



Synthetic Pump Group Assembly
UFH-PGKTA-K

Operating instructions



Henco Industries NV

Toekomstlaan 27

2200 Herentals

Telephone +32 14 28 56 60

info@henco.be

www.henco.be

Publication: 09.2026

1. About these operating instructions

1. About these operating instructions

These operating instructions describe the Synthetic Pump Group assembly UFH-PGKTA-K (also referred to as “product” in these operating instructions). These operating instructions are part of the product.

-  You may only use the product if you have fully read and understood these operating instructions.
-  Verify that these operating instructions are always accessible for any type of work performed on or with the product.
-  Pass these operating instructions as well as all other product-related Documents on to all owners of the product.
-  If you feel that these operating instructions contain errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

These operating instructions are protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications.

The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product.

2. Information on safety

2.1 Information on safety

These operating instructions contain safety messages to alert you to potential hazards and risks. In addition to the instructions provided in these operating instructions, you must comply with all directives, standards and operations regulations applicable at the installation site of the product. Verify that you are familiar with all directives, standards and operating regulations and ensure compliance with them prior to using the product.

Safety messages in these operating instructions are highlighted with warning symbols and warning words. Depending on the severity of a hazard, the safety messages are classified according to different hazard categories.



DANGER

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



WARNING

WARNING indicates a potentially hazardous situation, which, if not avoided, can result in serious injury or equipment damage.

NOTICE

NOTICE indicates a hazardous situation, which, if not avoided, can result in equipment damage.

In addition, the following symbols are used in these operating instructions:



This is the general safety alert symbol. It alerts to injury hazards or equipment damage. Comply with all safety instructions in conjunction with this symbol to help avoid possible death, injury or equipment damage.



This symbol alerts to hazardous electrical voltage. If this symbol is used in a safety message, there is a hazard of electric shock.

2. Information on safety

2.2 Intended use

This product may only be used for constant temperature control of underfloor heating systems in buildings and in conjunction with the following media:

-  Heating circuit water as per VDI 2035
-  Water/glycol mixtures with a maximum admixture of 50 %

Any use other than the application explicitly permitted in these operating instructions is not permitted and causes hazards.

Verify that the product is suitable for the application planned by you prior to using the product. In doing so, take into account at least the following:

-  All directives, standards and safety regulations applicable at the installation site of the product
-  All conditions and data specified for the product
-  The conditions of the planned application

In addition, perform a risk assessment in view of the planned application, according to an approved risk assessment method, and implement the appropriate safety measures, based on the results of the risk assessment. Take into account the consequences of installing or integrating the product into a system or a plant.

When using the product, perform all work and all other activities in conjunction with the product in compliance with the conditions specified in the operating instructions and on the nameplate, as well as with all directives, standards and safety regulations applicable at the installation site of the product.

2.3 Predictable incorrect application

The product must never be used in the following cases and for the following purposes:

-  Operation as drinking water circulation system
-  Use with adherent, corrosive or flammable fluids
-  Operation in solar systems
-  Hazardous area

If the product is operated in hazardous areas, sparks may cause deflagrations, fires or explosions.

2.4 Qualification of personnel

Only skilled, qualified persons with relevant education and experience to enable him or her to perceive risks and to avoid hazards which electricity can create are authorised to mount, commission, maintain and decommission this product.

Only appropriately trained persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to work on and with this product.

These persons must have sufficient technical training, knowledge and experience and be able to foresee and detect potential hazards that may be caused by using the product.

All persons working on and with the product must be fully familiar with all directives, standards and safety regulations that must be observed for performing such work.

2.5 Personal protective equipment

Always wear the required personal protective equipment. When performing work on and with the product, take into account that hazards may be present at the installation site which do not directly result from the product itself.

2.6 Modifications to the product

Only perform work on and with the product which is explicitly described in these operating instructions. Do not make any modifications to the product which are not described in these operating instructions.

3. Transport and storage

The product may be damaged as a result of improper transport or storage.

NOTICE

INCORRECT HANDLING

- Verify compliance with the specified ambient conditions during transport or storage of the product.
- Use the original packaging when transporting the product.
- Store the product in a clean and dry environment.
- Verify that the product is protected against shocks and impact during transport and storage.

Failure to follow these instructions can result in equipment damage.

