

Lug Style Butterfly Valve Type 578



General

The Type 578 Lug Butterfly Valve has several beneficial design features unique to the Georg Fischer butterfly valve line. The double eccentric operating principle has an off-center disc and shaft that disengages the disk from the seal with only 3 degrees of rotation. This significantly reduces component wear and required operating torque, as the disk is not in contact with the seal when the valve is opening and closing. Conversely, a traditional boot-style valve has a centric design, significantly increasing the required operating torque because of the disk sealing principle associated with these valves. Boot-style valves often show a far more dramatic increase in required operating torque over time than a double eccentric valve. This can result in premature actuator failure and can even render the valve inoperable. Georg Fischer double eccentric butterfly valves require approximately 50% less operating torque than boot-style competitive valves.

The 578 valve also features a truly non-wetted shaft design. The bushing assembly has a double O-ring seal on both the disk and body sides, providing the highest level of protection and reliability.

Features

- Size: 2"–12"
- Body: Glass filled PP with overmolded SS316 lugs, ANSI 150 bolt pattern
- Materials: PVC, CPVC, PP and PVDF
- Stem: 316 stainless steel
- Seal: EPDM or FPM; PTFE seals available upon request
- Operation: Bare shaft, lever, gear

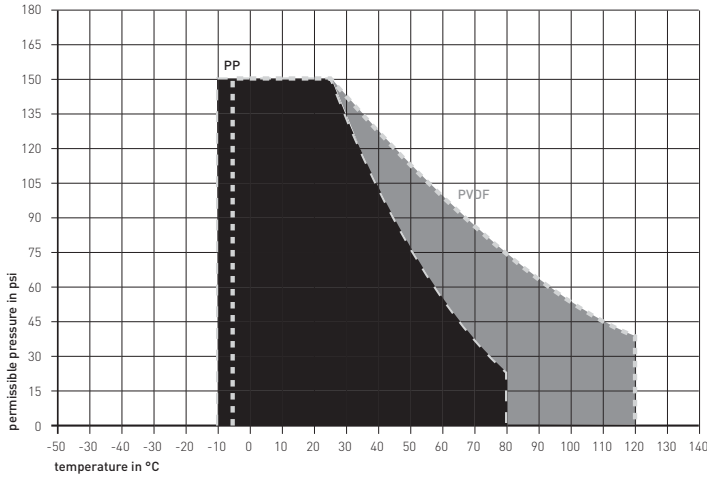
Optional Features

- Actuation: Electric, pneumatic
- Accessories:
 - Integrated electrical feedback
 - Handle extension
 - Chain operator
 - Square operating nut
 - Fine adjustment lever (1 degree)

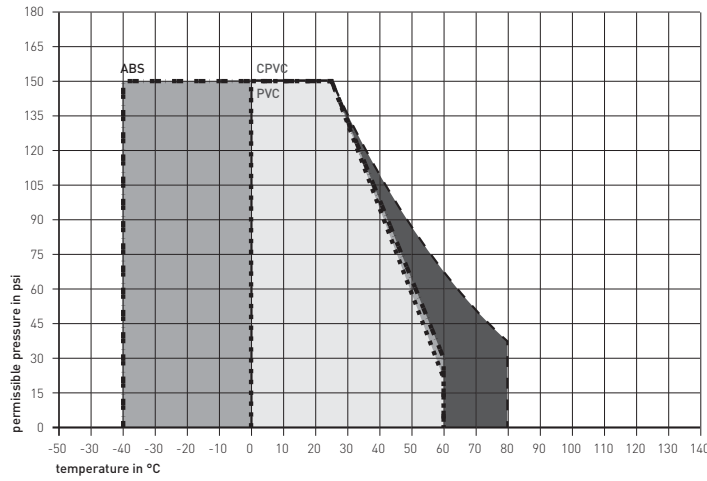
Technical Data

Pressure-temperature diagrams

PP, PVDF (useful life 25 years; medium water)



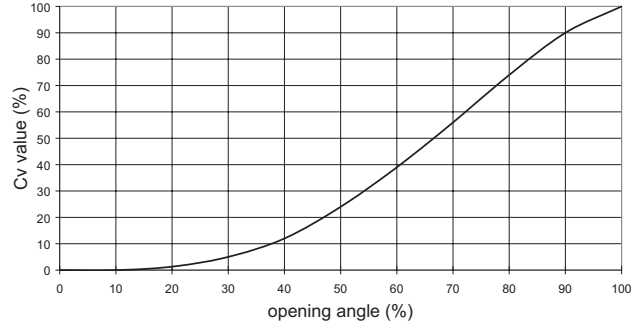
ABS, PVC, CPVC (useful life 25 years; medium water)



