

Diaphragm Valve Type 317

Standard Features

- **Size**
1/2"–6"
- **Valve Body Material**
PVC, CPVC, PROGEF Standard
Polypropylene, SYGEF PVDF
- **Diaphragm Material**
EPDM, PTFE, FPM, NBR, or Hypalon
- **Connection**
ANSI flange
- **Pressure rating**
150 PSI
- **Easy replacement of diaphragm**

Optional Features

- **Pneumatic actuation**
- **Lockable handle (1/2"–2 1/2")**
- **Connection**
ISO/DIN flanged connection
Union connection (1/2"–2")
Spigot connection (1/2"–2")



General

The Type 317 diaphragm valve incorporates a robust design with several options for wetted materials. Diaphragms are available in EPDM, PTFE, FPM, NBR, or Hypalon. The valve body is available in PVC, CPVC, PP, and PVDF, allowing the valve to handle most chemical applications. In addition to being chemically resistant, the GF diaphragm valves are often the best solution for applications where particulates are present. The flanged connections allow for easy repair or replacement in the field.

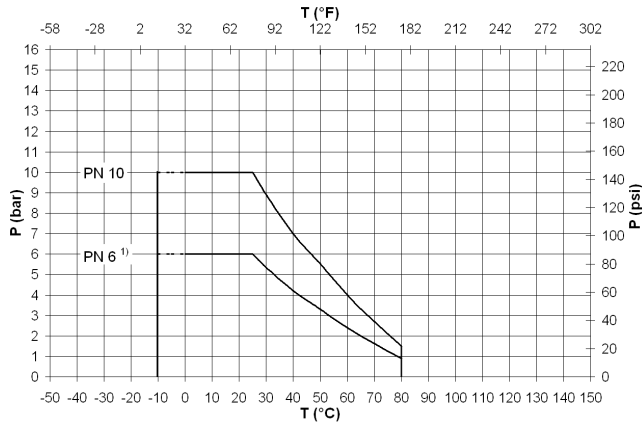
Diaphragm Valve Type 317

Pressure-Temperature Diagrams

The following pressure temperature diagrams are based on a lifetime of 25 years and the medium water or similar media.

Remark: At temperatures below 0°C, please check the torque of the bolts of the membrane according to the recommended values after the system is in use.

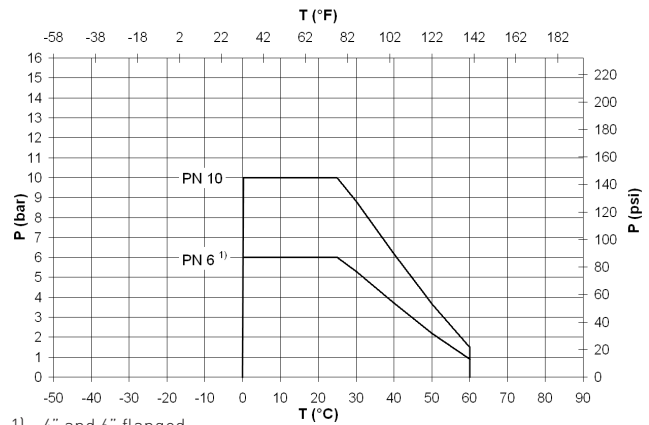
PP



- 1) 4" and 6" flanged
- p Permissible pressure in bar, psi
- T Temperature in °C, °F

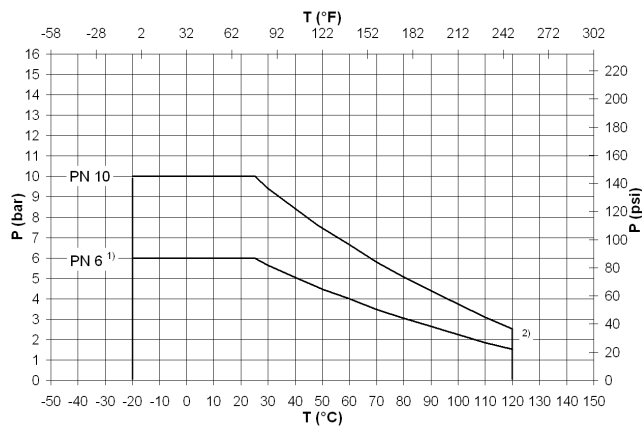
In case of applications with temperatures in the range of the dotted lines, please contact your GF representative.

