885
DN 80-100

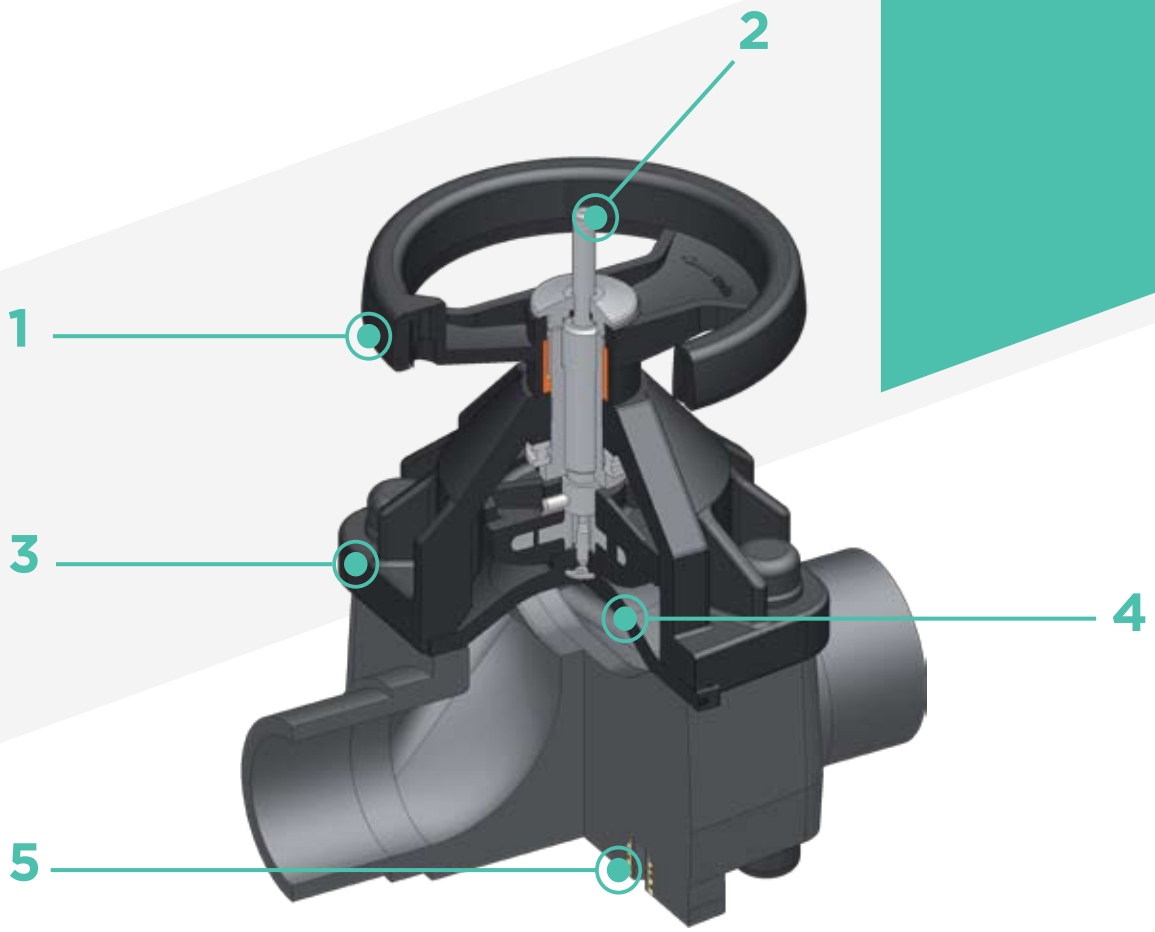
The 885 is particularly suitable for shutting off and regulating abrasive or dirty fluids. The handwheel control and diaphragm seal provide precise and effective control, while reducing the risk of water hammer to a minimum.

