

# Type 514, 515, 517, 519 High Flow Diaphragm Valve

## Standard Features

- **Size**  
1/2–2" (larger sizes available in 314–319 series)
- **Valve assembly**  
Threaded connection without bolts
- **Lower body (wetted)**  
PVC, CPVC, PP, Natural PP, PVDF, ABS
- **Upper body**  
Glass-filled polypropylene
- **Diaphragm material (wetted)**  
EPDM, FPM, PTFE with FPM backing, PTFE with EPDM backing, NBR
- **Pressure**  
PVC 150 PSI (240 optional); CPVC, PP, ABS 150 PSI; PVDF 240 PSI
- **Lockable handle**  
PP GF30

## Optional Features

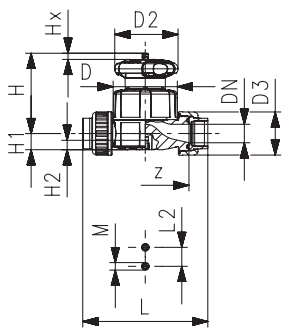
- **Pneumatic actuation**
- **Electric actuation (Q1 2011)**
- **Electric feedback switches (Q1 2011)**



## General

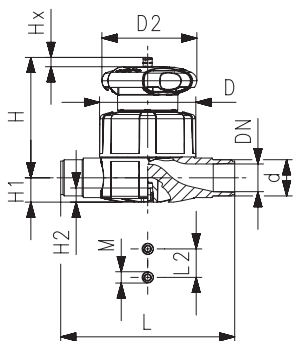
The Type 514-519 diaphragm valves from GF Piping Systems incorporate features never before seen in a plastic diaphragm valve. The valve has Cv values that average at least double the conventional design. This high-flow design allows the valve to be used where diaphragm valves were previously not possible due to flow restriction. In addition, the new design eliminates the four bolts used to hold the valve together. This eliminates a corrosive weak point. The Type 519 zero-static version uses the pipe wall as the weir and provides for maximum purity and drainability. The valve is available in PVC, CPVC, PP, PP-n, and PVDF. Standard versions can handle up to 150 PSI. All PVDF and an optional PVC version allow for pressures as high as 240 PSI.

# Dimensions Diaphragm Valves



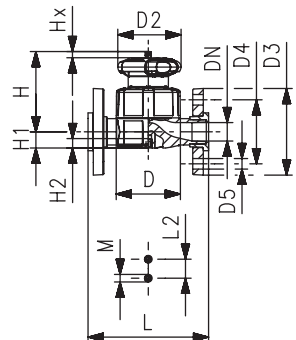
## Type 514 True Union

Inch	d	DN	D	D2	D3	L(1)	L(2)	L(3)	L(4)	L2	H	H1	H2	M	z	Hx
1/2	20	15	65	65	43	136	128	128	224	25	73	14	12	M6	96	7
3/4	25	20	80	65	51	160	152	150	250	25	81	18	12	M6	114	10
1	32	25	88	87	58	176	166	162	262	25	107	22	12	M6	122	13
1 1/4	40	32	101	87	72	198	192	184	296	45	115	26	15	M8	140	15
1 1/2	50	40	117	135	83	232	222	210	328	45	148	32	15	M8	160	19
2	63	50	144	135	100	268	266	248	370	45	166	39	15	M8	190	25



## Type 515 Spigot

d	DN	D	D2	L(5)	L(7)	L2	H	H1	H2	M	Hx
20	15	65	65	124	124	25	73	14	12	M6	7
25	20	80	65	144	144	25	81	18	12	M6	10
32	25	88	87	155	154	25	107	22	12	M6	13
40	32	101	87	176	174	45	115	26	15	M8	15
50	40	117	135	193	194	45	148	32	15	M8	19
63	50	144	135	223	223	45	166	39	15	M8	25



## Type 517 Flanged

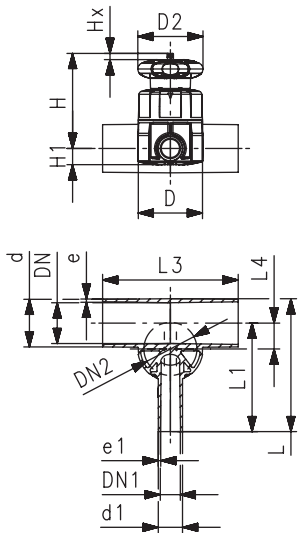
Inch	DN	D	D2	D3	D4	L(8)	L2	H	H1	H2	M	Hx
1/2	15	65	65	95	65	130	25	73	14	12	M6	7
3/4	20	80	65	105	75	150	25	81	18	12	M6	10
1	25	88	87	115	85	160	25	107	22	12	M6	13
1 1/4	32	101	87	140	100	180	45	115	26	15	M8	15
1 1/2	40	117	135	150	110	200	45	148	32	15	M8	19
2	50	144	135	165	125	230	45	166	39	15	M8	25

