PRODUCT INFORMATION

FITTINGS

INSPIRED. SOLUTIONS. FOR CUSTOMERS.

RELIEF VALVES

APPLICATIONS

Relief valves prevent overpressure in the lines and the pump head by opening a bypass line if the pressure is too high.

FUNCTION

Relief valves especially protect displacement pumps, which theoretically can build up an infinitely high pressure.
With restricted or closed pressure lines, a multiple of the permissible system pressure can be achieved, e.g. through clogged lines (foreign matter, crystals) or closed shut-off devices, clogged nozzles, added filters, etc. In these cases, the gentle relief valve is the optimal protection.

Relief valves are not safety valves in the sense of the Pressure Equipment Directive (97/23/EC).

INSTALLATION

The relief valve is designed as standard for installation in a horizontal flow direction.
The hood must be installed vertically upwards.

The relief valve must be mounted in such a way that no static, dynamic or thermal loads from the supply line and/or return line can be transferred to the overflow valve.
Install the relief valve in the immediate vicinity of the pump and before the first shut-off valve.

OVERVIEW

- Easy installation
- maintenance-free
- Reliable
- Overpressure protection of dosing pumps
- High quality materials
- Low weight

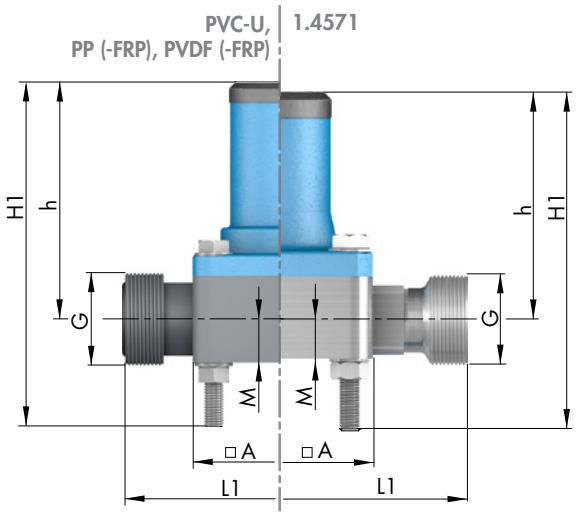
MATERIALS

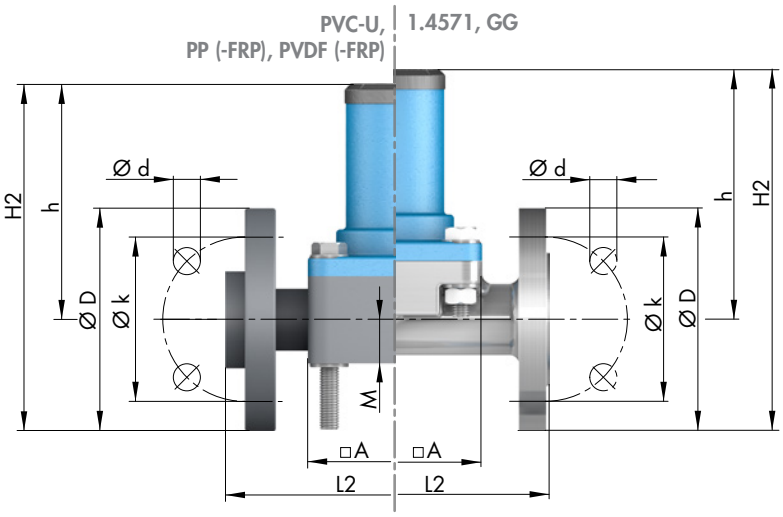
Thread Connection		620.10	622.10	623.10	624.10	625.10	626.10	627.10
Relief valve	PVC-U	■	■	■	■	■	■	■
	PP, PVDF	■	■	■	■	■	■	■
	PP-FRP, PVDF-FRP		■					
	1.4571	■	■					
Diaphragm	PTFE-faced	■	■	■	■	■	■	■
Seals	FPM	■	■	■	■	■	■	■
	EPDM	■	■	■	■	■	■	■
	FEP [1]	■	■	■	■			
Flange Connection								
Relief valve	PVC-U	■	■	■	■	■	■	■
	PP, PVDF	■	■	■	■	■	■	■
	PP-FRP, PVDF-FRP		■					
	1.4571, GG			■	■	■	■	■
Membrane	PTFE-faced	■	■	■	■	■	■	■

