



**Space saving
design**

Prefabricated unit

Easy to install

SHUNTOPAC® U 20-50 K

Shunt unit for cooling

TTM Shuntopac® U 20-50 K is a shunt unit for conventional and district cooling systems and is available as standard with connection dimensions from DN 20 to DN 50. The shunt unit can be equipped with several components of any make and a number of different coupling alternatives.

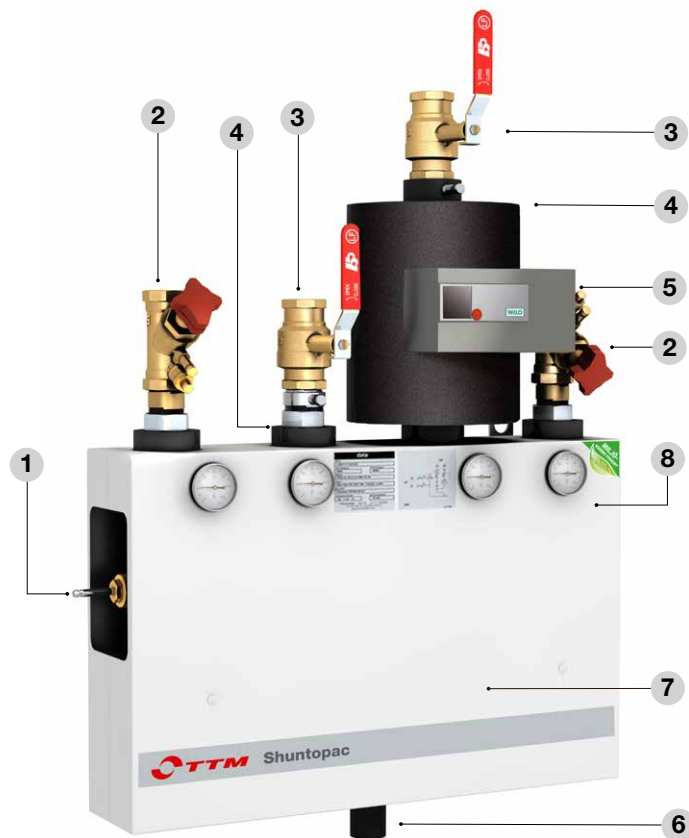
TTM Shuntopac® U 20-50 K comes with a fire and corrosion-proof casing made of polyester-covered aluminium sheet. The insulation is AF/Armaflex AF-2 as standard.

The hanging brackets consists of yellow chromated flat bars.

As standard, the pipe mixing loop consists of fully welded pressure vessel pipes SS-EN 10216-2 and DIN 2391, anticorrosive painted with grey primer. Pipe mixing loop in other qualities or with other surface treatments can be delivered to order. The design of the pipe mixing loop works as a barrier against undesired cooling transmission due to double circulation.

TTM Shuntopac® U 20-50 K is CE marked in accordance with manufacturer's declaration 2B according to the Machinery Directive.

The shunt unit is environmentally assessed.



Equipment

1. Control valve

Seat valve with tapped connection of optional manufacture and type. The valve is fitted into a flanged joint for easy service and replacement.

2. Adjusting valves

2 pcs of optional manufacture and dimension. Fitted to the pipe mixing loop with conical coupling. TA STAD is delivered as standard. Also available with dynamic balancing valve, flow regulators or difference pressure regulators.

3. Shut-off valves

2 pcs ball valves with full flow and high spindle neck. Fitted to the pipe mixing loop with conical coupling.

4. Test sockets

Type TA STAD are attached on each connection.

5. Pump

Optional manufacture and type with “wet” or “dry”

motor.

6. Drainage

Design with screwed hose joint R 1/2”.

7. Non-return valve

1 pc. made of brass/stainless steel, with spring-loaded cone. Fitted into a flanged joint.

8. Thermometers

4 pcs graduated -40 – + 40 °C. Mounted in thermowells.

