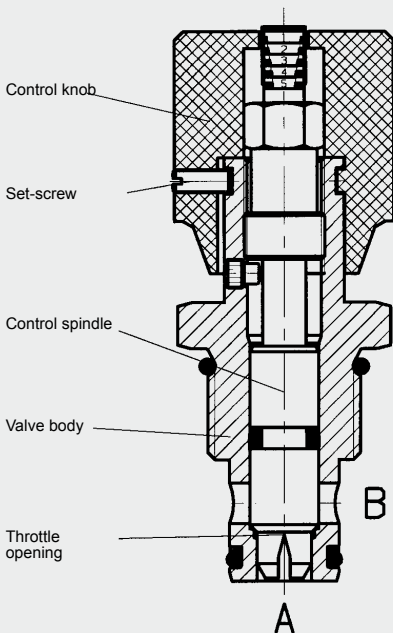


Up to 160 l/min
Up to 350 bar

FUNCTION



The DVE is a flow control valve which controls the flow rate by adjusting the cross section. It is available in four sizes. The flow rate is dependent on the pressure differential and the viscosity. Starting with the throttle spindle in the fully closed position, the flow rate increases in accordance with the appropriate curve as the control knob is turned. The flow is controlled in both directions. The scale and coloured rings on the top of the control knob enable accurate repeat setting.

Needle Valve Direct-Acting Cartridge – 350 bar DVE 08920 to 16920

FEATURES

- For regulating the speed of loads
- For fine adjustment and shut-off of the flow
- For system-related damping in hydraulic circuits
- High level of safety provided by patented spindle safety mechanism
- A set-screw locks the setting
- Choice of four sizes for optimum adaptability to the system
- Optional zinc-plated version available
- Optional version with UNF thread available

SPECIFICATIONS

Operating pressure:	max. 350 bar
Nominal flow:	DVE 08920 max. 50 l/min DVE 10920 max. 80 l/min DVE 12920 max. 160 l/min DVE 16920 max. 160 l/min
Media operating temperature range:	-20 °C to +80 °C
Ambient temperature range:	min. -20 °C to max. +80 °C
Operating fluid:	Hydraulic oil to DIN 51524 Part 1 and 2
Viscosity range:	min. 2.8 mm ² /s to max. 800 mm ² /s
Filtration:	Class 21/19/16 according to ISO 4406 or cleaner
MTTF _d :	150 years (see "Conditions and instructions for valves" in brochure 5.300)
Installation:	No orientation restrictions, preferably horizontal
Materials:	Valve body: steel Seals: FKM (standard) NBR (optional, media temperature range -30 °C to +80 °C) Back-up rings: PTFE
Cavity:	08920, 10920, 12920, 16920
Weight:	DVE 08920 = 0.15 kg DVE 10920 = 0.25 kg DVE 12920 = 0.50 kg DVE 16920 = 0.70 kg

MODEL CODE

DVE 08920 - 01 - C - V

Basic model

Needle valve, metric (UNF optional)

Cavity

08920, 10920, 12920, 16920

Type

- 01 = standard (phosphated, seals FKM)
 - 11 = zinc-plated, stainless steel spindle 0.3 mm
 - 12 = valve body nickel-plated, fine throttle spindle, protective dome nut – adjustment with tool
- Other types on request

Body and ports

C = cartridge only

Seals

- V = FKM (standard)
- N = NBR

Standard models

Model code	Part No.
DVE08920-01-C-V	705426
DVE10920-01-C-V	705430
DVE12920-01-C-V	705434
DVE16920-01-C-V	705438

