

Throttle valve type V 251



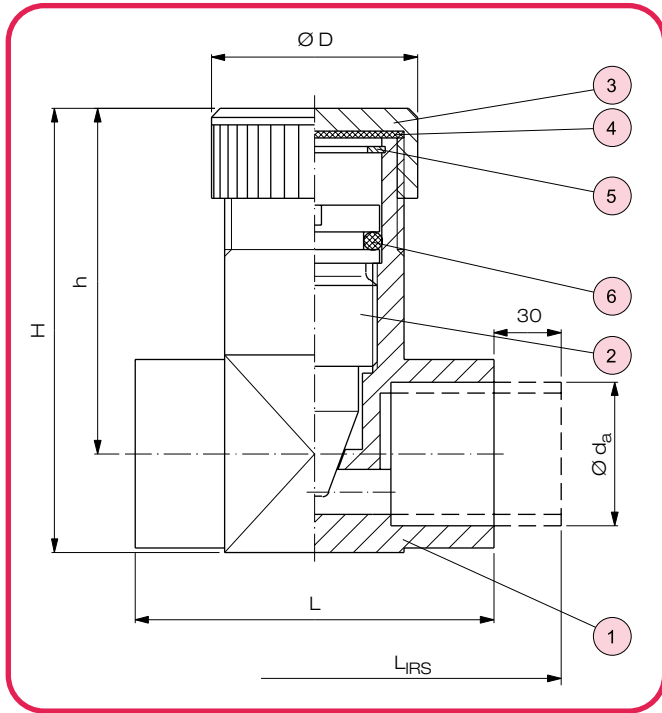
Body material	PVC-U	PP	PVDF
Sealing material (optionally)		• EPDM	• FKM
Working temperatur	0 °C up to 60 °C	- 20 °C up to 80 °C	- 20 °C up to 120 °C
Nominal size / pressure class	DN 10 up to DN 80 / PN 10		
Connection with pipe	Cement-/ welding socket Welding spigot (IR-spigot)		
Length	Company standard		

Example for an invitation to tender text:

Throttle valve type V 251, DN 50, PN 10, PVDF / FKM, welding socket d 63

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No.	Description	Number	Material
1	Body	1	PVC-U, PP, PVDF
2	Stem	1	PVC-U, PP, PVDF
3	Cap	1	PVC-U, PP, PVDF
4	Seal ^{*)}	1	EPDM, FKM
5	Stop ring	1	PVC-U, PP, PVDF
6	O-ring ^{*)}	1	EPDM, FKM

^{*)} Wearing parts / recommended spare parts

Dimensions and weights

DN	Dimensions in mm						Weight in kg / pc.		
	d_a	D	L	L_{IRS}	H	h	PVC-U	PP	PVDF
10	16	29	47	107	57	45	0,05	0,04	0,06
15	20	35	55	115	66	51	0,08	0,05	0,10
20	25	40	66	126	80	62,5	0,12	0,08	0,14
25	32	47	80	140	96	74,5	0,22	0,14	0,27
32	40	56	100	160	111	86	0,33	0,24	0,40
40	50	70	120	180	133	101	0,66	0,45	0,92
50	63	88	146	206	158	118	1,21	0,84	1,30
65	75	93	163	223	185	142,5	2,42	1,68	2,60
80	90	108	178	238	208	158	3,10	2,10	3,25

