

# Diaphragm Valve Type 317



## Product description

Diaphragm Valve Type 317 is distinguished in particular by its compact, short design, and is available in the dimensions DN65 to DN150.

Type 317 is connected to the piping by means of flanges.

GF Piping Systems offers the option of using a lockable handwheel in order to make the process even safer. This is an important and useful function for all areas of application of diaphragm valves.

For automated plants, the valves are also available with pneumatic actuator of the DIASTAR type.

### Function

Diaphragm valves from GF Piping Systems are used for regulating, controlling as well as closing monitoring volume flows. Especially when transporting contaminated, aggressive or abrasive media, this type of valve has decisive advantages thanks to its simple function and optimized construction. Only the valve body and the diaphragm come into contact with the medium.

### Applications

- Controlling pure and ultrapure media
- Applications with high viscosity and solid content
- Chemical dosing
- Water treatment

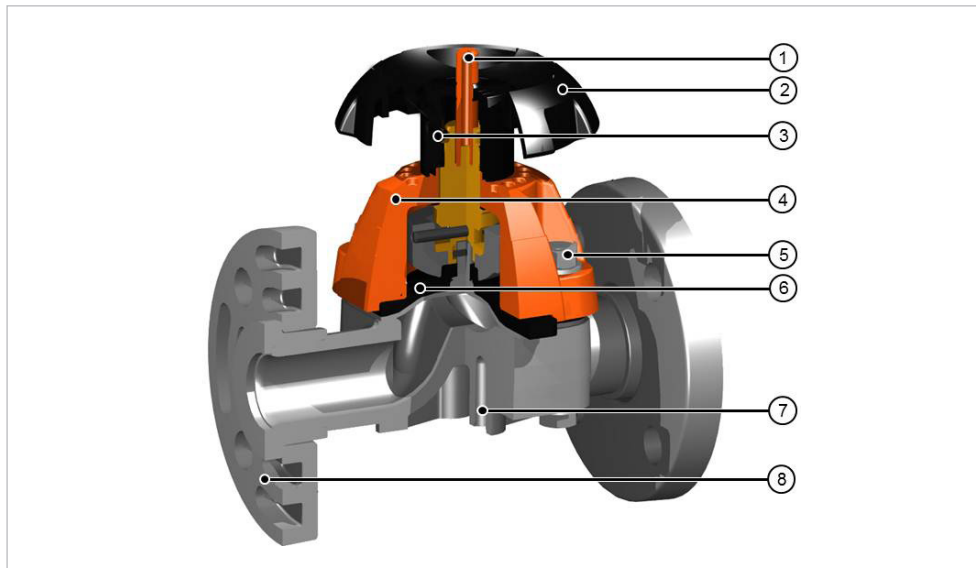
### Benefits/features

- Reliable plastic valve for controlling neutral, aggressive, gaseous and liquid media
- None of the components come into contact with the medium
- Reliable and durable
- Flexible sealing element
- Integrated attachment and hence no transfer of operating forces to the piping system
- Position indicator

### Flow media

Contaminated, solid or ultrapure media.

