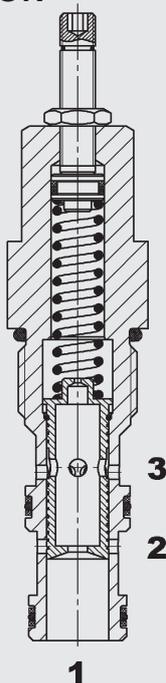


up to 120 l/min
up to 350 bar

FUNCTION



The flow regulator in priority style is a direct-acting 3-way spool type valve. A pressure compensator is connected downstream of a measuring orifice with a constant diameter. This keeps the pressure drop at the orifice plate and thus the output volume flow at 3 constant. The volume flow at 3 is largely independent of pressure fluctuations at the connections. The control pressure difference of the pressure compensator - and thus the controlled volume flow at 3 - can be adjusted within a defined range.

Priority flow controller: The difference between the incoming input volume flow at 1 and the outgoing controlled consumer volume flow at 3 (also called priority volume flow) is diverted as residual volume flow to port 2. Port 2 is pressure resistant. If port 3 is blocked, the valve closes port 1 and the flow rate is not diverted via the valve. If port 2 is blocked, the valve operates as a 2-way flow regulator from 1 to 3. If the required control pressure difference of the pressure compensator is not reached, the valve operates as a throttle with fixed orifice from port 1 to 3.

3-Way Flow Regulator pressure compensated priority style, direct-acting UNF Cartridge - 350 bar SRP12-01

FEATURES

- For regulating the speed of loads independently of the pressure
- For limiting the max. speed of lifting gears (in compliance with accident prevention regulations)
- For limiting the flow rate for control oil circuits in the main circuit and offline
- For prioritized supply of actuators, such as steering and braking - the excess flow is diverted to port 2
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1.000 h Salt spray test)

SPECIFICATIONS*

Operating pressure:	max. 350 bar
Nominal flow (port 1):	max. 120 l/min
Flow ranges and accuracy: (port 3)	10.6: 20 – 35 l/min 16.1: 30 – 55 l/min 22.5: 50 – 85 l/min 28.0: 55 – 105 l/min
Media operating temperature range:	min. -30 °C to max. +100 °C
Ambient temperature range:	min. -30 °C to max. +100 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1, 2 and 3
Viscosity range:	min. 10 mm ² /s to max. 420 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 - 1200 Jahre, according to DIN EN ISO 13849-1
Installation:	No orientation restrictions
Materials:	Valve body: steel Spool: hardened and ground steel Seals: NBR (standard) FKM (optional, temperature range -20 °C to +120 °C) Back-up rings: PTFE
Cavity:	FC12-3
Weight:	0.38 kg

* see "Conditions and instructions for valves" in brochure 53.000

MODEL CODE

SRP12-01-C-N-10.6 H 9.0

Basic model

3-way flow regulator, UNF

Type

01 = standard

Body and ports*

C = cartridge only

Seals

N = NBR (standard)

V = FKM

Flow rate code

Flow rate code (GPM)	Nominal flow setting range (l/min)	Required control pressure differential (bar)
10.6	20 - 35	10 - 15
16.1	30 - 55	10 - 15
22.5	50 - 85	10 - 15
28.0	55 - 105	10 - 15

An evaluation of the flow rate range is done at a differential pressure of $p_3 - p_2 = 100$ bar (see performance)

Type of adjustment

V = Allen head

H = knob adjustment

Other adjustment types on request

Setting

9.0 = 9 gpm (approx. 34,07 l/min)

No details = set to lowest value

different settings are available as an option

Standard models

Model code	Part No.
SRP12-01-C-N-06.9H	3565598
SRP12-01-C-N-10.6H	3507506
SRP12-01-C-N-12.4H	3470822
SRP12-01-C-N-16.1H	3827336
SRP12-01-C-N-22.5H	3827337
SRP12-01-C-N-28.0H	3827338

Other models on request

*Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
FH123-SB6	3053908	Steel, zinc-plated	G 3/4"	350 bar
FH123-AB6	3053872	Aluminium, anodized	G 3/4"	210 bar

