

# Diaphragm Valve Type 314

## Standard Features

- **Size**  
1/2" - 2"
- **Valve Body Material**  
PVC, CPVC, PROGEF Standard  
Polypropylene, SYGEF PVDF, ABS
- **Diaphragm Material**  
EPDM, PTFE, FPM, NBR, or Hypalon
- **Union O-ring (static)**  
EPDM or FPM
- **Connection**  
Socket union in PVC, CPVC, PP, PVDF, ABS  
Spigot union in PP, PVDF, CPVC
- **Pressure rating**  
150 PSI
- **Compact design**
- **Lightweight**
- **Easy replacement of diaphragm**

## Optional Features

- **Pneumatic actuation**
- **Lockable handle**
- **Connection**  
Flanged connection  
Spigot connection without union (PP, CPVC, PVDF)



## General

The Type 314 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, PVDF and ABS, 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 union design allows for easy service or replacement in the field.

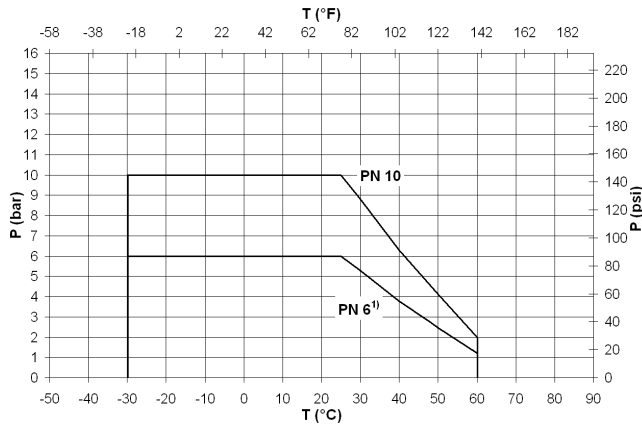
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## Pressure-Temperature Diagrams

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

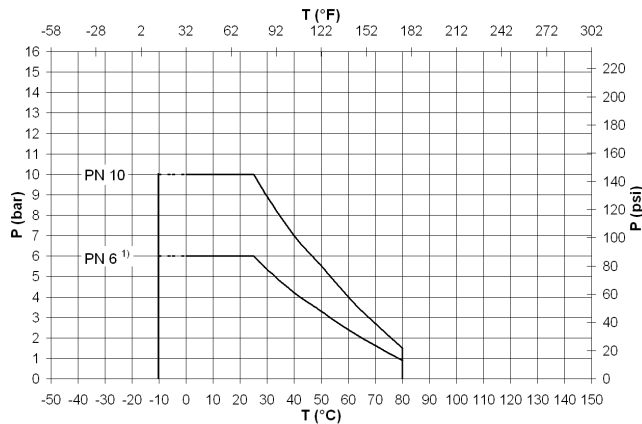
**Remark:** At temperatures below 0°C, please check the torque of the bolts of the membrane according to the recommended values after the system is in use.

### ABS



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

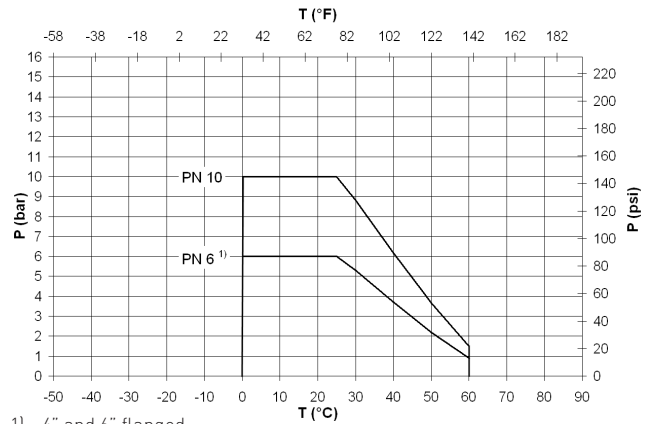
### PP



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

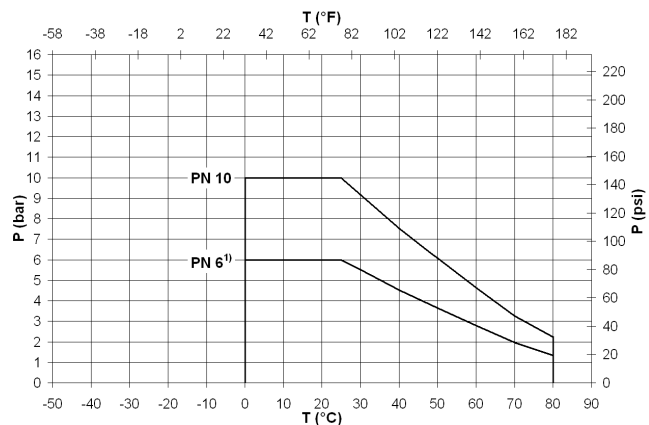
In case of applications with temperatures in the range of the dotted lines, please contact your GF representative.