PVC



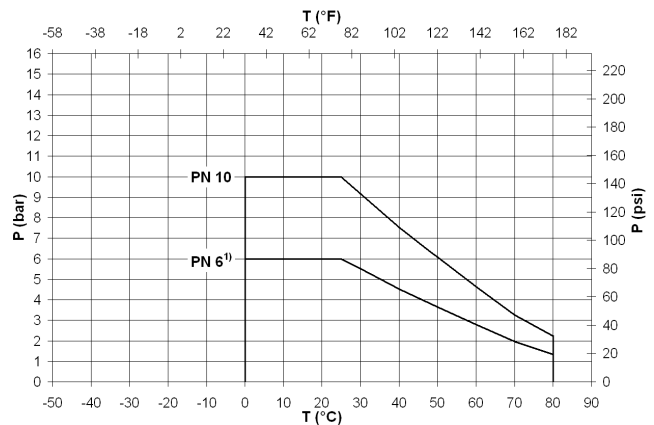
- 1) 4" and 6" flanged
- p Permissible pressure in bar, psi
- T Temperature in °C, °F

PVDF



- 1) 4" and 6" flanged
- p Permissible pressure in bar, psi
- T Temperature in °C, °F

CPVC

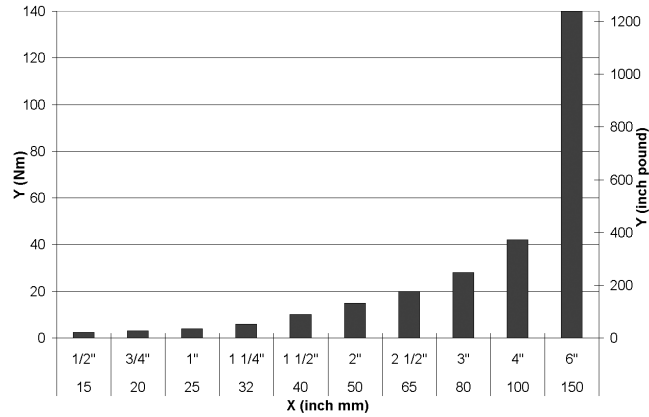


- 1) 4" and 6" flanged
- p Permissible pressure in bar, psi
- T Temperature in °C, °F

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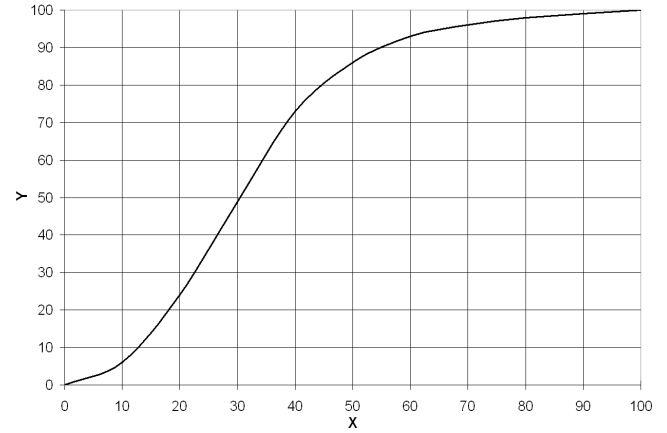
Technical Data

Operating Torque (average values)



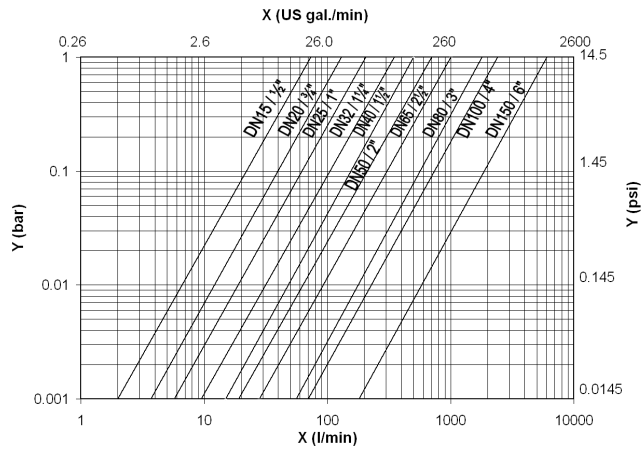
X Size DN (mm, inch)
Y Torque (Nm, inch pound)

Flow Characteristics



X Lift (%)
Y Flow factor kv, cv (%)

Pressure Loss



X Flow rate (l/min, US gal/min)
Y Pressure loss Δp (bar, psi)

Cv Values

The Cv values for each intermediate valve position can be determined using the flow value characteristic and the Cv values.

