

# CRK, MTR

Installation and operating instructions



# English (GB) Installation and operating instructions

## Original installation and operating instructions

These installation and operating instructions describe Grundfos CRK and MTR pumps.

Sections 1-4 give the information necessary to be able to unpack, install and start up the product in a safe way.

Sections 5-11 give important information about the product, as well as information on service, fault finding and disposal of the product.

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Read this document before installing the product. Installation and operation must comply with local regulations and accepted codes of good practice.

## 1. General information

### 1.1 Hazard statements

The symbols and hazard statements below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.

#### **DANGER**



Indicates a hazardous situation which, if not avoided, will result in death or serious personal injury.

#### **WARNING**



Indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.

#### **CAUTION**



Indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

The hazard statements are structured in the following way:

#### **SIGNAL WORD**



#### **Description of hazard**

Consequence of ignoring the warning.  
- Action to avoid the hazard.

## 1.2 Notes

The symbols and notes below may appear in Grundfos installation and operating instructions, safety instructions and service instructions.



Observe these instructions for explosion-proof products.



A blue or grey circle with a white graphical symbol indicates that an action must be taken.



A red or grey circle with a diagonal bar, possibly with a black graphical symbol, indicates that an action must not be taken or must be stopped.



If these instructions are not observed, it may result in malfunction or damage to the equipment.



Tips and advice that make the work easier.

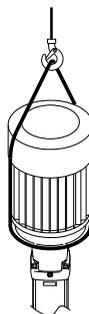
## 2. Receiving the product

### 2.1 Lifting the product

When lifting the entire product with motor, follow these instructions:

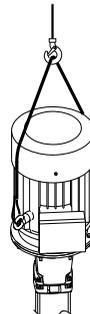
- Pump with motor sizes 0.37 - 5.5 kW:  
Lift the pump in the motor flange by means of straps or the like.
- Pump with motor sizes 7.5 - 22 kW:  
Lift the pump by means of the motor eyebolts.
- Pump with motor sizes 30-45 kW:  
Lift the pump by means of the lifting brackets on the motor flange.

0.37 - 5.5 kW



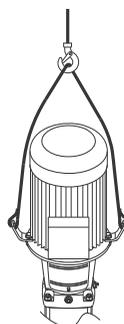
TM04 0339 0608

7.5 - 22 kW



TM04 0341 0608

30-45 kW



TM05 9564 4113

55-75 kW

**Fig. 1** Lifting points

In case of pumps with other motors than MG or Siemens, we recommend that you lift the pump by means of the straps in the motor flange.

## 3. Installing the product

### 3.1 Mechanical installation

#### WARNING

##### Moving parts

- Death or serious personal injury
- Tighten the coupling screws to the correct torque.
  - Install the coupling guards securely to the pump with the screws intended for this purpose.



#### CAUTION

##### Hot surface

- Minor or moderate personal injury
- The pump must be installed so that persons cannot accidentally come into contact with the hot surface of the motor.



### 3.2 Pump location

The pump is designed for tank mounting in vertical and horizontal position. However, only MTR version H and MTRE version H are suitable for horizontal mounting.

The pump is positioned in a hole cut into the tank and is secured to the tank by four hexagon head screws through the holes in the mounting flange.

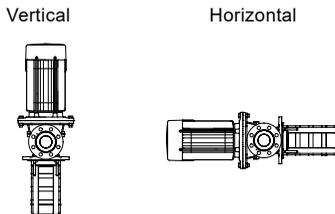


Fig. 2 Vertical and horizontal installation

On horizontally installed MTR, MTRE pumps with motors from 5.5 kW and up the motors have feet and must be supported.

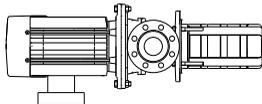


Fig. 3 Horizontally installed MTR with foot

For horizontally mounted pumps ensure a sufficient sealing between pump flange and tank. A sealing gasket will usually suffice.



Before changing shaft seals for horizontally mounted pumps, drain the tank.



MTR 32, 45 and 64 pumps can only be installed in vertical position.

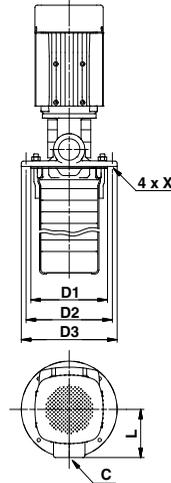


Fig. 4 Vertical installation

Mounting flange dimensions:

Pump type	D1	D2	D3	L	C	X
CRK 2, 4	140	160	180	100	Rp 1 1/4 G 1 1/4	Ø7.5
MTR 1s, 1, 3, 5, 8	140	160	180	100	Rp 1 1/4 G 1 1/4	Ø9.5
MTR 10, 15, 20	200	225	250	125	Rp 2 G 2	Ø9
MTR 32	190	220	250	150	DN 65	Ø12
MTR 45, 64	240	265	290	165	DN 80	Ø12

TM01 4990 1399

TM04 5755 3809

TM02 8042 4503

### 3.2.1 Inlet conditions

The bottom of the pump strainer must be at least 25 mm above the bottom of the tank.

The pumps are designed to provide full performance down to a level of A mm above the bottom of the strainer.

At a liquid level between A and B mm above the bottom of the strainer, the built-in priming screw will protect the pump against dry running.

MTR 32, 45 and 64 pumps have no priming screw.

Pump type	A [mm]	B [mm]
CRK 2, 4 and MTR 1s, 1, 3, 5	41	28
MTR 10, 15, 20	50	25
MTR 32, 45, 64	70	-

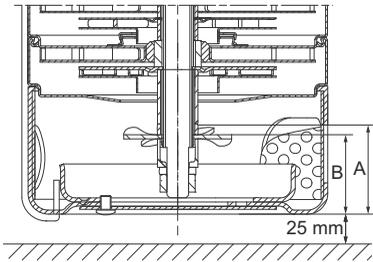


Fig. 5 CRK 2, 4 and MTR 1s, 1, 3, 5, 8

TM07 2800 4118

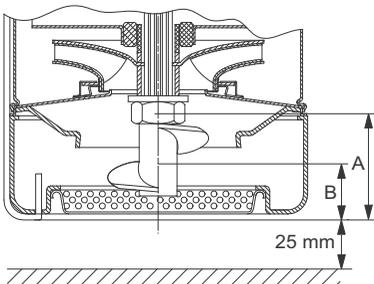


Fig. 6 MTR 10, 15, 20

TM05 7224 0813

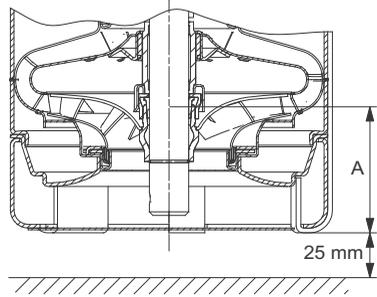


Fig. 7 MTR 32, 45, 64

TM05 7225 0813

### 3.3 Electrical connection

#### WARNING

##### Electric shock

Death or serious personal injury

- Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.
- Connect the pump to an external main switch close to the pump and to a motor-protective circuit breaker or a CUE frequency converter. Make sure that you can lock the main switch in OFF position (isolated). Type and requirements as specified in EN 60204-1, 5.3.2.



The electrical connection must be carried out by an authorized electrician in accordance with local regulations.

The electrical connection must be carried out as shown in the wiring diagram inside the terminal box cover.

The operating voltage and frequency are marked on the pump nameplate. Please make sure that the motor is suitable for the power supply on which it will be used.

Single-phase Grundfos motors incorporate a thermal switch and require no additional motor protection.

Three-phase motors must be connected to a motor-protective circuit breaker.

The terminal box can be turned to four positions, in 90° steps. See fig. 8.

1. If necessary, remove the coupling guards. Do not remove the coupling.
2. Remove the bolts securing the motor to the pump.
3. Turn the motor to the required position.
4. Replace and tighten the bolts.
5. Replace the coupling guards.