2-WAY DIAPHRAGM VALVE

- Connection system for solvent weld, threaded and flanged joints
- Compact and lightweight construction
- High flow coefficient and minimum pressure drop
- **Internal components in metal, totally isolated from the conveyed fluid**, with anti-friction disk to reduce friction to a minimum
- **Modularity of the range:** only 2 handwheel and 2 diaphragm and bonnet sizes for 2 different valve sizes
- Handwheel that stays at the same height during rotation
- Bonnet fastening screws that crew into the built-in bush preventing the deposit of dirt or impurities
- **CDSA** (Circular Diaphragm Sealing Angle) system that, thanks to the uniform distribution of shutter pressure on the diaphragm seal, offers the following advantages:

- reduction in the tightening torque of the screws fixing the actuator to the valve body
- reduced mechanical stress on all valve components (actuator, body and diaphragm)
- easy to clean valve interior
- low risk of the accumulation of deposits, contamination or damage to the diaphragm due to crystallisation
- operating torque reduction

Technical specifications	
Construction	2-way diaphragm valve
Size range	DN 80 - 100
Diaphragm size	MA 80 - 100
Nominal pressure	PN 10 with water at 20° C
Temperature range	**PVC-U:** 0 °C - 60 °C - **PVC-C:** 0 °C - 100 °C **PP-H:** 0 °C - 100 °C - **PVDF:** -20 °C - 120 °C **ABS:** -20 °C - 80 °C
Coupling standards	**Solvent welding / Welding:** EN ISO 1452, EN ISO 15493, BS 4346-1, DIN 8063, NF T54-028, ASTM D 2467. Can be coupled to pipes according to EN ISO 1452, EN ISO 15493, DIN 8062, NF T54-016, ASTM D 1785
	Flanging system: ISO 7005-1, EN ISO 1452, EN ISO 15493, EN 558-1, DIN 2501, ANSI B16.5 Cl.150, JIS B22200
Reference standards	**Construction criteria:** EN ISO 16138, EN ISO 1452, EN ISO 15493
	Test methods and requirements: ISO 9393
	Installation criteria: DVS 2204, DVS 2221, UNI 11242
Valve material	**Body:** PVC-U / PVC-C / PP-H / PVDF / ABS **Bonnet:** PP-GR **Position indicator cap:** PVC
Diaphragm material	EPDM, FPM, PTFE (on request NBR)
Control options	Manual control; pneumatic actuator



1 **Handwheel** in (PP-GR) with high mechanical strength and **ergonomic grip for optimum manageability**

2 **Optical position indicator** supplied as standard

3 **Full protection bonnet in PP-GR**, no protruding bolts , no areas where impurities can accumulate.

Internal circular and symmetrical diaphragm sealing area

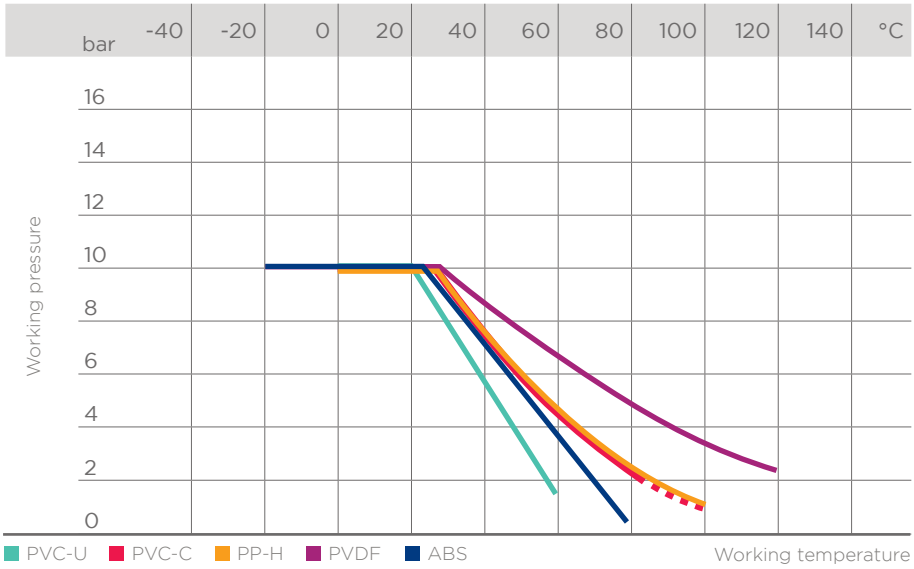
4 Diaphragm available in EPDM, FPM, PTFE (NBR on request) and easy to replace