[1] Seals made of FEP only with diaphragm relief valves made of PVDF, PVDF-FRP and 1.4571

TECHNICAL DATA / DIMENSIONS

		620.10	622.10	623.10	624.10	625.10	626.10	627.10
Inlet/outlet nominal width	DN	8	15	20	25	32	40	50
Permissible operating pressure	bar	10	10	10	10	10	10	10
Set pressure p_e	bar	2,5...10	2,5...10	1,5...10	1,5...10	1,5...10	1,5...10	1,5...10
Max. flow rate	l/h	200	500	1000	2000	4000	7000	10000





		620.10	622.10	623.10	624.10	625.10	626.10	627.10
G	PVC-U, PP (-FRP), PVDF (-FRP)	G¾	G1	G1¼	G1½	G2	G2¼	G2¾
	1.4581	G¾	G1	–	–	–	–	–
A	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	50	72	80	90	100	115	140
M	PVC-U, PP (-FRP), PVDF (-FRP)	13	15	28	22,5	24	30	38
	1.4581	13	16	–	–	–	–	–
L1	PVC-U, PP (-FRP), PVDF (-FRP)	80	115	130	160	180	235	260
	1.4581	110	145	–	–	–	–	–
L2	PVC-U, PP (-FRP), PVDF (-FRP)	110	145	160	175	200	235	260
	1.4581	–	–	150	160	180	200	230
h	PVC-U, PP (-FRP), PVDF (-FRP)	80	90	116	123	157	180	185
	1.4581	80	88	125	130	165	180	185
H1	PVC-U, PP (-FRP), PVDF (-FRP)	113	130	169	166,5	206	249	254
	1.4581	108	129	–	–	–	–	–
H2	PVC-U, PP (-FRP), PVDF (-FRP)	125	137,5	168,5	180,5	227	255	267,5
	1.4581	–	–	177,5	187,5	235	255	267,5
k	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	60	65	75	85	100	110	125
d	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	14	14	14	14	18	18	18
D	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	90	95	105	115	140	150	165

(Dimensions in mm)

PRESSURE KEEPING VALVES

APPLICATIONS

The pressure keeping valve ensures the accuracy of the metering pump, as they prevent siphoning.

FUNCTION

The pressure keeping valve prevents overdumping of the dosing pump in case of unfavorable geodetic conditions. The set pressure of the valve creates the necessary positive pressure difference between the pressure and suction sides of a pump.
Pressure keeping valves do not have the function of shut-off valves.

INSTALLATION

The pressure keeping valve must be installed in the pressure line. It is designed as standard for installation in horizontal flow direction.
The hood must be installed vertically upwards.

The pressure keeping valve must be mounted in such a way that no static, dynamic or thermal loads from the supply line and/or output line can be transferred to the pressure keeping valve.

