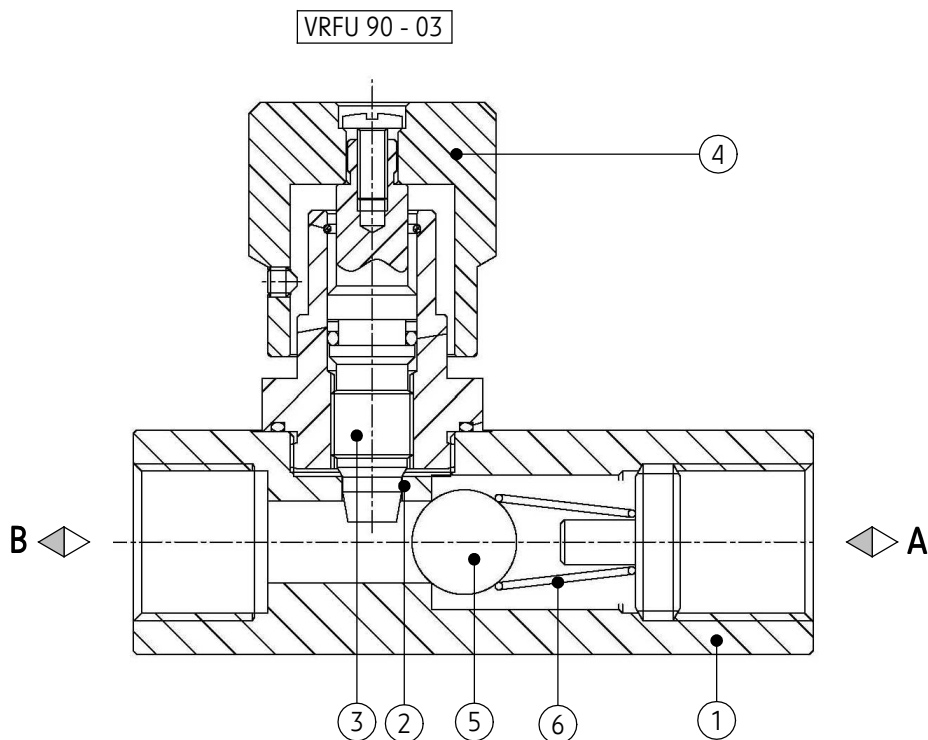


## APPLICATION

Throttle/check valve type VRFU... is used for fluid flow choking, depending on the pressure difference at the choke-point and the fluid viscosity. It can be used in hydraulic systems where a constant working resistance occurs or the change of speed at the varying workload is less important. The valve is installed in hydraulic systems in any position with connection pipes.



## DESCRIPTION OF OPERATION



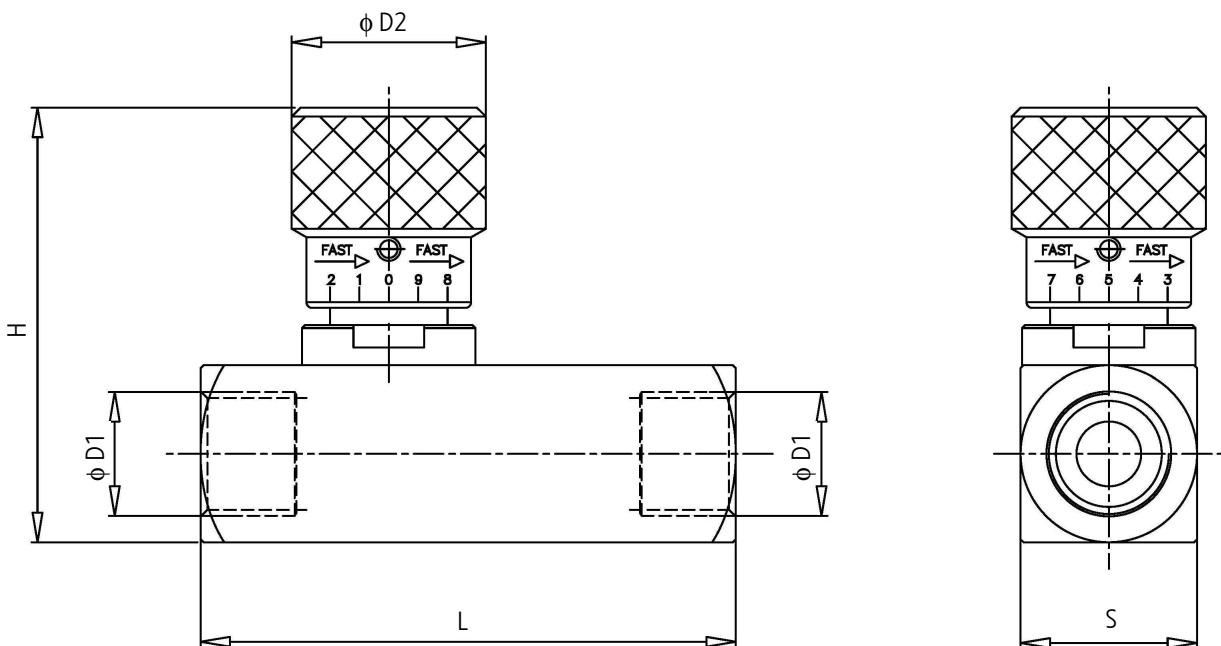
Fluid jet flows through the connection socket **A** of the body (1) to the choke opening (2) between the body (1) and the adjustable choke (3) to the socket **B**. With the choke rotation (3) by the calibrated knob (4) one can variably change the circular section of the choke

opening (2). If the fluid flows in the reverse direction **B** to **A**, against the tension of the spring (6), it moves away the ball (5) from the socket, allowing free flow of the fluid jet through the valve.

