

AFRISOBasic

AFRISO Sp. z o.o.
Szańska, ul. Kościelna 7
42-677 Czekanów
www.afriso.pl

Customer Service Team
Tel. +48 (0) 32 330 33 55
info@afriso.pl

Insulated low-loss header BLH 801

NOTE!

The product may only be used if you have fully read and understood these operating instructions. The manual is also available on the AFRISO websites in the Internet.

WARNING!



Low-loss header BLH may only be installed, commissioned, and dismantled by trained personnel.

Changes and modifications carried out by unauthorised persons may cause danger and are prohibited for safety reasons.

Risk of scalding by hot medium! Perform all installation and maintenance work after the system has cooled down.

APPLICATION

The insulated low-loss header BLH 801 is used in heating and cooling systems. It is installed between the heat/cooling source and the system. It hydraulically separates the source circuit from the system circuits. It ensures smooth operation of the system after switching off some of the receivers or changing the operating parameters of the circulation pumps. It allows for venting the system and removing precipitated dirt.

PREDICTABLE INCORRECT APPLICATION

BLH 801 low-loss headers must not be used in the following cases:

- under conditions exceeding the maximum permissible pressure and temperature parameters of the medium,
- with the following liquids and gases: a mixture of water and glycol with a glycol concentration greater than 50%, steam, oil, petrol, water intended for human consumption, other media that have a destructive effect on valve components or interfere with its operation.

DESCRIPTION AND SCOPE OF DELIVERY

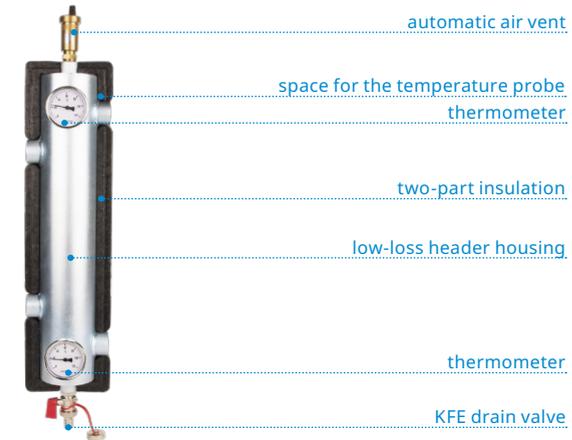
The low-loss header BLH 801 for up to 70 kW consists of a galvanised steel housing with an internal separation mesh, two-piece insulation with an embossed area for a temperature probe, and accessories in the form of an

automatic air vent with a stop valve, a KFE drain valve and two thermometers.

The low-loss header BLH 801 should be connected to the heating system using G1" internal threads. The automatic air vent, drain valve and thermometer pockets should be screwed into G½" internal threads.

If you are not using additional equipment, the holes should be plugged with a G½" plug (not included in the scope of delivery).

CONSTRUCTION



MOUNTING

Before installing the low-loss header, flush the system thoroughly, paying particular attention to removing any residues from soldering, pipe cutting, etc. We also recommend using a magnetic dirt separator in the system (e.g. Art.No. 77 160 00).

Install the coupling vertically, directly on the system pipes, in accordance with the application diagram (Fig. 1), using G1" internal threads. In justified cases, e.g. when the pipes are made of plastic, additional clamps should be used on the pipes at the low-loss header connections.

Connect the narrower spigots to the heat/cooling source pump circuit. Connect the wider spigots to the system pump circuit. Then screw the stop valve of the air vent into the upper G½" F connection. Screw the KFE drain valve into the lower G½" F connection. Place the thermometer pockets in the remaining two G½" F connections, using a proper seal (e.g. Teflon).

After initial filling of the system, screw the automatic air vent into the stop valve by hand. If no additional equipment is used, the holes should be sealed with plugs.