Seal kits

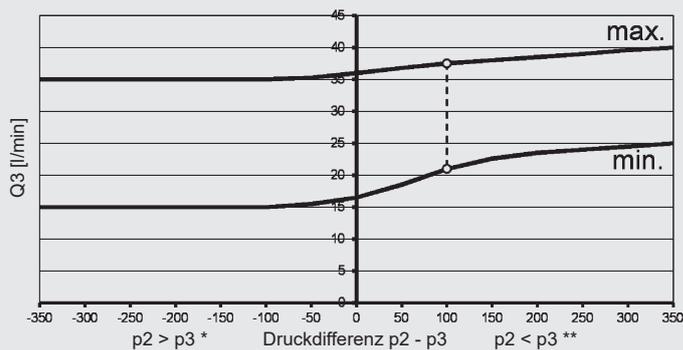
Code	Material	Part No.
FS UNF 12/N SEAL KIT	NBR	3651563
FS UNF 12/V SEAL KIT	FKM	3919374

TYPICAL PERFORMANCE

Measured at $v = 46 \text{ mm}^2/\text{s}$, $T_{\text{oil}} = 40 \text{ }^\circ\text{C}$

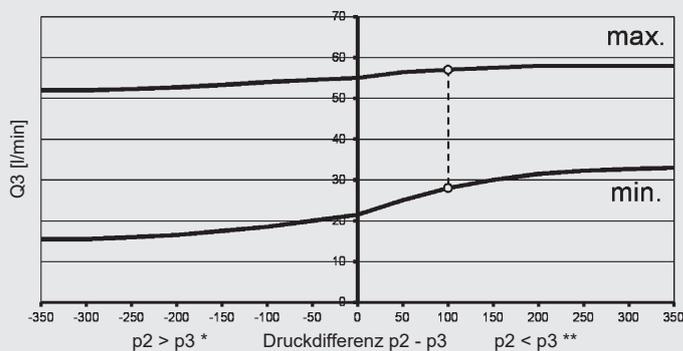
Example SRP12-01-...10.6

at $Q_1 = 70 \text{ l/min}$



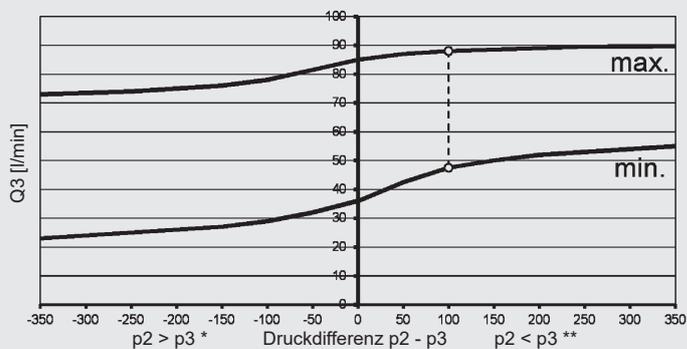
Example SRP12-01-...16.1

at $Q_1 = 80 \text{ l/min}$



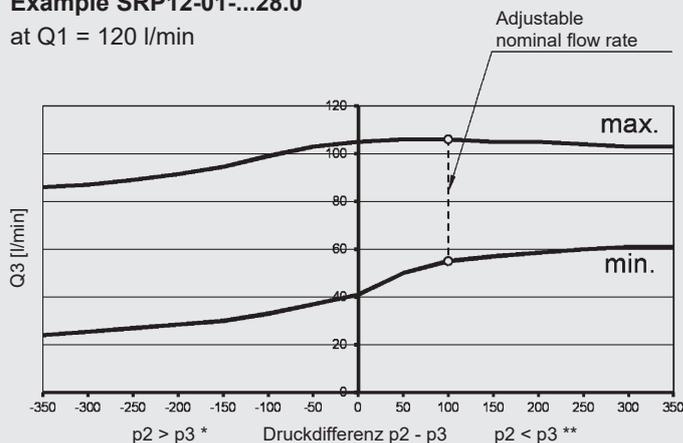
Example SRP12-01-...22.5

at $Q_1 = 120 \text{ l/min}$



Example SRP12-01-...28.0

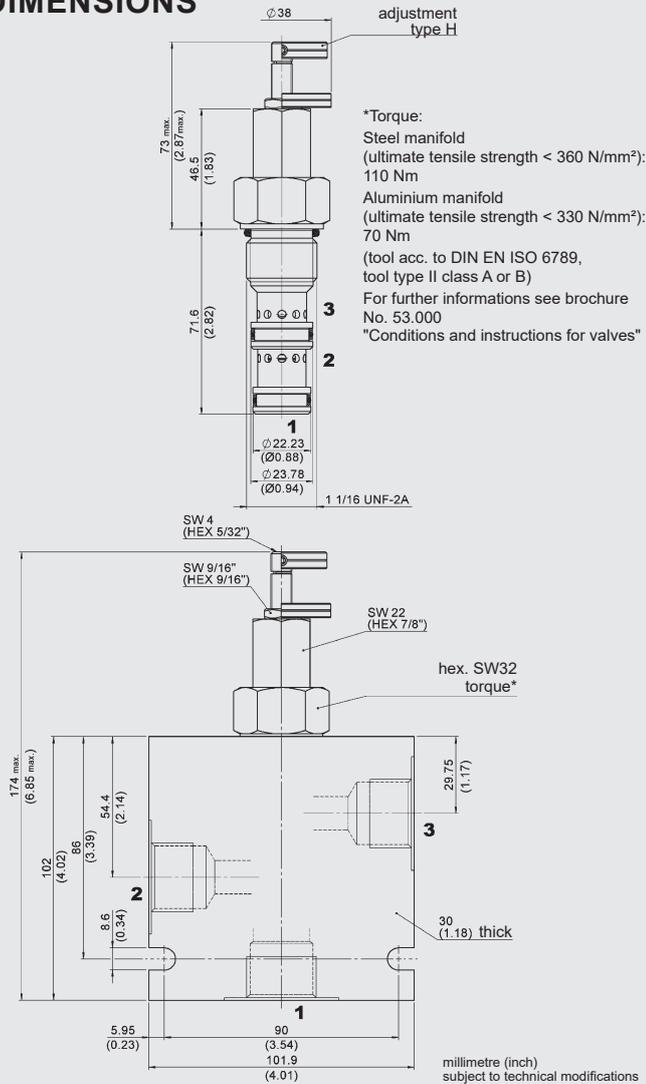
at $Q_1 = 120 \text{ l/min}$



* Bypass pressure higher than priority pressure

