rapid®
GERMAN TECHNOLOGY

WX 40	# 28 009
GX 40/12	# 28 010
GX 40/24	# 28 011

CE

Translation of the original operation manual GB, Stand 01 / 2018

Operating instructions electric pump

Please observe: This operation manual contains all necessary information. Please read carefully to avoid damages and faults. All Rapid pieces of equipment are checked carefully before delivery for their perfect composition and function. In case of improper use all rights to claim under guarantee are void.

Contents

1. General details

1.1 Intended use

The electrical pump is designed exclusively for pumping diesel and fuel oil in areas that do not carry a risk of explosion.
The intended use also includes the adherence to the instruction for assembly (⇨ see chapter 3), for the operation (⇨ see chapter 4), for disassembly (⇨ see chapter 5), and for maintenance (⇨ see chapter 6).
Any use beyond these parameters (e.g. operation using fuels of different hazard classes) can lead to serious risks and is regarded as use that is contrary to the intended purpose.
Unauthorized modifications to the product by the user can be dangerous and are considered to be improper.
The operator is liable for any damage arising out of use that is not for the intended purpose.
This instrument is not intended for use by persons (including children) with reduced physical, sensory or mental abilities or lack of experience and/or knowledge of it, unless they are supervised by a person responsible for their safety, or they receive from them instructions on how to operate it.
Children should be supervised to ensure that they do not play with the instrument.

1.2 Construction and functional description

The electric pump is an electrically powered delivery pump for diesel and fuel oil. It can be screwed onto storage containers or tanks.

The electric pump is available with the following motor options:

- WX 40: 230 V 1~AC
- GX 40/24: 24 V DC
- GX 40/12: 12 V DC

It is equipped with various nozzles:

- with a standard nozzle valve or
- with a self-closing automatic nozzle valve or
- with a self-closing automatic nozzle valve with construction type approval (according to § 12 VbF, tested by the PTB). We happily supply the construction type approval on request.

The pump is delivered as a set comprising:

- Ectric pump in one of the above mentioned motor options,
- Set of hoses (suction hose, suction pipe with filter, delivery hose, hose clamps),
- Nozzle valve in one of the above mentioned versions.

Although the electric pump is not a self-priming pump, it is quickly ready for use in connection with the integrated priming stage. The priming stage enables manual priming of the delivery fluid before start of operation and secures emergency service for minimum quantities in the event of power loss.
The pump housing is made from high quality knock-resistant plastic.
To avoid environmental damage, the electric pump is equipped with a siphon protector. If the delivery hose should be damaged whilst the pump is inoperative, it will prevent the emergence of diesel or fuel oil.

1.3 Technical data

Designation	WX 40	GX 40/24	GX 40/12
Voltage	230 V	24 V	12 V
Frequency	50 Hz		
Current type	1~AC	DC	DC
Power consumption	1,8 A	10 A	14 A
Length of connecting cable	2 m	3 m	3 m
Performance	320 W	240 W	180 W
Delivery performance*	52 l/min	43 l/min	38 l/min
Max. delivery heigth	15 m	10 m	9 m
Weight	2,5 kg	2,5 kg	2,5 kg
* for free run-off, suction height 1.6m, DN 19			

Table 1-1: Performance data

Destignation	Value
Temperature of delivery medium	-10°C to +35°C
Length of suction hose	1,6 m
Length of delivery hose	4 m
Suction height	max. 2 m
Container connection	G 2" and M 64x4
Protection type	IP 34
Noise level	70 db (A)

Table 1-2: General technical data

1.4 Area of application
The electric pump is only designed for pumping diesel and fuel oil, if they are not heated above the flash point.
The temperature of the delivered fluid must be between -10 °C and +35 °C. The temperature limits must not be exceeded.
As the motor and switches of the electric pump are not protected against explosion, the pump must **not**

- be operated in areas with a risk of explosion.
- be used for dispensing of other liquids than indicated.

The electric pump is suitable for permanent operation up to 30 minutes only.

1.5 Operational Area Requirements

Fuel oil and diesel are materials hazardous to water. Therefore ensure that the relevant country and/or local authority rules and regulations are complied with. For example in Germany observe the Provisions of the Water Household Law (WHG) and the Facilities Provisions of the (German) States (VawS).
According to § 19g of WHG, facilities for filling must be designed, installed, erected, maintained and operated in such a way that a contamination of waters or any other permanent change of their characteristics is not possible.
According to § 19l of WHG, the operator of such a facility is obliged to monitor his plant at all times at the place of installation, in order to check that the above mentioned requirements are met.

