

# Shuntopac<sup>®</sup>

U 20-50 VÅ



## Shunt unit for heat recovery system

**Shuntopac U 20-50 VÅ is a shunt unit for heat recovery systems and is available as standard with connection dimensions from DN 20 up to DN 50. The shunt unit can be equipped with components of any make and with several different connection options.**

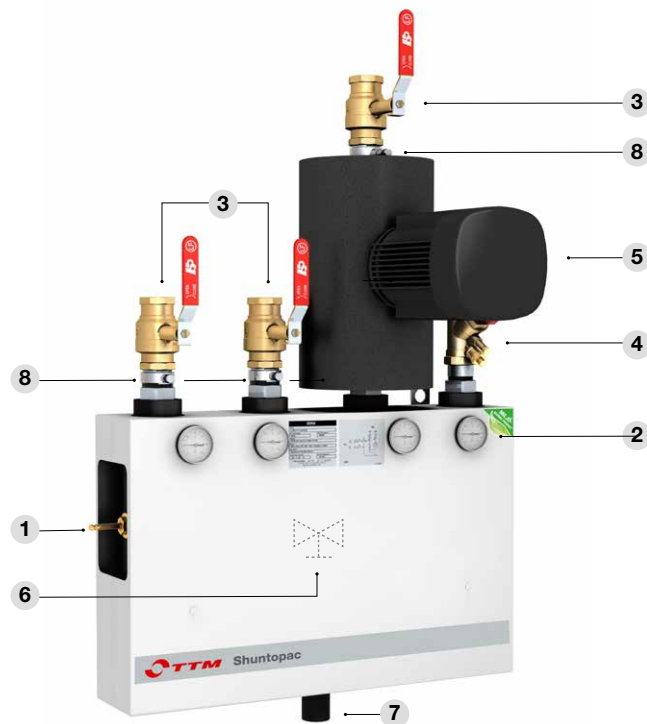
Shuntopac U 20-50 VÅ is supplied with a fire and corrosion proof housing of polyester coated aluminium sheet. Standard insulation is AF/Armaflex AF-4.

The suspension system consists of brackets in yellow chromate plated iron.

The standard version pipe package consists of fully-welded pressure vessel pipe SS-EN 10216-2 and DIN 2391, rustproofed with grey primer. Pipe packages in other qualities or with another surface treatment can be supplied to order.

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

The shunt unit is environmentally approved.



## Equipment

### 1. Control valve

Seat valve with threaded connection in a choice of make and type. The valve is installed in a flange joint to facilitate servicing and replacement.

### 2. Thermometers

4 pcs, graduated  $-40 - +40$  °C. Installed with silicon thermal transfer paste.

### 3. Shut-off valves

3 pcs ball valves with full throughflow and extended stem. Installed on pipe package with conical coupling.

### 4. Adjustment valve

1 pc in a choice of make and dimension for adjustment of total flow. Installed on pipe package with conical coupling. Make: TA STAD supplied as standard.

### 5. Pump

Choice of make and type with “wet” or “dry” motor.

### 6. Adjustment valve

1 pc TA STAD for adjustment of bypass flow.

### 7. Drainage

Version with hose screw connection R 1/2”.

### 8. Test sockets

Type TA STAD, installed on all connections.