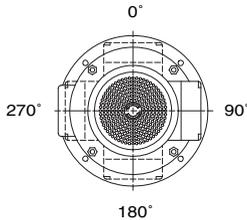


Fig. 8 Terminal box positions

### 3.3.1 Frequency converter operation

#### Motors supplied by Grundfos

All three-phase motors supplied by Grundfos can be connected to a frequency converter.

Depending on the frequency converter type, this may cause increased acoustic noise from the motor. Furthermore, it may cause the motor to be exposed to detrimental voltage peaks.



Grundfos motors, types MG 71 and MG 80 as well as MG 90 (1.5 kW, 2-pole), for supply voltages up to and including 440 V (see motor nameplate), must be protected against voltage peaks higher than 650 V (peak value) between the supply terminals.

We recommend to protect all other motors against voltage peaks higher than 850 V.

The above disturbances, i.e. both increased acoustic noise and detrimental voltage peaks, can be eliminated by fitting an LC filter between the frequency converter and the motor.

For further information, please contact the frequency converter or motor supplier.

#### Other motor makes

If other motors makes than those supplied by Grundfos are used, contact Grundfos or the motor manufacturer.

## 4. Starting up the product

### WARNING



#### Too high pressure and leakage

Death or serious personal injury

- Do not run the pump against a closed outlet valve for more than approx. 5 minutes.

### 4.1 Before starting the product

- Make sure that all pipe connections are tight.
- Make sure that the pump is partly filled with liquid (partly submerged).
- Make sure that the strainer is not blocked by impurities.

### 4.2 Starting the product

1. Close the isolating valve on the outlet side of the pump.
2. If the pump is fitted with a vent valve, this valve must be opened. See fig. 9.

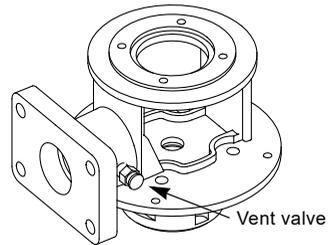


Fig. 9 Position of the vent valve

3. See the correct direction of rotation of the pump on the motor fan cover or on the coupling guard. When seen from the top, the pump must rotate counterclockwise.
4. Start the pump and check the direction of rotation.
5. Open the outlet pipe isolating valve a little.
6. If the pump is fitted with a vent valve, this valve must be closed when a steady flow of liquid runs out of it.
7. Completely open the outlet pipe isolating valve. The pump has now been vented and is ready for operation.

TM00 4257 3296

TM01 6428 2399

## 5. Product introduction

### 5.1 Applications

The Grundfos pumps, types CRK and MTR, are tank mounted multistage centrifugal pumps designed for the following applications:

- liquid transfer in machine tools
- condensate transfer
- liquid transfer in industrial washing machines
- pressure boosting of cold or hot clean liquids
- similar applications.

### 5.2 Pumped liquids

Thin, non-explosive liquids, not containing fibres. The liquid must not attack the pump materials chemically.

When pumping liquids with a density and/or viscosity higher than that of water, use motors with correspondingly higher outputs, if required.

MTR version A pumps have a cast iron pump head.

In MTR version I and CRK version I pumps all parts in contact with the pumped liquid are of stainless steel EN/DIN 1.4301 or better.

### 5.3 Identification

#### 5.3.1 Nameplate for CRK and MTR

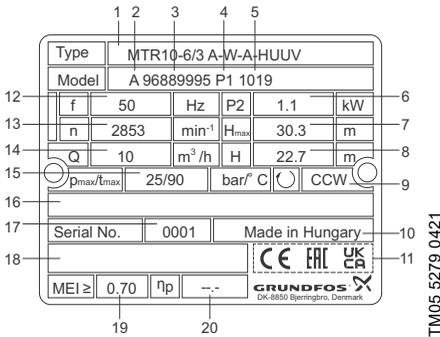


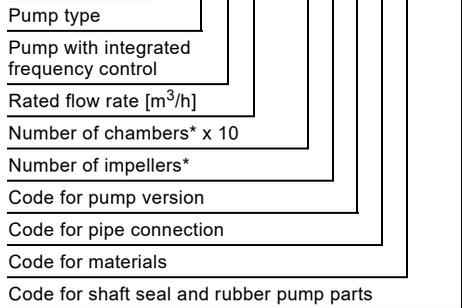
Fig. 10 Example of nameplate

Pos.	Description
1	Type designation
2	Model
3	Product number
4	Place of production
5	Production year and week (YYWW)
6	P2, 50 Hz
7	Head against closed valve
8	Head at rated flow rate
9	Direction of rotation CCW: Counterclockwise CW: Clockwise

Pos.	Description
10	Country of production
11	Approval marks
12	Frequency
13	Speed
14	Rated flow rate
15	Maximum pressure and temperature
16	The number of the copy of the technical file kept at KEMA (stated if the pump is ATEX classified)
17	The serial number of the pump (stated if the pump is ATEX classified)
18	ATEX category (stated if the pump is ATEX classified)
19	Minimum efficiency index
20	Hydraulic pump efficiency

#### 5.3.2 Type key for CRK

Example CRK E 4 - 160 / 2 -x -x -x -xxxx



\* See fig. 11.

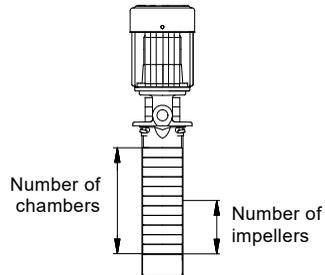


Fig. 11 Number of chambers / impellers

TM05 5279 0421

TM01 4991 1299

## 5.3.3 Type key for MTR, MTR E

Example	MTR	E	32	(s)	-2	/1	-1	-A	-F	-A	-H	UU	V
Pump type													
Pump with integrated frequency control													
Rated flow rate [m <sup>3</sup> /h]													
All impellers with reduced diameter (applies only to MTR 1s)													
Number of chambers, see fig. 11													
Number of impellers, see fig. 11													
Number of impellers with reduced diameter													
Pump version													
A Basic version													
B Oversize motor													
C Inlet pipe													
E Pump with certificate/approval													
F 120 °C version													
H Horizontal version													
J Pump with different max. speed													
P Undersize motor													
T Double oversize													
X Special version													
Pipe connection													
F DIN flange													
G ANSI flange													
J JIS flange													
M Square flange with internal thread													
W Internal thread													
WB NPT internal thread													
X Special version													
Materials													
A Basic version													
I Wetted parts EN/DIN 1.4301 / AISI 304													
X Special version													
Shaft seal													
H Balanced cartridge seal													
Q Silicon carbide													
U Tungsten carbide													
B Carbon													
E EPDM													
F FXM													
K FFKM													
V FKM													

## 6. Technical data

Pump type	CRK	MTR
Minimum liquid temperature [°C]	-10	-10
Maximum liquid temperature [°C]	+90	+90 (120*)
Maximum operating pressure [bar]	25	25
Enclosure class	IP55	IP55

\* Applies to pump version F.

### 6.1 Ambient temperature

Motor power [kW]	Motor make	Motor efficiency class	Max. ambient temperature at full load [°C]	Max. altitude above sea level [m]	Pos. in output curve in fig.
0.06 - 0.18	Siemens	-	+40	1000	1
0.25 - 0.55	MG	-	+40	1000	1
0.75	MG	IE2	+60	3500	2
1.1 - 22	MG	IE2	+60	3500	2
30-45	Siemens	IE2	+55	2750	3

If the ambient temperature exceeds the above temperature values or the pump is installed at an altitude exceeding the above altitude values, the motor must not be fully loaded due to the risk of overheating. Overheating may result from excessive ambient temperatures or the low density and consequently low cooling effect of the air.

In such cases, it may be necessary to use a motor with a higher rated output.

