



# **Stainless Steel Safety and Shut-Off Block (QSAF) Datasheets**

The QHP safety and shut-off block (QSAF) is a fully stainless steel hydraulic accessory that is used to shut off and discharge hydraulic accumulators.

The QSAF consists of a valve block, an integrated pressure relief valve, a main shut-off valve and a manually operated pressure release valve, and the necessary pressure gauge connections are provided in addition to the tank connection.

## **PRODUCT BENEFITS**

The compact combination of components considerably simplifies the connection of an accumulator or consumer to the hydraulic system and provides the following benefits:

- Minimum of space and maintenance and installation required. As all the individual units are combined in one block, considerably fewer pipe fittings are necessary for installation.
- Considerable reduction in installation time.
- All types of connections for various accumulator designs are available



## **TECHNICAL SPECIFICATIONS**

### **Size of main shut-off valve**

- DN10

### **Max. operating pressure**

- 420 Bar

### **Permitted operating temperature**

- -10°C to 80°C

### **Δp-Q**

- See graph on page 2

### **Operating fluids**

- Mineral oil to DIN 51524 Part 1 and Part 2.  
(Other fluids on request)

### **Viscosity range**

- Min. 10mm<sup>2</sup>/s
- Max. 380 mm<sup>2</sup>/s

### **Weight**

- 4.4kg

## **FILTRATION**

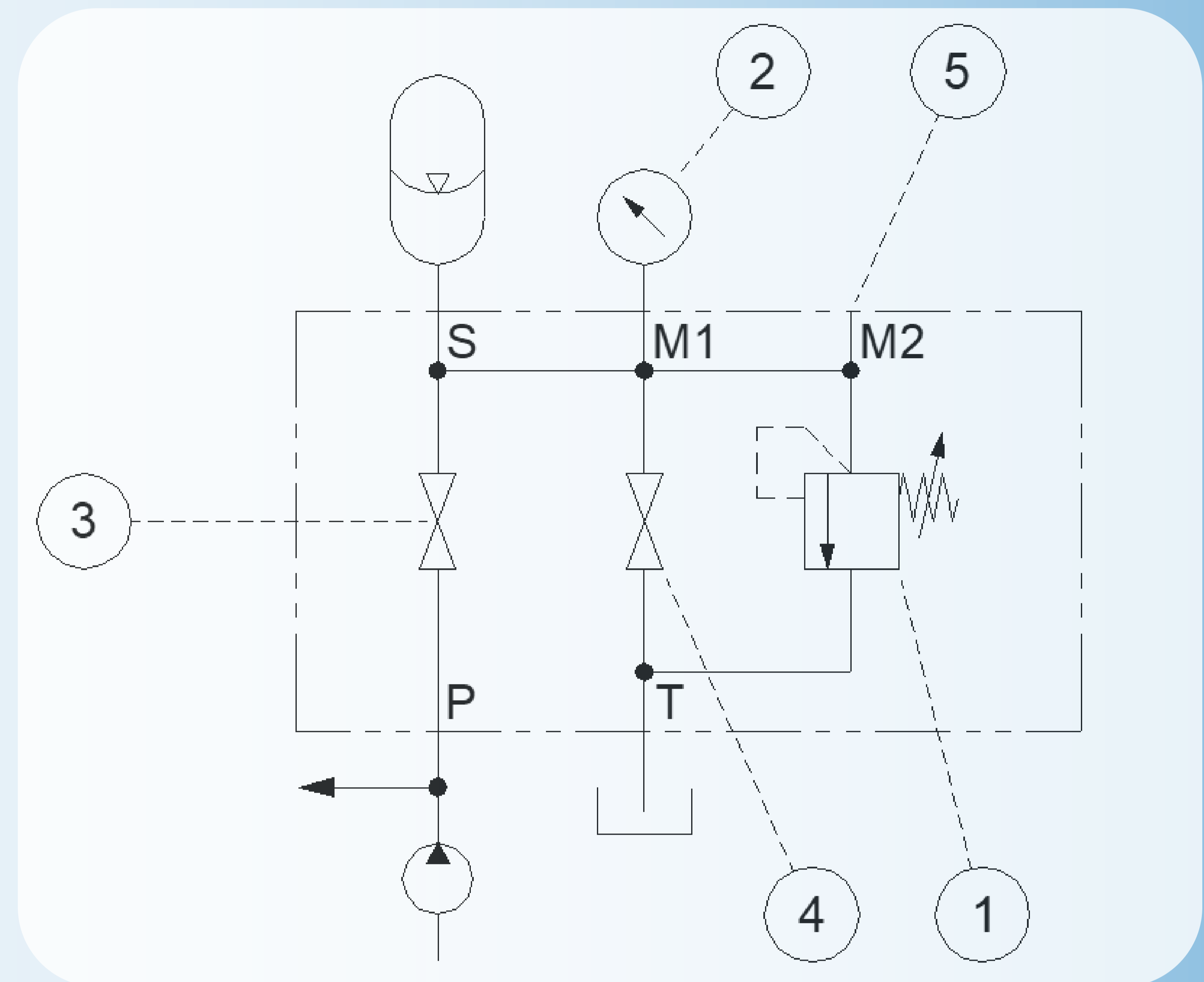
Max. permitted contamination level of the operating fluid to ISO 4406 Class 21/19/16 or SAE AS 4059 Class 11.