Description

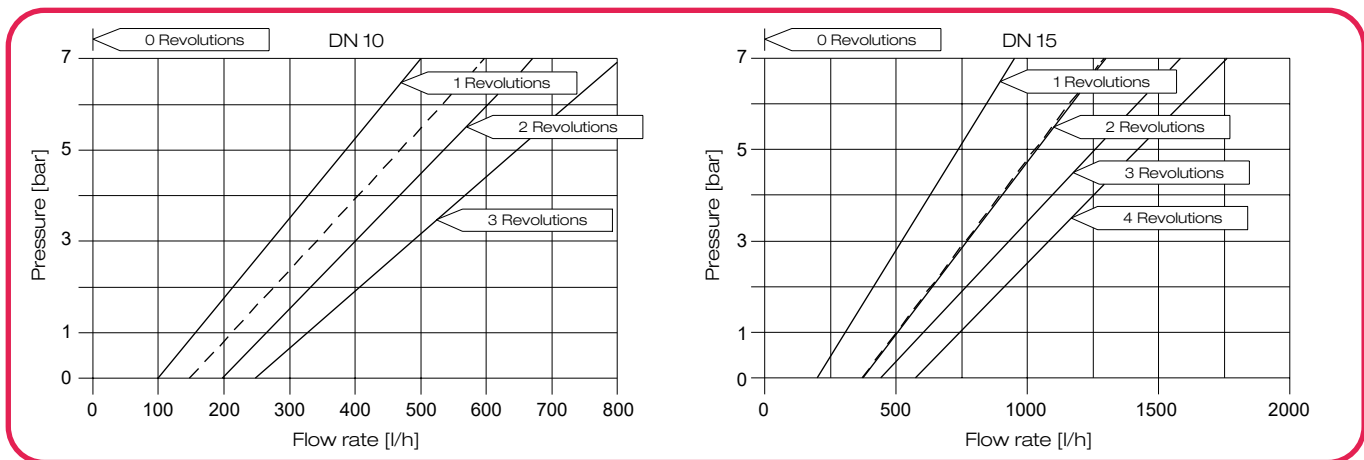
- Throttle valves are used to throttle the flow rate (liquids or gases) in pipelines.
- A spindle with a plug narrows the cross section of the hole in the housing and thereby reduces the flow rate to the desired value.
- The spindle is self-locking and sealed by an O-ring. The spindle is adjusted with a suitable tool (e.g. screwdriver).

- The throttle valve is closed with a screw cap, this prevents unintentional adjustment of the stem.

Special features

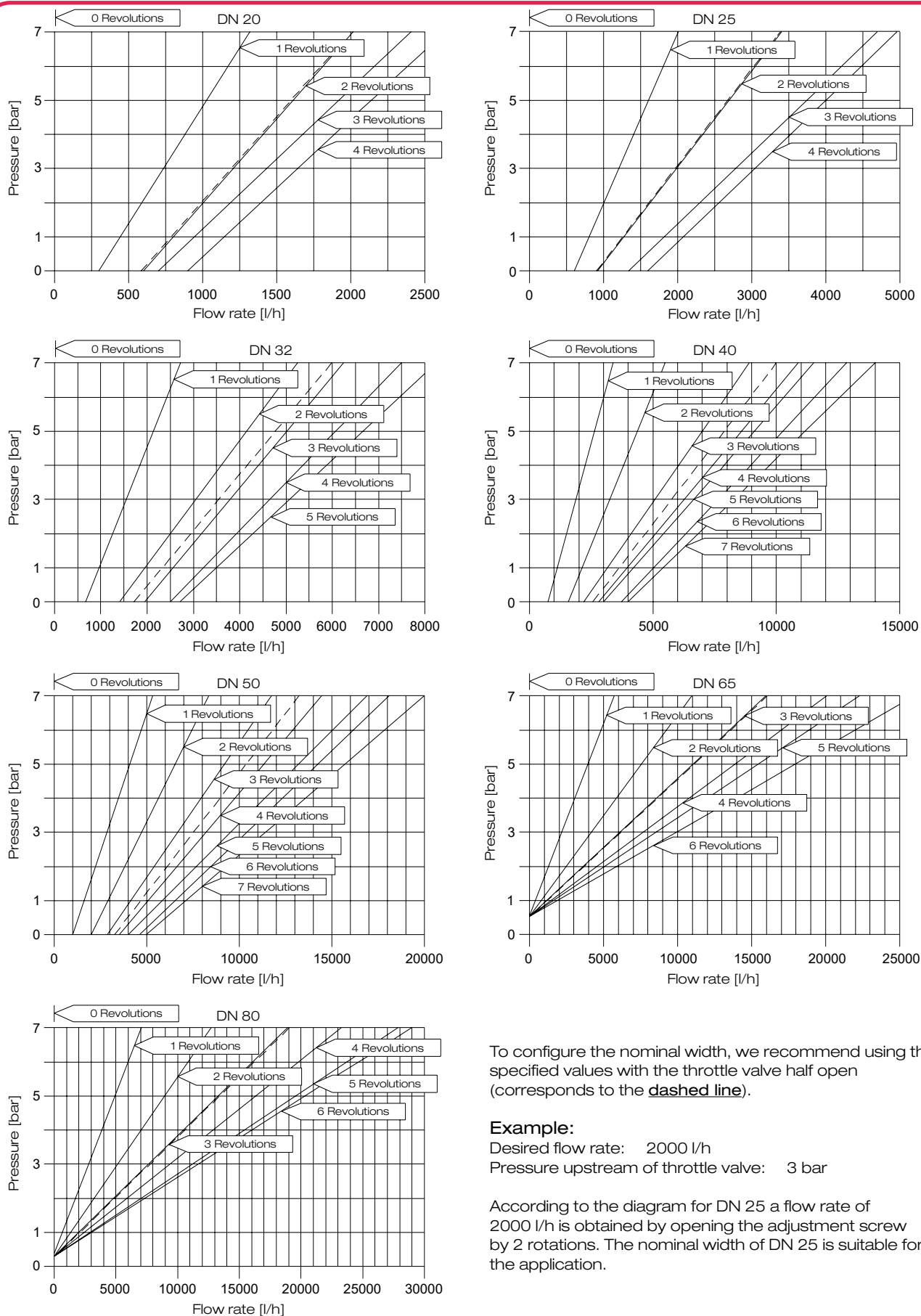
- All wetted parts made of plastic
- Nearly maintenance-free
- Any installation position
- Can be used for liquid and gaseous media
- Flow rate finely adjustable