5 **Threaded metal inserts** for anchoring the valve

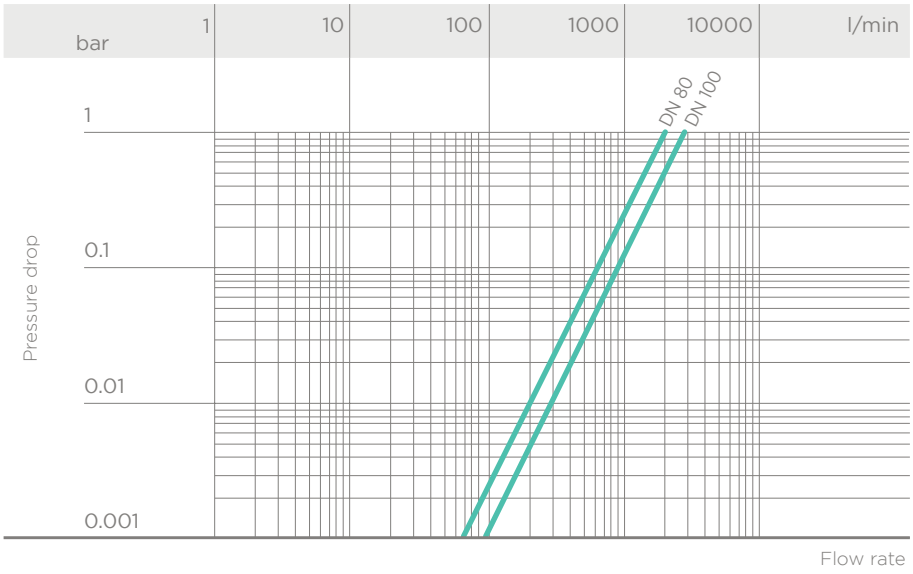
TECHNICAL DATA

PRESSURE VARIATION ACCORDING TO TEMPERATURE

For water and harmless fluids to which the material is classified as CHEMICALLY RESISTANT. In other cases, a reduction of the nominal pressure PN is required (25 years with safety factor).



PRESSURE DROP GRAPH



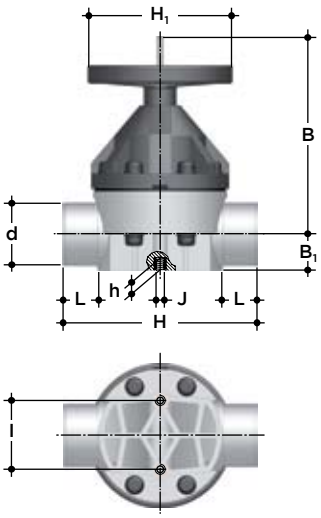
K_v100 FLOW COEFFICIENT

The K_v100 flow coefficient is the Q flow of litres per minute of water at a temperature of 20°C that will generate Δp= 1 bar pressure drop at a certain valve position.

The K_v100 values shown in the table are calculated with the valve completely open.

DN	80	100
K_v100 l/min	2000	2700

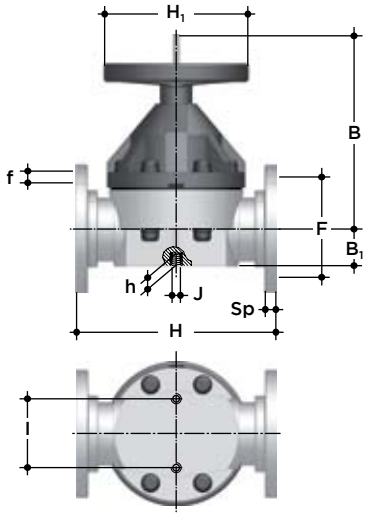
DIMENSIONS - 885



2-way diaphragm valve with **male ends** for solvent respectively socket welding, **metric series**, code 39

DN	MA	PN	B	B_1	d	H	h	H_1	I	J	L	Weight (g)			
												PVC-U PVC-C	PP-H	PVDF	ABS
80	80	10*	225	55	90	300	23	200	100	M12	51	7000	6100	7700	6000
100	100	10*	295	69	110	340	23	250	120	M12	61	10500	8500	12700	9000

