

OPOP pump groups

Installation manual

Pump group simplifies the installation of automatic boilers such as reducing the time required for the boiler connection to the heating system. The pump groups are equipped with thermostatic valve and pump so this guarantees the boiler protection against low-temperature corrosion.

This manual serves plumber for information about the installation and proper use. Read the instructions carefully so that the equipment is operated in accordance with the instructions.



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1. PACKAGING

Pump group is packaged in a assembled state, ready for installation on the boiler. The package includes the following components:

- Grundfos pump auto-ADAPT
- Thermostatic valve 55°C
- Safety valve
- 2 pcs thermowells for temperature sensors
- 2 pieces of fittings for connection to the boiler (water inlet and outlet)
- Fitting for connecting the inlet valve
- 2 pieces of fittings for connecting the heating circuit (water input and output)
- Connecting cable for the bumb and boiler

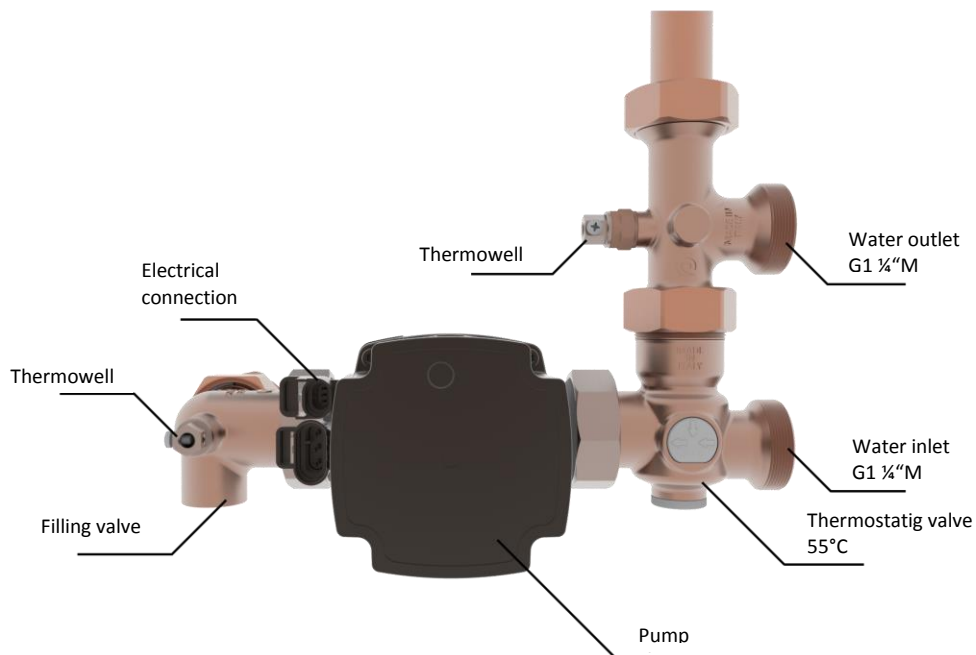
2. LABELING

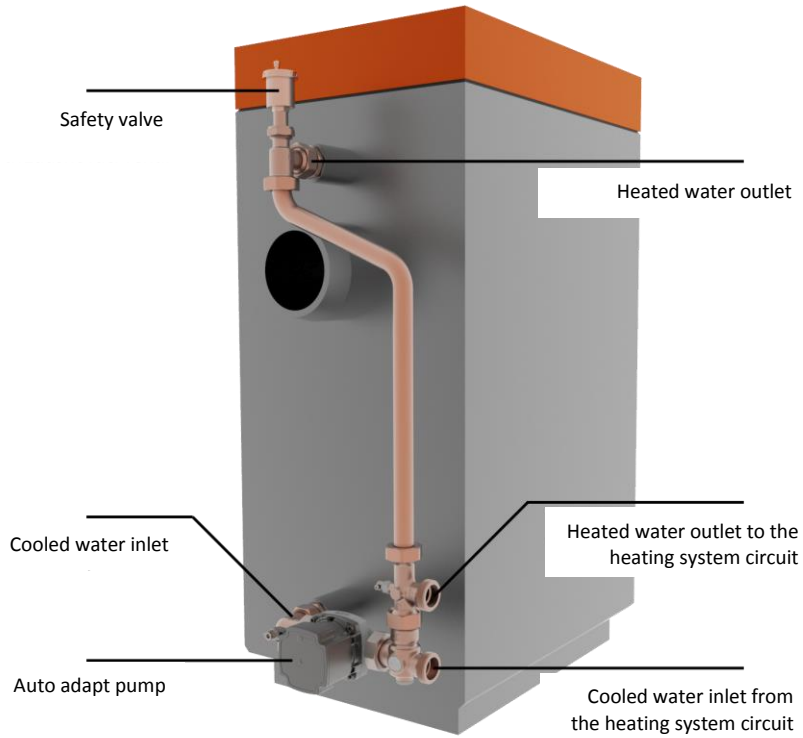
OPOP company sells to its automatic boilers several versions of the pump groups. Group type associated with a particular type of boiler, on which the pump group will be mounted. According to the designation of the pump, check if given pump group is compatible with the type of boiler.