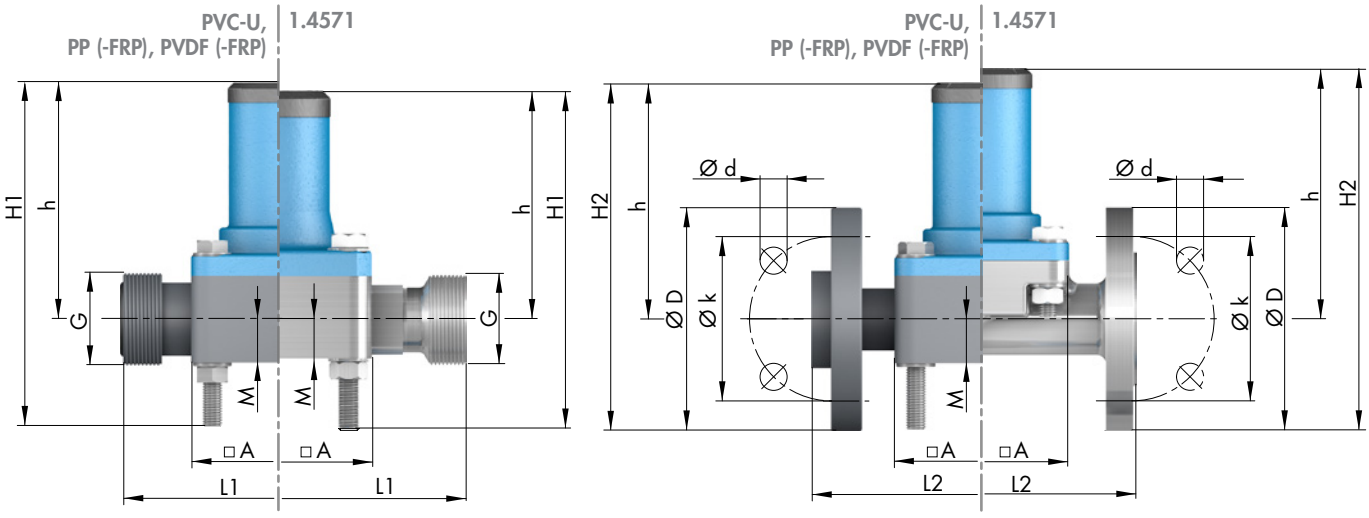
MATERIALS

Thread Connection		620.10	622.10	623.10	624.10	625.10	626.10	627.10
Pressure keeping valve	PVC-U	■	■	■	■	■	■	■
	PP, PVDF	■	■	■	■	■	■	■
	PP-FRP, PVDF-FRP		■					
	1.4571	■	■					
Diaphragm	PTFE-faced	■	■	■	■	■	■	■
Seals	FPM	■	■	■	■	■	■	■
	EPDM	■	■	■	■	■	■	■
	FEP [1]	■	■	■	■			
Flange Connection								
Pressure keeping valve	PVC-U	■	■	■	■	■	■	■
	PP, PVDF	■	■	■	■	■	■	■
	PP-FRP, PVDF-FRP		■					
	1.4571, GG			■	■	■	■	■
Diaphragm	PTFE-faced	■	■	■	■	■	■	■

[1] Seals made of FEP only with diaphragm keeping valves made of PVDF, PVDF-FRP and 1.4571

TECHNICAL DATA / DIMENSIONS

		620.D	622.D	623.D	624.D	625.D	626.D	627.D
Inlet/outlet nominal width	DN	8	15	20	25	32	40	50
Permissible operating pressure	bar	10	10	10	10	10	10	10
Set pressure p_e	bar	1,5...2,0	1,0...2,0	1,0...3,5	1,0...3,0	1,0...7,0	1,0...7,0	1,0...7,0
Max. flow rate	l/h	200	500	1000	2000	4000	7000	10000



		620.D	622.D	623.D	624.D	625.D	626.D	627.D
G	PVC-U, PP (-FRP), PVDF (-FRP)	G¾	G1	G1¼	G1½	G2	G2¼	G2¾
	1.4581	G¾	G1	–	–	–	–	–
A	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	50	72	80	90	100	115	140
M	PVC-U, PP (-FRP), PVDF (-FRP)	13	15	28	22,5	24	30	38
	1.4581	13	16	–	–	–	–	–
L1	PVC-U, PP (-FRP), PVDF (-FRP)	80	115	130	160	180	235	260
	1.4581	110	145	–	–	–	–	–
L2	PVC-U, PP (-FRP), PVDF (-FRP)	110	145	160	175	200	235	260
	1.4581	–	–	150	160	180	200	230
h	PVC-U, PP (-FRP), PVDF (-FRP)	80	90	116	123	157	180	185
	1.4581	80	88	125	130	165	180	185
H1	PVC-U, PP (-FRP), PVDF (-FRP)	113	130	169	166,5	206	249	254
	1.4581	108	129	–	–	–	–	–
H2	PVC-U, PP (-FRP), PVDF (-FRP)	125	137,5	168,5	180,5	227	255	267,5
	1.4581	–	–	177,5	187,5	235	255	267,5
k	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	60	65	75	85	100	110	125
d	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	14	14	14	14	18	18	18
D	PVC-U, PP (-FRP), PVDF (-FRP), 1.4581	90	95	105	115	140	150	165

