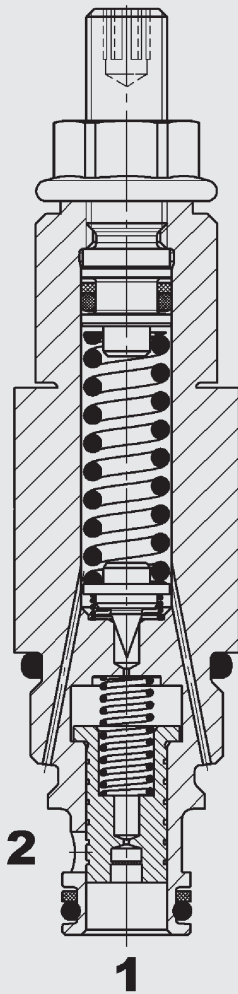


## FUNCTION



The pressure relief valve is a pilot-operated, spool type valve. When the pressure at port 1 exceeds the set pressure, the pilot stage opens and a small flow rate flows through the orifice of the pilot stage to the tank. The pressure before the pilot orifice is lower than the system pressure - the main control stage follows the pilot control, opens to the tank and allows oil to flow from port 1 to port 2.

**Attention:** Tank pressure is added to the set pressure.

## Pressure Relief Valve spool type, pilot-operated UNF Cartridge – 350 bar DB08P-01

### FEATURES

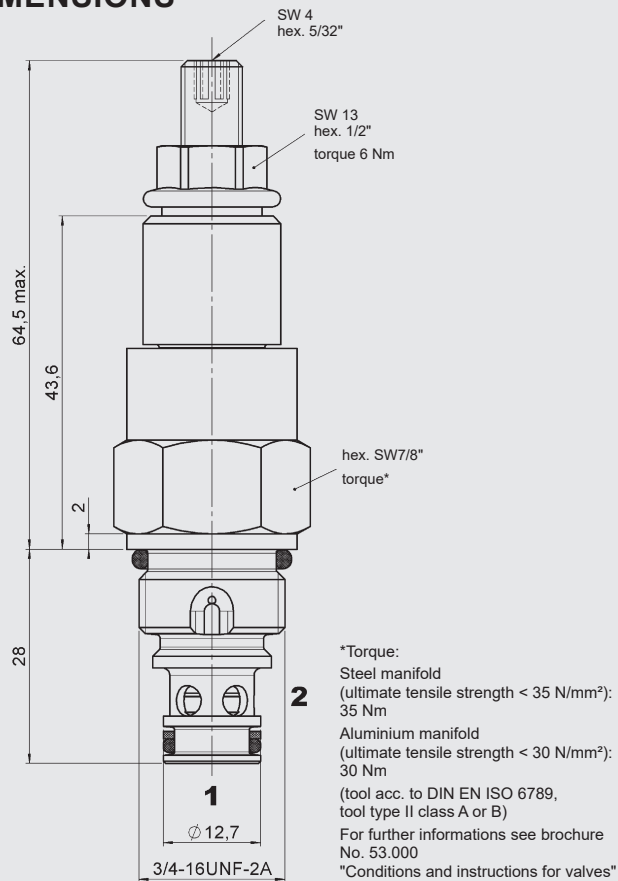
- Excellent stability throughout the entire flow range
- Screen protected metering orifice enhances safety
- Optional spring ranges up to 345 bar
- Adjustable throughout flow range
- Quick response
- Compact design
- Exposed surfaces zinc-nickel plated for increased corrosion protection (1000 h Salt spray test)

### SPECIFICATIONS\*

Operating pressure:	max. 350 bar
Nominal flow:	max. 60 l/min
Setting pressure ranges:	5 up to 35 bar 5 up to 60 bar 5 up to 125 bar 5 up to 230 bar 5 up to 345 bar
Internal leakage:	< 0.5 l/min at 350 bar
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. 7.4 mm <sup>2</sup> /s to max. 420 mm <sup>2</sup> /s
Filtration: (according to ISO 4406)	< 210 bar: min. class 20/18/15 > 210 bar: min. class 19/17/14
Installation:	No orientation restrictions
Materials:	Valve body: steel Spool: hardened and ground steel Seals: NBR (standard) FKM (optional, media temperature range -20 °C to 120 °C)
Cavity:	FC08-2
Weight:	0.14 kg

