

Efficient District Heating Sub-stations

Kelpie DH59 Sub-station – Ready for immediate operation

A complete sub-station for up to 150 apartments in 0.25 m² floor space.

With the new, patented heat exchanger Kelpie DH59, replacing two normal heat exchangers in parallel, Kelpie District Heating takes a giant step forward, in the development of both your budget and the environment. Kelpie DH59 is at the same time optimized for both the radiator- and the tap water, in only one heat exchanger, with even better performance, improved economy, and reduced losses, compared to a parallel configuration.



Primary side

With control valves for the hot tap water and the radiator circuit. The primary side has the return in common, and an integrated pre-heating of the tap water.



Secondary side

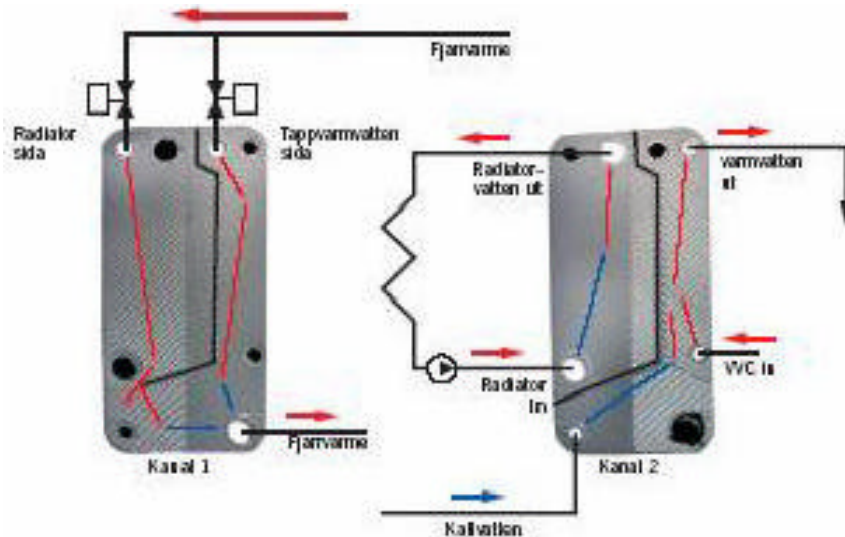
With connections and refilling of the heating system, hot and cold water connections, and a hot water circulation pump.

Space saving and installation friendly

Because of the compact size, the sub-station is easy to place. The bottom plate of the unit is 50 x 50 cm. The unit on the pictures, is designed for the heating and hot water consumption of 40 apartments. The sub-station is ready for operation as soon as the water pipes have been connected.

Two Heat Exchangers have become one!

On the front side, is the patented DH59 exchanger, with the radiator circuit and the tap water heater integrated. With one unit, we replace two or three heat exchangers, depending on the configuration.



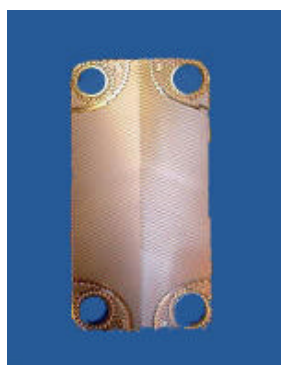
Asymmetrical plate heat exchanger Kelpie DH59

DH59 is the first plate heat exchanger developed especially for district heating. In one single unit both radiator and tap water is heated. In order to reduce the water return temperature, you need three different sections in the unit. Section one heats the radiator water. Section two heats the hot tap water. Section three preheats the incoming cold water with the return water from sections one and two. At the same time, of course, the return DH water is further cooled.

Compare to standard units:



M29



M59



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Declaration Base Unit District Heating Substation DH59-60

Article	Article number
Wilo hot water circulation pump Star RS25/4	5761145
Filling valve	4892907
Brazed plate heat exchanger Kelpie DH59-60	DH59-60GGX
Siemens controller RVD135/209	RVD135/209
Siemens base AGS13X	AGS13X
Siemens control valve VVG55.15 Kvs 2,5	VVG5515-2,5
Siemens control valve VVG55.15 Kvs 6,3	VVG5515-6,3
Siemens actuator SQS35.53	SQS35.53
Siemens actuator SQS35.00	SQS35.00
Siemens sensor QAD21/209	QAD21/209
Siemens sensor QAD26.220/109	QAD26.220/109
Siemens sensor QAC31/101	QAC31/101
Drain valve	4465246
Drain valve Ballomax	4516514
Safety valve 9 bar	090115
Stop valve	4507430

The base unit can be completed. Here, some examples of options

Article	Article number
Wilo radiator pump Top-E 40/1-10	5761247
Strainer for the DH system	5063854
Strainer for the radiator system	5063854
Strainer for the incoming cold water	055462
Sensor for the radiator	QAE21.93-100
Thermometer 0-120°C secondary side	5130018
Thermometer 0-160°C primary side	5130026