### PVC



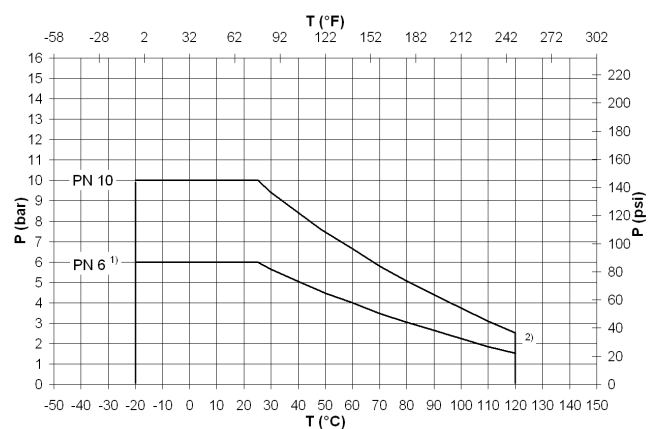
- 1) 4" and 6" flanged
- p Permissible pressure in bar, psi
- T Temperature in °C, °F

### CPVC



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

### PVDF

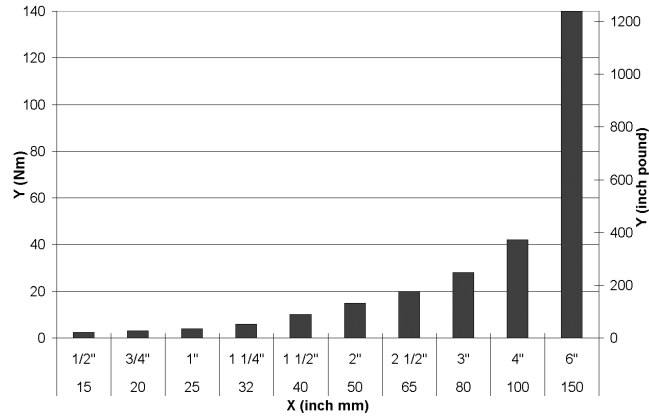


- 1) 4" and 6" flanged
- p Permissible pressure in bar, psi
- T Temperature in °C, °F

# Diaphragm Valve Type 314

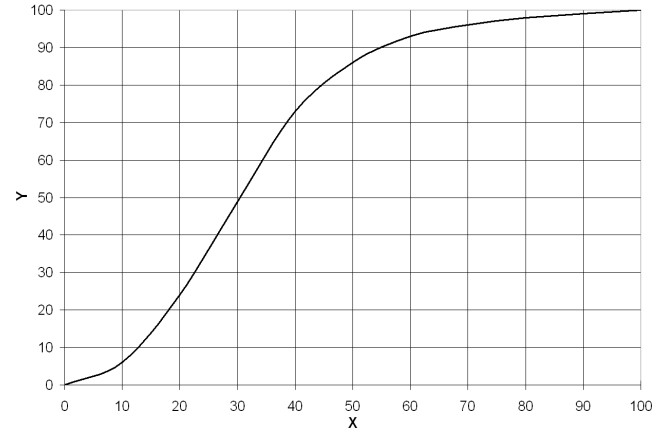
## Technical Data

### Operating Torque (average values)



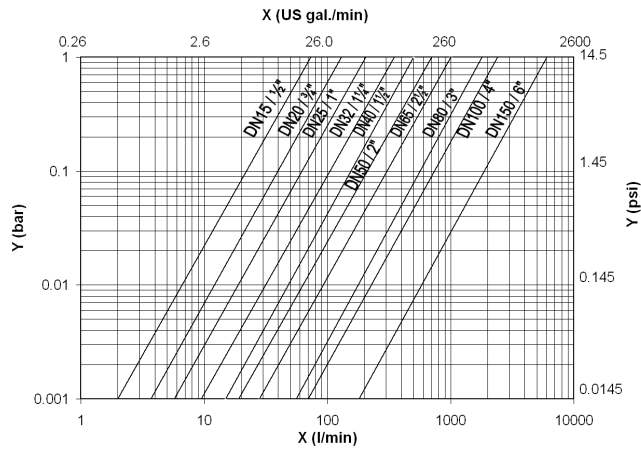
X Size DN (mm, inch)  
Y Torque (Nm, inch pound)

### Flow Characteristics



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

### Pressure Loss



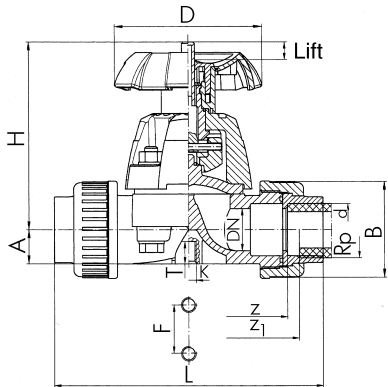
X Flow rate (l/min, US gal/min)  
Y Pressure loss  $\Delta p$  (bar, psi)