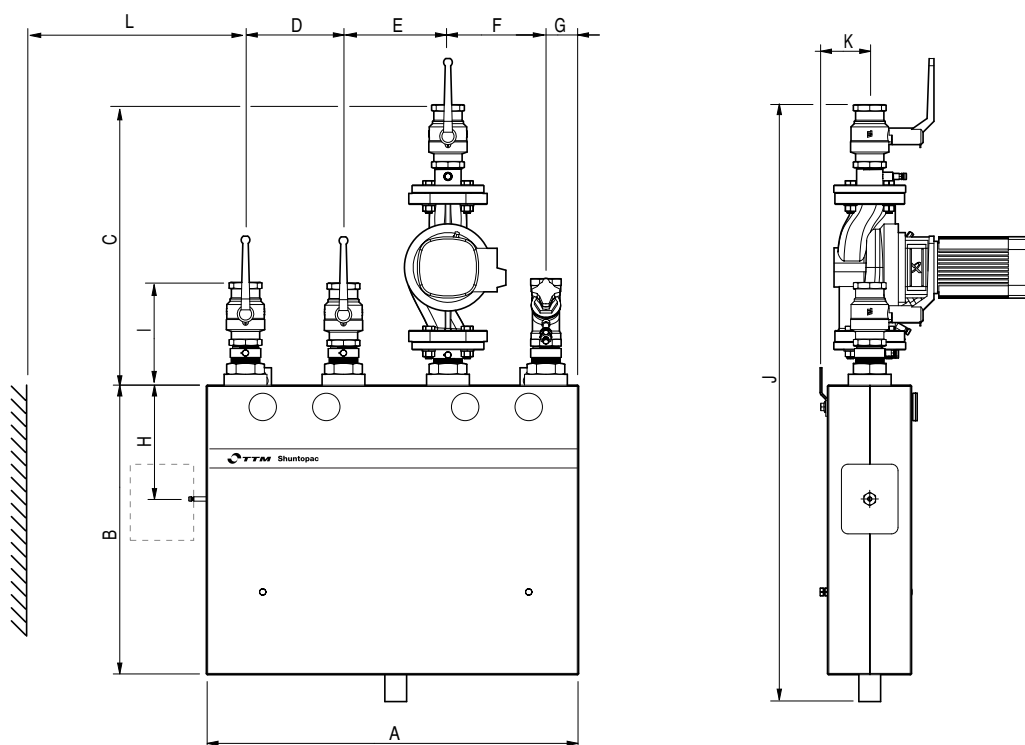
## Customised design

- Pipe package in e.g. copper or stainless steel of desired quality.
- Rustproofed pipe package, e.g. epoxy coated.

## Options

Floor stand

## Dimensions



| Conn. DN           | 20                                           | 25         | 32         | 40         | 50          |
|--------------------|----------------------------------------------|------------|------------|------------|-------------|
| A                  | 750                                          | 750        | 750        | 750        | 855         |
| B                  | 485                                          | 485        | 485        | 485        | 665         |
| C                  | 285 + pump                                   | 285 + pump | 285 + pump | 285 + pump | 305 + pump  |
| D                  | 200                                          | 200        | 200        | 200        | 225         |
| E                  | 200                                          | 200        | 200        | 200        | 225         |
| F                  | 200                                          | 200        | 200        | 200        | 225         |
| G                  | 67.5                                         | 67.5       | 67.5       | 67.5       | 75          |
| H                  | 182                                          | 182        | 182        | 182        | 261         |
| I                  | <175                                         | <193       | <200       | <205       | <245        |
| J                  | 800 + pump                                   | 800 + pump | 800 + pump | 800 + pump | 1050 + pump |
| K                  | 93                                           | 93         | 93         | 93         | 114         |
| L                  | Space for actuator, installation and service |            |            |            |             |
| Weight, approx. kg | 32                                           | 37         | 52         | 57         | 62          |

Max. press.: 1.0 MPa

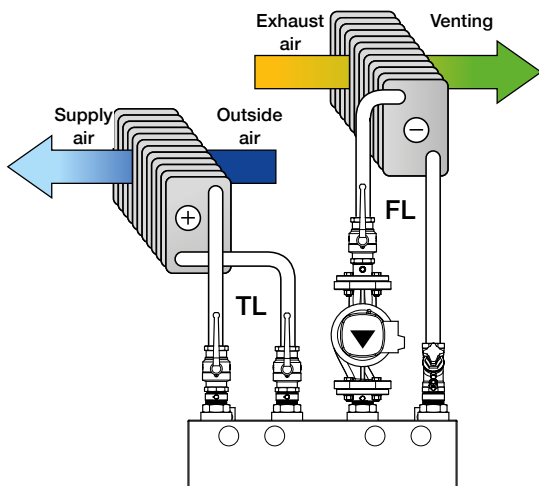
Temp. range: -20 – +110 °C

*Stated dimensions refer to standard design. Some deviations may occur in the case of other equipment.*

## Versions

|                                                      | 01 VÅ | 02 VÅ |
|------------------------------------------------------|-------|-------|
| Constant flow in exhaust air heat exchanger circuit. |       |       |
| Variable flow in supply air heat exchanger circuit.  |       |       |
| The control valve is installed as a mixing valve.    |       |       |

## System example



## Adjustment

### Total flow

1. Connect differential pressure instrument to adjustment valve with measuring point.
2. Set the control valve to fully open position (stem depressed, bypass closed).
3. Measure the water until it reaches the calculated value.

### Bypass flow

4. Set the control valve to fully closed position (stem up, bypass open).
5. Adjust the inner adjustment valve until the outer adjustment valve achieves the same pressure drop as before.

## Differential pressure measurement

All external valves on Shuntopac 20-50 VÅ are equipped with measurement outlet, allowing complete differential pressure measurement.

- B - C Pressure drop in supply air circuit.
- H - D Pressure drop in exhaust air circuit.
- D - E Head over circulation pump.
- C - G Pressure drop over control valve.
- F - H Differential pressure measurement over adjustment valve in exhaust air circuit.