(Dimensions in mm)

MULTIFUNCTION VALVES

GENERAL

The multifunction valve has the task of making dosing processes safer and more efficient.

FUNCTION

The multifunction valve prevents contact with the pumped medium, relieving the pressure line from maintenance work and by returning the pumped medium to the reservoir.

APPLICATIONS

Multifunction valve is designed for use with dosing pumps with a delivery rate of up to 50 l/h.

INSTALLATION

The multifunction valve is built directly onto the pressure valve of the dosing pump.

ONE VALVE - FOUR FUNCTIONS

PRESSURE KEEPING VALVE

Integrated pressure control function for high dosing accuracy.

RELIEF VALVE

Pressure ranges from 4 to 10 bar for optimum protection of the pump against excessive pressure.

PRESSURE RELIEF

More security, e.g. by reducing the system pressure before maintenance work.

VENTING

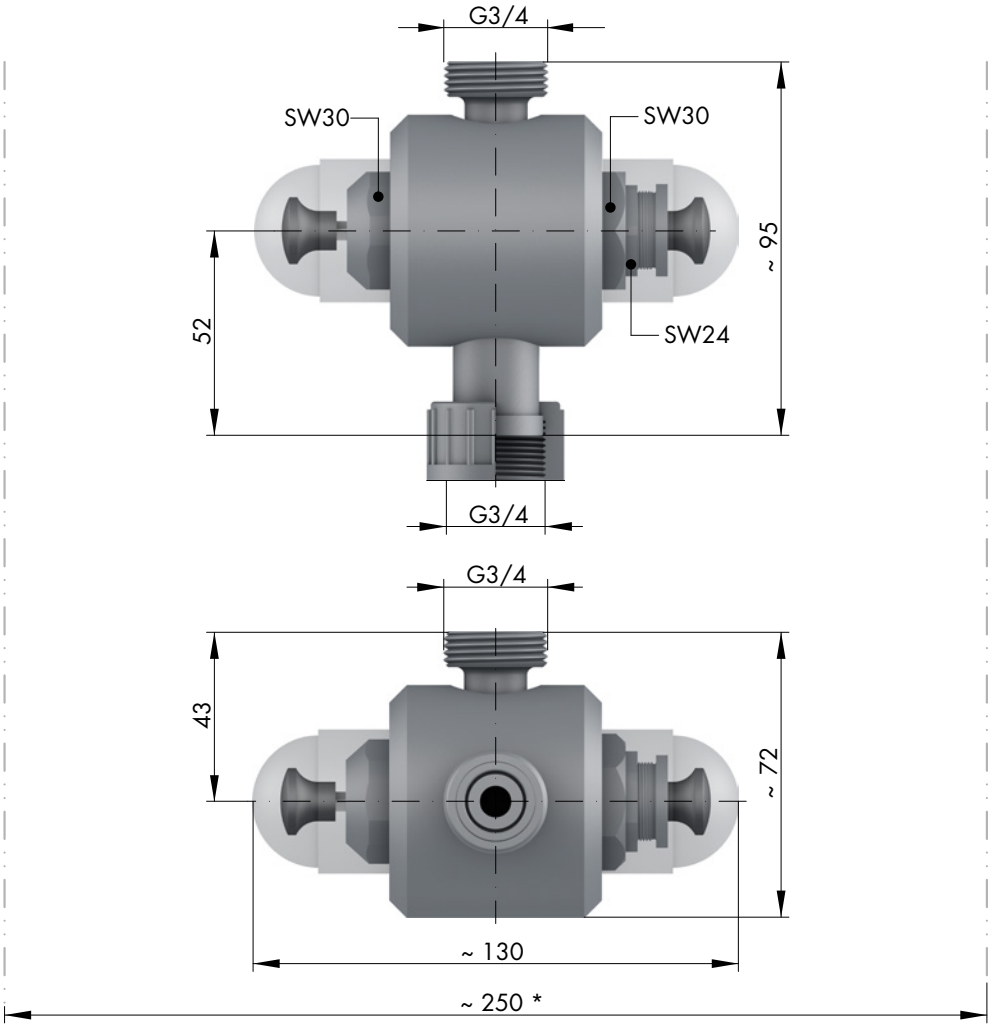
For trouble-free commissioning of dosing pumps with small delivery rates.