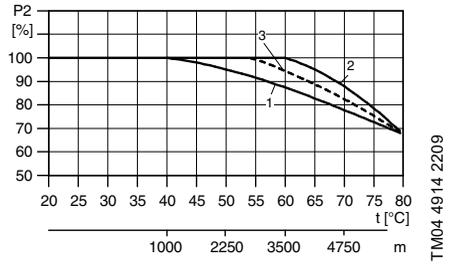


Fig. 12 Relationship between motor output (P2) and ambient temperature/altitude

**Example:** A pump with a 1.1 kW IE2 MG motor: If this pump is installed 4750 m above sea level, the motor must not be loaded more than 88 % of rated output. At an ambient temperature of 75 °C, the motor must not be loaded more than 78 % of rated output. If the pump is installed 4750 m above sea level at an ambient temperature of 75 °C, the motor must not be loaded more than 88 % × 78 % = 68.6 % of rated output.

### 6.2 Maximum permissible operating pressure and liquid temperature for the shaft seal

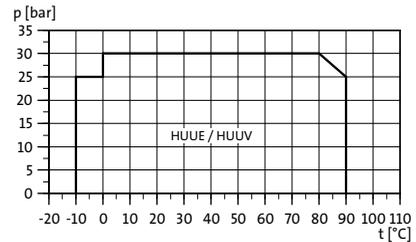


Fig. 13 MTR 1s to 64

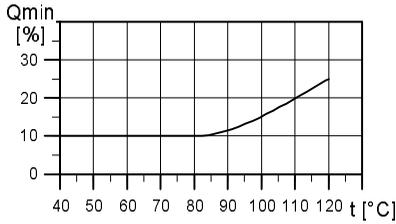
TM04 4914 2209

TM02 7854 4303

### 6.3 Minimum flow rate

Due to the risk of overheating, the pump must not be used at flows below the minimum flow rate.

The curve below shows the minimum flow rate as a percentage of the nominal flow rate in relation to the liquid temperature.



**Fig. 14** Minimum flow rate in relation to temperature

### 6.4 Electrical data

See motor nameplate.

### 6.5 Maximum number of starts

Motor size [kW]	Recommended maximum number of starts per hour
0.06 - 0.18	100
0.25 - 2.2	250
3-4	100
5.5 - 11	50
15-22	40
30-45	8

## 7. Sound pressure level

The table below shows airborne noise emitted by CRK and MTR pumps with motors fitted by Grundfos.

Motor [kW]	$\bar{L}_{pA}$ [dB(A)]	
	50 Hz	60 Hz
0.37	50	55
0.55	50	53
0.75	50	54
1.1	52	57
1.5	54	59
2.2	54	59
3.0	55	60
4.0	62	66
5.5	60	65
7.5	60	65
11	60	65
15	60	65
18.5	60	65
22	66	70
30	71	75
37	71	75
45	71	75

TM04 5693 3809

## 8. Servicing the product

### WARNING

#### Electric shock



- Death or serious personal injury
- Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.

### WARNING

#### Moving parts



- Death or serious personal injury
- Tighten the coupling screws to the correct torque.
  - Install the coupling guards securely to the pump with the screws intended for this purpose.

### CAUTION

#### Corrosive liquids



- Death or serious personal injury
- Wear personal protective equipment.

### CAUTION

#### Toxic liquids



- Death or serious personal injury
- Wear personal protective equipment.

### CAUTION

#### Hot or cold liquid



- Minor or moderate personal injury
- Wear personal protective equipment.



### CAUTION

#### Hot or cold surface



- Minor or moderate personal injury
- Make sure that no one can accidentally come into contact with hot or cold surfaces.



## 8.1 Maintaining the product

Pump bearings and shaft seal are maintenance-free.

### 8.1.1 Motor bearings

Motors not fitted with grease nipples are maintenance-free.

Motors fitted with grease nipples should be lubricated with a high-temperature, lithium-based grease. See the instructions on the fan cover.

In the case of seasonal operation (motor is idle for more than 6 months of the year), we recommend to grease the motor when the pump is taken out of operation.

Depending on the ambient temperature, the motor bearings must be replaced or lubricated according to the table below. The table applies to 2-pole motors.

The number of operating hours stated for bearing replacement are guidelines only.

Motor size [kW]	Bearing replacement interval [operating hours]				
	40 °C	45 °C	50 °C	55 °C	60 °C
0.37 - 0.75	18000	-	-	-	-
1.1 - 7.5	20000	15500	12500	10000	7500

Motor size [kW]	Lubrication interval [operating hours]				
	40 °C	45 °C	50 °C	55 °C	60 °C
11 - 18.5	4500	3400	2500	1700	1100
22	4000	3100	2300	1500	1000
30-55	4000	3000	2000	1500	-
75	2000	1500	1000	500	-

Intervals for 4-pole motors are twice as long as those for 2-pole motors.

If the ambient temperature is lower than 40 °C, bearings must be replaced/lubricated at the intervals mentioned under 40 °C.

## 8.2 Filters

Chip trays, filters, etc. must be cleaned at regular intervals to ensure a correct flow of liquid.

## 8.3 Periodic checks

At regular intervals, depending on the conditions and time of operation, the following checks must be made:

- Check the quantity of liquid and operating pressure.
- Check that there are no leaks.
- Check that the motor is not overheating.
- Check the tripping function of the motor-protective circuit breaker.
- Check that all controls are operating satisfactorily.

If the above checks do not reveal any abnormal operating details, no further checks are necessary. Should any faults be found, check the symptoms according to section [10. Fault finding the product](#).

## 8.4 Coupling adjustment

For adjustment of coupling in CRK and MTR 1s to 20, see page [15](#).

For adjustment of coupling in MTR 32, 45, 64, see page [16](#).

## 8.5 Contaminated products

The product will be classified as contaminated if it has been used for a liquid which is injurious to health or toxic.

If you request Grundfos to service the product, contact Grundfos with details about the liquid before returning the product for service. Otherwise, Grundfos can refuse to accept the product for service.

Any application for service must include details about the liquid.

Clean the product in the best possible way before you return it.

Costs of returning the product are to be paid by the customer.

## 8.6 Service documentation

Service documents and service kits are available in Grundfos Product Center (<http://product-selection.grundfos.com>).

## 9. Taking the product out of operation

### 9.1 Taking the product permanently out of operation

#### CAUTION



#### Corrosive liquids

- Death or serious personal injury
- Wear personal protective equipment.

#### CAUTION



#### Toxic liquids

- Death or serious personal injury
- Wear personal protective equipment.



#### CAUTION

#### Hot or cold liquid

- Minor or moderate personal injury
- Wear personal protective equipment.



#### CAUTION



#### Hot or cold surface

- Minor or moderate personal injury
- Make sure that no one can accidentally come into contact with hot or cold surfaces.



The product will be classified as contaminated if it has been used for a liquid which is injurious to health or toxic.

## 10. Fault finding the product

### WARNING

#### Electric shock



- Death or serious personal injury
- Before starting any work on the product, make sure that the power supply has been switched off and that it cannot be accidentally switched on.

### WARNING

#### Moving parts



- Death or serious personal injury
- Tighten the coupling screws to the correct torque.
  - Install the coupling guards securely to the pump with the screws intended for this purpose.

### CAUTION



#### Corrosive liquids

- Death or serious personal injury
- Wear personal protective equipment.

### CAUTION



#### Toxic liquids

- Death or serious personal injury
- Wear personal protective equipment.



### CAUTION

#### Hot or cold liquid

- Minor or moderate personal injury
- Wear personal protective equipment.



### CAUTION

#### Hot or cold surface

- Minor or moderate personal injury
- Make sure that no one can accidentally come into contact with hot or cold surfaces.



