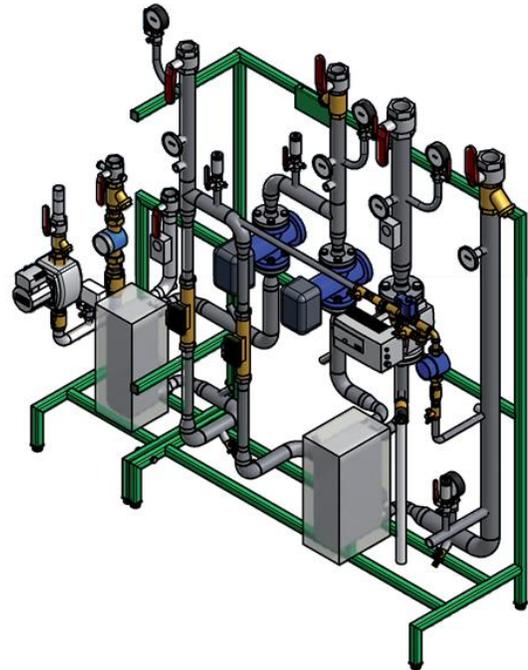


COMPACT HEAT EXCHANGER – KL-HN series

Pressure independent heat exchanger station

Heat transfer - exchanger stations are designed for systems with a primary heating medium temperature to **140°C** and pressures up to **2.5MPa**.

This allows the pressure to separate hot water on primary and secondary side to ensure the independence facility for distribution heating networks (DH). An important parameter for direct hot water, the maximum hardness of cold water up to 12°dH. If a higher degree of hardness and pressure class distribution CZT is to PN16, it is possible to use a connection mixing pump to decrease the input of heating water to the heat exchanger of KL – HN series. Reduction of input water temperature of district heat system reduces the intensity of clogging and extends the life of heat exchanger. We also recommend hot water solved in combination with buffer storage tank or to align the output temperature in district heating systems.



FUNCTIONAL DESCRIPTION

The primary heat transfer fluid enters the station through the isolating valve and strainer. Furthermore, through the control valves are divided into plate heat exchanger - **UT** and exchanger - **TV**. Control valves provide heating temperature control and regulation of UT at a constant temperature of TV. The primary heating medium passes in plate heat exchangers and secondary side through ultrasonic heat meter, pressure regulator and shut-off valve goes back to district heating network - **DH**. In the secondary heat exchanger UT heating water is heated to the desired temperature over (80°C) a shut-off valve performs the forwarding station. Secondary hot water circulation ensures electronically controlled circulator. UT system is protected against illicit pressure relief valve mounted in the premium location for heat. Adding water to the secondary heating system is designed from the primary return pipe through the valve assembly, including measuring up volume, which is realized by a mechanical flow meter. The expansion of secondary heating water is captured in the expansion tank with a bag. TV is prepared by heating and circulating cold water. Circulace TV enters the headend through the isolating valve, strainer, circulation pump and check valve. Cold water enters the headend through the isolating valve, strainer, check valve and water meter. Before entering the heated medium to the heat exchanger is fitted with a fusing valve. In exchanger TV cold water (mixed circular and cold water) is heated to the desired temperature of (55°C) and via the isolating valve is driven in a stainless steel reservoir. To balance the hot water temperature setting and optimum performance values of the control valve is recommended mount stainless steel buffer tank.

SPECIFICATIONS

Max. fluid temperature: 140°C
Max. medium pressure
Primary: 2.5 MPa
Max. power: 2000kW