4. Product description

4.1 Overview

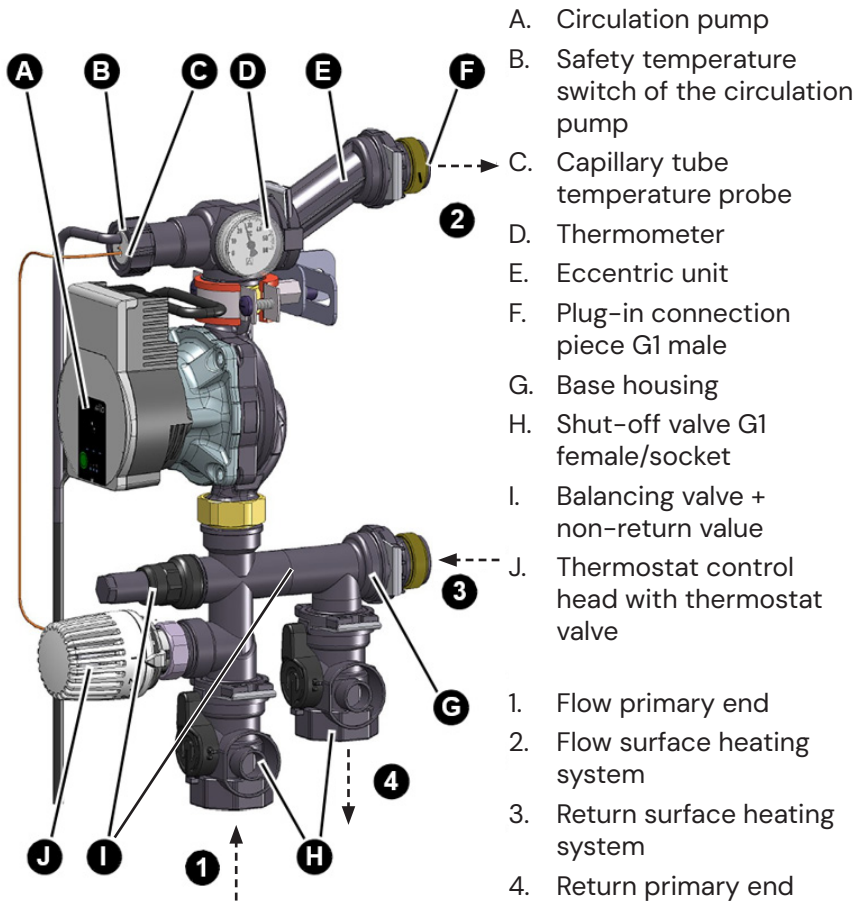


Figure 1: Overview

4.2 Dimensions and connections

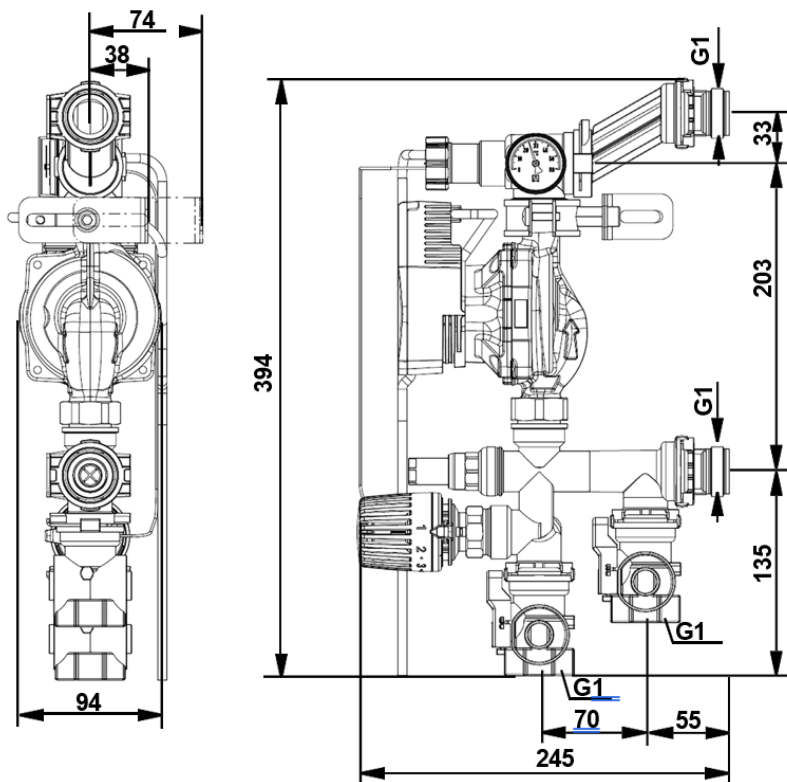
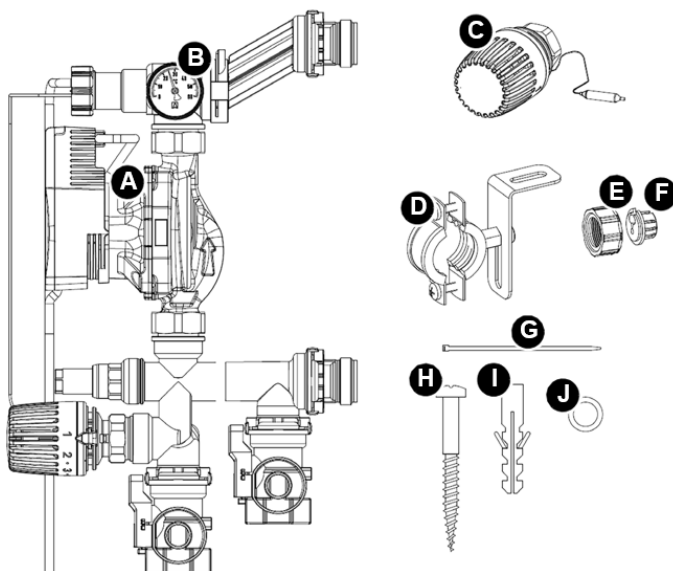


Figure 2: Dimensions in mm

4.3 Scope of delivery

The scope of delivery includes:



A Synthetic Pump Group
assembly UFH-PGKTA-K (1 x)

B Thermometer (1 x)

C Thermostat control head with
thermostat valve (1x)

D Pipe clamp with mounting
bracket (1 x)

E Nut M28 x 1.5 (1 x)

F Gasket (1 x)

G Cable tie (1 x)

H screw Ø 6 x 70mm (1 x)

I Dowel Ø 8 x 51mm (1 x)

J Flat gasket (1 x)

Operating instructions "Product"
(1 x) Operating instructions
circulation pump (1 x)

4.4 Function

The product controls the flow temperature to the surface heating system.

