgevingen waarin deze bepalingen zijn overgenomen:	transponującymi je przepisami prawa krajowego:
Machines 2006/42/EG; Energiegerelateerde producten 2009/125/EG;	Maszyn 2006/42/WE: Produktów zwiazanych z energia 2009/125/WE:
betreffende beperking van het gebruik van bepaalde gevaarlijke stoffen	sprawie ograniczenia stosowania niektórych niebezpiecznych substancji
2011/65/UE + 2015/863 ;	2011/65/UE + 2015/863 ;
De producten voldoen eveneens aan de geharmoniseerde Europese	oraz z nastepującymi normami europejskich zharmonizowanymi podanymi
normen die op de vorige pagina worden genoemd	na poprzedniej stronie.
(PT) - Português	(RO) - Română
DECLARAÇÃO DE CONFORMIDADE UE/CE	DECLARAȚIE DE CONFORMITATE UE/CE
WILO SE declara que os materiais designados na presente declaração	•
obedecem às disposições das directivas europeias e às legislações	Low voltage - 2099/35/EU
nacionais que as transcrevem :	
Máquinas 2006/42/CE: Produtos relacionados com o consumo do oporgia	Macini 2006/42/CE, Broducolor cu impact operantic 2000/12E/CE, privind
2000/125/CE: relativa à restrição do uso de determinadas substâncias	$\frac{1}{1}$
perigosas $2011/65/UE + 2015/863$ ;	
E chadagam também ès parmas auropaiss barmanizadas sitadas na pésina	ei de seemenes, sunt conforme su normale surenens armenizate sitate în
nrecedente	și, de asemenea, sunt comorme cu normele europene armonizate citate m pagina precedență
(SK) - Slovenčina	(SL) - Slovenščina
	EU/ES-IZIAVA O SKLADNOSTI
	LU/LJ-IZJAVA U SKLADNUSTI
WILO SE čestne prehlasuje, že výrobky ktoré sú predmetom tejto	WILO SE izjavlja, da so izdelki, navedeni v tej izjavi, v skladu z določili
deklaracie, su v sulade s pozladavkami nasledujucich europskych direktiv a	naslednjih evropskih direktiv in z nacionalnimi zakonodajami, ki jih Vsebujeje
	vsebujejo.
Strojových zariadeniach 2006/42/ES; Energeticky významných výrobkov	Straji 2006/42/ESt Izdalkav, povozapih z oporajja 2000/125/ESt o
2009/125/ES; obmedzení používania určitých nebezpečných látok	omejevanju uporabe nekaterih nevarnih spovi 2011/65/UE + 2015/863 ·
2011/65/UE + 2015/863 ;	
ako aj s harmonizovanými európskych normami uvedenými na	na tudi z ucklajonimi ovronckih standardi, navodonimi na projčnji stranj
predchádzajúcej strane.	på tudi z uskiajennin evropskin standardi, navedennin na prejsnji strani.
(SV) - Svenska	(TR) - Türkçe
EU/EG-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE	AB/CE UYGUNLUK TEYID BELGESI
WILO SE intygar att materialet som beskrivs i följande intyg	
överensstämmer med bestämmelserna i följande europeiska direktiv och	wilo Sebu beigede beirtiien urunierin aşagıdaki Avrupa yönetmeliklerine ve ulusal kanunlara uvgun olduğunu beyan etmektedir:
nationella lagstiftningar som inför dem:	ve diasar kananiara aygan olaagana beyan etmektean.
Maskiner 2006/42/EG: Energirelaterade produkter 2009/125/EG:	Makine Yönetmeliği, 2006/42/AT, Eko Tasarım Yönetmeliği 2009/125/AT,
begränsning av användning av vissa farliga ämnen 2011/65/UE +	Belirli tehlikeli maddelerin bir kullanımını sınırlandıran 2011/65/UE +
2015/863 ;	2015/863 ;
Det överensstämmer även med följande harmoniserade europeiska	
standarder som nämnts på den föregående sidan.	ve önceki sayfada belirtilen uyumlaştırılmış Avrupa standartlarına.
(IS) - Íslenska	(NO) - Norsk
ESB/EB LEYFISYFIRLÝSING	EU/EG-OVERENSSTEMMELSESERKLAEING
WILO SE lýsir því yfir að vörurnar sem um getur í þessari yfirlýsingu eru í	WILO SE erklærer at produktene nevnt i denne erklæringen er i samsvar
samræmi við eftirfarandi tilskipunum ESB og landslögum hara sampykkt:	med følgende europeiske direktiver og nasjonale lover:
Válartilskinun 2006/42/EB: Tilskinun varðandi vörur tengdar orkunotkun	FG-Maskindirektiv 2006/42/FG: Direktiv energinelaterte produkter
2009/125/FB: Takmörkun á notkun tiltekinna hættulegra efna	2009/125/EF: Begrensning av bruk av visse farlige stoffer 2011/65/UF +
2011/65/UE + 2015/863 ;	2015/863 ;
og samhæfða evrópska staðla sem nefnd eru í fyrri síðu.	og harmoniserte europeiske standarder nevnt på forrige side.





## wilo



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