Fault	Cause	Remedy
1. Motor does not run when started.	a) Power supply failure.	Connect the power supply.
	b) Fuses are blown.	Replace fuses.
	c) Motor-protective circuit breaker has tripped.	Reactivate the motor-protective circuit breaker.
	d) Thermal protection has tripped.	Reactivate the thermal protection.
	e) Main contacts in motor-protective circuit breaker are not making contact or the coil is faulty.	Replace contacts or magnetic coil.
	f) Control circuit is defective.	Repair the control circuit.
2. Motor-protective circuit breaker trips immediately when power supply is switched on.	a) One fuse blown/automatic circuit breaker has tripped.	Replace fuse/cut in the circuit breaker.
	b) Contacts in motor-protective circuit breaker are faulty.	Replace motor-protective circuit breaker contacts.
	c) Cable connection is loose or faulty.	Fasten or replace the cable connection.
	d) Motor winding is defective.	Replace the motor.
	e) Pump mechanically blocked.	Remove the mechanical blocking of the pump.
	f) Motor-protective circuit breaker overload setting is too low.	Set the motor-protective circuit breaker correctly.
3. Motor-protective-circuit breaker trips occasionally.	a) Motor-protective circuit breaker overload setting is too low.	Set the motor-protective circuit breaker correctly.
	b) Low voltage at peak times.	Reestablish constant power supply.
4. Motor-protective-circuit breaker has not tripped but the pump does not run.	a) Check 1 a), b), d), e) and f).	

Fault	Cause	Remedy
5. Pump runs but gives no liquid or pump performance is not constant.	a) Pump strainer partly blocked by impurities.	Clean the strainer.
	b) Liquid level in tank too low.	Increase the liquid level.
	c) Pump draws in air.	Check the inlet conditions.
6. Leakage in shaft seal.	a) Shaft seal is defective.	Replace the shaft seal.
7. Noise.	a) Cavitation.	Check the inlet conditions.
	b) Pump does not rotate freely (frictional resistance) because of incorrect pump shaft position.	Adjust the pump shaft.
	c) Frequency converter operation.	See section <i>Motors supplied by Grundfos</i> .

## 11. Disposing of the product

This product or parts of it must be disposed of in an environmentally sound way:

1. Use the public or private waste collection service.
2. If this is not possible, contact the nearest Grundfos company or service workshop.

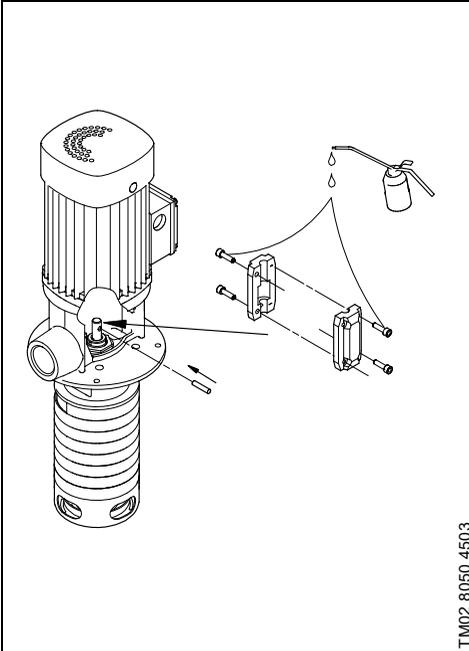


The crossed-out wheellie bin symbol on a product means that it must be disposed of separately from household waste. When a product marked with this symbol reaches its end of life, take it to a collection point designated by the local

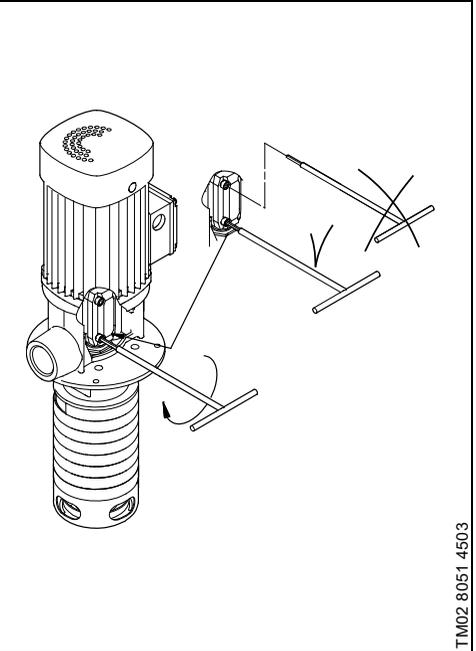
waste disposal authorities. The separate collection and recycling of such products will help protect the environment and human health.

See also end-of-life information at [www.grundfos.com/product-recycling](http://www.grundfos.com/product-recycling).

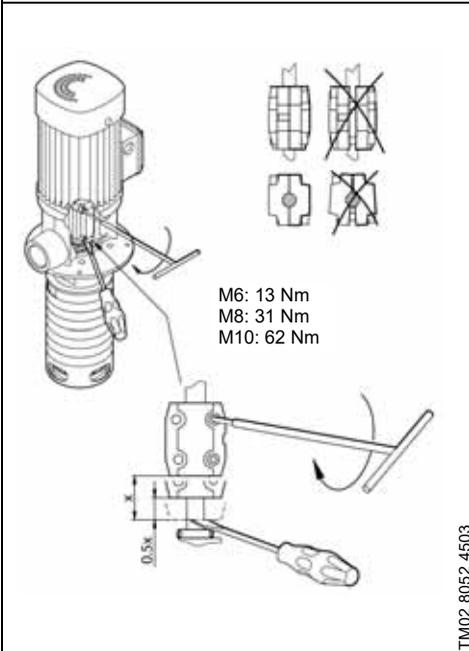
CRK and MTR 1s to 20



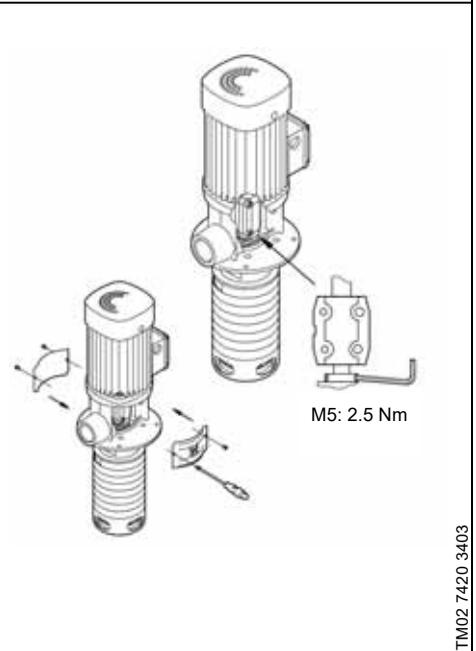
TM02 8050 4503



TM02 8051 4503

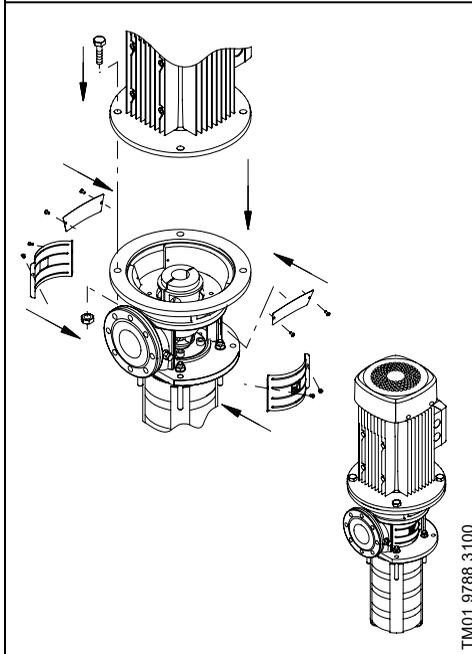
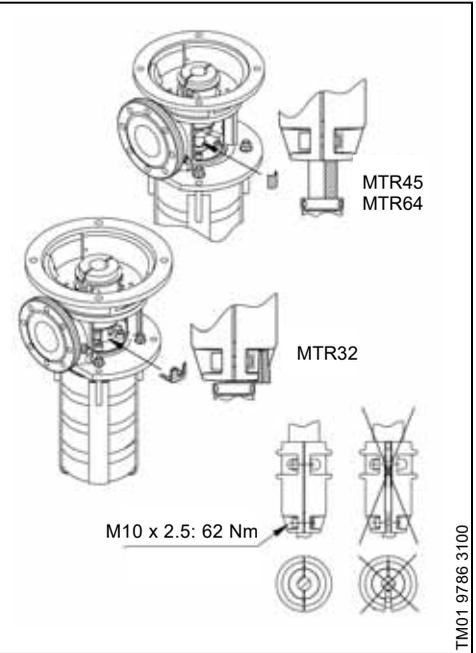
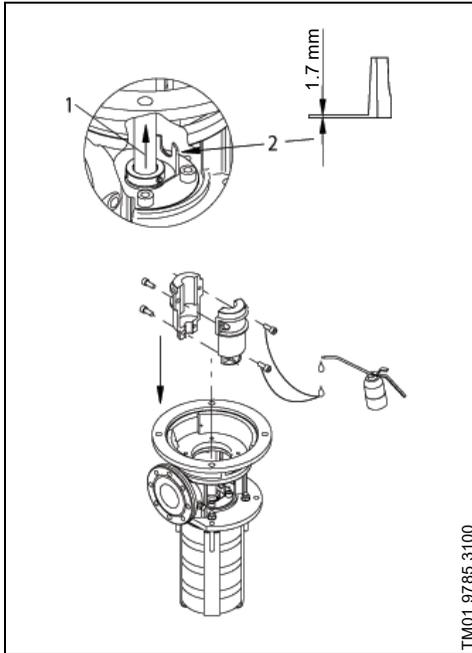