Other models with metric or UNF thread on request

Standard in-line bodies

Code	Part No.	Material	Ports	Pressure
On request				

Seal kits

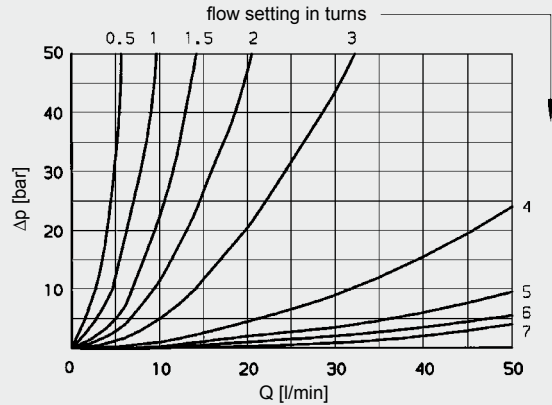
Code	Part No.
SEAL KIT 08FKM DV/P DRV/P DVE RVP SRVR/P	555090
SEAL KIT 10FKM DV/P DRV/P DVE RVP SRVR/P	555091
SEAL KIT 12FKM DV/P DRV/P DVE RVP SRVR/P	555092
SEAL KIT 16FKM DV/P DRV/P DVE RVP SRVR/P	555093

PERFORMANCE

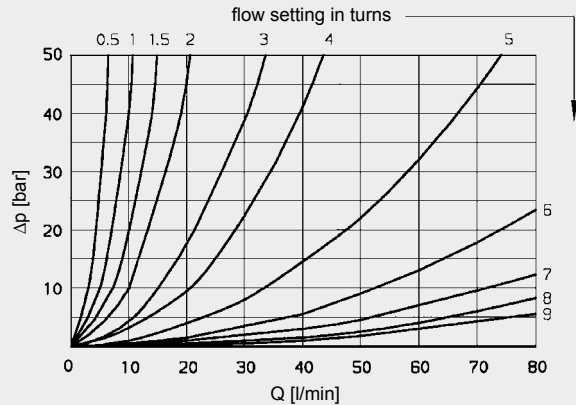
Pressure drop, dependent on flow rate

Pressure differential Δp measured against flow rate Q , measured at constant flow setting, $v = 34 \text{ mm}^2/\text{s}$ and $T_{oil} = 46 \text{ }^\circ\text{C}$

