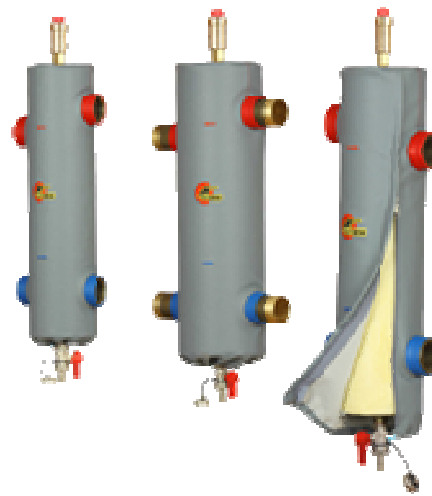
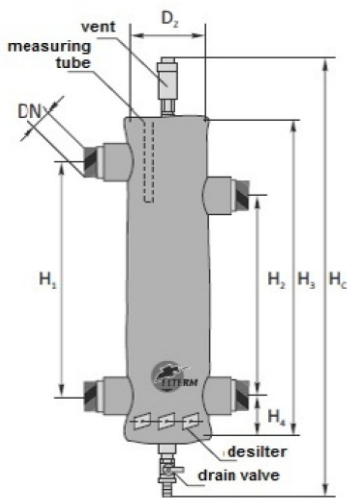


Low Loss Headers for use with Panasonic Aquarea heat pumps



Low Loss Headers, or Hydraulic Balancers, are recommended for use with heat pump systems to ensure sufficient water flow under all conditions. They are used instead of bypass valves or buffer tanks to separate the heat production and heat emission sides of a heating system. They also make it easy to combine multiple heat sources and / or multiple heat emission circuits.

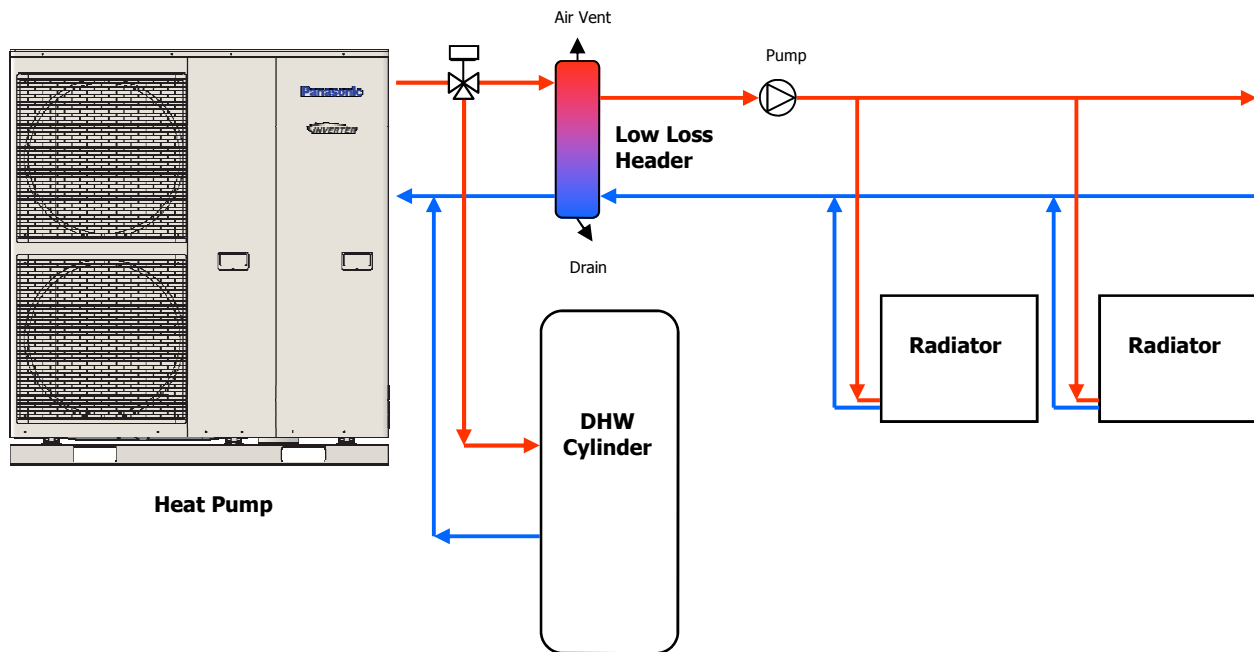
Our new range of low loss headers are very compact, high quality pre insulated models. They have inbuilt de-silters, drain valves with hose connections, space for a temperature sensor and an automatic air vent. They are also available quickly, not being made to order.



Model	LLH-SHE40	LLH-SHE70	LLH-SHE100	LLH-SHE115
Heating KW	13.4 KW	23.3 KW	33.2 KW	38.4 KW
Max Flow l/s	0.64	1.11	1.58	1.83
Connections DN	1" FEM	1.1/4" FEM	1.1/2" MALE	2" MALE
Max Temp C	110C	110C	110C	110C
Nom Press Bar	3 BAR	3 BAR	3 BAR	3 BAR
H1 mm	290	340	340	400
H2 mm	250	300	300	350
H3 mm	435	505	508	580
H4 mm	77	85	84	90
HC mm	600	670	670	745
DZ mm	105	125	150	150
Water Litres	1	1.6	2.7	3.2
List Price	£300	£310	£420	£499
Trade Price	£150	£155	£210	£250
OFFER PRICE	£120	£124	£168	£200

We have negotiated a special launch price for this new range for customers purchasing during January and February 2014. The highlighted prices above will apply during this period, exclusive of delivery and VAT. For more details contact us.

Low Loss Headers for use with Panasonic Aquarea heat pumps



A typical heat pump piping circuit is shown above

Heat pumps are very sensitive to low water flow. They also require significantly higher water flow rates than an equivalent boiler system, working on a temperature difference of 5°C rather than the more usual 10°C used by many gas or oil fired systems. Typically a heating system with multiple radiators and TRV's will starve the heat pump of water flow if these TRV's start to shut down. While a bypass valve or buffer tank are potential solutions, a low loss header avoids many of the issues associated with these other solutions.

The low loss header fits between the heat pump and the heating circuit, neatly separating the two. It is frequently used as a marker point to differentiate between the responsibility of the plumber and the heat pump installer. It makes identifying whether a problem lies with the heating system or the heat pump much easier. It also allows for multiple heat sources or heat pumps to be connected to the same heating system while allowing for multiple heating circuits.

A typical example of this more complicated system would be a larger house needing 36KW of heating, using three 12KW heat pumps as a heat source and with separate heating circuits for the upstairs radiators, downstairs radiators and kitchen underfloor heating. A low loss header makes this type of circuit easy and in this case an LLH-SHE115 at 38.4KW would be used. Contact us for more specific details.

In essence the low loss header takes care of imbalances between the volume of water required by the heat emitters and the heat producers with excess water being bypassed through the header.

Our low loss headers are pre insulated to avoid heat loss and include a de-silter and drain point at the bottom and automatic air vent at the top, along with a pocket to allow a thermostat or temperature sensor to be installed, typically to control the heating circuit circulating pump/s.

Selection of the low loss header is simple, being based upon the nominal heating capacity of the heat pump, with models up to 12KW using the smaller LLH-SHE40 while the larger LLH-SHE70 is suitable for heat pumps up to 23KW. Models LLH-SHE100 and LLH-SHE115 are usually used for connecting multiple heat pumps.