Group pump version	Boiler type
Group pump Biopel 10-30	10kW, 15kW, 20kW, 30kW
Group pump Biopel 40	40kW

3. MOUNTING

Below is a mounting diagram that illustrates the connection of the pump to the boiler itself. When installing, check all connections are tight so as to prevent the escape of water from the heating system.





Use sink for boiler temperature sensor and the return sensor, which is placed directly on the pump group.

Pump group's task is primarily to maintain the temperature in the boiler to the edge of 55 °C and higher, with the aid of a thermostatic valve. Pump is plugged into a socket in the connection board of the boiler, into the output named "CH pump". The pump will be then, as default, switched by control unit of the boiler at CH temperature (boiler temperature) of 40 °C and higher. This setup can be changed in the service menu of boiler's control unit.

4. TECHNICAL SPECIFICATIONS

Max. system pressure	2 bar
Heating water temperature	+2 až +110 °C
Electrical protection	IP 42
Voltage	1 x 230 V/50 Hz
Max. pumping power	3 m ³ /h
EEl - Energy Efficiency Index	<= 0,23
Humidity	max. 95%
Ambient temperature	0°C to +40°C
Sound pressure level	max. 43 dB(A)
Energy Class	A
Connecting the heating circuit	G1 ¼" M
Thermostatic valve fully opened at	55°C

This product must be always installed in accordance with this manual. Read all instructions down below to understand all requirements and restrictions for proper operation correctly.

5. WARRANTY CONDITIONS AND GENERAL INFORMATION

All requirements below must be fulfilled by installer and end user to fulfill warranty conditions and also to ensure correct installation in terms of the applicable standards, and safety from the perspective of ensuring the non-problematic usage of the boiler and all other equipment.

1. Biopel products can be installed only by a company with a valid authorization to perform its installation and maintenance.
2. The heating system must be filled with water, which meets the requirements of ČSN EN 07 7401 and especially its hardness must not exceed the required parameters. Using antifreeze fluids is not recommended by the manufacturer.
3. Connecting the boiler to the system must be done in accordance with applicable regulations and standards.
4. Biopel and its components must be installed in a separate boiler room, specially adapted for heating. The boiler room must have sufficient space for installation and maintenance of the boiler. There must be sufficient circulation of fresh air for combustion. The boiler must never be installed in open spaces or balconies, in areas inhabited by people. Such as kitchen, living room, bathroom, bedroom, also in areas where there are explosive and flammable materials.
5. It is recommended to install the boiler on a concrete base from fire-proof material. There should be guaranteed minimum handling area around boiler and pellet hopper. 60cm rear and lateral sides, 100cm from the front of the boiler and hopper.
6. When installing and operating the boiler and accessories it is necessary to keep a safe distance of 200 mm from flammable materials.
7. During the boiler operation it is forbidden to overheat it. Maximal CH temperature should be 85°C.
8. If there is a danger of development and penetration of combustible vapors or gases into the boiler room, or during works with temporarily developed fire or explosion danger (gluing the floorings, painting with combustible paints etc.), boiler must be put out of operation.
9. It is forbidden to interfere with construction and electrical installation of the boiler.
10. Manufacturer is not liable for damage caused by improper adjustments or setup or improper handling of the product.
11. The manufacturer is not responsible for rust on the boiler and its components, since it is always and only caused by external influences, as the humidity in the room, in the fuel or due to improper installation without boiler protection against low-temperature corrosion.
12. Boiler must be protected against low return temperature via a valve, which prevents the cold water going back to the boiler. Minimum acceptable return water temperature is set by the manufacturer at 55 ° C.
13. The manufacturer is not responsible for the condensation of cold air in the flue path, since this must be prevented by proper installation of flue gas path and by the correct setting of the combustion processes.
14. The manufacturer is not responsible for the leakage of smoke from the boiler into the room in case that this is caused due to low chimney draft, incorrect installation of the boiler, or incorrect setting of the combustion process.
15. The manufacturer is not liable for damage caused by handling, shipments, incorrect settings or improper use or other external factors, which are not directly caused by the individual components operation.
16. Installation company that sold the boiler to the end customer is always responsible for proper installation, boiler setup and activation.
17. In the event, it was agreed to maintain the warranty conditions by a third party subject (eg. startup company), then it must be so agreed on three sides, by sales representative, installer and the end customer. All mentioned subjects must agree with this and must be included with signatures in the appendix of warranty card.

6. STANDARDS AND REGULATIONS

There standards must be met during boiler installation and usage. Informations below are ment for installers as a support files for installation and boiler start up.

Heating system:

The heating system must be filled with water that meets requirements of ČSN 07 7401 and especially its hardness must not exceed the required parameters: hardness = 1mmol/l, Ca²⁺ = 0,3mmol/l, concentration of total Fe+Mn = 0,3mg/l.