## Technical data



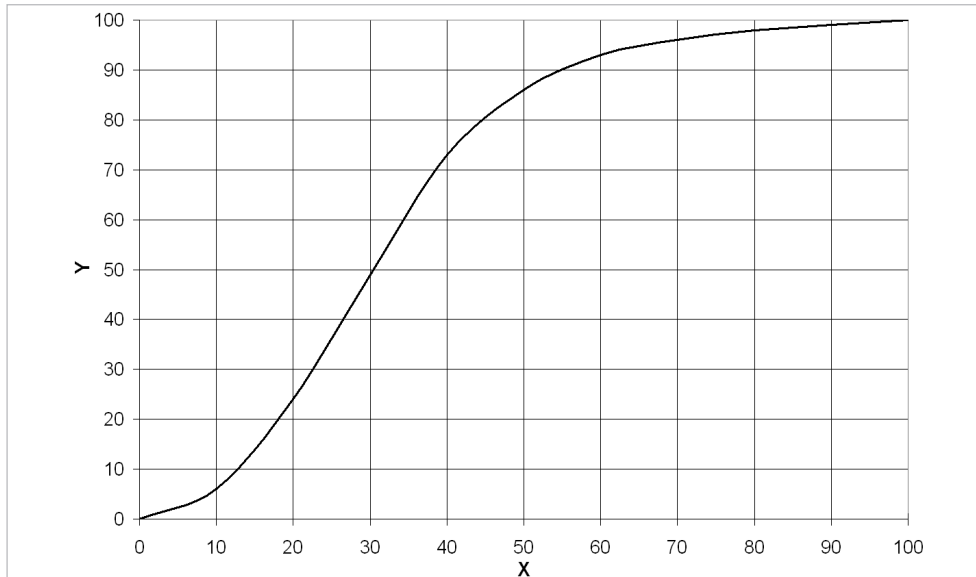
- ① Position Indicator
- ② Handwheel
- ③ Sealing disk
- ④ Upper part
- ⑤ Threaded connection
- ⑥ Diaphragm
- ⑦ Fastening thread
- ⑧ Flange connector

Specification	
Dimensions	d75/DN65 - d160/DN150
Materials	Upper part PPGF 30
	Handwheel PP; PVC-U; PP TSG
Gasket/diaphragm materials	NBR; EPDM; PTFE/EPDM; FKM;
Pressure levels	PN10
	PN6 from DN100
Actuation variants	Hand-operated
	Pneumatically actuated (see DIASTAR 025)
Connections	Backing flange DN65
	Fixed flange from DN80
Accessories	DN65 Lockable handwheel
Approvals	ACS, FDA, DIBt, MPA, NAMSA

### Kv 100 values (flow characteristics)

DN (mm)	Inch (inch)	d (mm)	Kv 100 (l/min)	Cv 100 US (gal./min)	Kv 100 (m <sup>3</sup> /h)
65	2 ½	75	992	69.5	59.5
80	3	90	1700	119	102
100	4	110	2700	189	162
150	6	160	6033	422.3	362

## Flow characteristics



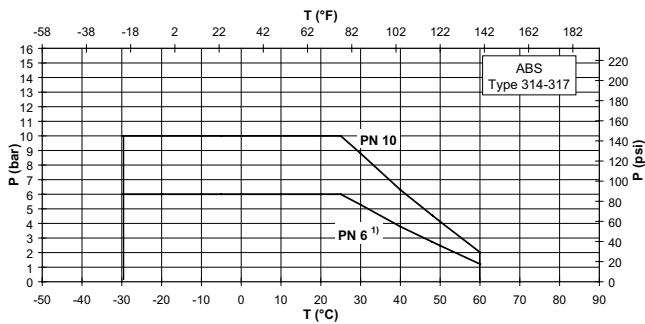
X Open angle (%)  
Y Kv, Cv value (%)

## Pressure-temperature diagrams

T Temperature (°C, °F)

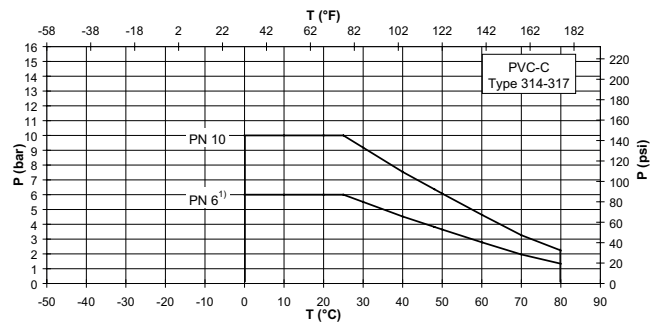
P Permissible pressure (bar, psi)