\* see "Conditions and Instructions for valves" in brochure 53.000

## DIMENSIONS



millimeter (inch)  
subject to technical modifications

## MODEL CODE

**DB08P-01 - C - N - 180 V 100**

**Basic model**  
Pressure relief valve, UNF

**Body and ports\***  
C = Cartridge only  
SB3 = G3/8 ports, steel body  
AB3 = G3/8 ports, aluminium body

**Seals**  
N = NBR  
V = FKM

**Setting pressure range**  
050 = 5 to 35 bar  
090 = 5 to 62 bar  
180 = 5 to 124 bar  
330 = 5 to 228 bar  
500 = 5 to 345 bar  
Other pressure ranges on request

**Type of adjustment**  
V = Allen head (hex. 5/32")  
H = Knob adjustment  
F = Factory preset, non adjustable  
K = Allen head (hex. 5/32") with protective cap

**Opening pressure setting**  
No details = no setting, spring relaxed  
Pressure value = customer-specific opening pressure on request

## Standard models

Model code	Part No.
DB08P-01-C-N-090V	3141198
DB08P-01-C-N-330V	3141200
DB08P-01-C-N-500V	3141201

## \*Standard in-line bodies

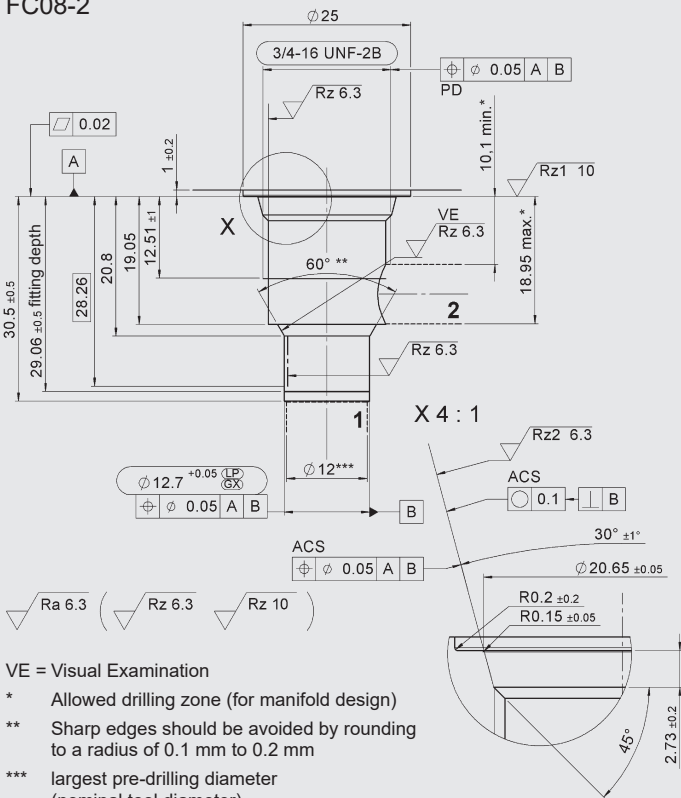
Code	Part No.	Material	Ports	Pressure
FH082-SB3	560919	Steel, zinc-plated	G3/8"	350 bar
FH082-AB3	3011423	Aluminium, anodized	G3/8"	210 bar

## Seal kits

Code	Material	Part No.
FS UNF 08/N	NBR	3651385
FS UNF 08/V	FKM	3651356

## CAVITY

FC08-2



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)

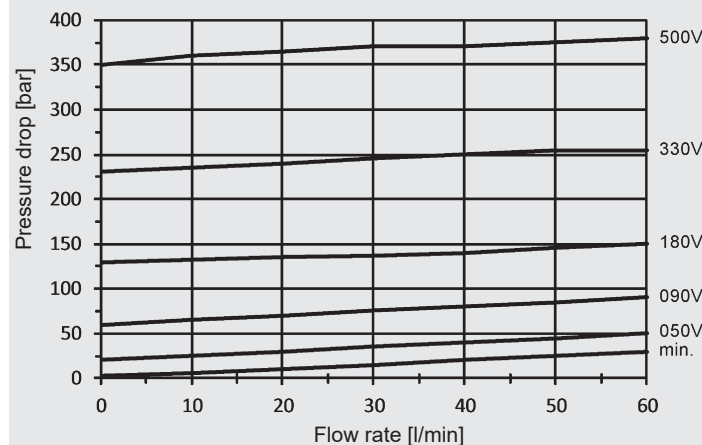
## Form tools

Tool	Part No.
Countersink	175473
Reamer	175474

millimeter (inch)  
subject to technical modifications

## TYPICAL PERFORMANCE

measured at  $v = 29 \text{ mm}^2/\text{s}$ ,  $T_{\text{oil}} = 51 \text{ }^\circ\text{C}$



## 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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