MATERIALS

		MFV050
Multifunction valve	PVC-U	■
	PP	■
Diaphragm	PTFE-faced	■
Seals	EPDM	■
	FPM	■
	FEP	■

TECHNICAL DATA / DIMENSIONS

		MFV050
Opening pressure	bar	4 - 10
Holding pressure	bar	1 - 1,5
Max. flow rate	l/h	50



* Space for operating the multifunction valve (e.g., pressure relief)

MULTIFUNCTION DEVICES

APPLICATIONS

The multifunction device combines siphon vessel, priming aid and calibration pot. So it can be used both for commissioning a pump and for adding other media in the suction line of the pump.

INSTALLATION

The multifunction device is mounted in the suction piping of the dosing pump(s).
The filling of the device can be done either via a pending container volume (communicating devices) or via a hand vacuum pump. During the filling/discharging process, the bleed ball valve must always be opened.
This must be closed immediately after the filling/discharging process.

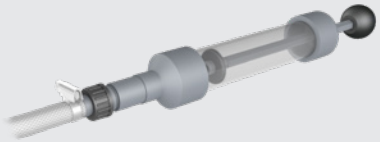
CAUTION

The multifunction device must not be overfilled (max. to nominal content) otherwise medium may enter the venting ball valve or suction hose.

MATERIALS

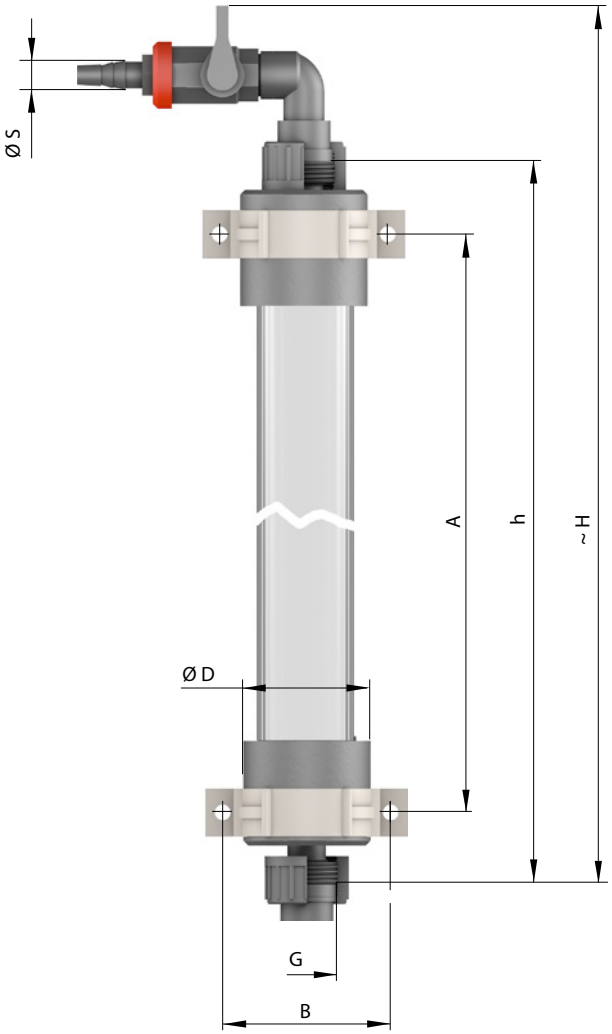
		MFD...
Multifunction device	PVC-U / PVC-transparent	■
Seals	FPM	■
	EPDF	■