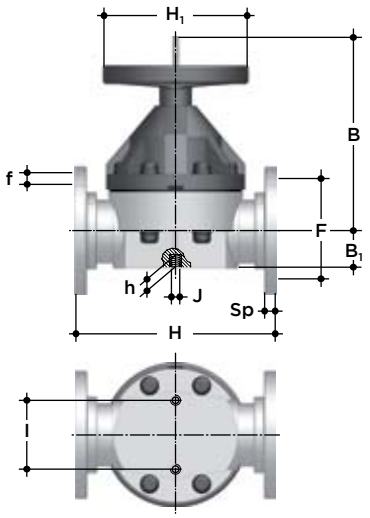
* PTFE PN6



2-way diaphragm valve with **fixed flanges**, **drilled PN10/16**. Face to face according to EN 558-1, code 81

DN	MA	PN	B	B_1	F	f	H	H_1	I	J	Sp	U	Weight (g)		
													PVC-U PVC-C	PP-H	PVDF
80	80	10*	225	55	160	18	310	200	100	M12	21.5	8	8500	7600	9200
100	100	10*	295	69	180	18	350	250	120	M12	22.5	8	12400	10400	14600

* PTFE PN6



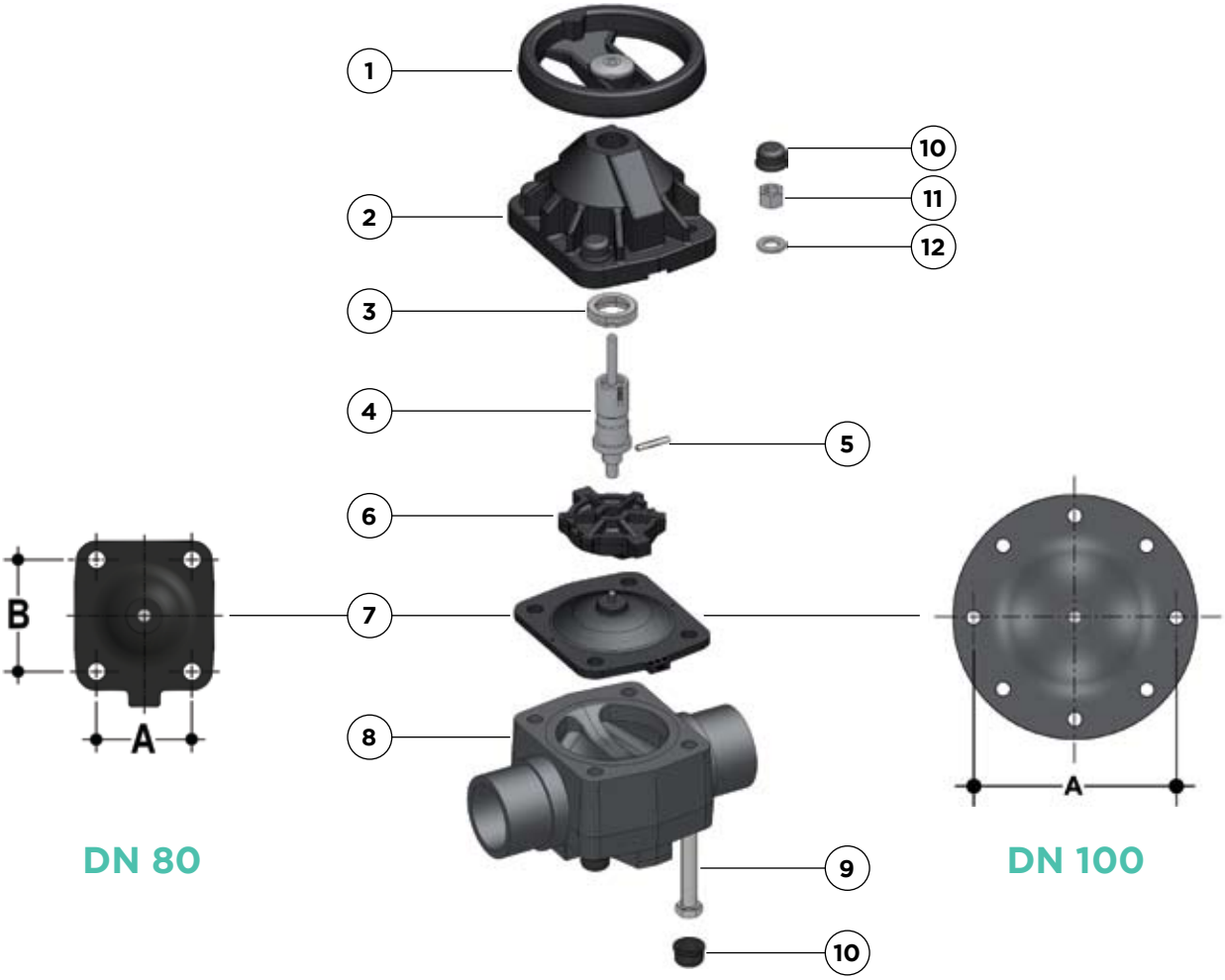
2-way diaphragm valve with **fixed flanges, drilled ANSI B16.5 cl. 150 #FF**, Face to face according to EN 558-1, code 88