### Cv Values

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

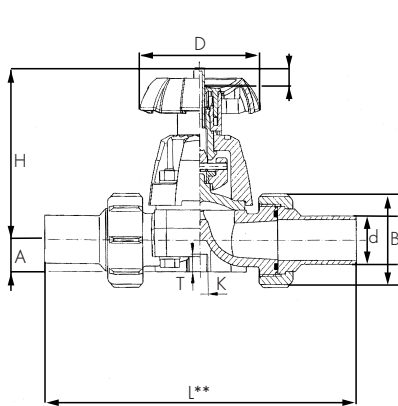
DN inch	d mm	kv 100 l/min ( $\Delta p=1$ bar)	Cv US gal/min ( $\Delta p=1$ psi)	kv 100 m <sup>3</sup> /h ( $\Delta p=1$ bar)
1/2	20	72	5.0	4.3
3/4	25	137	9.6	8.2
1	32	207	14.5	12.4
1 1/4	40	354	24.8	21.2
1 1/2	50	517	36.2	31.0
2	63	713	49.9	42.8

## Dimensions for Type 314 True Union Diaphragm Valve PVC (solvent cement socket ends)

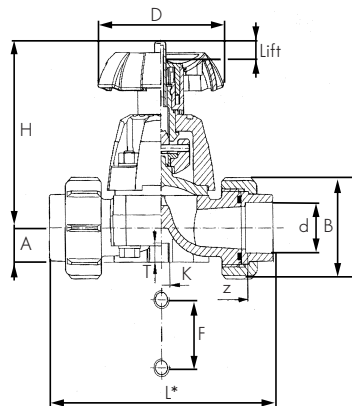


Inch size	A inch	B inch	D inch	F inch	K mm	H inch	L inch	T inch	Z inch	Lift inch	Weight lbs.
1/2	0.55	1.69	3.15	0.98	M6	3.54	5.35	.47	3.78	0.32	0.88
3/4	0.69	2.09	3.15	0.98	M6	4.02	6.30	.47	4.49	0.43	1.32
1	0.83	2.36	3.70	0.98	M6	4.67	6.93	.47	4.80	0.51	1.98
1 1/4	1.00	2.91	4.61	1.77	M8	4.96	7.80	.59	5.51	0.63	2.65
1 1/2	1.28	3.27	4.61	1.77	M8	5.47	9.13	.59	6.30	0.83	3.53
2	1.54	4.06	5.98	1.77	M8	6.77	10.55	.59	7.48	1.10	6.17

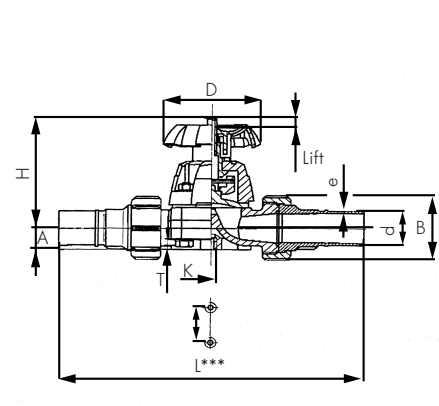
## Polypropylene and SYGEF-PVDF (IR-Butt, socket and BCF fusion ends)



IR/butt fusion end connections



socket fusion end connections



BCF fusion end connections

Metric size d mm	e PP mm	e PVDF mm	A inch	B inch	D inch	F inch	H inch	K mm	L* inch	L** PP inch	L** PVDF inch	T PP inch	T PVDF inch	z inch	Lift inch
20	1.7	1.9	0.55	1.77	1.85	0.98	3.54	M6	5.04	7.72	7.72	0.47	0.49	3.94	0.31
25	2.3	1.9	0.69	2.17	2.24	0.98	3.98	M6	5.91	8.70	8.66	0.47	0.49	4.65	0.43
32	3.0	2.4	0.85	2.44	2.52	0.98	4.61	M6	6.38	9.21	9.21	0.47	0.49	4.96	0.51
40	3.7	2.4	1.00	2.95	3.07	1.77	5.00	M6	7.24	10.24	10.16	0.59	0.49	5.67	0.63
50	4.6	3.0	1.26	3.29	3.50	1.77	5.47	M6	8.27	11.18	11.18	0.59	0.49	6.46	0.83
63	5.8	3.0	1.54	3.98	4.29	1.77	6.77	M6	9.76	12.64	12.60	0.59	0.49	7.64	1.10

Metric size d mm	Weight* PP lbs.	Weight** PP lbs.	Weight* PVDF lbs.	Weight** PVDF lbs.
20	0.904	0.93	1.04	1.08
25	1.279	1.32	1.52	1.57
32	1.742	1.79	2.07	2.14
40	2.734	2.80	3.31	3.42
50	3.527	3.64	4.32	4.50
63	6.261	6.48	7.52	7.80

\* socket fusion

\*\* IR/butt fusion / Plus BCF

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