### ABS



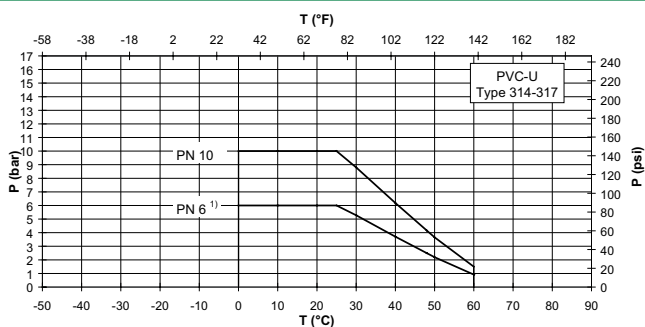
1) Only Type 317, hand-operated DN100 and DN150

### PVC-C



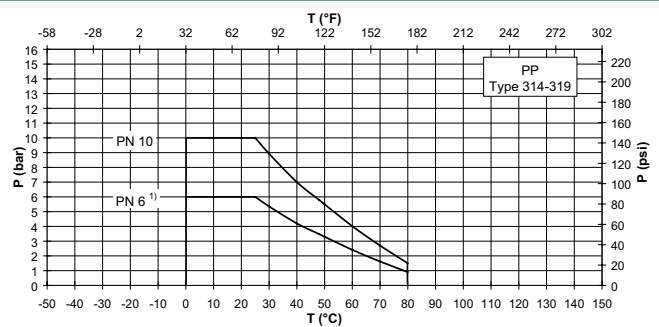
1) Only Type 317, hand-operated DN100 and DN150

### PVC-U



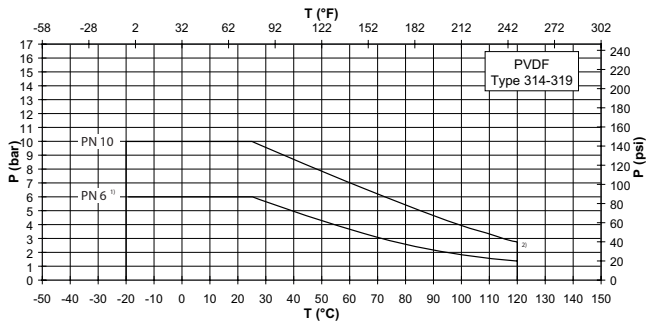
1) Only Type 317, hand-operated DN100 and DN150

### PP



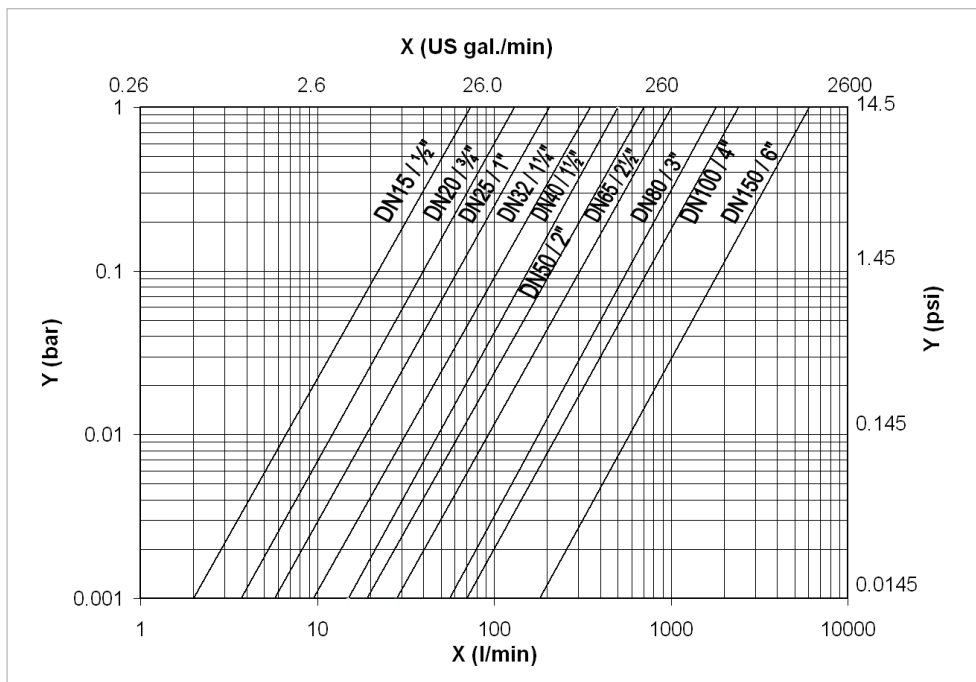
1) Only Type 317, hand-operated DN100 and DN150