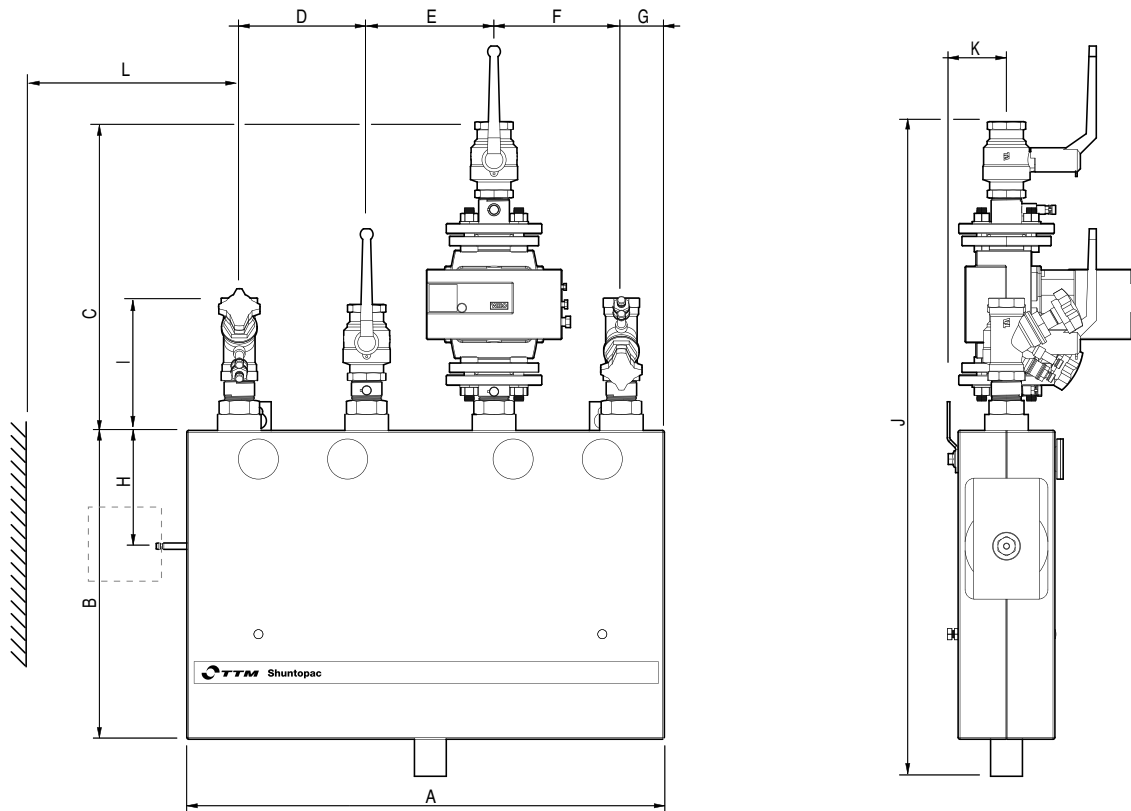
Special design

- Pipe mixing loop made of e.g., copper or stainless steel of the desired quality.
- Anti-corrosive painted pipe mixing loop, e.g. epoxy enamelled.