TM02 8052 4503



TM02 7420 3403

MTR 32, 45, 64



## 中国 RoHS

产品中有害物质的名称及含量

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴联苯醚 (PBDE)
泵壳	X	0	0	0	0	0
紧固件	X	0	0	0	0	0
管件	X	0	0	0	0	0
定子	X	0	0	0	0	0
转子	X	0	0	0	0	0

本表格依据 SJ/T 11364 的规定编制

O: 表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

X: 表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 该规定的限量要求。



该产品环保使用期限为 10 年，标识如左图所示。

此环保期限只适用于产品在安装与使用说明书中所规定的条件下工作

## Declaration of conformity

**GB: EC/EU declaration of conformity**

We, Grundfos, declare under our sole responsibility that the products MTR, CRK, to which the declaration below relates, are in conformity with the Council Directives listed below on the approximation of the laws of the EC/EU member states.

**CZ: Prohlášení o shodě EU**

My firma Grundfos prohlašujeme na svou plnou odpovědnost, že výrobky MTR, CRK, na které se toto prohlášení vztahuje, jsou v souladu s níže uvedenými ustanoveními směrnice Rady pro sblížení právních předpisů členských států Evropského společenství.

**DK: EF/EU-overensstemmelseerklæring**

Vi, Grundfos, erklærer under ansvar at produkterne MTR, CRK som erklæringen nedenfor omhandler, er i overensstemmelse med Rådets direktiver der er nævnt nedenfor, om indbyrdes tilnærmelse til EF/EU-medlemsstaternes lovgivning.

**ES: Declaración de conformidad de la CE/UE**

Grundfos declara, bajo su exclusiva responsabilidad, que los productos MTR, CRK a los que hace referencia la siguiente declaración cumplen lo establecido por las siguientes Directivas del Consejo sobre la aproximación de las legislaciones de los Estados miembros de la CE/UE.

**FR: Déclaration de conformité CE/UE**

Nous, Grundfos, déclarons sous notre seule responsabilité, que les produits MTR, CRK, auxquels se réfère cette déclaration, sont conformes aux Directives du Conseil concernant le rapprochement des législations des États membres CE/UE relatives aux normes énoncées ci-dessous.

**HR: EC/EU deklaracija sukladnosti**

Mi, Grundfos, izjavljujemo s punom odgovornošću da su proizvodi MTR, CRK, na koja se izjava odnosi i nastavku, u skladu s dolje navedenim direktivama Vijeća o usklađivanju zakona država članica EZ-a / EU-a.

**IT: Dichiarazione di conformità CE/UE**

Grundfos dichiara sotto la sua esclusiva responsabilità che i prodotti MTR, CRK, ai quali si riferisce questa dichiarazione, sono conformi alle seguenti direttive del Consiglio riguardanti il ravvicinamento delle legislazioni degli Stati membri CE/UE.

**LV: EK/ES atbilstības deklarācija**

Sabiedrība Grundfos ar pilnu atbildību paziņo, ka produkti MTR, CRK, uz kuru attiecas tālāk redzamā deklarācija, atbilst tālāk norādītajām Padomes direktīvām par EK/ES dalībvalstu normatīvo aktu tuvināšanu.

**PL: Deklaracja zgodności WE/UE**

My, Grundfos, oświadczamy z pełną odpowiedzialnością, że nasze produkty MTR, CRK, których deklaracja niniejsza dotyczy, są zgodne z następującymi dyrektywami Rady w sprawie zbliżenia przepisów prawnych państw członkowskich.

**RO: Declarația de conformitate CE/UE**

Noi Grundfos declaram pe propria răspundere că produsele MTR, CRK, la care se referă această declarație, sunt în conformitate cu Directivele de Consiliu specificate mai jos privind armonizarea legilor statelor membre CE/UE.

**RU: Декларация о соответствии нормам ЕЭС/ЕС**

Мы, компания Grundfos, со всей ответственностью заявляем, что изделия MTR, CRK, к которым относится нижеприведенная декларация, соответствуют нижеприведенным Директивам Совета Евросоюза о тождественности законов стран-членов ЕЭС/ЕС.

**SI: Izjava o skladnosti ES/EU**

V Grundfosu s polno odgovornostjo izjavljamo, da je izdelek MTR, CRK, na katerega se spodnja izjava nanaša, v skladu s spodnjimi direktivami Sveta o približevanju zakonodaje za izenačevanje pravnih predpisov držav članic ES/EU.

**BG: Декларация за съответствие на ЕС/ЕО**

Ние, фирма Grundfos, заявяваме с пълна отговорност, че продуктите MTR, CRK, за които се отнася настоящата декларация, отговарят на следните директиви на Съвета за уеднаквяване на правните разпоредби на държавите-членки на ЕС/ЕО.

**DE: EG-/EU-Konformitätserklärung**

Wir, Grundfos, erklären in alleiniger Verantwortung, dass die Produkte MTR, CRK, auf die sich diese Erklärung bezieht, mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-/EU-Mitgliedsstaaten übereinstimmen.

**EE: EÜ / ELi vastavusdeklaratsioon**

Meie, Grundfos, kinnitame ja kanname ainuiskulist vastutust selle eest, et toode MTR, CRK, mille kohta all olev deklaratsioon käib, on kooskõlas Nõukogu Direktiividega, mis on nimetatud all pool vastavalt vastuvõetud õigusaktidele ühtlasi ka EÜ / EL liikmesriikides.

**FI: EY/EU-vaatimustenmukaisuusvakuutus**

Grundfos vakuuttaa omalla vastuullaan, että tuotteet MTR, CRK, joita tämä vakuutus koskee, ovat EY/EU:n jäsenvaltioiden lainsäädännön lähentämiseen tähtäviin Euroopan neuvoston direktiivien vaatimusten mukaisia seuraavasti.

**GR: Δήλωση συμμόρφωσης EK/EE**

Εμείς, η Grundfos, δηλώνουμε με αποκλειστικά δική μας ευθύνη ότι τα προϊόντα MTR, CRK, στα οποία αναφέρεται η παρακάτω δήλωση, συμμορφώνονται με τις παρακάτω Οδηγίες του Συμβουλίου περί προσέγγισης των νομοθεσιών των κρατών μελών της EK/EE.

**HU: EC/EU megfeleléségi nyilatkozat**

Mi, a Grundfos vállaljuk, teljes felelősséggel kijelentjük, hogy a(z) MTR, CRK termékek, amelyre az alábbi nyilatkozat vonatkozik, megfelelnek az Európai Közösség/Európai Unió tagállamainak jogi irányelveit összhangoló tanács alábbi előírásainak.

**LT: BE/ES atitikties deklaracija**

Mes, Grundfos, su visa atsakomybe pareiškime, kad produktai MTR, CRK, kuriems skirta ši deklaracija, atitinka Žemumuriuotas Tarybos Direktivas dėl BE/ES šalių narių įstatymų suderinimo.