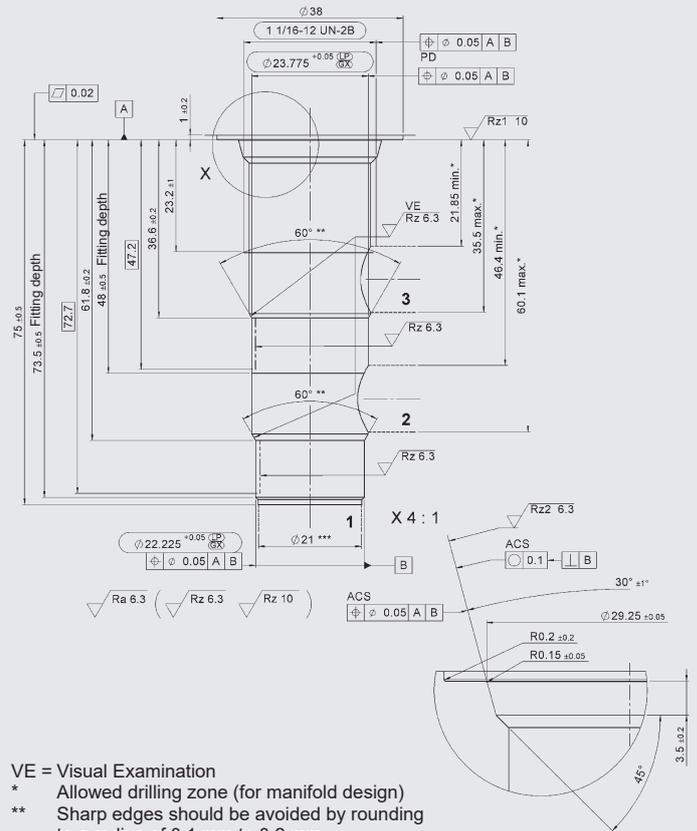
** Priority pressure higher than bypass pressure

DIMENSIONS



CAVITY

FC12-3



VE = Visual Examination

* Allowed drilling zone (for manifold design)

** Sharp edges should be avoided by rounding to a radius of 0.1 mm to 0.2 mm

*** largest pre-drilling diameter (nominal tool diameter)

Form tools

Tool

Part No.

On request

millimetre (inch)
 subject to technical modifications

Note

The information in this brochure relates to the operating conditions and applications described. For applications or operating conditions not described, please contact the relevant technical department.
 Subject to technical modifications.

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