2. General safety instructions

2.1 Information on safety at work

The electric pump is designed and built according to the appropriate health and safety requirements of the relevant EC guidelines.
This product can nevertheless produce hazards if it is not used according to its purpose or without the necessary care (⇨ see chapter 1.1).
Please read therefore these operating instructions before operating the electric pump and pass these on to any other users of the pump.
In any case, the local safety and accident prevention provisions apply for the operation of the electric pump.
Please pay attention to the safety notes in these operating instructions.

2.2 Signs and symbols used in the safety instructions
The safety notes used in these operating instructions distinguish between various levels of hazard. Various levels of hazard are marked in the instructions using the following signal words and icons:

Pictogram	Keyword	Consequences of not observing the safety provisions
	Danger	Death or most severe injuries
	Caution	Possible slight or lesser injuries, or material damage
	Tip	Background knowledge or tips for the correct handling of the product

2.3 Hazards that may arise in connection with the electric pump

Danger!

Combustible fuels can cause explosions

- Do not smoke whilst handling the pump and fuels.

Danger!

Flying sparks can cause explosions

- Do not operate the pump in areas with a risk of explosions.
- Use pump **only** to deliver diesel and fuel oil.

Danger!

Hoses with insufficient resistance can cause explosions

In order to deliver the fuel without risk, the delivery hose must have a certain resistance in order to avoid static charge. The original delivery hose from RAPID has the necessary resistance.

- Use only RAPID delivery hose.
- When using delivery hoses by other manufacturers it must be ensured that the delivery hose has a resistance of > 10^{11} Ohm.

Caution!

Leaking fuels can cause environmental damage

- Observe the relevant country and/or local authority rules and regulations. For example in Germany observe the provisions of the Water Household Law (WHG) and the Facilities Provisions of the (German) States (VawS).

3. Assembly

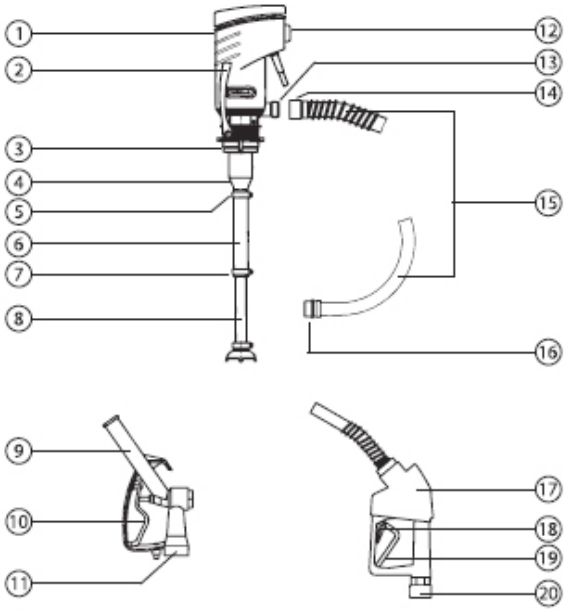

Fig. 3-1: Overview of electric pump with accessories

Pos.	Description	Pos	Description
1	Pump housing	11	Thread of standard nozzle valve
2	Hand lever	12	On / off switch
3	Barrel screw joint	13	Pressure union
4	Suction union	14	Union nut of delivery hose
5	Hose clamp	15	Delivery hose
6	Suction hose	16	External thread of delivery hose
7	Hose clamp	17	Automatic nozzle valve
8	Suction pipe with filter	18	Lock lever
9	Standard nozzle valve	19	Trigger of automatic nozzle valve
10	Trigger of standard nozzle valve	20	Thread of automatic nozzle valve

3.1 Assembly of electric pump

Push the transparent suction hose (6) onto the suction pipe with filter (8).
Push the hose clamp (7) over the suction hose (6) to the suction pipe (8) and tighten the hose clamp with a screwdriver.

Tip
Before continuing with the next step, please note:
If the pump is mounted on the fuel container, the suction hose with the suction pipe must be long enough to reach the fuel in the tank even if the fuel level is low.

Cut the suction hose (6) to the desired length.
Push the hose clamp (5) over the suction hose (6).
Push the suction hose (6) onto the vacuum union (4) on the pump.
Push the hose clamp (5) to the vacuum union (4) and tighten the hose clamp with a screwdriver.