PVDF



- 1) Only Type 317, hand-operated DN100 and DN150
- 2) Higher temperature after consultation

Pressure losses



- X Flow rate (l/min, US gal/min)
- Y Pressure loss  $\Delta p$  (bar, psi)

Reference values for tightening torque of flange connection screws of type 317

d (mm)	DN (mm)	Inch (inch)	Total number of screws	Torque (Nm)	Torque (lbf)
75	65	2 1/2	8 x M16 x 85	25	222
90	80	3	16 x M16 x 95	15	133
110	100	4	16 x M16 x 100	20	177
160	150	6	16 x M16 x 110	35	310

Tightening torque for diaphragms of Type 317

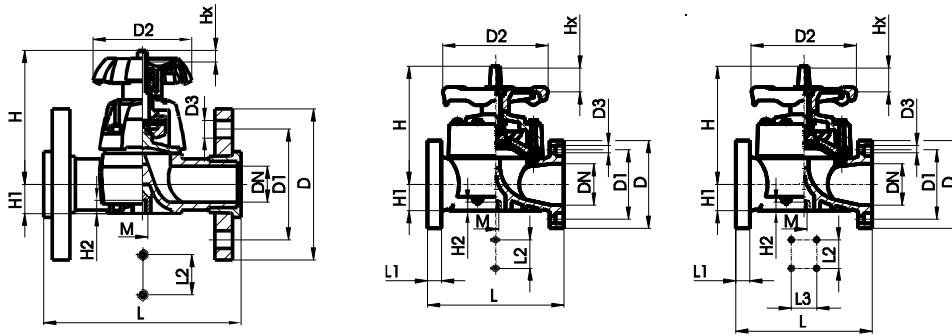
d (mm)	DN (mm)	Tightening torques for elastomer diaphragms		Tightening torque for PTFE diaphragms	
		(Nm)	(lbf)	(Nm)	(lbf)
75	65	25	221.3	25	221.3
90	80	30	265.5	30	265.5
110	100	30	265.5	30	265.5
160	150	40	354.0	40	354.0

Operating torque for handwheel

DN (mm)	Inch (inch)	Tightening torque (Nm)
65	2 ½	20
80	3	30
100	4	45
150	6	140

Dimensions

DN65	DN80-100	DN150
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d (mm)	DN (mm)	Inch (inch)	D (mm)	D1 (mm)	D2 (mm)	D3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	H (mm)	H1 (mm)	H2 (mm)	M	Hx (mm)
75	65	2 ½	185	145	152	18	290	-	70	-	201	46	15	M8	30
90	80	3	200	160	270	18	310	35	120	-	265	57	23	M12	40
110	100	4	225	180	270	18	350	35	120	-	304	69	23	M12	50
160	150	6	285	240	400	32	480	26	100	200	437	108	23	M12	70

**i** For further information on accessories, refer to the online product catalog at [www.gfps.com](http://www.gfps.com)

**■** Mobile apps and online tools to support configuration and calculation at [www.gfps.com/tools](http://www.gfps.com/tools)



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