We therefore recommend a filter with a minimum retention rate of  $\beta_{20} \geq 100$ .

The fitting of filters and regular replacement of the filters guarantees correct operation, reduces wear and extends the service life.

## CIRCUIT DIAGRAM

- ① Pressure relief valve to prevent excessive pressure in accordance with the European Pressure Equipment Directive (PED)
- ② Pressure Gauge
- ③ Shut-off valve
- ④ Pressure release valve
- ⑤ Connection for test gauge



## PORTS

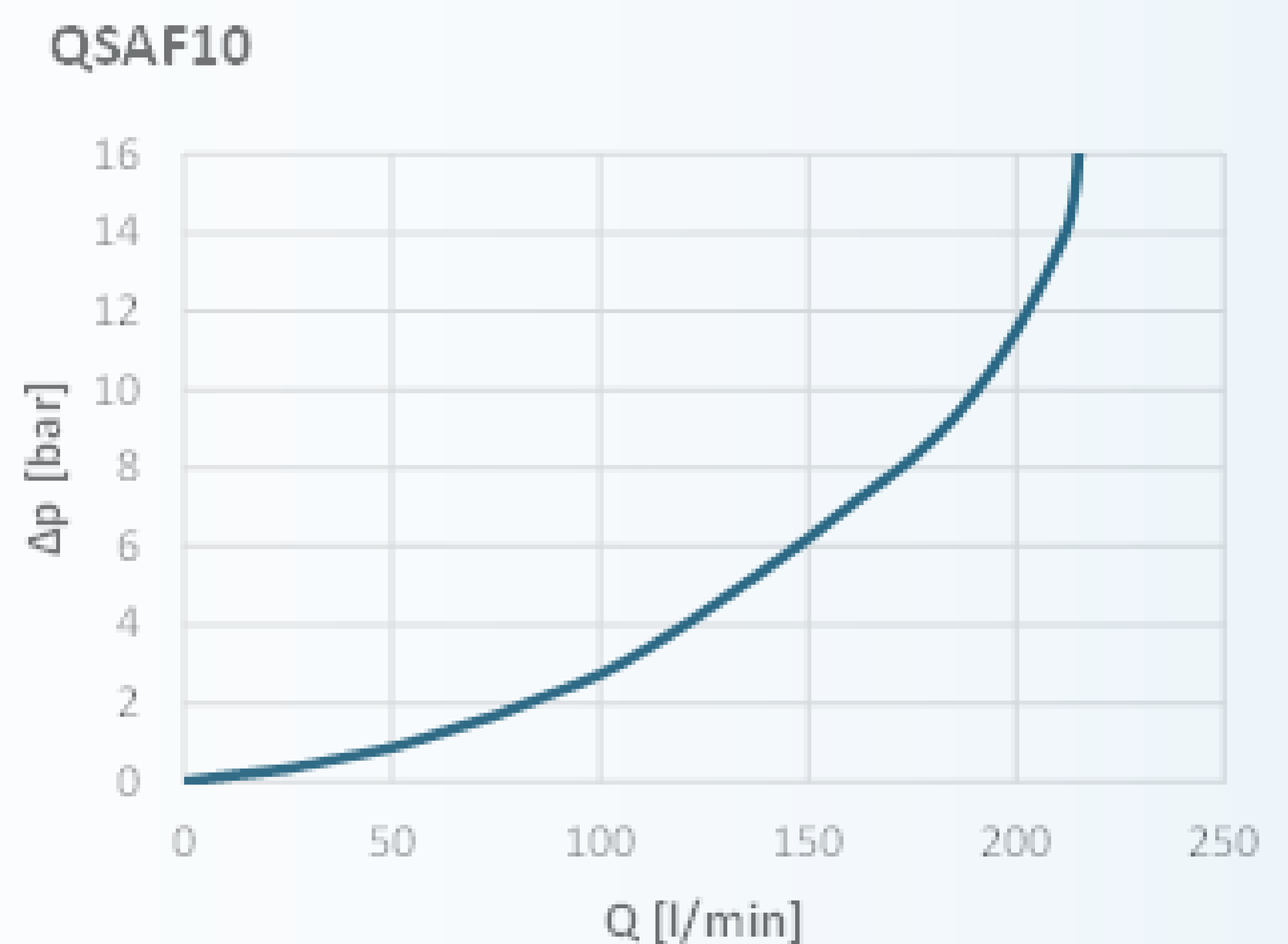
- S** – Accumulator port  
G 1 - ISO228
- P** – Line connection  
Connects QSAF to the system (Pump)  
G 1/2 - ISO228
- T** – Tank connection  
The piping to the tank must be separate.  
This ensures that the flow can be channelled away to the tank in a depressurised state when the pressure relief valve is opened.  
G 1/4 - ISO228