Caution!
Risk of product damage

- Mount and operate the pump only vertically on a fuel container.
  Firmly screw the pump into the aperture of the fuel tank using the barrel screw joint (3).
  The pump run-off can be brought into any position in the screwed-in state by twisting the pump housing (1).
  Screw the union nut (14) of the black delivery hose onto the pressure union (13) of the pump.
  Screw in the free end of the delivery hose with the external thread (16) into the thread of the nozzle (11 or 20 respectively).

Caution!
Risk of product damage

- The power source must have the correct voltage for the pump type.
  Connect the pump to a power source using the main plug.
  The pump is ready for operation.

4. Operation

4.1 First operation and renewed operation

Caution!
Risk of product damage

- Before switching on the pump for the first time, and in the event of a low fluid head:Manually
- prime with diesel or fuel oil, as a dry run of the pump can destroy the radial shaft gasket.

Prepare pump for operation:
Hold the nozzle valve (9 or 17) in a collecting container.
Press and hold the nozzle trigger (10 or 19) or arrest it using the lock lever (18) (for automatic nozzle valve versions).
Using the manual lever (2), prime the delivery fluid until the fluid emerges from the nozzle valve (9 or 17).
The pump is ready to be switched on.

4.2 Normal operation

Danger!
Flying sparks can cause explosions
Do not operate the pump in areas with a risk of explosion.
Use pump **only** to deliver diesel or fuel oil.

Caution!
Risk of product and environmental damage

- Regularly check delivery hose and connection for damage in order to avoid leakage of diesel or fuel oil.
- Operate pump only under supervision.
- Do not let the pump deliver for more than 2 minutes against a closed nozzle to avoid exceeding the permitted temperature.
- Avoid running the pump dry.

Delivering fuel (for standard nozzle valve version):
Switch on the pump (12).
Hold the nozzle valve (9) into the vehicle tank and press up the nozzle trigger (10), according to desired delivery quantity.
To finish the delivery, release the nozzle trigger (10).
Switch off the pump (12).
Place the nozzle valve (9) on the container.
Delivery fuel (for automatic nozzle version):

Tip
With a locked nozzle trigger, the automatic nozzle switches off automatically, as soon as the tank or container being filled is full.
Furthermore, the automatic nozzle switches off when the nozzle is held vertically or falls down whilst the nozzle trigger is locked.
The automatic switch-off only functions when the nozzle exit containing the sensor jet is not contaminated and the through flow quantity is no less than 12 l/min.
If the tank is not to be filled to the top, the filling procedure can be stopped manually at any time (see action step 4 in the following section).

Switch on the pump (12).
Hold the nozzle valve (17) into the vehicle tank.
Press up the nozzle trigger (19) according to the desired delivery quantity
- or -
lock the nozzle trigger using the lock lever (18).
To end the delivery, release the nozzle trigger (19)
- or -
briefly raise and release the locked nozzle trigger (19) to release the locking.
Switch off the pump (12).
Place the nozzle valve (17) on the fuel container.

4.3 Emergency operation

In the event of power failure, you can manually pump very small quantities of diesel or fuel oil.
Delivering fuel in manually operation:
Hold the nozzle valve (9 or 17) in the container or vehicle tank.
Press and hold the nozzle trigger (10 or 19), or lock it using the lock lever (18) (for automatic nozzle valve version).
Pump the delivery fluid into the container of vehicle tank using the manual lever (2) on the pump.
After finishing the delivery, place the nozzle valve (9 or 17) on the fuel container.

5. Disassembly

Disassembling the pump
Condition: The pump is switched off.
Disconnect the main plug.
Release the delivery hose (15) from the pressure union at the pump (13).
Unscrew the pump from the thread of the fuel container.
Slowly remove the pump with the suction hose (6) and the suction pipe (8). Let all diesel or heating fuel run out completely from the suction hose and suction pipe.
Place the pump with hoses in an oil tray.
Let the emerging fuel oil or diesel run into the oil tray.

6. Maintenance

The electric pump is in principle low maintenance and low service.
Due to the operator duty according to § 191 WHG (in the case of Germany or the corresponding regulations in other countries), the following parts of the pump must be checked regularly to avoid environmental damage being caused by emerging fuel oil or diesel:

- Pump housing (1)
- Delivery hose (15)
- Nozzle valve (9 bzw. 17)

In case of any damage the connecting cable has to be replaced or repaired by the manufacturer, by the manufacturer's service or by any other qualified person.

7. Repairs/service

The electric pump has been developed and manufactured according to the highest quality standards.
If a problem should occur despite all quality measures taken, please get in touch with our service contact partners:

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