DN	MA	PN	B	B_1	F	f	H	H_1	I	J	Sp	U	Weight (g)		
													PVC-U PVC-C	PP-H	PVDF
80	80	10*	225	55	152.4	19.1	310	200	100	M12	21.5	4	8500	7600	9200
100	100	10*	295	69	190.5	19.1	350	250	120	M12	22.5	8	12400	10400	14600

* PTFE PN6

COMPONENTS

EXPLODED VIEW DN 80



DN	80	100
A	114	193
B	127	-

1 · Handwheel (PP-GR - 1)
2 · Bonnet (PP-GR - 1)
3 · Ball bearing (.... – 1)
4 · Indicator – stem (STAINLESS steel – 1)
5 · Pin (STAINLESS steel)
6 · Compressor (DN 80 PBT)
7 · Diaphragm (EPDM, FPM, PTFE – 1)
8 · Body (PVC-U / PVC-C / PP-H / PVDF / ABS)
9 · Hexagonal screw (Zinc plated steel – 4)
10 · Protection plug (PE – 4)
11 · Nut (STAINLESS steel – 4)
12 · Washer (Zinc plated steel – 4)

The material of the component and the quantity supplied are indicated between brackets

DISMOUNTING

If the valve is already installed on the line, shut-off the fluid flow upstream and make sure that there is no pressure. If necessary, fully drain the system downstream. If there are hazardous fluids present, drain and ventilate the valve.
The diaphragm constitutes the part of the valve more subject to mechanical and chemical stress from the fluid. Consequently, the condition of the diaphragm must be checked at regular intervals in accordance with the service conditions. To do this, it must be disconnected from the handwheel and from the valve body

1) Unscrew the four screws (9) and separate the body (8) from the internal components.
2) Unscrew the diaphragm (7) from the shutter (6). Rotate the handwheel clockwise to free the stem-shutter unit.
3) If necessary, clean or replace the diaphragm (7).
4) If necessary, lubricate the stem (4).

MOUNTING

1) Insert the handwheel in the bonnet (2)
2) The ball bearing (3) must be positioned on the sleeve over the bonnet. To ensure a perfect seal, use a liquid sealing compound such as Loctite.
3) Subsequently, the shutter (6) must be removed from the stem (4) and fixed using the pin. Warning: the pin must be well secured in the seating hole in the stem.
4) The stem (4) must now be screwed to the threaded sleeve. Warning: lefthand thread. The shutter (6) must be oriented such that the guide pins correspond with the grooves in the bonnet.
5) The shutter (6) must be fully tightened on the bonnet by rotating the handhweel. Then, the diaphragm (7) must be screwed fully into the bonnet and then rotated in the opposite direction until the holes in the diaphragm coincides with the holes in the bonnet.
6) Place the bonnet with the diaphragm in the correct position in the body (8). Fix the protection plugs (10) using the hexagonal screws and washers (12). Tighten evenly (cross-like).

INSTALLATION

The valve can be installed in any position and in any direction.
When starting up the plant, make sure that there are no leaks from between the diaphragm and the valve body. If necessary, tighten the fastening screws (9).