If the flow temperature at the capillary tube temperature probe deviates from the target value set at the thermostatic control head, the thermostatic control head controls the amount of hot water supplied via the valve stroke of the thermostat valve.

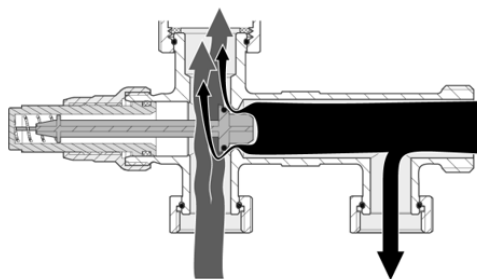


Figure 3: Flow rate with balancing valve

With balancing valve

The installed balancing valve creates a minor differential pressure so that the hot water from the primary circuit is admixed with priority via the flow valve.

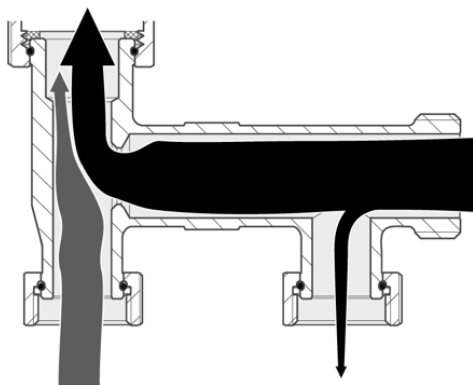


Figure 4: Flow rate without balancing valve

Without balancing valve

Without balancing valve, the proportion of the return flow may be too high so that the adjusted temperature may not be reached.

4. Product description

4.6 Approvals, conformities, certifications

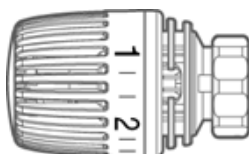
See operating instructions of the manufacturer of the circulation pump for versions with circulation pump.