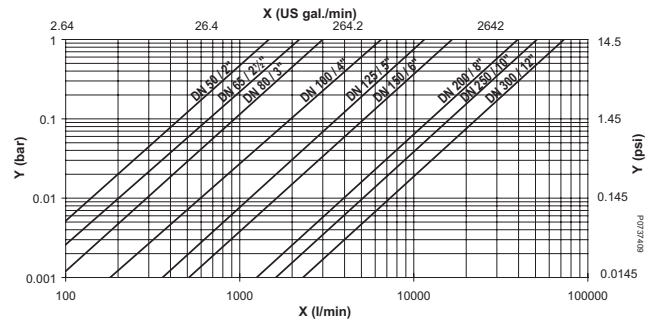
Cv values

DN mm	Inch	d mm	Cv 100 gal/min ($\Delta p = 1$ psi)
50	2	63	103
65	2½	75	154
80	3	90	210
100	4	110	455
125	5	140	805
150	6	160	1162
200	8	225	2772
250	10	280	3570
300	12	315	5110

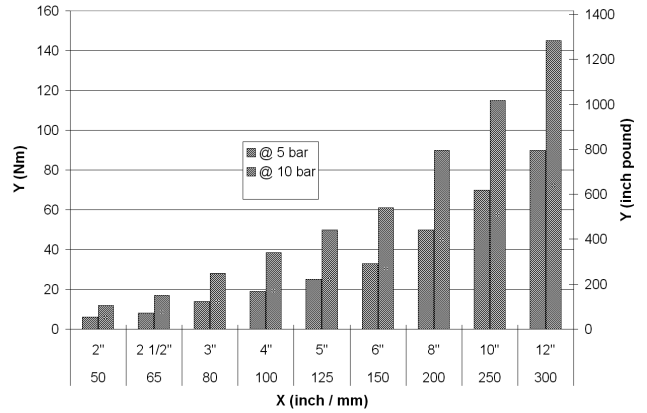
Flow characteristics



Pressure loss

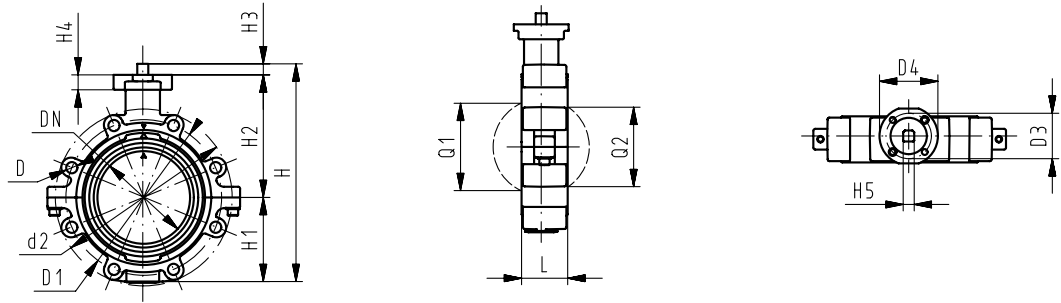


Operating torque



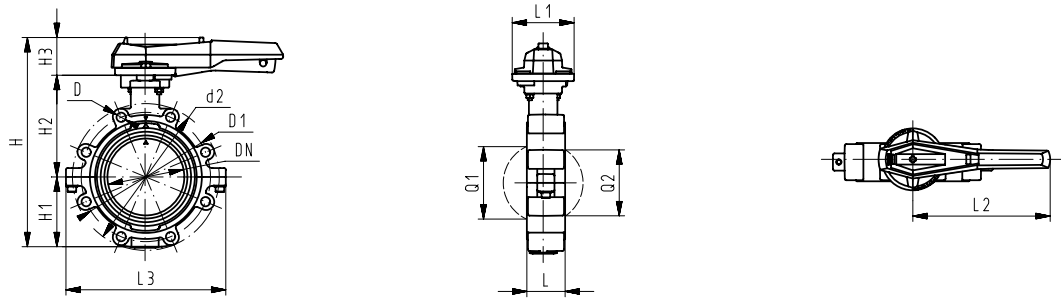
For non-GF actuators, breakaway torques 2.5 to 4 times the value of the moving torque must be taken into consideration, depending on the application conditions (e.g. control time, medium, temperature, etc.).