STANDARD EQUIPMENT STATION

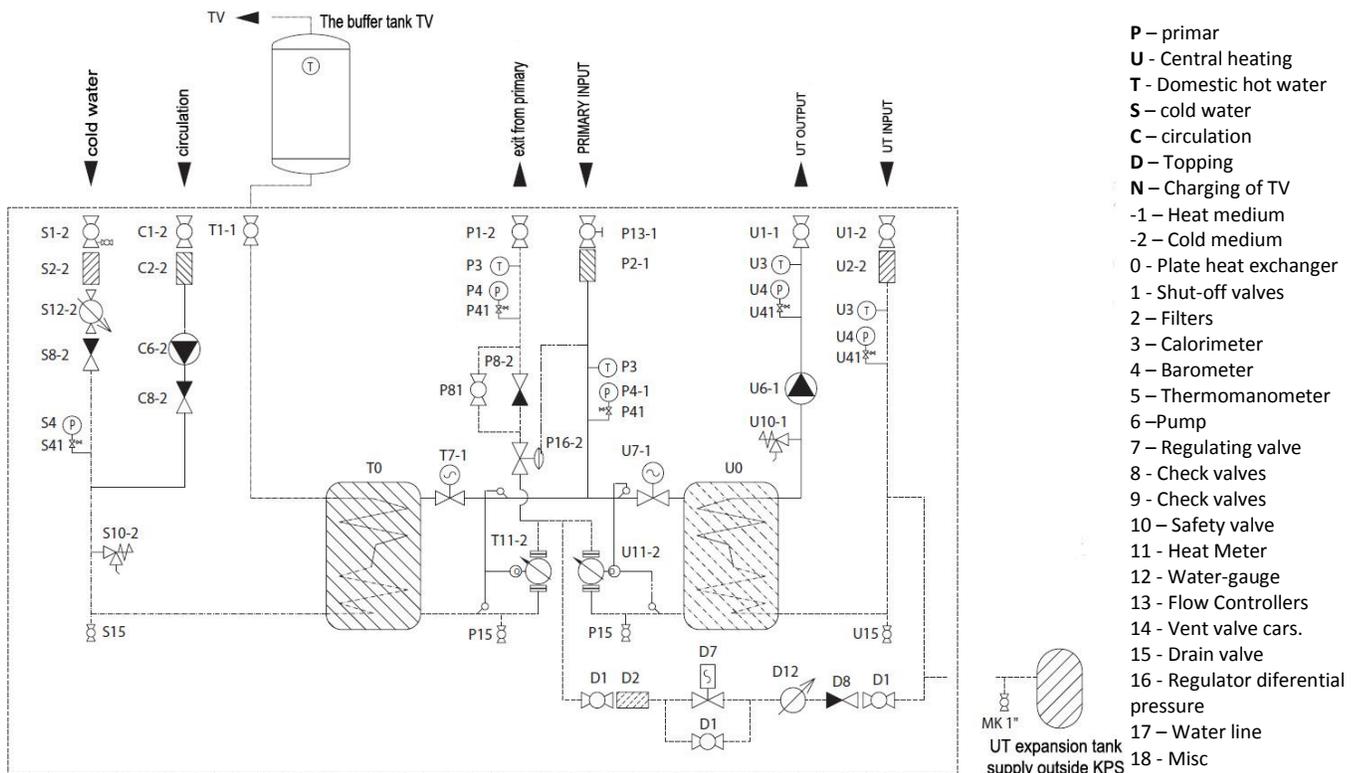
Plate heat exchanger: SWEP, Alfa Laval
Control valves: LDM, Siemens
Taps: BROEN
Pumps: Grundfos, Wilo

DESIGN support construction consists of a steel frame welded from thin sections, presented in which it is firmly held their own machinery. Primary distribution pipe and pipe sections UT is steel class. 11, duct section TV is steel cl. 17th The station is designed and constructional solution, the minimized noise and vibration operation

Station Control Stations can be mounted control technology to the extent of the customer's choice. Simple controllers provide fully autonomous operation of the stations, including the choice of several time programs, setting equitherm dependencies with limited communication with the dispatching center. Programmable controllers offer a wide range of compact control at substations. Well-chosen programs can be up to optimize operation of the stations. Programmable controllers allow two-way communication with the control center, traffic monitoring, reporting, emergency situations, etc.

STANDARD SERIES PERFORMANCE, DIMENSIONS ARE ONLY INDICATIVE 120/65-80/60°C - Winter 75/35-10/55°C - Summer									
Pressure Prim / UT / TV PN25/6/10	Performance		Dimensions			The dimensions of the pipe (mm)			
	UT (kW)	TV (kW)	Length L(mm)	Height H(mm)	Width V(mm)	Prim tot	sek UT	prime TV	circul TV
HN – 50/140	50	140	1400	1800	500	32	25	25	25
HN – 90/230	90	230	1400	1800	500	40	32	32	25
HN – 120/310	120	310	1600	1800	500	50	40	40	32
HN – 190/510	190	510	1800	1900	650	65	50	50	40
HN – 340/840	340	840	1900	1900	650	80	65	65	50
HN – 470/840	470	840	2000	1900	700	80	80	65	50
HN – 810/840	810	840	2100	2100	750	80	100	65	50

DIAGRAM diagram and used components can be replaced by the customer. Stations are supplied without pipe insulation that can be reordered, possibly in the plating compact. For the less accessible places it is possible to produce an atypical involvement and adapt best compact a defined space. Overall design of substations, including drawings, it is always consulted with the chief engineer and the client.



Heat substations KL-HN series