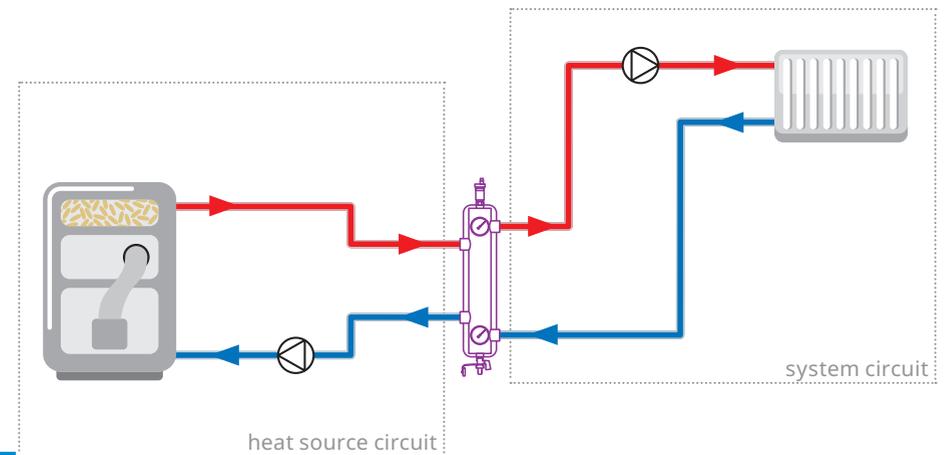
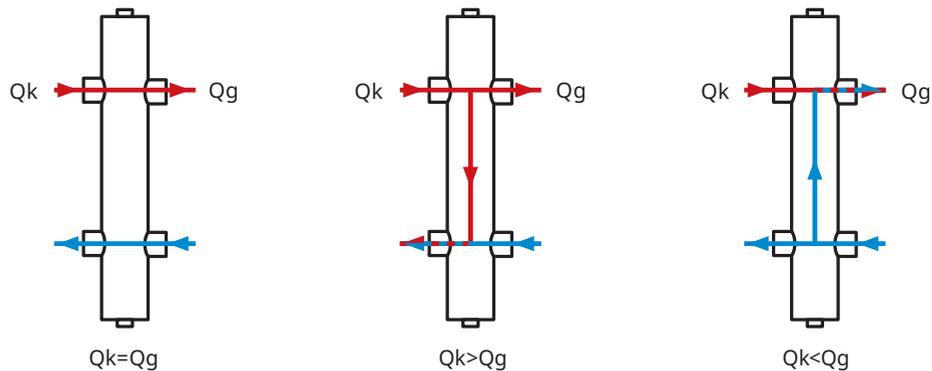


Fig. 1. Example application diagram

OPERATING PRINCIPLE



Situation I – the flow of the heating medium in the pump circuit of the heating system (Q_g) is equal to the flow of the medium in the pump circuit of the heat source (Q_k). There is no mixing of the supply and return medium streams from the system in the low-loss header.

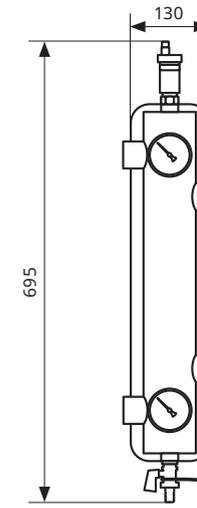
Situation II – the flow of heating medium in the pump circuit of the heating system (Q_g) is lower than the flow of medium in the pump circuit of the heat source (Q_k). Part of the hot medium from the heat source mixes in the low-loss header with the cold flow from the system return, raising the temperature of the medium returning to the heat source.

Situation III – the flow of the heating medium in the pump circuit of the heating system (Q_g) is greater than the flow of the medium in the pump circuit of the heat source (Q_k). Part of the cold medium from the system return mixes in the low-loss header with the hot stream from the boiler, lowering the temperature of the medium supplying the system.

TECHNICAL DATA

Parameter / part	Value / material
Connections to the installation	G1" F
Accessory connections	G½" F
Flow	max 4.0 m³/h
Capacity	max 70 kW at $\Delta T = 15K$
Set nominal pressure	PN6
Set operating temperature	max 90°C
Nominal pressure of the low-loss header (without additional equipment)	PN16
Operating temperature of the low-loss header (without additional equipment and insulation)	max 110°C
Glycol concentration	max 50%
Zinc coating thickness	min 7 μm
Insulation	polypropylene (EPP)
Automatic air vent	G¾" with stop valve R½"
KFE drain valve	G½"
BiTh bimetallic thermometers	ø63 mm, 0-120°C, G½", cl. 2.0

DIMENSIONS [mm]



MAINTENANCE

Periodically check the tightness of connections and the condition of the automatic air vent for dirt. At regular intervals, we recommend using the KFE drain valve to remove dirt separated from the medium from the system.

APPROVALS AND CERTIFICATES

The insulated low-loss header BLH 801 is subject to the Pressure Directive 2014 /68/EU and is not CE marked in accordance with Article 4.3 (recognised engineering practice). The product is marked with the B construction mark, in accordance with the regulations in force in Poland.

DECOMMISSIONING, DISPOSAL

1. Dismount the product.
2. Dispose of the product according to local directives and guidelines.

The product is built from recyclable materials.

If you have any questions or problems with disposal, please contact the appropriate distributor or manufacturer's point.

WARRANTY

Product guarantee in accordance with the general conditions of sale and delivery.

CUSTOMER SATISFACTION

For AFRISO customer satisfaction is paramount. If you have any questions, suggestions or product problems, please contact us.