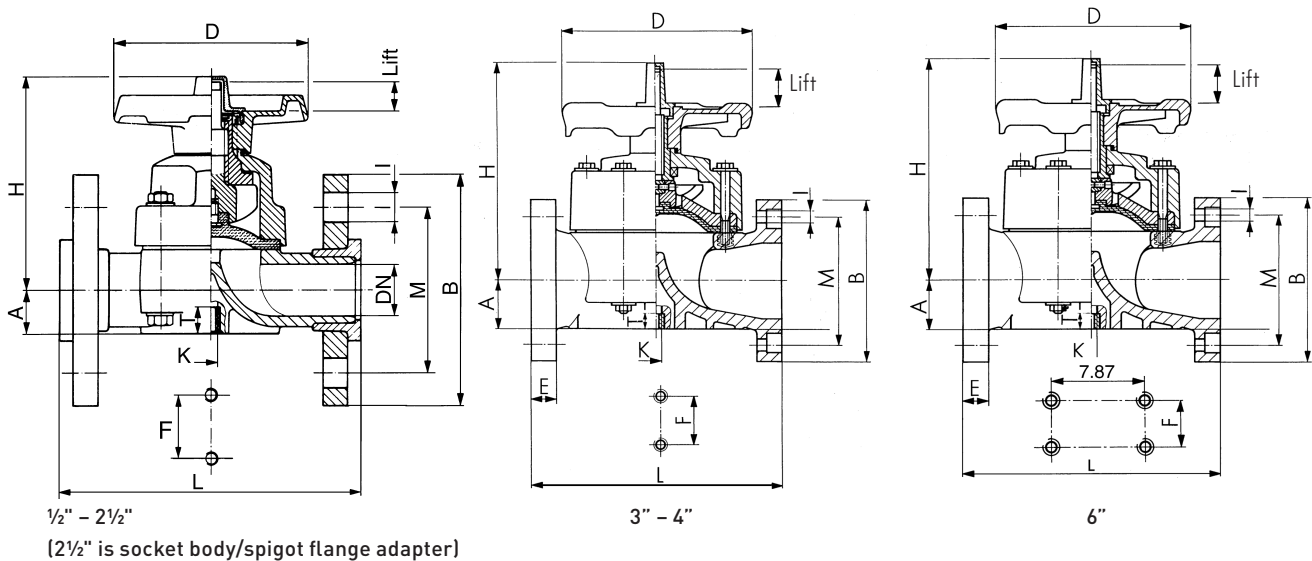
DN inch	d mm	kv 100 l/min ($\Delta p=1$ bar)	Cv US gal/min ($\Delta p=1$ psi)	kv 100 m ³ /h ($\Delta p=1$ bar)
1/2	20	72	5.0	4.3
3/4	25	137	9.6	8.2
1	32	207	14.5	12.4
1 1/4	40	354	24.8	21.2
1 1/2	50	517	36.2	31.0
2	63	713	49.9	42.8
2 1/2	75	992	69.5	59.5
3	90	1700	119.0	102.0
4	110	2700	189.0	162.0
6	160	6033	422.3	362.0

Dimensions for Type 317 Diaphragm Valve

Inch size	A inch	B CPVC inch	B PVC/PP/PVDF inch	D inch	E CPVC inch	E PVC/PP/PVDF inch	H inch	L PVC/PP/PVDF inch	L CPVC inch	M inch	I inch	No. bolt holes	F inch	K* mm	T inch	Lift inch
1/2	0.55	3.50	3.74	3.15	0.50	0.43	3.54	5.12	5.91	2.38	0.55	4	0.98	M6	0.47	0.31
3/4	0.69	3.88	4.13	3.15	0.50	0.47	4.02	5.91	6.54	2.75	0.55	4	0.98	M6	0.47	0.43
1	0.83	4.25	4.53	3.70	0.56	0.55	4.67	6.30	7.09	3.13	0.55	4	0.98	M6	0.47	0.51
1 1/4	1.00	4.63	5.51	4.61	0.63	0.59	4.96	7.09	7.56	3.50	0.71	4	1.77	M8	0.59	0.63
1 1/2	1.28	5.00	5.91	4.61	0.69	0.63	5.47	7.87	8.27	3.88	0.71	4	1.77	M8	0.59	0.83
2	1.53	6.00	6.50	5.98	0.75	0.71	6.77	9.06	9.06	4.75	0.71	4	1.77	M8	0.59	1.10
2 1/2	1.81	7.28	7.28	5.98	0.79	0.79	7.91	11.42	11.42	5.50	0.71	4	2.76	M8	0.59	1.18
3	2.24	7.87	7.87	10.63	1.38	1.38	10.43	12.20	12.20	6.00	0.71	4	4.72	M12	0.91	1.57
4	2.72	8.86	8.86	10.63	1.38	1.38	11.97	13.78	13.78	7.50	0.71	8	4.72	M12	0.91	1.97
6	4.25	—	11.22	15.75	—	1.38	17.20	18.90	—	9.50	0.87	8	3.94	M12	0.91	2.76

* metric thread
 Loose ring flanges 1/2"–2 1/2"
 Integrally molded, fixed flanges 3"–6"

Inch size	Weight PVC/CPVC lbs	Weight PVDF lbs	Weight PP lbs
1/2	1.0	1.3	1.2
3/4	1.5	1.9	1.8
1	2.2	2.6	2.7
1 1/4	3.5	5.1	3.1
1 1/2	4.2	5.1	5.3
2	7.1	8.2	7.9
2 1/2	9.5	12.6	12.0
3	21.4	23.6	19.0
4	30.0	32.8	25.0
6	59.5	68.3	55.2



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