ČSN 06 0310	Heating systems in buildings - Design and installation
ČSN 06 0830	Heating systems in buildings - Safety devices
ČSN 07 7401	Water and steam for thermal energy equipments with working steam pressure up to 8 MPa.
ČSN EN 303-5	Boilers for central heating – Part 5: Heating boilers for solid fuel, with manual or automatic fuel supply, nominal heat output up to 500 kW – Terminology, requirements, testing and marking.

Flue gas system:

ČSN 73 4201	Designing chimneys and flues.
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Fire regulations:

ČSN 06 1008	Fire safety of heat installations.
ČSN EN 13 501-1+A1	Fire classification of construction products and buildings - Part 1: Classification using test data from reaction to fire.

Electricity network:

ČSN 33 0165	Electrical regulations. Marking the conductors with colors or digits. Implementing regulations.
ČSN 33 1500	Electrical regulations. Revision of electrical devices.
ČSN 33 2000-3	Electrical regulations. Electrical equipment. Part 3: Setting the basic characteristics.
ČSN 33 2000-4-41	Electrical devices: part 4: Safety chap. 41: Protection against electric shock.
ČSN 33 2000-5-51	Electrical regulations. Construction of electrical equipment.
ČSN 33 2130	Electrical regulations. Internal wiring.
ČSN 33 2180	Electrical regulations. Connection of electrical devices and appliances.
ČSN 34 0350	Electrical regulations. Regulations for mobile connections and wiring management.
ČSN EN 60 079-10	Electrical regulations. Regulations for electrical equipment in areas with potentially explosive flammable gases and vapors.
ČSN EN 60 079-14 ed.2	Electrical apparatus for explosive gas atmospheres - Part 14: Electrical installations in hazardous areas (other than mines).
ČSN EN 60 252-1	Capacitors for AC motors - Part 1: General - Performance, testing and rating - Safety requirements - Guide for installation and operation.
ČSN EN 60 335-1 ed.2	Electric appliances for household and similar purposes - Safety - Part 1: General requirements.
ČSN EN 60 335-2-10	Electric appliances for household and similar purposes Safety - Part 2-102: Particular requirements for appliances burning gas, oil and solid fuel having electrical connections.
ČSN EN 60 445 ed. 3	Basic and safety principles for man – machine interface, marking and identification.
ČSN EN 60 446	Basic and safety principles of machinery operation - Marking the conductors with colors or digits.
ČSN EN 61000 – 6 – 3 EMC – Part 6 – 3: Generic standards – Emissions - residential, commercial and light industry.	
ČSN EN 61000 -3 – 2 EMC - Part 3 – 2: Bound – Limits for harmonic current emissions (equipment input current up to 16 A inclusive).	
ČSN EN 61000 – 3 –3 EMC – Part 3 - Bound - chapter 3: Limitation of voltage fluctuation and flicker in low-voltage supply systems for equipment with rated current <16A.	

System for DHW:

ČSN 06 0320	Heating systems in buildings - Hot water preparation - Designing and planning.
ČSN 06 0830	Heating systems in buildings - Safety devices.
ČSN 73 6660	Water supply systems

Placement options:

ČSN 06 1008	Combustibility grade B, C1, C2 and C3.
ČSN EN 13 501-1	Building materials and products classified in the flammability degree
ČSN 33 2000-3	The basic environment for handling space around the boiler AA5 / AB5.

7. WARRANTY CARD

OPOP pump groups

Producer: OPOP spol. s r.o., Valašské Meziříčí, Česká republika

Tel.: 00420 571 675 589, **fax.:** 00420 571 611 225

Instructions for complaint procedure:

This warranty certificate includes a certificate of quality and completeness. The manufacturer certifies that the product is inspected and meets its design specifications and EN 303-5. For quality and function we guarantee the boiler for 24 months from the date of sale to the consumer, no longer than 30 months after expedition from the factory and in a way that demonstrably result of defects due to faulty materials, faulty design, faulty design or removed as soon as at our expense, provided that the boiler:

- it is in normal condition according to the Instruction manual
- boiler and all additional devices are installed and operated in accordance with standards and laws in given State
- is connected to a chimney according to CSN 73 4201:1989
- is not damaged mechanically (no unauthorized interference)
- chimney draught must match the value listed in chapter 3 Main parameters, according to the type of boiler
- consumer complaints submitted with the application of this warranty certificate fully completed
- complying with the manufacturer's instructions for the use of pressure expansion vessels

Note:

When a fault occurs, it is always necessary to submit the warranty certificate, give the exact address and the circumstances under which the defect occurred. The manner and place of repair will be decided in our company.

Date and stamp of manufacturer:

(production date)

Date and stamp of plumber:

(plumbing company, which realized sale of boiler)

OPOP, spol. s r. o.

Zašovská 750

757 01 Valašské Meziříčí

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Reg. no.: 47674105, VAT no.: CZ 47674105

Phone: Sales Dept: 571 675 589, Secretariat: 571 611 250, Production: 571 675 405

Sourcing: 571 675 114, Finance: 571 675 472

Fax. 571 611 225