Options

- Floor stand

Dimensions



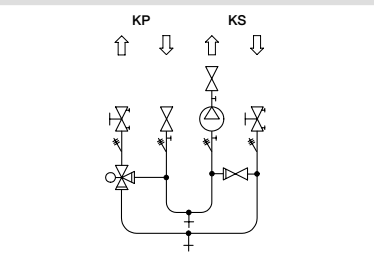
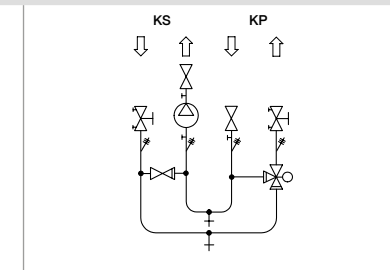
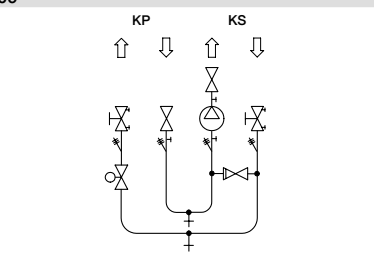
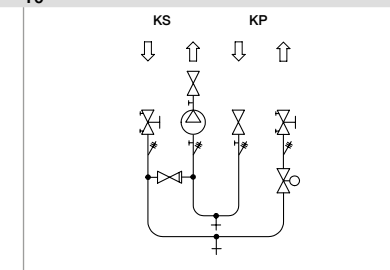
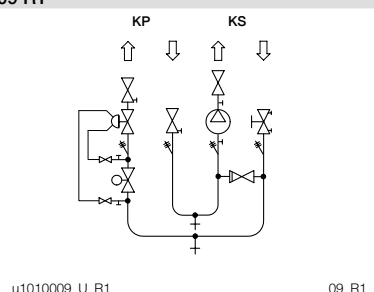
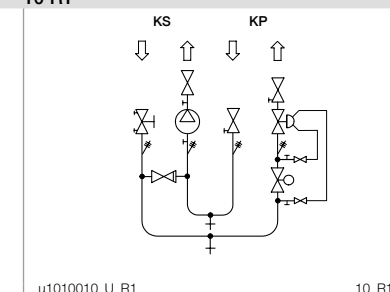
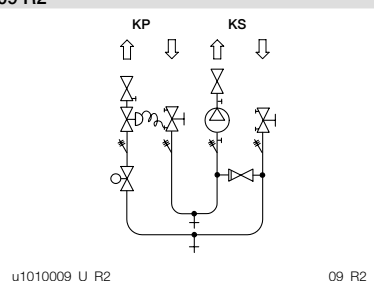
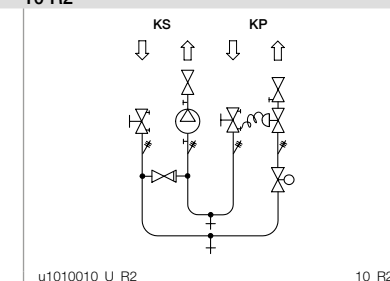
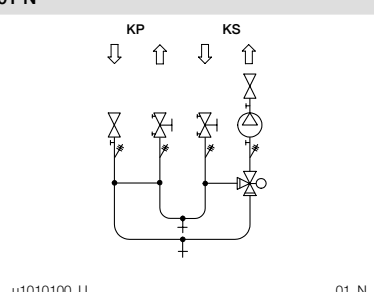
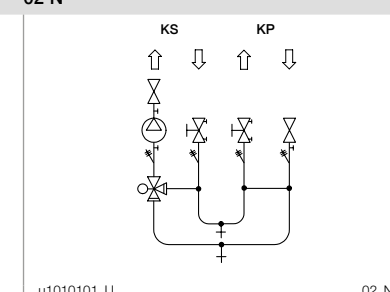
Connection DN	20	25	32	40	50
A	750	750	750	750	845
B	485	485	485	485	610
C	285 + pump	285 + pump	285 + pump	285 + pump	305 + pump
D	200	200	200	200	225
E	200	200	200	200	240
F	200	200	200	200	225
G	67,5	67,5	67,5	67,5	70
H	182	182	182	182	210
I	<175	<193	<200	<205	<245
J	800 + pump	800 + pump	800 + pump	800 + pump	1050 + pump
K	93	93	93	93	112
L	Space for actuators, assembly and maintenance.				
Weight, approx. kg	32	37	52	57	62

Max. pressure 1.0 MPa

Temp. range: -20 – +110 °C

Specified dimensions are valid for the standard version. Some variations may occur if alternative equipment is used.

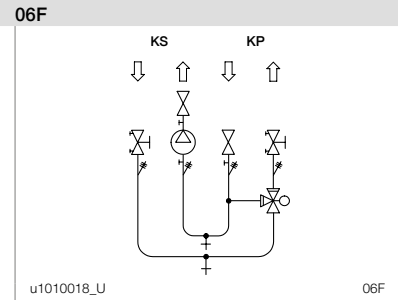
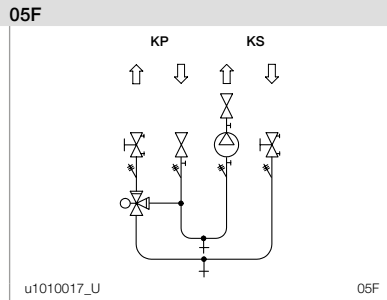
Configurations

<p>01</p> <p>Constant flow on primary and secondary side.</p> <p>The control valve is mounted as mixing valve in the return pipe on the primary side.</p>	 <p>u1010007_U 01</p>	<p>02</p>  <p>u1010008_U 02</p>
<p>09</p> <p>Variable flow on the primary side, constant on secondary side.</p> <p>The control valve is fitted in the return pipe on the primary side.</p>	 <p>u1010009_U 09</p>	<p>10</p>  <p>u1010010_U 10</p>
<p>09 R1</p> <p>Constant flow on primary and secondary side.</p> <p>The control valve is fitted in the return pipe on the primary side.</p>	 <p>u1010009_U_R1 09_R1</p>	<p>10 R1</p>  <p>u1010010_U_R1 10_R1</p>
<p>09 R2</p> <p>Constant flow on primary and secondary side.</p> <p>The control valve is fitted in the return pipe on the primary side.</p>	 <p>u1010009_U_R2 09_R2</p>	<p>10 R2</p>  <p>u1010010_U_R2 10_R2</p>
<p>01 N</p> <p>Constant flow on primary and secondary side.</p> <p>The control valve is fitted as a mixing value in the return pip on the secondary side.</p>	 <p>u1010100_U 01_N</p>	<p>02 N</p>  <p>u1010101_U 02_N</p>

