

Butterfly valve type 567/578



Type 567
Standard for wafer style installation



Type 567
For fine adjustment



Type 567
Manual reduction gear



Type 578
For lug style and wafer style installation

Product description

Butterfly valves of types 567 and 578 are corrosion-resistant and reliable control and shut-off valves that can be used in most applications in industrial water treatment, the chemical process industry, chemical trade, galvanization and in power plants. The valves are intended for wafer style and lug style applications. They are compact, varied and reliable. The valve is modular in design, allowing individual system parts to be exchanged at any time.

Function

Butterfly valves of types 567 and 578 have a double-eccentric mode of action and are of modular construction.

Double eccentric operating principle

The disc does not touch the seal in the open position. The disc can be quickly unscrewed from the gasket, ensuring low wear and tear. Pressure surges in the direction of flow can be absorbed more readily.

Use as a process and control valve

The butterfly valves can be equipped with corresponding pneumatic or electrical actuators and used as process and regulating valves. With extensive accessories, such as the integrated electrical position indicator. This enables direct feedback of the axis position in the valve head flange by means of limit switches and thereby an exact determination of the position of the valve disc.

Flow media

- Very well suited for liquid media
- Suited for gaseous media
- Conditionally suited for solid media
- Conditionally suited for viscous media

Benefits/features

Type 567

- High corrosion resistance: all components that come into contact with media are made of plastic
- Low wear and tear: up to 50 % lower operation moment than central valves
- Leak-tightness within and without: double, internal axis gasket on both sides
- On standard versions, the lever is in increments of 5 degrees

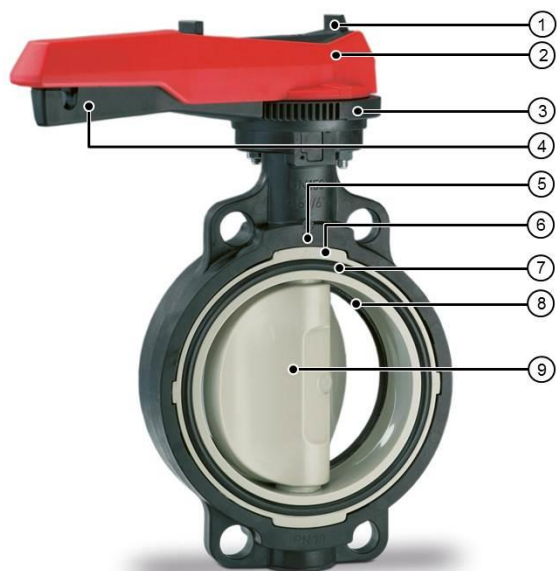
Type 578

- Use as lugged valve with threaded bushes integrated into the housing
- Lower weight than metallic butterfly valves due to use of fiberglass-reinforced plastic as housing material
- High corrosion resistance: all components that come into contact with media are made of plastic
- Low wear and tear: up to 50 % lower operation moment than central valves
- Leak-tightness within and without: double, internal axis gasket on both sides

Applications

- Industrial water treatment
- Seawater desalinization
- Swimming pools
- Aquariums/oceanariums
- Chemical process industry
- Surface engineering

Technical data



No.	Description
1	Hand lever clip
2	Lever
3	Grid positioning
4	Lever handle, lockable
5	Outer housing
6	Inner housing
7	Flange seal
8	Profile seal
9	Disc

Specification

Dimensions	Type 567	d63/DN50 – d630/DN600, 2" – 24"
	Type 578	d63/DN50 – d315/DN300, 2" – 12"
Materials	Disc / inner housing	PVC-U, PVC-C, ABS, PP-H, PVDF
	Outer housing	PP-GF30
Gasket materials	EPDM, FPM, FPM/PTFE	
Pressure levels	Type 567	PN4 – PN10
	Type 578	PN10
Connections	PVC-U, PVC-C, ABS, PP-H, PVDF, PE according to ISO 7005 PN 10, EN 1092 PN 10, DIN 2501 PN 10, ANSI/ASME B 16.5 Class 150, BS 1560: 1989, BS 4504, JIS B 2220	
	Flanges	
	Flange adapters	PVC-U, PVC-C, ABS, PP-H SDR 11: PE100 SDR 11 or 17.6, PVDF
	Backing flange	PVC-U, PP
Actuation variants	Hand-operated (hand lever or manual reduction gear)	
	Lockable hand lever	
	Pneumatically actuated FC, FO, DA	
	Electrically actuated AC: 100 – 230 V, AC/DC: 24 V	
Approvals	ACS, ABS, DIBt, TA Luft, BV, TSSA, DNV, GL, LR, NSF61, NSF 1970	