Dimensions



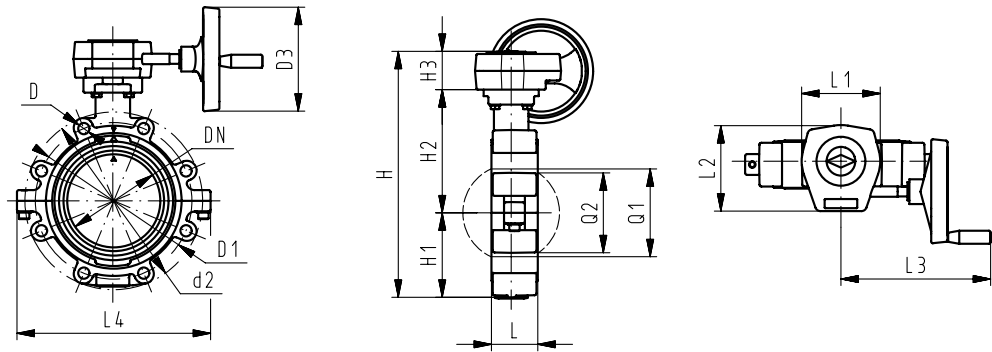
Type 578 bare shaft

d mm	d inch	DN mm	d2 mm	D	D1 mm	D3 mm	D4 mm	H mm	H1 mm	H2 mm	H3 mm	H4 mm	L mm	Q1 mm	Q2 mm
63	2	50	160	UNC 5/8	120.6	70	90	238	77	134	27	23	45	40	-
75	2½	65	180	UNC 5/8	139.7	70	90	250	83	140	27	23	46	54	35
90	3	80	195	UNC 5/8	152.4	70	90	262	89	146	27	23	49	67	50
110	4	100	226	UNC 5/8	190.5	70	90	289	106	167	16	23	56	88	74
140	5	125	258	UNC 3/4	215.9	70	90	318	121	181	16	23	64	113	97
160	6	150	284	UNC 3/4	241.3	70	90	341	133	189	19	23	72	139	123
225	8	200	341	UNC 3/4	298.4	70	90	388	159	210	19	23	73	178	169
280	10	250	412	UNC 7/8	362.0	102	125	509	205	264	40	23	113	210	207
315	12	300	482	UNC 7/8	431.8	102	125	559	234	285	40	23	113	256	253



Type 578 lever

d mm	d inch	DN mm	d2 mm	D	D1 mm	H mm	H1 mm	H2 mm	H3 mm	L mm	L1 mm	L2 mm	L3 mm	Q1 mm	Q2 mm
63	2	50	160	UNC 5/8	120.6	265	77	134	54	45	23	205	165	40	-
75	2½	65	180	UNC 5/8	139.7	277	83	140	54	46	23	205	182	54	35
90	3	80	195	UNC 5/8	152.4	289	89	146	54	49	23	205	210	67	50
110	4	100	226	UNC 5/8	190.5	328	106	167	55	56	23	255	240	88	74
140	5	125	258	UNC 3/4	215.9	357	121	181	55	64	23	255	272	113	97
160	6	150	284	UNC 3/4	241.3	377	133	189	55	72	23	255	300	139	123
225	8	200	341	UNC 3/4	298.4	436	159	210	67	73	23	408	360	178	169
280	10	250	412	UNC 7/8	362.0	536	205	264	67	113	23	408	440	210	207
315	12	300	482	UNC 7/8	431.8	586	234	285	67	113	23	408	510	256	253



Type 578 gear

d mm	d inch	DN mm	d2 mm	D	D1 mm	D3	H mm	H1 mm	H2 mm	H3 mm	L mm	L1 mm	L2 mm	L3 mm	L4 mm	Q1 mm	Q2 mm
63	2	50	160	UNC 5/8	120.6	150	261	77	134	50	45	110	120	165	155	40	-
75	2½	65	180	UNC 5/8	139.7	150	273	83	140	50	46	110	120	182	155	54	35
90	3	80	195	UNC 5/8	152.4	150	285	89	146	50	49	110	120	210	155	67	50
110	4	100	226	UNC 5/8	190.5	150	323	106	167	50	56	110	120	240	155	88	74
140	5	125	258	UNC 3/4	215.9	150	352	121	181	50	64	110	120	272	155	113	97
160	6	150	284	UNC 3/4	241.3	150	372	133	189	50	72	110	120	300	155	139	123
225	8	200	341	UNC 3/4	298.4	150	419	159	210	50	73	110	120	360	155	178	169
280	10	250	412	UNC 7/8	362.0	200	524	205	264	55	113	130	140	440	200	210	207
315	12	300	482	UNC 7/8	431.8	200	574	234	285	55	113	130	140	510	200	256	253

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