## TECHNICAL DATA

Hydraulic fluid	mineral oil			
Required filtration	up to 16 $\mu\text{m}$			
Recommended filtration	up to 10 $\mu\text{m}$			
Nominal fluid viscosity	37 mm <sup>2</sup> /s at the temperature 55 °C			
Viscosity range	2,8 up to 380 mm <sup>2</sup> /s			
Fluid temperature range (in a tank)	recommended	40°C up to 55°C		
	max	-20°C up to +70°C		
Ambient temperature range	-20°C up to +70°C			
Maximum operating pressure	version			
	VRFU 90 - 01	VRFU 90 - 02	VRFU 90 - 03	VRFU 90 - 04
	40 MPa	40 MPa	40 MPa	35 MPa
Maximum flow	15 dm <sup>3</sup> /min	30 dm <sup>3</sup> /min	50 dm <sup>3</sup> /min	80 dm <sup>3</sup> /min

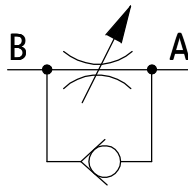
## OVERALL AND CONNECTION DIMENSIONS



Nominal size (NS)	Max. working pressure	Labelling	$\text{Ø}D1$	$\text{Ø}D2$	L	H	S	Weight
6	40 MPa	VRFU 90 - 01	G1/4	30	66	68	25	0,34 kg
8	40 MPa	VRFU 90 - 02	G3/8	30	77	68	25	0,36 kg
10	40 MPa	VRFU 90 - 03	G1/2	33	91	72	30	0,60 kg
15	35 MPa	VRFU 90 - 04	G3/4	42	112,5	94	40	1,33 kg

## SCHEMES

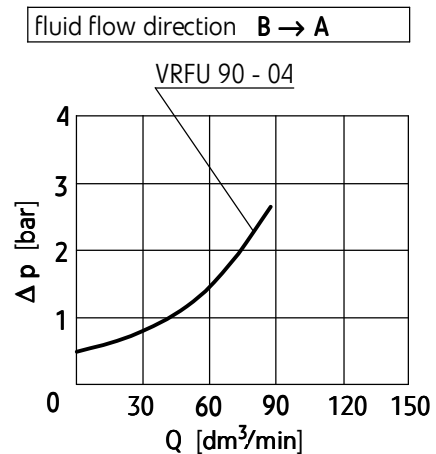
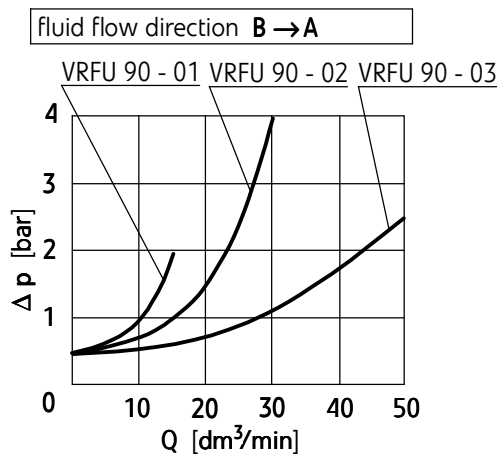
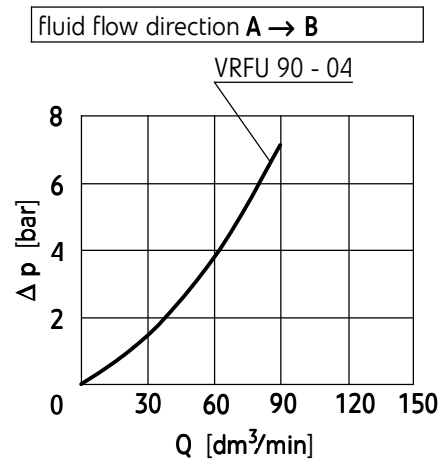
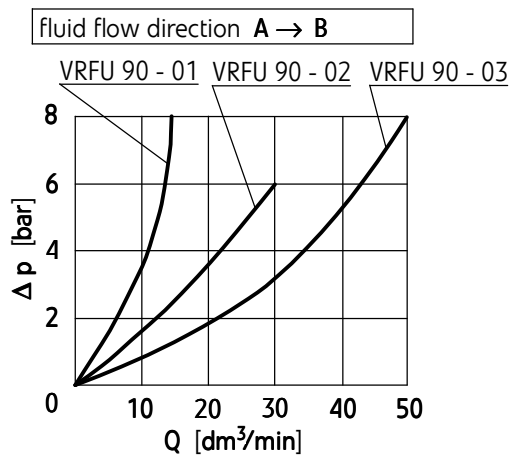
Graphic symbol of the VRFU... valve



## CHARACTERISTICS

measured at viscosity  $\nu = 41 \text{ mm}^2/\text{s}$  and temperature  $t = 50^\circ\text{C}$

$\Delta p(Q)$  values for different nominal sizes of the valve



## HOW TO ORDER

<b>VRFU</b>		<b>*</b>
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**Fluid flow range (A → B; B → A)**

up to <b>15 dm<sup>3</sup>/min</b> (threaded connection <b>G1/4</b> )	= <b>90 - 01</b>
up to <b>30 dm<sup>3</sup>/min</b> (threaded connection <b>G3/8</b> )	= <b>90 - 02</b>
up to <b>50 dm<sup>3</sup>/min</b> (threaded connection <b>G1/2</b> )	= <b>90 - 03</b>
up to <b>80 dm<sup>3</sup>/min</b> threaded connection <b>G3/4</b> )	= <b>90 - 04</b>

Optionally, full description of any additional requirements  
(discussed with the manufacturer)

**NOTICE:**

When placing an order, please use the symbols listed above, for example: VRFU 90 - 03

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