Kv 100 values

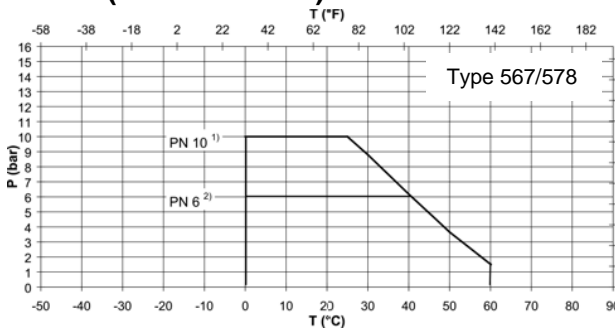
DN (mm)	Inch (inch)	d (mm)	Kv 100 (l/min)	Cv 100 (US gal./min)	Kv 100 (m ³ /h)
50	2	63	1470	103	88
65	2 ½	75	2200	154	132
80	3	90	3000	210	180
100	4	110	6500	455	390
125	5	140	11 500	805	690
150	6	160	16 600	1162	1000
200	8	225	39 600	2772	2380
250	10	280	51 000	3570	3060
300	12	315	73 000	5110	4380
350	14	335	90 000	6300	5400
400	16	400	115 000	8050	6900
450	18	450	155 000	10 850	9300
500	20	500	204 000	14 280	12 240
600	24	630	265 000	18 550	15 900

Pressure-temperature diagrams

T Temperature (°C, °F)

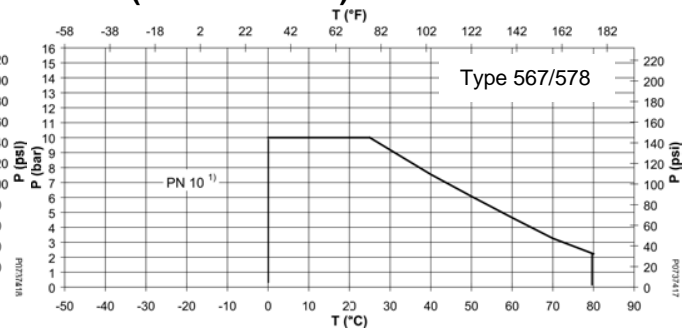
P Permissible pressure (bar, psi)

PVC-U (DN50 – DN400)



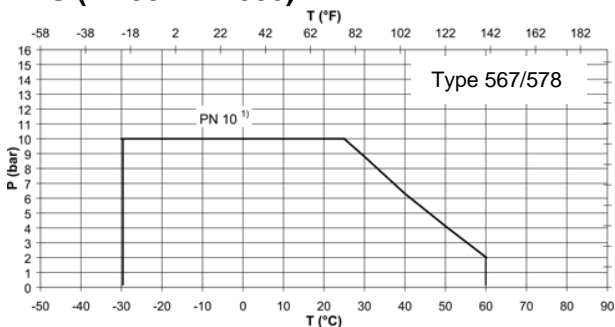
- 1) DN50 – DN 300
- 2) DN350 – DN

PVC-C (DN50 – DN300)



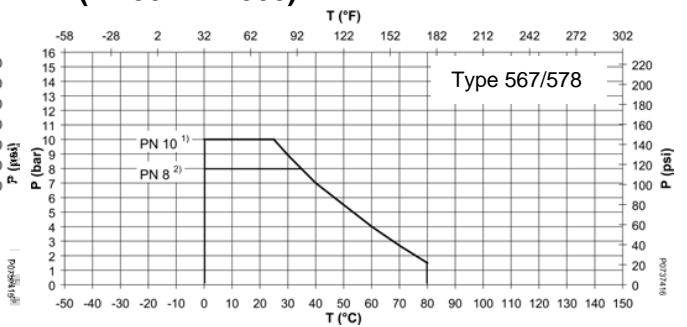
- 1) DN50 – DN300

ABS (DN50 – DN300)



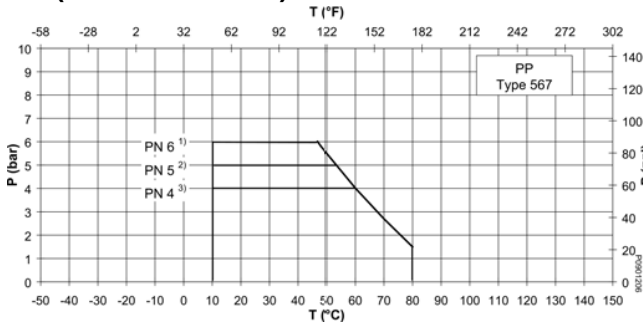
- 1) DN50 – DN300

PP (DN50 – DN300)