- M1** – Measuring/maintenance connection  
G 1/4 - ISO228
- M2** – Measuring/maintenance connection  
G 1/4 - ISO228

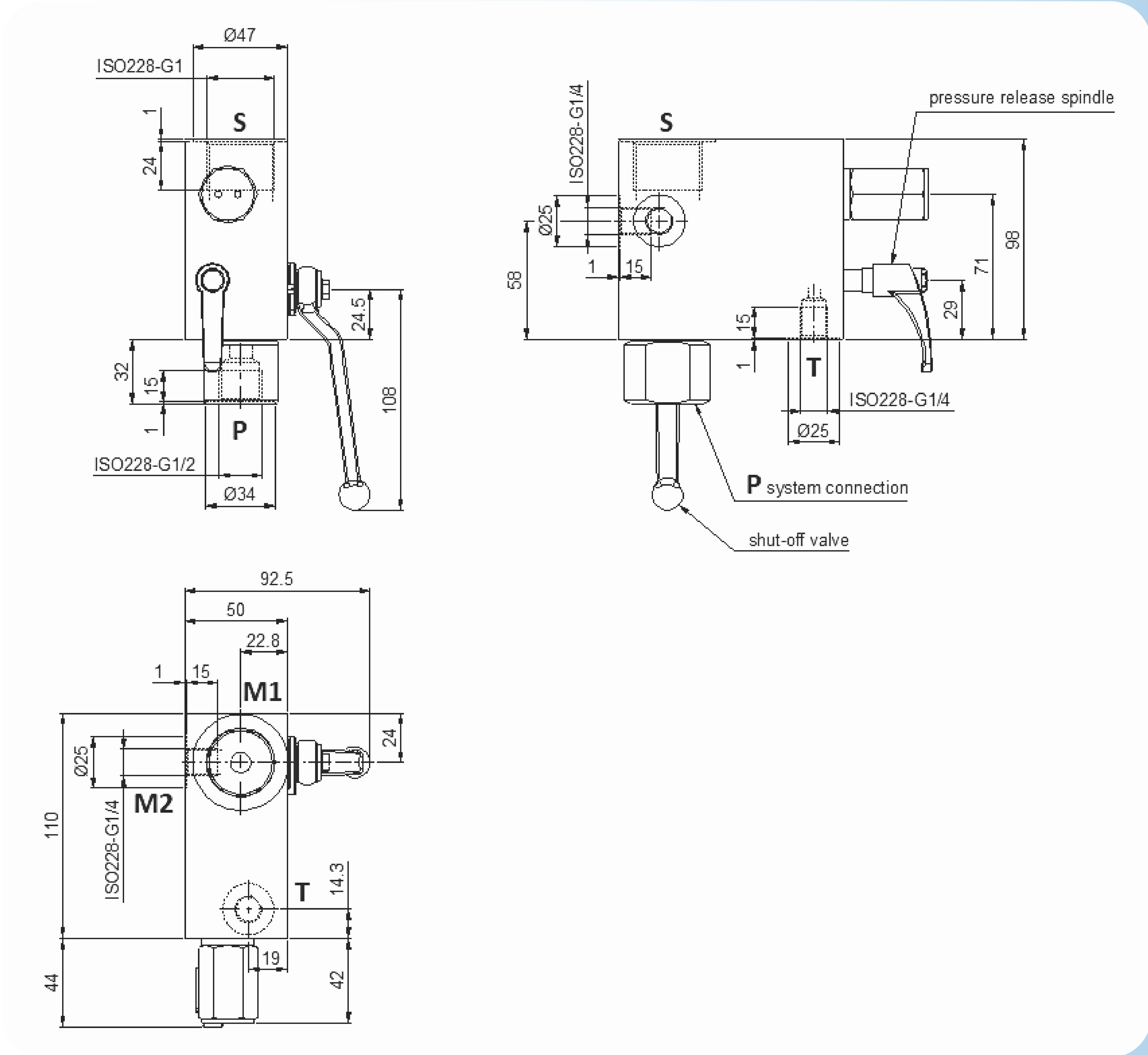
## FLOW CHARACTERISTICS

Flow from the pump to the accumulator

Measured at:  $v = 32\text{mm}^2/\text{s}$   
 $t_{oil} = 40^\circ\text{C}$  Operating pressure = 420 Bar



## DIMENSIONS



## ADAPTORS

Varying adaptors available on request