ACCESSORIES

	Designation	Material	Article-No.	MFD...
	Hand vacuum pump incl.1,5m PVC-Hose d=12/21	PVC/FPM	37605682	■

TECHNICAL DATA / DIMENSIONS

		MFD-60	MFD-570	MFD-1500
Nominal width	DN	8	15	20
Content	Litre	0,5	2,0	5,0
Max. permissible operating pressure	bar	-0,5...+2	-0,5...+2	-0,5...+2



	MFD-60	MFD-570	MFD-1500
G	G¾	G1	G1¼
D	53	120	180
h	637	557	562
H	707	635	637
A	574	442	458
B	70	167	228
S	8-13	8-13	8-13

(Dimensions in mm)

DOSING VALVES

APPLICATIONS

Dosing valves are components that allow the flow of a fluid in one direction only. Dosing valves prevent the unwanted return of a medium from the main line into the dosing line.

INSTALLATION

Dosing valves are installed in the pressure line. The installation position during installation/operation is arbitrary.

MATERIALS

		691.1	691.2	692.1	693.1
Dosing valve	PVC-U		■		
	PP-FRP		■		■
	PVDF-FRP	■			■
	1.4571	■		■	■
Seals	EPDM		■		■
	FPM		■		■
	FEP [1]	■		■	■
Valve ball	PTFE	■	■		■
	1.4401 [2]	■		■	■
Spring	Hastelloy C4	■	■	■	■

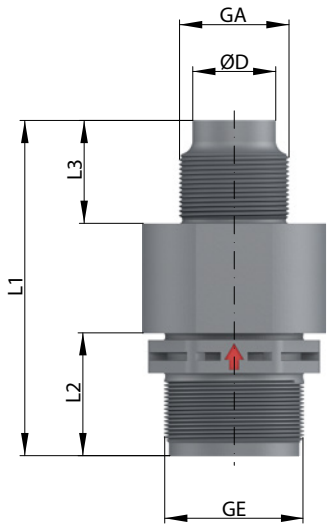
[1] Seals made of FEP only with dosing valves made of PVDF-FRP and 1.4571
[2] Valve ball 1.4401 with dosing valves made of 1.4571

TECHNICAL DATA / DIMENSIONS

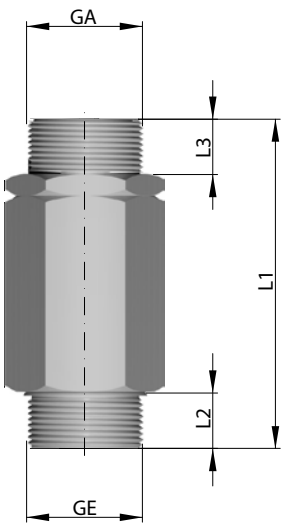
			691.1	691.2	692.1	693.1
Nominal width	DN		8	8	15	20
Max. permissible operating pressure*	bar	PVC-U, PP-, PVDF-FRP	10	10	–	10
		1.4571	63	–	40	25
Opening pressure	bar	PVC-U, PP-, PVDF-FRP	0,5	0,5	–	0,5
		1.4571	1,0	–	1,0	1,0
Max. flow rate	l/h		200	200	600	1100
Max. pump stroke volume	cm^3		20	20	100	190

*at 20°C (water)

PVC-U,
PP-FRP, PVDF-FRP



1.4571



		691.1	691.2	692.1	693.1
GE	PVC-U, PP-FRP, PVDF-FRP	G¾	G¾	–	G1¼
	1.4571	G¾	–	G1	G1¼
GA	PVC-U, PP-FRP, PVDF-FRP	R½	R½	–	R1¼
	1.4571	R½	–	R1	R1¼
D	PVC-U, PP-FRP, PVDF-FRP	16	12	–	25
L1	PVC-U, PP-FRP, PVDF-FRP	71	116,1	–	101
	1.4571	60	–	104	119
L2	PVC-U, PP-FRP, PVDF-FRP	18	17	–	25
	1.4571	13	–	17	20
L3	PVC-U, PP-FRP, PVDF-FRP	24	69	–	31
	1.4571	13	–	17	20

(Dimensions in mm)

INJECTION FITTINGS

APPLICATIONS

Injection fittings inject the dosing medium into a line of another medium. This gives you a uniform mixing ratio and good mixing.