### Legend

- L(1) PVC & CPVC socket union
- L(2) PVC & CPVC NPT
- L(3) Union with fusion socket
- L(4) Union with butt fusion spigot
- L(5) Butt fusion spigot
- L(6) PVC & CPVC metric spigot
- L(7) Socket fusion spigot
- L(8) ANSI flanged

All data in millimeter [mm] unless otherwise indicated

## Type 519 Zero Static



d	d1	DN	DN1	DN2	D	D2	L(5)	L1	L3	L4	H	Hx
20	20	15	15	15	65	65	117	96	162	12	75	7
25	20	20	15	20	80	65	133	108	162	16	80	10
25	25	20	20	20	80	65	133	108	162	16	80	10
32	20	25	15	20	80	65	142	120	162	19	84	10
32	25	25	20	20	80	65	142	120	162	19	84	10
32	32	25	25	25	88	87	145	120	160	19	107	13
40	20	32	15	25	88	87	149	128	180	23	115	13
40	25	32	20	25	88	87	149	128	180	23	115	13
40	32	32	25	25	88	87	149	128	180	23	115	13
40	40	32	32	25	88	87	174	153	180	23	115	13
50	20	40	15	20	80	65	160	134	180	27	97	10
50	25	40	20	25	88	87	160	134	180	28	120	13
50	32	40	25	25	88	87	160	134	180	28	120	13
50	40	40	32	50	144	135	209	169	209	33	164	25
50	50	40	40	50	144	135	209	169	209	33	164	25
63	20	50	15	20	80	65	177	144	180	33	104	10
63	25	50	20	25	88	87	177	144	180	35	127	13
63	32	50	25	25	88	87	177	144	180	35	127	13
63	40	50	32	50	144	135	225	192	220	39	170	25
63	50	50	40	50	144	135	225	192	220	39	170	25
63	63	50	50	50	144	135	225	192	220	39	170	25
90	20	80	15	25	88	87	205	159	190	47	140	13
90	25	80	20	25	88	87	205	159	190	47	140	13
90	32	80	25	25	88	87	205	159	190	47	140	13
90	50	80	40	50	144	135	254	207	250	51	184	25
90	63	80	50	50	144	135	254	207	250	51	184	25
110	20	100	15	25	88	87	227	171	190	56	149	13
110	25	100	20	25	88	87	227	171	190	56	149	13
110	32	100	25	25	88	87	227	171	190	56	149	13
110	50	100	40	50	144	135	276	219	250	60	194	25
110	63	100	50	50	144	135	276	219	250	60	194	25

### Legend

- L(1) PVC & CPVC socket union
- L(2) PVC & CPVC NPT
- L(3) Union with fusion socket
- L(4) Union with butt fusion spigot
- L(5) Butt fusion spigot
- L(6) PVC & CPVC metric spigot
- L(7) Socket fusion spigot
- L(8) ANSI flanged

All data in millimeter [mm] unless otherwise indicated

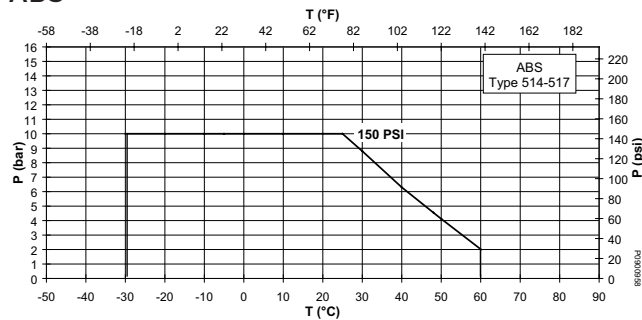
# Technical Data Diaphragm Valves

## Pressure/Temperature Charts

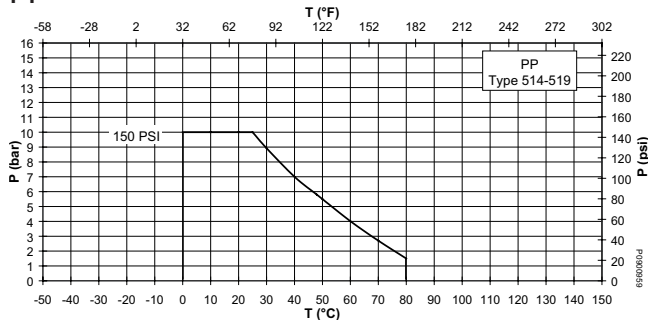
The following pressure/temperature charts are based on a lifetime of 25 years with water or similar media.