4.7 Technical specifications

Parameter	Value
General specifications	
Weight	2.2 kg
Material of fittings	Brass / plastic
Operating pressure	6 bar
Medium	Heating circuit water as per VDI 2035 Water/glycol mixtures with a maximum admixture of 50 %
Temperature of the medium	95 °C maximum primary end 60 °C maximum secondary end (limited to 55 °C by thermostat)
Pressure loss	
Thermostat valve	Flow coefficient Kvs = 4.0 m ³ /h
Ambient conditions	
Ambient temperature operation	0 ... 60 °C

4.7.1 Temperature table of the thermostat control head

Set value	1	2	3	4	5	6	7	8	9
Temperature in °C (approximately)	20	25	30	34	38	42	46	50	55



4.8 Adjustment diagram of balancing valve

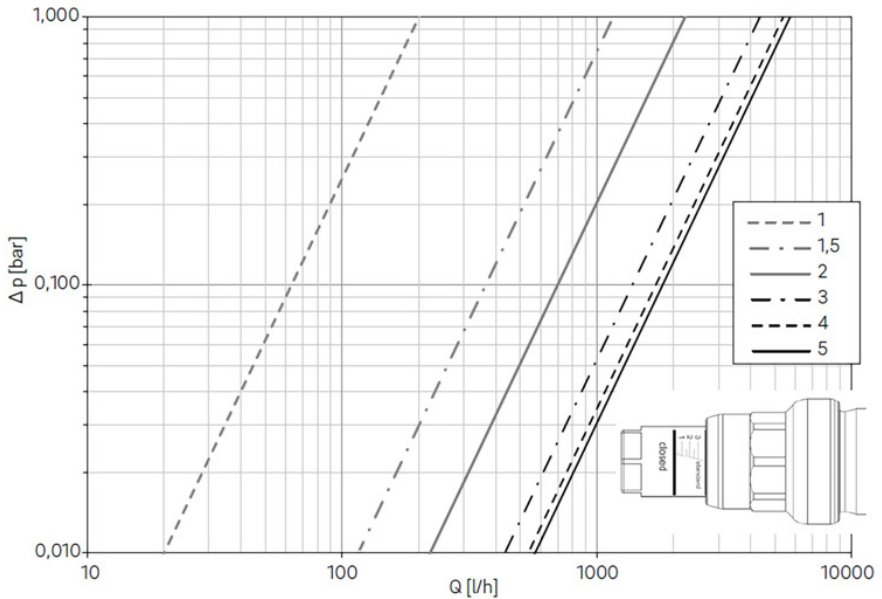


Figure 6: Adjustment diagram of balancing valve

5. Mounting



WARNING

HOT LIQUID

Water in heating systems is under high pressure and can have temperatures of more than 100 °C.

- Verify that the heating water has cooled down before mounting the product.

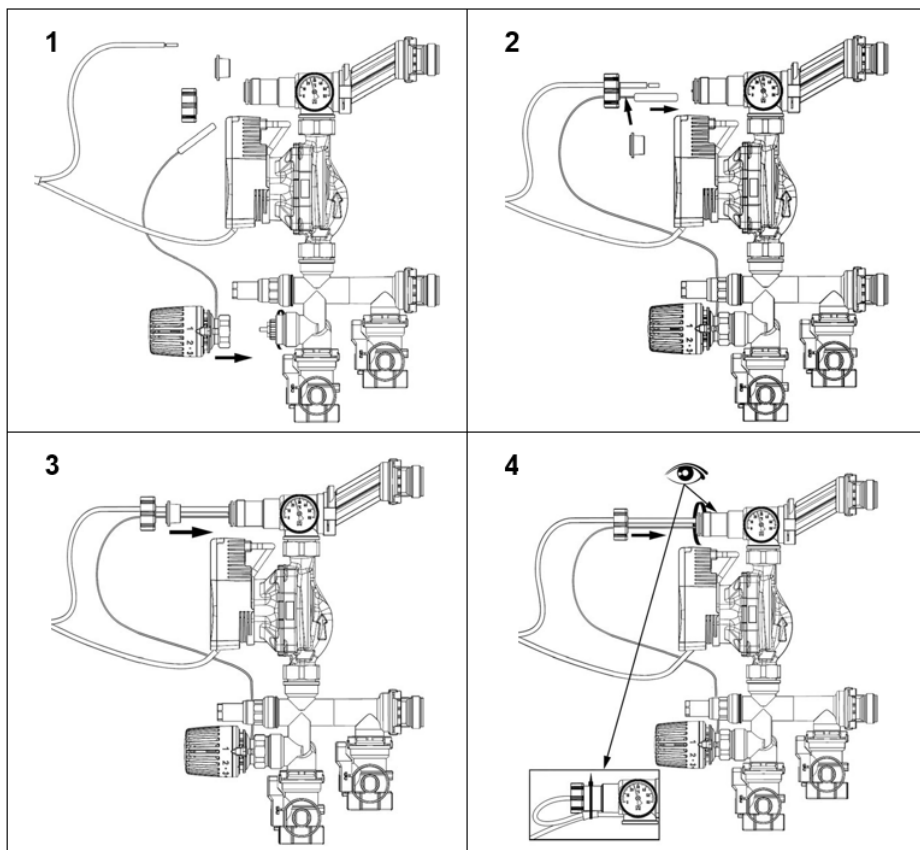
Failure to follow these instructions can result in death, serious injury or equipment damage.