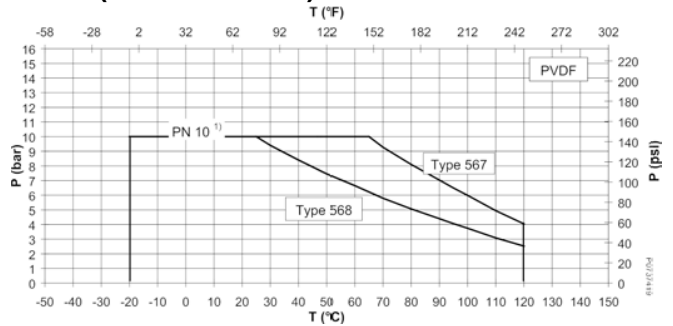


- 1) DN50 – DN200
- 2) DN250 – DN 300

PP (DN350 – DN600)



PVDF (DN50 – DN300)



- 1) DN350 – 400
- 2) DN450
- 3) DN500 – DN 600

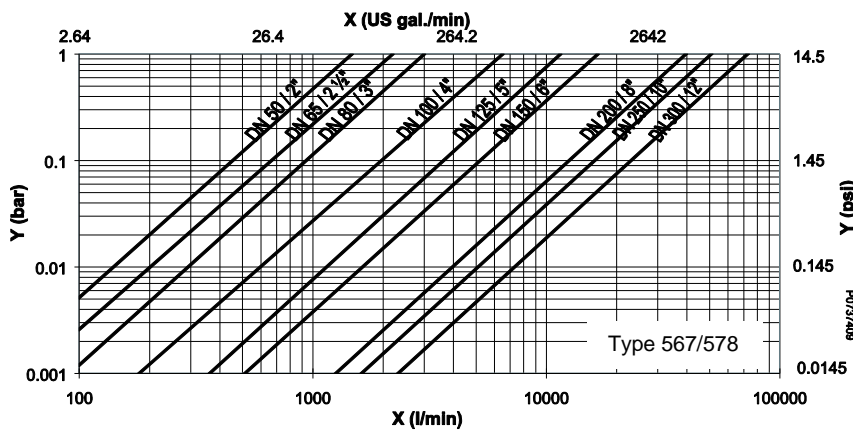
- 1) DN50 – DN300

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

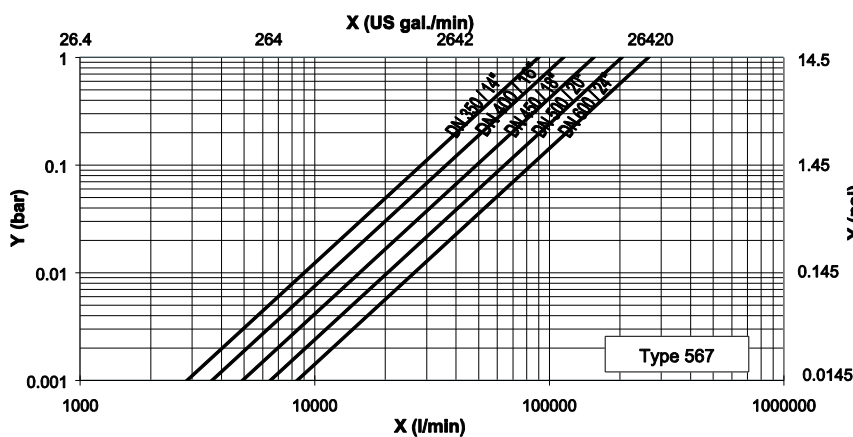
Pressure losses

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

DN50 – DN300

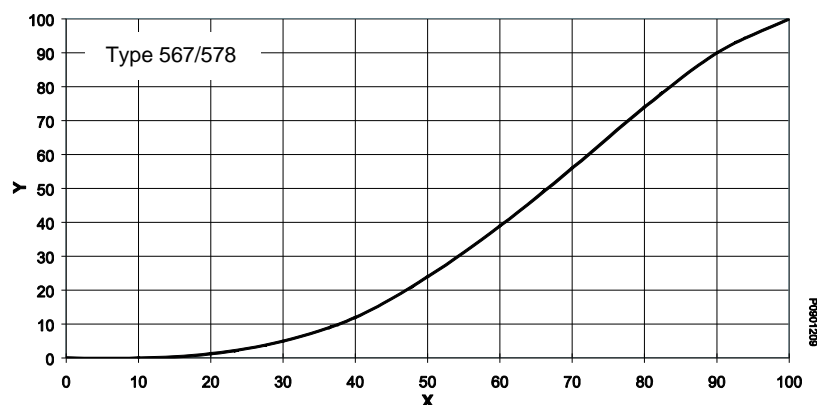


DN350 – DN600



Flow characteristics

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



Reference values for tightening torque of screws

DN50 – DN300

Reference values for tightening torque of screws AK type 567 in ISO flange connections