P = Permissible pressure in bar, psi  
T = Temperature in °C, °F

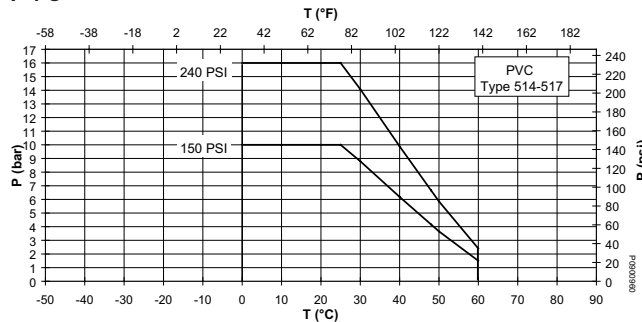
### ABS



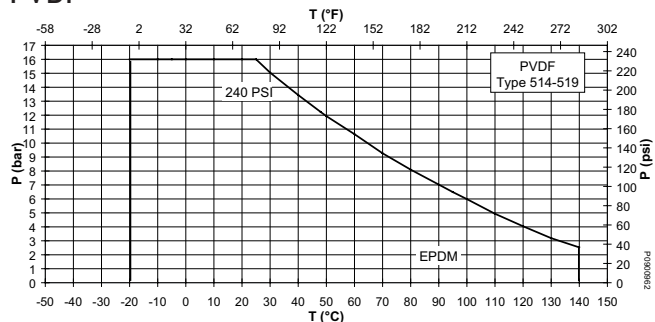
### PP



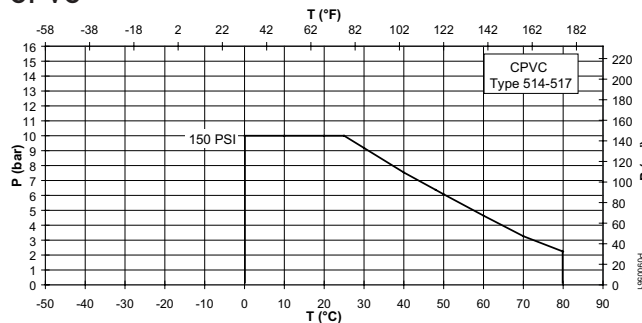
### PVC



### PVDF

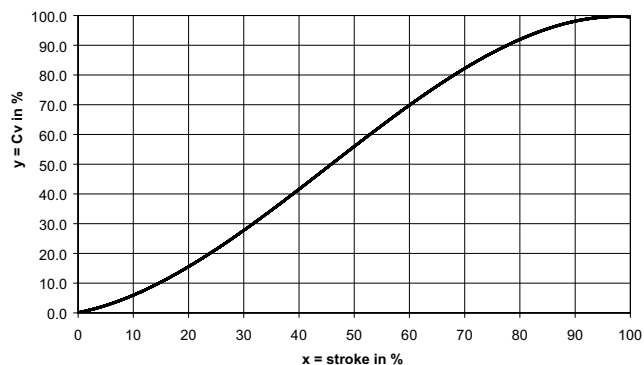


### CPVC

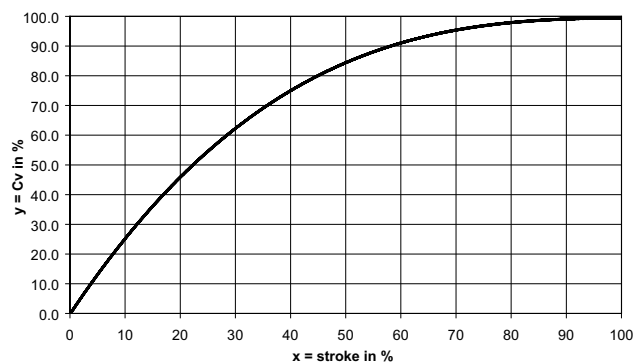


## Flow Characteristics

### Type 514-517



### Type 519



## Cv Values

The Cv values for each intermediate valve position can be determined by using the flow value characteristic and the Cv 100 values.

### Type 514-517

d [mm]	Inch	Cv
20	1/2	8.4
25	3/4	18.3
32	1	32.5
40	1 1/4	51.3
50	1 1/2	85.3
63	2	116.8

### Type 519

d [mm]	d1 [mm]	DN [mm]	DN1 [mm]	Cv
20	20	15	15	3.9
25	20	20	15	6.0
25	25	20	20	8.0
32	20	25	15	5.4
32	25	25	20	7.1
32	32	25	25	15.6
40	20	32	15	5.7
40	25	32	20	8.0
40	32	32	25	10.3
40	40	32	32	12.6
50	20	40	15	5.8
50	25	40	20	10.8
50	32	40	25	13.9
50	40	40	32	35.4
50	50	40	40	45.1
63	20	50	15	5.7
63	25	50	20	10.1
63	32	50	25	12.4
63	40	50	32	31.8
63	50	50	40	41.2
63	63	50	50	50.5

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