5.1 Preparing mounting

Only mount the product after having completed all pipe assembly work, all welding work and all soldering work. Make sure the manifold is mounted at the correct height by adjusting the brackets.

- Flush the lines of the system before installing the product.

If you install the product in an existing system, observe the information in chapter "Electrical connection" on page 15.



5.2 Wall mounting

NOTICE

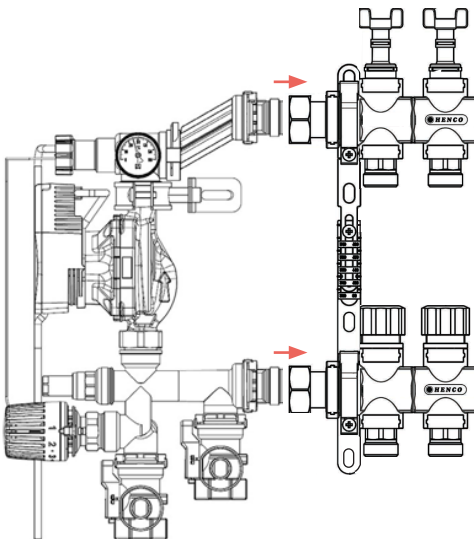
MECHANICAL LOADS AND STRESS

- Verify that the product is not subjected to mechanical loads and stress when mounting the product to the wall.

Failure to follow these instructions can result in equipment damage.

1. Mount the product in a cabinet or to the wall.
2. Mount the supply and the return line to the product.

5.3 Mounting the product to the heating circuit manifold



1

Mount the product with the seals to the heating circuit manifold.

5.4 Electrical connection



DANGER

ELECTRIC SHOCK

- Verify that the degree of protection against electric shock (protection class, double insulation) is not reduced by the type of electrical installation.

Failure to follow these instructions will result in death or serious injury.



DANGER

ELECTRIC SHOCK CAUSED BY LIVE PARTS

- Disconnect the mains voltage supply before performing the work and ensure that it cannot be switched on.
- Verify that no hazards can be caused by electrically conductive objects or media.

Failure to follow these instructions will result in death or serious injury.

1. Connect the circulation pump in accordance with the enclosed operating instructions.

6 Commissioning

6.1 Commissioning the product

filling, flushing and venting the system

– Observe the operating instructions for the heating circuit manifold.

1

connect the balancing valve with a maximum tightening torque of 3 Nm.

2

Open the thermostat valve (A).

3

Fill and flush the system according to the information in the operating instructions of the manufacturer of the heating circuit manifold.

4

Apply pressure to the system

5

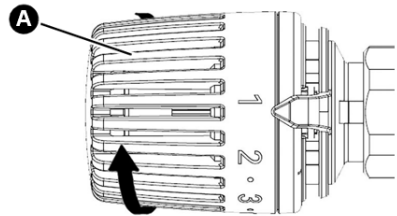
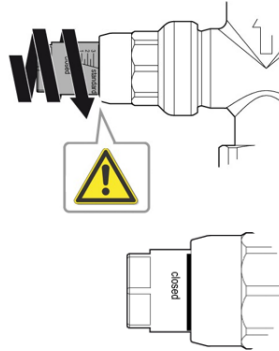
The pressure in the system must remain constant for at least two hours (slight variations over time can be a result of thermal expansion).