Configurations

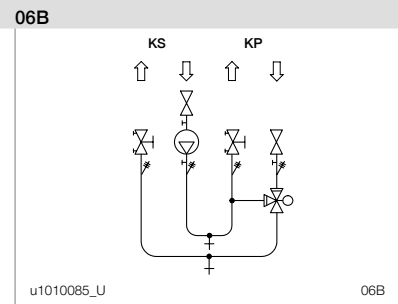
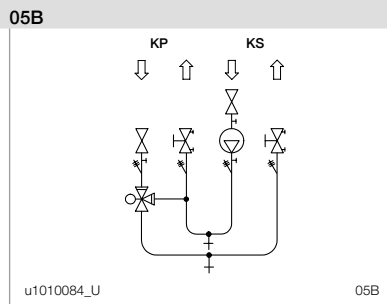
Variable flow on the primary side, constant on secondary side.

The control valve is fitted as a distribution valve in the return pipe.



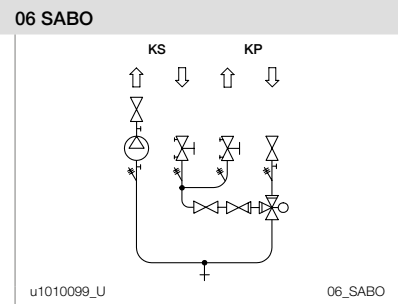
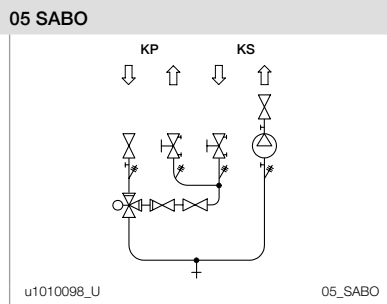
Variable flow on the primary side, constant on secondary side.

The control valve is fitted in the inlet pipe as a mixing valve on the secondary side.



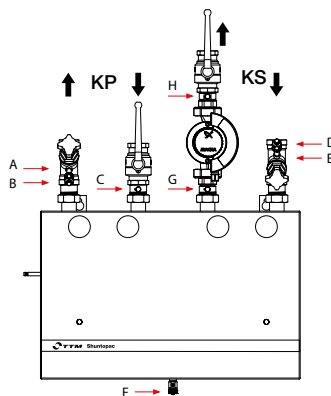
Variable flow on the primary side, constant on secondary side.

The control valve is mounted as mixing valve in the inlet pipe on the secondary side.



Differential pressure measurement

All outside valves on the TTM Shuntopac® U 20-50 K are provided with test sockets, allowing complete differential pressure measurement.

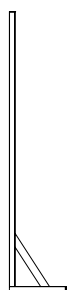


- B - A** Measuring of the pressure difference over the adjusting valve on the primary side. Primary flow can be determined with the help of data for the adjusting valve.
- C - A** Available pressure difference on primary side.
- G - H** Pressure rise over the circulation pump.
- H - D** Pressure drop in connected object on secondary side.
- D - E** Measuring of the pressure difference over the adjusting valve on the secondary side. Secondary flow can be determined with the help of data for the adjusting valve.
- F - B** Pressure drop over the control valve.

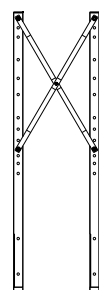
Options

Floor stand

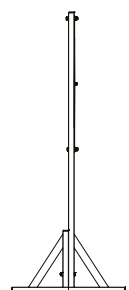
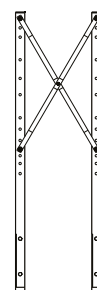
Made of epoxy enamelled RHS pipes 50x30 mm. Detailed assembly instructions can be found at www.ttmenergi.se (<https://ttmenergi.se/shuntopac/tillbehor-shuntopac/golvstativ/>).



Floor stand L



Floor stand LX



Floor stand TX