Characteristic graphs



Throttle valve type V 251

Characteristic graphs



To configure the nominal width, we recommend using the specified values with the throttle valve half open (corresponds to the **dashed line**).

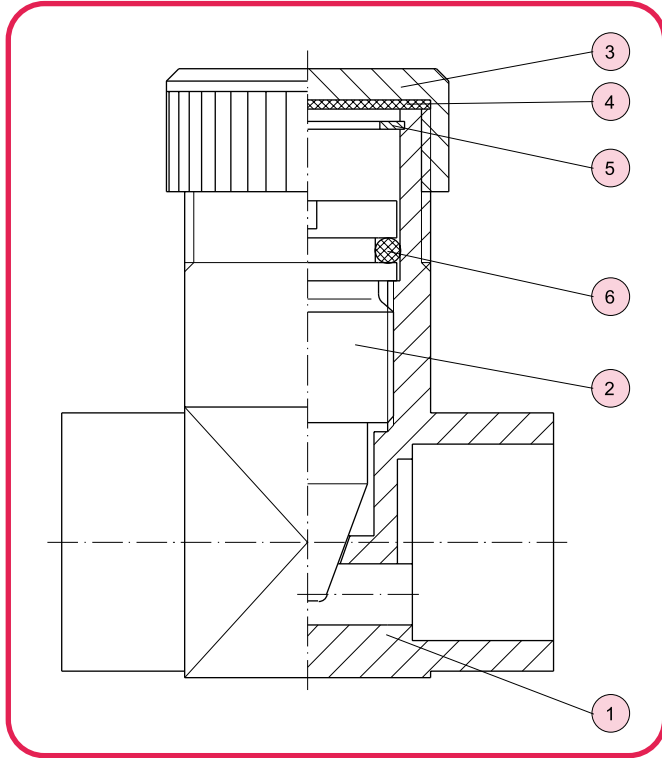
Example:

Desired flow rate: 2000 l/h
 Pressure upstream of throttle valve: 3 bar

According to the diagram for DN 25 a flow rate of 2000 l/h is obtained by opening the adjustment screw by 2 rotations. The nominal width of DN 25 is suitable for the application.

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Maintenance manual and mounting instructions



Working pressure p_B in bar

Body material	T_B [°C]	p_B [bar]
PVC-U	0 up to 25	10
	40	6
	60	1
PP	- 20 up to 30	10
	40	7
	60	4,3
	80	1,7
PVDF	- 20 up to 40	10
	60	7,5
	80	5,3
	120	2

Description

Attention: Never dismantle the valve when the pipe is under pressure.

- Unscrew cap 3 by hand or with a suitable tool.
- Remove stop ring 5 from the groove of the body with the screwdriver.
- Carefully unscrew stem 2 with a broad screwdriver from the body and remove the O-ring 6 from the groove.

Assembling of the valve

- The valve assembly is to be performed in reverse order as for disassembly.
- Check the components for damage and replace if necessary.
- All parts must be free of containment.

Notes for correct installation

- The valve must be installed stress-free in the pipeline (plane parallelism, axial, length).
- If possible, use two detachable pipe connections (flange or screw connection).
- Flange connection:
Connecting bolts have to be tighten evenly crosswise (observe the tightening torques of the screws). For plastic flanges in general washers have to be provided for bolts and nuts.
- Cement / welding socket, cement / welding spigot:
For the gluing or welding connection the relevant guidelines (e.g. DVS) have to be noted.

Setting of the pressure-dependent flow rate

- Unscrew cap 3 from the body.
- **Decrease flow** → screw the spindle into the body in clockwise direction.
- **Increase flow** → turn the stem counter-clockwise.
- Screw cap 3 with seal 4 onto the body.