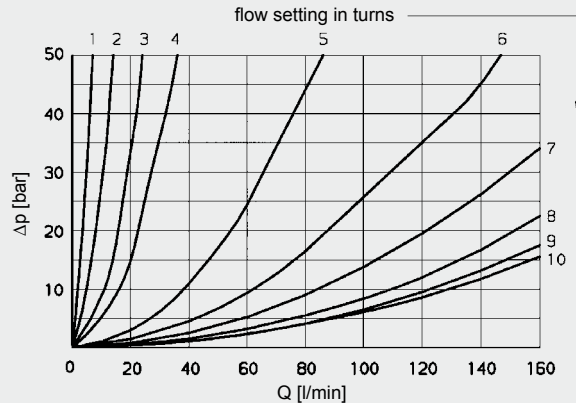
DVE08920



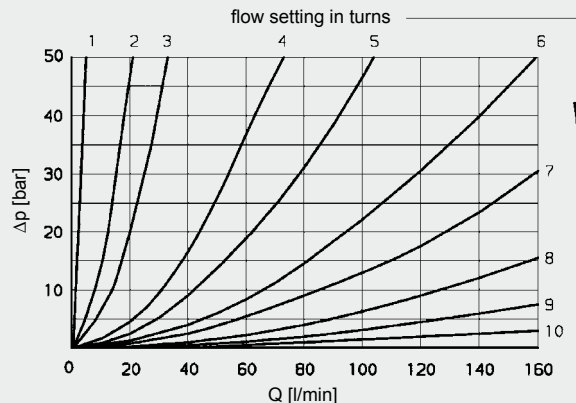
DVE10920



DVE12920

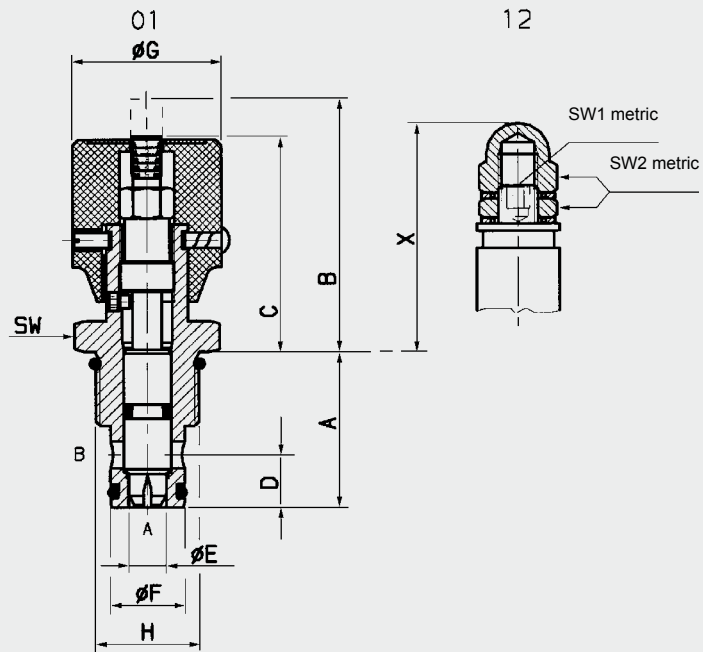


DVE16920



DIMENSIONS

Type:

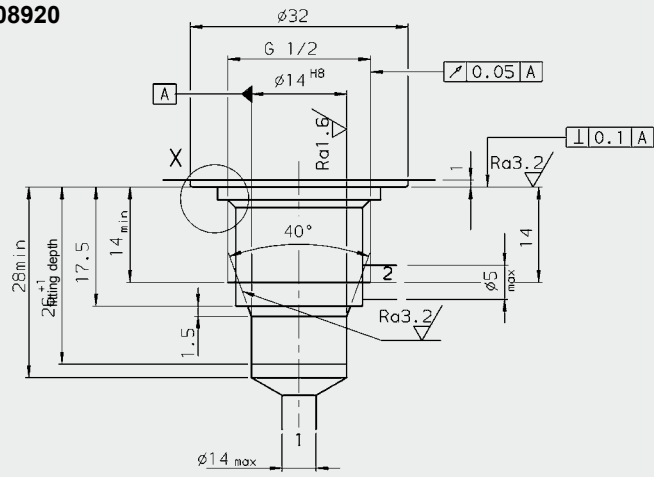


millimeter
subject to technical modifications

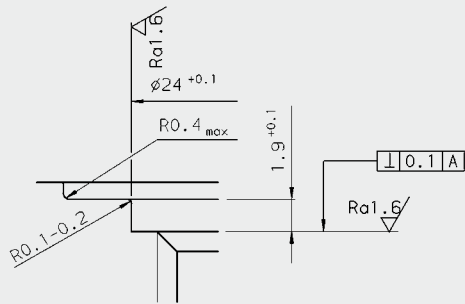
A	B	C	D	E	F	G	H	SW	SW1	SW2	X	Torque
26	47	40	12	5	14	29	G 1/2 A	27	4	13	44	30 + 5
30	64	54	12.5	8	16	38	G 1/2 A	27	5	17	58	40 + 5
40	65	54	13.5	9.5	19	38	G 3/4 A	32	6	19	64	50 + 5
43.5	65	55	17.5	11	27	38	G 1 A	41	6	19	64.5	75 + 5

