

## Kelpie Sub-station DH39-24



### ***Small, efficient sub-station, with 20 kW heating - and 35 kW tap water capacity***

Kelpie is introducing the new generation of district heating substations for single houses. The heart of it, is a new patented heat exchanger, especially developed for district heating, where both the radiator and tap water heating has been integrated in one single unit. The pattern of this heat exchanger gives an extra reduction of the district heating water return temperature, which is always desirable.

The hot tap water is kept at a constant level, by means of a unique regulator, with a hydraulic actuator.

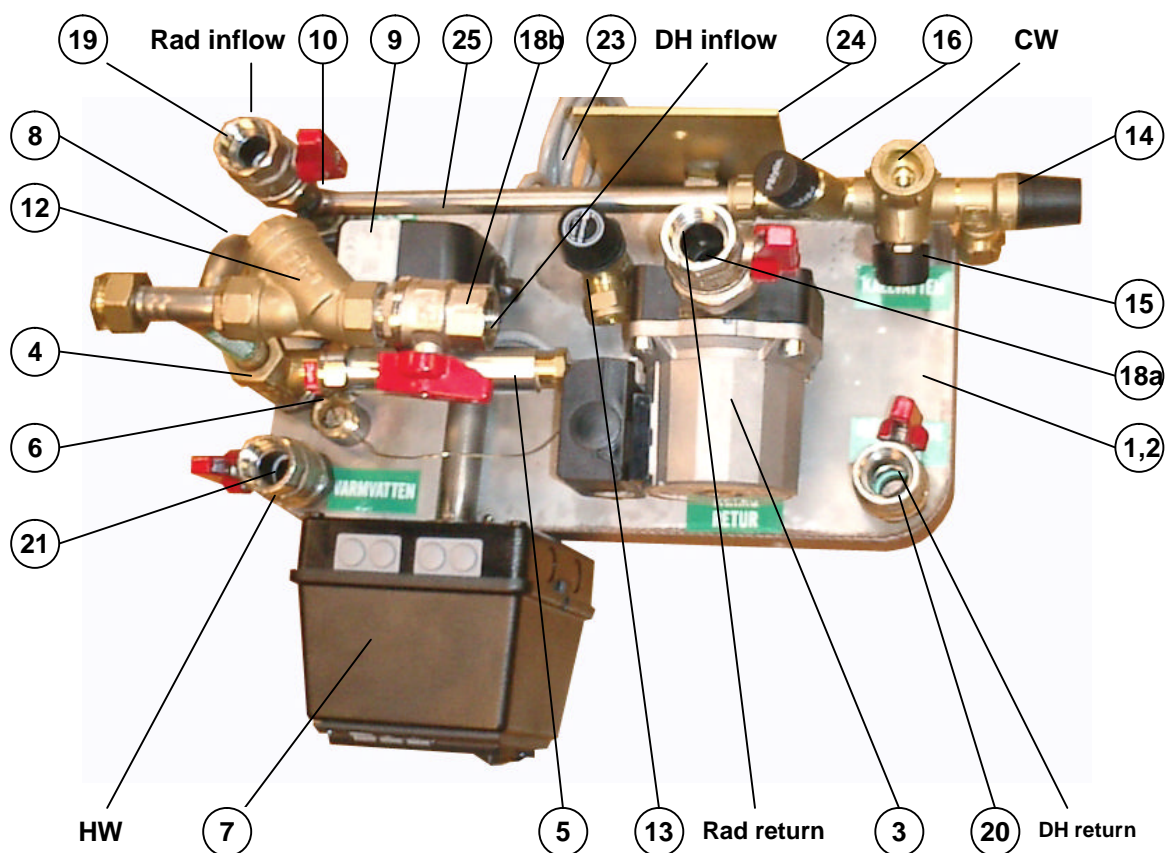
This construction guarantees a short reaction time for the hot tap water, and at the same time it adjusts automatically to the incoming temperature of the district heating water. Hence, there is no need to change the warm water regulation between summer and winter conditions, but the hot water temperature is kept constant at the pre-set value, of 50-55°C, all around the year. Year after year.

The DH39-24 was certified by the Swedish National Testing and Research Institute, on the 22<sup>nd</sup> of December 2004. The tests showed the best results ever seen on the market.

The DH39-24 can be connected to the tubes from above, below, or from the side. It comes prepared for connecting it from above, but it can easily be changed to the desired configuration by the installer.

An integrated transparent expansion tank simplifies the control of the heating system.

The central is delivered with a white plastic cover. (See picture above)



Pos	Denomination	Pos	Denomination	Pos	Denomination
1	Heat Exchanger DH39-24	10	Rad sensor Siemens QAD26.220/209	18a	Stop valve Rad return
2	Expansion tank, 6 l integrated	11	Sensor Siemens QAC31/101	18b	Stop valve DH inflow
3	Radiator pump Wilo RS 15/4	12	Strainer FV DN20	19	Stop valve Rad inflow
4	Hot water con valve Danfoss VS2/15-1,0	13	Safety valve Rad 1,5 bar	20	Stop valve DH return
5	Hot water actuator EPT	14	Safety valve cold water 10 bar	21	Stop valve hot water
6	Hot water sensor EPT	15	Stop valve cold water	22	Plastic cover (not shown )
7	Controller Siemens RVA36 Rad	16	Filling valve	23	Plug
8	Rad cont valve Siemens VVG549.15-1,0	17	Strainer Rad & cold water	24	Wall mounting device
9	Rad actuator Siemens SSY319			25	Filling device

**Measures: W x H x D = 430 x 480 x 330 mm.(incl. Plastic cover) Weight 15 kg**

**Connection Dimensions: ISO G $\frac{3}{4}$ " int. thread**

Tecnical data	Capacity	Temp prim/sec	Flow,prim/sek	Pressure drop, sec
Radiator circuit	20 kW	100-62 / 60-80°C	0,13 / 0,24 l/s	23 kPa
Hot water circuit	35 kW	65-19 / 10-50°C	0,17 / 0,20 l/s	21 kPa