**NL: EG/EU-conformiteitsverklaring**

Wij, Grundfos, verklaren geheel onder eigen verantwoordelijkheid dat de producten MTR, CRK, waarop de onderstaande verklaring betrekking heeft, in overeenstemming zijn met de onderstaande Richtlijnen van de Raad inzake de onderlinge aanpassing van de wetgeving van de EG-/EU-lidstaten.

**PT: Declaração de conformidade CE/UE**

A Grundfos declara sob sua única responsabilidade que os produtos MTR, CRK, aos quais diz respeito a declaração abaixo, estão em conformidade com as Directivas do Conselho sobre a aproximação das legislações dos Estados Membros da CE/UE.

**RS: Deklaracija o uskladenosti EC/EU**

Mi, kompanija Grundfos, izjavljujemo pod punom vlastitom odgovornošću da je proizvod MTR, CRK, na koji se odnosi deklaracija ispod, u skladu sa dole prikazanim direktivama Saveta za usklađivanje zakona država članica EC/EU.

**SE: EG/EU-försäkran om överensstämmelse**

Vi, Grundfos, försäkrar under ansvar att produkterna MTR, CRK, som omfattas av nedanstående försäkran, är i överensstämmelse med de rådsdirektiv om inbördes närmande till EG/EU-medlemsstaternas lagstiftning som listas nedan.

**SK: Prehlásenie o zhode s EC/EU**

My, spoločnosť Grundfos, vyhlasujeme na svoju plnú zodpovednosť, že produkty MTR, CRK na ktoré sa vyhlásenie uvedené nižšie vzťahuje, sú v súlade s ustanoveniami nižšie uvedených smerníc Rady pre zblíženie právnych predpisov členských štátov Európskeho spoločenstva/EU.

**TR: EC/AB uygunluk bildirgesi**

Grundfos olarak, aşağıdaki bildirim konusu olan MTR, CRK ürünlerinin, EC/AB Üye ülkelerinin direktiflerinin yakınlığıyla ilgili durumun aşağıdaki Konsey Direktifleriyle uyumlu olduğunu ve bununla ilgili olarak tüm sorumluluğun bize ait olduğunu beyan ederiz.

**CN: 欧盟符合性声明**

我们，格兰富，在我们的全权责任下声明，产品 MTR, CRK 系列，其制造和性能完全符合以下所列欧盟委员会指令。

**KO: EC/EU 적합성 선언**

Grundfos 는 아래의 선언과 관련된 MTR, CRK 제품이 EU 회원국 법률에 기반하여 아래의 이사회 지침을 준수함을 단독 책임 하에 선언합니다.

**TW: EC/EU 合格聲明**

葛蘭富根據我們唯一的責任，茲聲明與以下聲明相關之 MTR、CRK 產品，符合下列近似 EU 會員國法律之議會指令。

**UA: Декларація відповідності директивам EC/EU**

Ми, компанія Grundfos, під нашу одноосібну відповідальність заявляємо, що вироби MTR, CRK, до яких відноситься нижченаведена декларація, відповідають директивам EC/EU, переліченим нижче, щодо тотожності законів країн-членів ЄС.

**JP: EC/EU 適合宣言**

Grundfos は、その責任の下に、MTR、CRK 製品が EU 加盟諸国の法規に関連する、以下の評議会指令に適合していることを宣言します。

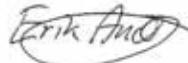
**BS: Izjava o usklađenosti EC/EU**

Mi, kompanija Grundfos, izjavljujemo pod vlastitom odgovornošću da je proizvod MTR, CRK, na koji se odnosi izjava ispod, u skladu sa niže prikazanim direktivama Vijeća o usklađivanju zakona država članica EC/EU.

- Machinery Directive (2006/42/EC).  
Standard used: EN 809:1998, A1:2009
- Ecodesign Directive (2009/125/EC).  
Electric motors:  
Commission Regulation No 640/2009.  
Applies only to three-phase Grundfos motors marked IE2 or IE3.  
See motor nameplate.  
Standard used: EN 60034-30:2009.  
Water pumps:  
Commission Regulation No 547/2012.  
Applies only to water pumps marked with the minimum efficiency index MEI. See pump nameplate.
- RoHS Directives: (2011/65/EU and 2015/863/EU)  
Standard used: EN IEC 63000:2018

This EC/EU declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions (publication number 98476088).

Bjerringbro, 5th of January 2021



Erik Andersen  
Senior Manager  
GRUNDFOS Holding A/S  
Poul Due Jensens Vej 7  
8850 Bjerringbro, Denmark

Manufacturer and person empowered to sign the EC/EU declaration of conformity

Declaration of conformity

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**UK declaration of conformity**

We, Grundfos, declare under our sole responsibility that the product **MTR** and **CRK**, to which this declaration relates, are in conformity with UK regulations, standards and specifications to which conformity is declared, as listed below:

- Supply of Machinery (Safety) Regulations 2008  
Standard used: EN 809:1998, A1:2009.
- The Ecodesign for Energy-Related Products and Energy Information Regulations 2019  
Electric motors:  
Regulation (EC) No 640/2009 and Regulation (EU) No 4/2014  
Applies only to three-phase Grundfos motors marked IE2 or IE3.  
See motor nameplate.  
Standard used: EN 60034-30:2009.  
Water pumps:  
Regulation (EU) No 547/2012  
Applies only to water pumps marked with the minimum efficiency index MEI. See pump nameplate.
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2019  
Standard used: EN IEC 63000:2018

This UK declaration of conformity is only valid when published as part of the Grundfos installation and operating instructions.

UK Importer: Grundfos Pumps Ltd. Grovebury Road, Leighton Buzzard, LU7 4TL.

Bjerringbro, January 1, 2021



Erik Andersen  
Senior Manager  
GRUNDFOS Holding A/S  
Poul Due Jensens Vej 7  
8850 Bjerringbro, Denmark

Manufacturer and person empowered to sign the UK declaration of conformity.

10000335759
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RUS

## MTR

### Руководство по эксплуатации



Руководство по эксплуатации на данное изделие является составным и включает в себя несколько частей:

Часть 1: настоящее «Руководство по эксплуатации».

Часть 2: электронная часть «Паспорт. Руководство по монтажу и эксплуатации» размещенная на сайте компании Грундфос. Перейдите по ссылке, указанной в конце документа.

Часть 3: информация о сроке изготовления, размещенная на фирменной табличке изделия.

#### Сведения о сертификации:

Насосы типа MTR сертифицированы на соответствие требованиям Технических регламентов Таможенного союза: ТР ТС 004/2011 «О безопасности низковольтного оборудования»; ТР ТС 010/2011 «О безопасности машин и оборудования»; ТР ТС 020/2011 «Электромагнитная совместимость технических средств».

KAZ

## MTR

### Пайдалану бойынша нұсқаулық

Атаулы өнімге арналған пайдалану бойынша нұсқаулық құрамалы болып келеді және келесі бөлімдерден тұрады:

1 бөлім: атаулы «Пайдалану бойынша нұсқаулық»

2 бөлім: Грундфос компаниясының сайтында орналасқан электронды бөлім «Төлқұжат, Құрастыру және пайдалану бойынша нұсқаулық». Құжат соңында көрсетілген сілтеме арқылы өтіңіз.

3 бөлім: өнімнің фирмалық тақтасында орналасқан шығарылған уақыты жөніндегі мәлімет

#### Сертификаттау туралы ақпарат:

MTR типті сорғылары «Төмен вольтты жабдықтардың қауіпсіздігі туралы» (ТР ТС 004/2011), «Машиналар және жабдықтар қауіпсіздігі туралы» (ТР ТС 010/2011) «Техникалық заттардың электрлі магниттік сәйкестілігі» (ТР ТС 020/2011) Кеден Одағының техникалық регламенттерінің талаптарына сәйкес сертификатталды.