INSTALLATION

Injection fittings are installed in the pressure line. The installation position during installation/operation is arbitrary.

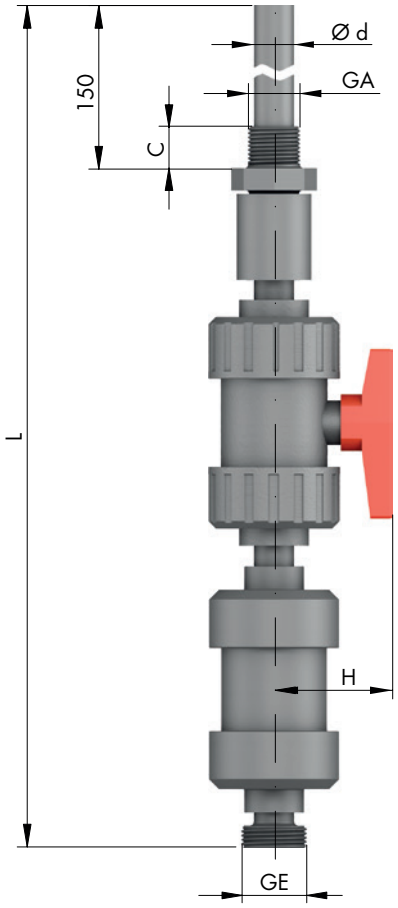
MATERIALS

	Thread Connection	8061.1	8062.1	8063.1
Injection fitting	PVC-U	■	■	■
	PP	■	■	■
	PVDF	■	■	■
Seals	EPDM [1]	■	■	■
	FPM	■	■	■

[1] Seals made of EPDM only with injection fittings made of PVC-U and PP

TECHNICAL DATA / DIMENSIONS

		8061.1	8062.1	8063.1
Nominal width	DN	10	15	20
Opening pressure	bar	0,05	0,05	0,05
Max. permissible operating pressure	bar	10	10	10



		8061.1	8062.1	8063.1
GE	PVC-U, PP, PVDF	G¾	G1	G1¼
GA	PVC-U, PP, PVDF	R½	R¾	R1
d	PVC-U, PP, PVDF	16	20	25
C	PVC-U, PP, PVDF	17	19	22
H	PVC-U, PP, PVDF	72	72	77
L	PVC-U	390	409	447
	PP	427	439	481
	PVDF	438	446	483

(Dimensions in mm)

VENT VALVE

APPLICATIONS

The vent valve facilitates the suction process of the dosing pump.

INSTALLATION

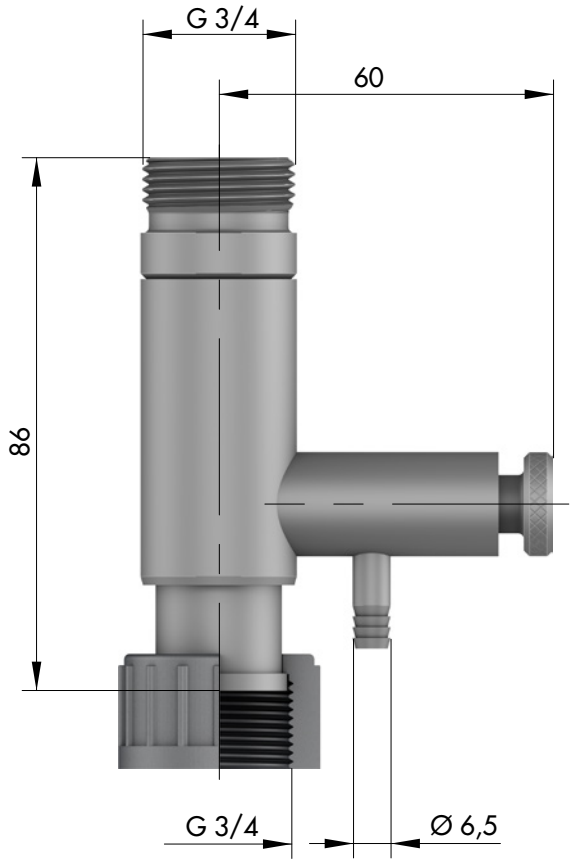
The installation of the vent valve is usually on the discharge nozzle of the dosing pump.