CAVITY

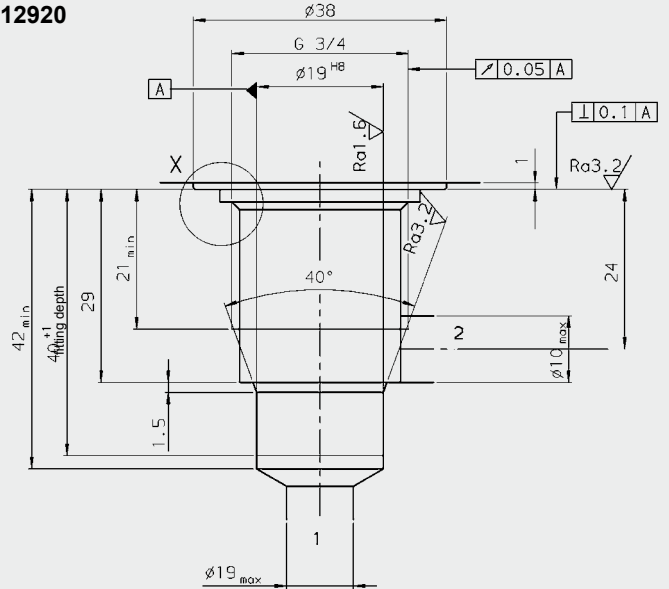
08920



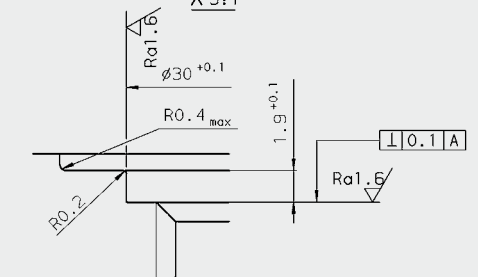
X 5:1



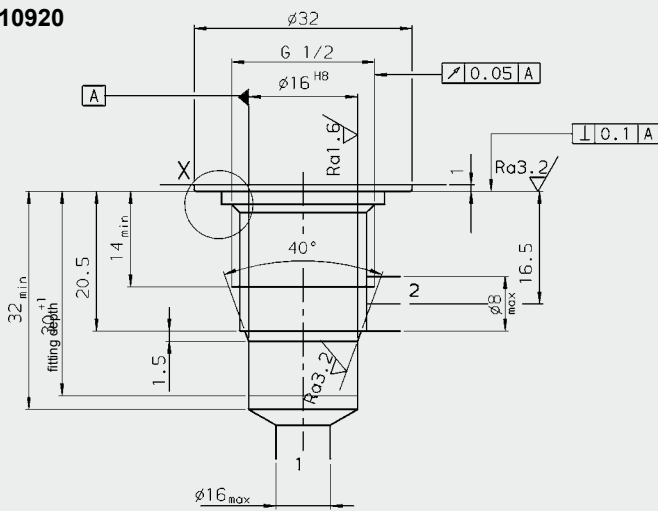
12920



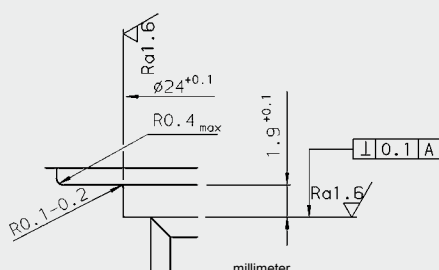
X 5:1



10920

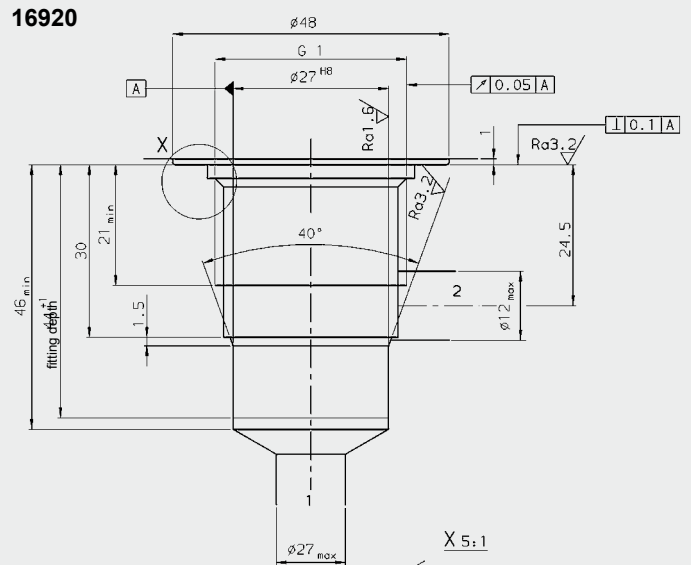


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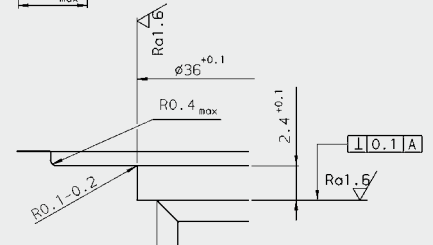


millimeter
subject to technical modifications

16920



X 5:1



millimeter
subject to technical modifications

Form tools

Tool	Cavity / Part No.			
	08920	10920	12920	16920
Countersink	170854	170863	170862	170861
Forming tool	169169	169169	170844	170843
Reamer	1014205	1000772	1000778	1014208
Tap	1002667	1002667	1002663	1002661
Plug gauge	173839	173840	173841	-

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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