KG

## MTR

### Пайдалану боюнча колдонмо

Аталган жабдууну пайдалану боюнча колдонмо курамдык жана өзүнө бир нече бөлүкчөнү камтыйт:

1-Бөлүк: «Пайдалану боюнча колдонмо»

2-Бөлүк: «Паспорт. Пайдалану жана монтаж боюнча колдонмо» электрондук бөлүгү Грундфос компаниянын сайтында жайгашкан. Документтин аягында көрсөтүлгөн шилтемеге кайрылыңыз.

3-Бөлүк: жабдуунун фирмалык тақтасында жайгашкан даярдоо мөөнөтү тууралуу маалымат.

#### Шайкештик жөнүндө декларация

MTR түрүндөгү соргучтар Бажы Биримдиктин Техникалык регламенттин талаптарына ылайыктуу тастыкталган: ТР ТБ 004/2011 «Төмөн вольттук жабдуунун коопсуздугу жөнүндө»; ТР ТБ 010/2011 «Жабдуу жана машиналардын коопсуздугу жөнүндө»; ТР ТБ 020/2011 «Техникалык каражаттардын электрмагниттик шайкештиги».

ARM

# MTR

Շահագործման ձեռնարկ

Տվյալ սարքավորման շահագործման ձեռնարկը բաղկացած է մի քանի մասերից.

Մաս 1. սույն «Շահագործման ձեռնարկ»:

Մաս 2. էլեկտրոնային մաս. այն է՝ «Անձնագիր: Մոնտաժման և

շահագործման ձեռնարկ» տեղադրված «Գրունդֆոս». Անցեք փաստաթղթի վերջում նշված հղումով.

Մաս 3. տեղեկություն արտադրման ամսաթվի վերաբերյալ՝ նշված սարքավորման պիտակի վրա:

Տեղեկություններ հավաստագրման մասին՝

MTR տիպի պոմպերը սերտիֆիկացված են համաձայն Մաքսային Միության տեխնիկական կանոնակարգի պահանջների՝ TP TC 004/2011 «Ցածրավոլտ սարքավորումների վերաբերյալ», TP TC 010/2011 «Մեքենաների և սարքավորումների անվտանգության վերաբերյալ» ; TP TC 020/2011

«Տեխնիկական միջոցների էլեկտրամագնիսական համատեղելիության վերաբերյալ»:



<http://net.grundfos.com/qr/i/99310687>

10000142896	0717
ECM: 1213063	



**Argentina**

Bombas GRUNDFOS de Argentina S.A.  
Ruta Panamericana km. 37.500 Centro  
Industrial Garin  
1619 Garin Pcia. de B.A.  
Phone: +54-3327 414 444  
Telefax: +54-3327 45 3190

**Australia**

GRUNDFOS Pumps Pty. Ltd.  
P.O. Box 2040  
Regency Park  
South Australia 5942  
Phone: +61-8-8461-4611  
Telefax: +61-8-8340 0155

**Austria**

GRUNDFOS Pumpen Vertrieb  
Ges.m.b.H.  
Grundfosstraße 2  
A-5082 Grödig/Salzburg  
Tel.: +43-6246-883-0  
Telefax: +43-6246-883-30

**Belgium**

N.V. GRUNDFOS Bellux S.A.  
Boomsesteenweg 81-83  
B-2630 Aartselaar  
Tél.: +32-3-870 7300  
Télécopie: +32-3-870 7301

**Belarus**

Представительство ГРУНДФОС в  
Минске  
220125, Минск  
ул. Шафарнянская, 11, оф. 56, БЦ  
«Порт»  
Тел.: +375 17 397 397 3  
+375 17 397 397 4  
Факс: +375 17 397 397 1  
E-mail: minsk@grundfos.com

**Bosnia and Herzegovina**

GRUNDFOS Sarajevo  
Zmaja od Bosne 7-7A,  
BH-71000 Sarajevo  
Phone: +387 33 592 480  
Telefax: +387 33 590 465  
www.ba.grundfos.com  
e-mail: grundfos@bih.net.ba

**Brazil**

BOMBAS GRUNDFOS DO BRASIL  
Av. Humberto de Alencar Castelo  
Branco, 630  
CEP 09850 - 300  
São Bernardo do Campo - SP  
Phone: +55-11 4393 5533  
Telefax: +55-11 4343 5015

**Bulgaria**

Grundfos Bulgaria EOOD  
Slatina District  
Iztochna Tangenta street no. 100  
BG - 1592 Sofia  
Tel. +359 2 49 22 200  
Fax. +359 2 49 22 201  
email: bulgaria@grundfos.bg

**Canada**

GRUNDFOS Canada Inc.  
2941 Brighton Road  
Oakville, Ontario  
L6H 6C9  
Phone: +1-905 829 9533  
Telefax: +1-905 829 9512

**China**

GRUNDFOS Pumps (Shanghai) Co. Ltd.  
10F The Hub, No. 33 Suhong Road  
Minhang District  
Shanghai 201106  
PRC  
Phone: +86 21 612 252 22  
Telefax: +86 21 612 253 33

**COLOMBIA**

GRUNDFOS Colombia S.A.S.  
Km 1.5 vía Siberia-Cota Conj. Potrero  
Chico,  
Parque Empresarial Arcos de Cota Bod.  
1A.  
Cota, Cundinamarca  
Phone: +57(1)-2913444  
Telefax: +57(1)-8764586

**Croatia**

GRUNDFOS CROATIA d.o.o.  
Buzinski prilaz 38, Buzin  
HR-10010 Zagreb  
Phone: +385 1 6595 400  
Telefax: +385 1 6595 499  
www.hr.grundfos.com

**GRUNDFOS Sales Czechia and Slovakia s.r.o.**

Čajkovského 21  
779 00 Olomouc  
Phone: +420-585-716 111

**Denmark**

GRUNDFOS DK A/S  
Martin Bachs Vej 3  
DK-8850 Bjerringbro  
Tlf.: +45-87 50 50 50  
Telefax: +45-87 50 51 51  
E-mail: info\_GDK@grundfos.com  
www.grundfos.com/DK

**Estonia**

GRUNDFOS Pumps Eesti OÜ  
Peterburi tee 92G  
11415 Tallinn  
Tel: + 372 606 1690  
Fax: + 372 606 1691

**Finland**

OY GRUNDFOS Pumput AB  
Trukkikuja 1  
FI-01360 Vantaa  
Phone: +358-(0) 207 889 500

**France**

Pompes GRUNDFOS Distribution S.A.  
Parc d'Activités de Chesnes  
57, rue de Malacombe  
F-38290 St. Quentin Fallavier (Lyon)  
Tél.: +33-4 74 82 15 15  
Télécopie: +33-4 74 94 10 51

**Germany**

GRUNDFOS GMBH  
Schlüterstr. 33  
40699 Erkrath  
Tel.: +49-(0) 211 929 69-0  
Telefax: +49-(0) 211 929 69-3799  
e-mail: infoservice@grundfos.de  
Service in Deutschland:  
e-mail: kundendienst@grundfos.de

**Greece**

GRUNDFOS Hellas A.E.B.E.  
20th km. Athinon-Markopoulou Av.  
P.O. Box 71  
GR-19002 Peania  
Phone: +0030-210-66 83 400  
Telefax: +0030-210-66 46 273

**Hong Kong**

GRUNDFOS Pumps (Hong Kong) Ltd.  
Unit 1, Ground floor  
Siu Wai Industrial Centre  
29-33 Wing Hong Street &  
68 King Lam Street, Cheung Sha Wan  
Kowloon  
Phone: +852-27861706 / 27861741  
Telefax: +852-27858664

**Hungary**

GRUNDFOS Hungária Kft.  
Tópark u. 8  
H-2045 Törökbálint,  
Phone: +36-23 511 110  
Telefax: +36-23 511 111

**India**

GRUNDFOS Pumps India Private  
Limited  
118 Old Mahabalipuram Road  
Thoraipakkam  
Chennai 600 096  
Phone: +91-44 2496 6800