6

Check all screwed pipe connections and connections for tightness.

7

Preform a leak test after the two hours have passed.



8

Fill the system with water until the operating pressure is reached.

9

Open the balancing valve and adjust the required value.

7 Operation

7.1 Adjusting the temperature

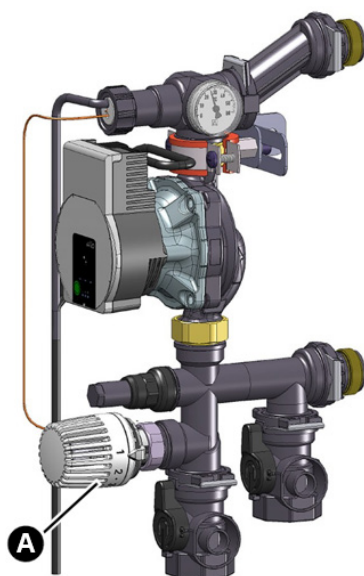


Figure 7: Adjusting the temperature

1

Adjust the desired temperature at the thermostat control head (A) (see chapter "Temperature table of the thermostat control head").

8 Maintenance

8.1 Maintenance activities

At the beginning of the heating period and at regular intervals during the heating period, the product must be checked for tightness and correct operation.

1

Verify correct operation of the circulation pump.

2

Verify correct control behaviour of the product:

- Verify that the temperature displayed by the thermometer matches the setting at the thermostat control head.

9 Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by the manufacturer.

Problem	Possible reason	Repair
Noise in the system	Air in the system	Vent the system
	Pump capacity too high	Correct the pump capacity
Insufficient heat supply through the surface heating system	Pumping capacity is insufficient	Correct the pump capacity
	Thermostat control head set too low	Increase the setting at the thermostat control head
	Balancing valve fully open	Correct the setting of the balancing valve
	Temperature of primary circuit too low	Correct the boiler settings
Excessive heat supply through the surface heating system	Thermostat control head set too high	Reduce the setting at the thermostat control head
	Thermostat control head or thermostat valve defective	Replace the defective component
Noise in the circulation pump	Air in the circulation pump	Let the circulation pump run. Vent the circulation pump manually (see operating instructions of the pump)
	Pressure in the system is too low	Increase the pressure in the system. Check the gas volume in the expansion vessel

10 Decommissioning, disposal

Problem	Possible reason	Repair
Circulation pump does not start	Circulation pump blocked	Remove pollution
	Circulation pump is defective	Replace the circulation pump
	No power supply	Provide power supply
Other malfunctions	–	Contact Henco service hotline

10 Decommissioning, disposal

Do not dispose of the product together with household waste.

Dispose of the product in compliance with all applicable directives, standards and safety regulations.

Dispose of the product at an official waste collection point or return it to the manufacturer's or distributor's collection point.



1

Disconnect the product from the supply voltage.

2

Dismount the product (see chapter "Mounting", reverse sequence of steps).

3

Dispose of the product.

11 Returning the device

Get in touch with us before returning your product (orders@henco.be).

12 Warranty

See our terms and conditions at www.henco.be/en/support/downloads/legal/termsandconditionsofpurchase or your purchase contract for information on warranty. Or use the following link (only for digital version):

https://a.storyblok.com/f/240355/x/3572c72ff1/henco-algemene-inkoopvw-e-update-07-2022_1.pdf

13 Spare parts and accessories

NOTICE

UNSUITABLE PARTS

- Only use genuine spare parts and accessories provided by the manufacturer.

Failure to follow these instructions can result in equipment damage.

Product designation	Part no.	Figure
UFH-PGKTA-K	Synthetic Pump Group Assembly	
UFH-C77243	Shut-off valve for synthetic pump group UFH-PGKTA-K	
UFH-PGKTA-K-T	Thermometer set 40 UFH-PGKTA-K – Ø40	
UFH-C77245	WILO connection cable temp. limit 55 °C	
UFH-C77247	WILO plastic pump para 15–130–643/SCU–12	
UFH-C77249	Thermostatic head with sensor for UFH-PGKTA-K	

13 Spare parts and accessories

When replacing the pump, please regard the maximum permissible tightening torque (40Nm) shown below.