MATERIALS

		8152
Vent valve	PVC-U	■
	PP	■
Seals	EPDM	■
	FPM	■
Valve ball	PTFE	■

TECHNICAL DATA / DIMENSIONS

		8152
Nominal width	DN	8
Max. permissible operating pressure	bar	10
Max. volume of pump's stroke	cm^3	20



FOOT VALVES

APPLICATIONS

The foot valve prevents the backflow of the pumped medium and therefore supports the correct functioning of the dosing pump.

INSTALLATION

The installation position during installation/ operation is vertical.

MATERIALS

		781.1	783.1	731	732	733
Foot valve	PVC-U			■		
	PP-FRP	■	■			
	PVDF-FRP	■■	■			
	1.4571			■	■	■
Seals	EPDM		■	■		
	FMP		■			
	FEP [1])	■	■	■	■	■
Valve ball	PTFE	■	■	■		
	1.4401 [2]			■		
Sieve	ETFE	■	■	■	■■	■■

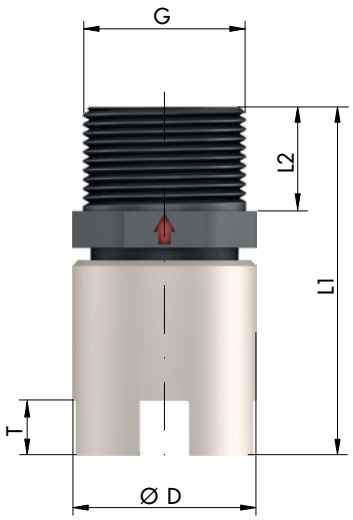
[1]) Seals made of FEP only with foot valves made of PVDF-FRP and 1.4571
[2]) Valve ball 1.4401with foot valves made of 1.4571

TECHNICAL DATA / DIMENSIONS

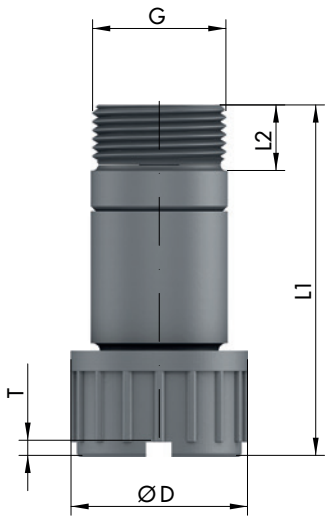
		781.1	783.1	731	732	733
Nominal width	DN	8	20	8	15	20
Max. permissible operating pressure	bar	10	10	10	10	3
Max. flow rate*	l/h	200	1450	200	600	1100
Max. volume of pump's stroke	cm^3	20	190	20	100	190

*at a viscosity of max. 50mPas

PP-FRP, PVDF-FRP



PVC-U



1.4571

		781.1	783.1	731	732	733
G		G¾	G1¼	G¾	G1	G1¼
D	PVC-U	–	–	31	–	–
	PP-FRP, PVDF-FRP	30	50	–	–	–
	1.4571	–	–	30	60	80
L1		50	82	70	121	129
L2	PVC-U	–	–	13	–	–
	PP-FRP	18	25	–	–	–
	PVDF-FRP	18	24	–	–	–
	1.4571	–	–	13	17	20

(Dimensions in mm)

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