**Indonesia**

PT. GRUNDFOS POMPA  
Graha Intirub Lt. 2 & 3  
Jln. Cililitan Besar No.454. Makasar,  
Jakarta Timur  
ID-Jakarta 13650  
Phone: +62 21-469-51900  
Telefax: +62 21-460 6910 / 460 6901

**Ireland**

GRUNDFOS (Ireland) Ltd.  
Unit A, Merrywell Business Park  
Ballymount Road Lower  
Dublin 12  
Phone: +353-1-4089 800  
Telefax: +353-1-4089 830

**Italy**

GRUNDFOS Pompe Italia S.r.l.  
Via Gran Sasso 4  
I-20060 Truccazzano (Milano)  
Tel.: +39-02-95838112  
Telefax: +39-02-95309290 / 95838461

**Japan**

GRUNDFOS Pumps K.K.  
1-2-3, Shin-Miyakoda, Kita-ku,  
Hamamatsu  
431-2103 Japan  
Phone: +81 53 428 4760  
Telefax: +81 53 428 5005

**Korea**

GRUNDFOS Pumps Korea Ltd.  
6th Floor, Aju Building 679-5  
Yeoksam-dong, Kangnam-ku, 135-916  
Seoul, Korea  
Phone: +82-2-5317 600  
Telefax: +82-2-5633 725

**Latvia**

SIA GRUNDFOS Pumps Latvia  
Deglava biznesa centrs  
Augusta Deglava ielā 60, LV-1035, Rīga,  
Tālr.: + 371 714 9640, 7 149 641  
Fakss: + 371 914 9646

**Lithuania**

GRUNDFOS Pumps UAB  
Smolensko g. 6  
LT-03201 Vilnius  
Tel: + 370 52 395 430  
Fax: + 370 52 395 431

## Malaysia

GRUNDFOS Pumps Sdn. Bhd.  
7 Jalan Peguam U1/25  
Glenmarie Industrial Park  
40150 Shah Alam  
Selangor  
Phone: +60-3-5569 2922  
Telefax: +60-3-5569 2866

## Mexico

Bombas GRUNDFOS de México S.A. de  
C.V.  
Boulevard TLC No. 15  
Parque Industrial Stiva Aeropuerto  
Apodaca, N.L. 66600  
Phone: +52-81-8144 4000  
Telefax: +52-81-8144 2010

## Netherlands

GRUNDFOS Netherlands  
Veluwezoom 35  
1326 AE Almere  
Postbus 22015  
1302 CA ALMERE  
Tel.: +31-88-478 6336  
Telefax: +31-88-478 6332  
E-mail: info\_gnl@grundfos.com

## New Zealand

GRUNDFOS Pumps NZ Ltd.  
17 Beatrice Tinsley Crescent  
North Harbour Industrial Estate  
Auckland  
Phone: +64-9-415 3240  
Telefax: +64-9-415 3250

## Norway

GRUNDFOS Pumper A/S  
Strømsveien 344  
Postboks 235, Leirdal  
N-1011 Oslo  
Tlf.: +47-22 90 47 00  
Telefax: +47-22 32 21 50

## Poland

GRUNDFOS Pompy Sp. z o.o.  
ul. Klonowa 23  
Baranowo k. Poznań  
PL-62-081 Przeźmierowo  
Tel: (+48-61) 650 13 00  
Fax: (+48-61) 650 13 50

## Portugal

Bombas GRUNDFOS Portugal, S.A.  
Rua Calvet de Magalhães, 241  
Apartado 1079  
P-2770-153 Paço de Arcos  
Tel.: +351-21-440 76 00  
Telefax: +351-21-440 76 90

## Romania

Grundfos Pompe România SRL  
S-PARK BUSINESS CENTER, Clădirea  
A2,  
etaj 2, Str. Tipografilor, Nr. 11-15, Sector  
1,  
Cod 013714, Bucuresti, Romania,  
Tel: 004 021 2004 100  
E-mail: romania@grundfos.ro  
www.grundfos.ro

## Russia

ООО Грундфос Россия  
ул. Школьная, 39-41  
Москва, RU-109544, Russia  
Тел. (+7) 495 564-88-00 (495) 737-30-  
00  
Факс (+7) 495 564 8811  
E-mail grundfos.moscow@grundfos.com

## Serbia

Grundfos Srbija d.o.o.  
Omladinskih brigada 90b  
11070 Novi Beograd  
Phone: +381 11 2258 740  
Telefax: +381 11 2281 769  
www.rs.grundfos.com

## Singapore

GRUNDFOS (Singapore) Pte. Ltd.  
25 Jalan Tukang  
Singapore 619264  
Phone: +65-6681 9688  
Telefax: +65-6681 9689

## Slovakia

GRUNDFOS s.r.o.  
Prievozská 4D  
821 09 BRATISLAVA  
Phona: +421 2 5020 1426  
sk.grundfos.com

## Slovenia

GRUNDFOS LJUBLJANA, d.o.o.  
Leskovoška 9e, 1122 Ljubljana  
Phone: +386 (0) 1 568 06 10  
Telefax: +386 (0) 1 568 06 19  
E-mail: tehnika-si@grundfos.com

## South Africa

Grundfos (PTY) Ltd.  
16 Lascelles Drive, Meadowbrook Estate  
1609 Germiston, Johannesburg  
Tel.: (+27) 10 248 6000  
Fax: (+27) 10 248 6002  
E-mail: lgradidge@grundfos.com

## Spain

Bombas GRUNDFOS España S.A.  
Camino de la Fuentesilla, s/n  
E-28110 Algete (Madrid)  
Tel.: +34-91-848 8800  
Telefax: +34-91-628 0465

## Sweden

GRUNDFOS AB  
Box 333 (Lunnagårdsgatan 6)  
431 24 Mölndal  
Tel.: +46 31 332 23 000  
Telefax: +46 31 331 94 60

## Switzerland

GRUNDFOS Pumpen AG  
Bruggacherstrasse 10  
CH-8117 Fällanden/ZH  
Tel.: +41-44-806 8111  
Telefax: +41-44-806 8115

## Taiwan

GRUNDFOS Pumps (Taiwan) Ltd.  
7 Floor, 219 Min-Chuan Road  
Taichung, Taiwan, R.O.C.  
Phone: +886-4-2305 0868  
Telefax: +886-4-2305 0878

## Thailand

GRUNDFOS (Thailand) Ltd.  
92 Chaloe Phrakiat Rama 9 Road,  
Dokmai, Pravej, Bangkok 10250  
Phone: +66-2-725 8999  
Telefax: +66-2-725 8998

## Turkey

GRUNDFOS POMPA San. ve Tic. Ltd.  
Sti.  
Gebze Organize Sanayi Bölgesi  
İhsan dede Caddesi,  
2. yol 200. Sokak No. 204  
41490 Gebze/ Kocaeli  
Phone: +90 - 262-679 7979  
Telefax: +90 - 262-679 7905  
E-mail: satis@grundfos.com

## Ukraine

Бізнес Центр Європа  
Столичне шосе, 103  
м. Київ, 03131, Україна  
Телефон: (+38 044) 237 04 00  
Факс.: (+38 044) 237 04 01  
E-mail: ukraine@grundfos.com

## United Arab Emirates

GRUNDFOS Gulf Distribution  
P.O. Box 16768  
Jebel Ali Free Zone  
Dubai  
Phone: +971 4 8815 166  
Telefax: +971 4 8815 136

## United Kingdom

GRUNDFOS Pumps Ltd.  
Grovebury Road  
Leighton Buzzard/Beds. LU7 4TL  
Phone: +44-1525-850000  
Telefax: +44-1525-850011

## U.S.A.

GRUNDFOS Pumps Corporation  
9300 Loiret Blvd.  
Lenexa, Kansas 66219  
Phone: +1-913-227-3400  
Telefax: +1-913-227-3500

## Uzbekistan

Grundfos Tashkent, Uzbekistan The  
Representative Office of Grundfos  
Kazakhstan in Uzbekistan  
38a, Oybek street, Tashkent  
Телефон: (+998) 71 150 3290 / 71 150  
3291  
Факс: (+998) 71 150 3292

Addresses Revised 09.09.2020

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