d (mm)	DN (mm)	Inch (inch)	Total number of screws	Maximum screw tightening torque	
				(Nm)	(lb-ft)
63	50	2	4 x M16 x 140mm	20	15
75	65	2 ½	4 x M16 x 140mm	25	18
90	80	3	8 x M16 x 150mm	15	11
110	100	4	8 x M16 x 180mm	20	15
140	125	5	8 x M16 x 200mm	25	18
160	150	6	8 x M20 x 220mm	35	26
225	200	8	8 x M20 x 220mm	45	33
280	250	10	8 x M20 x 300mm	80	59
315	300	12	12 x M20 x 300mm	80	59

DN350 – DN600

Reference values for tightening torque of screws AK type 567

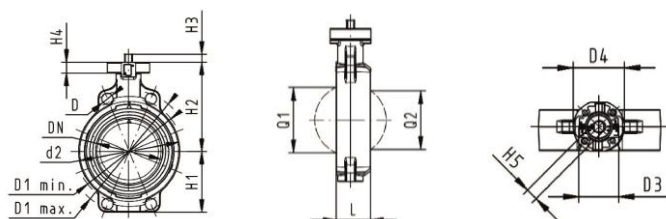
d (mm)	DN (mm)	Inch (inch)	Total number of screws	Maximum screw tightening torque	
				(Nm)	(lb-ft)
2	63	50	4 x 5/8 x 3	27	20
2½	75	65	4 x 5/8 x 3 ½	27	20
3	90	80	4 x 5/8 x 3 ¾	27	20
4	110	100	8 x 5/8 x 4	27	20
5	140	125	8 x ¾ x 4 ½	35	26
6	160	150	8 x ¾ x 4 ¾	45	33
8	225	200	8 x 7/8 x 5 ¼	45	33
10	280	250	8 x 7/8 x 6	72	53
12	315	300	12 x 7/8 x 6 ½	72	53

Reference values for tightening torque of screws AK type 567 in ANSI flange connections

d (mm)	DN (mm)	Inch (inch)	Maximum screw tightening torque	
			(Nm)	(lb-ft)
14	355	350	80	59
16	400	400	100	74
18	450	450	100	74
20	500	500	100	74
24	630	600	100	74

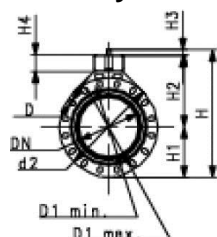
Dimensions

Butterfly valve type 567 with open shaft end DN50 – DN300



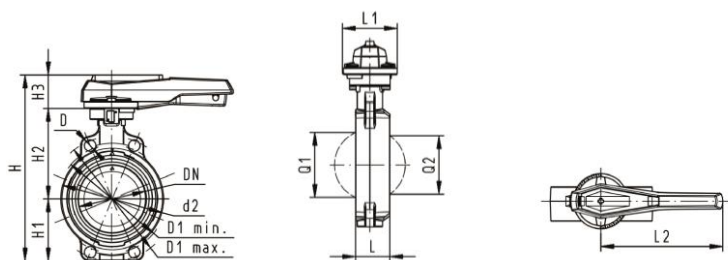
d (mm)	DN (mm)	D (mm)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	I2 (mm)	Q1 (mm)	Q2 (mm)
63	50	19	120.0	125.0	104	264	77	134	54	45	106	205	40	-
75	65	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	80	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	100	19	175.0	190.0	161	325	104	167	55	56	106	255	88	74
140	125	23	210.0	215.9	187	352	117	181	55	64	106	255	113	97
160	150	24	241.3	241.3	215	373	130	189	55	72	106	255	139	123
225	200	23	290.0	295.0	267	435	158	210	67	73	140	408	178	169
280	250	25	353.0	362.0	329	554	205	264	85	113	149	408	210	207
315	300	25	400.0	432.0	379	598	228	285	85	113	149	408	256	253

Butterfly valve type 567 with open shaft end DN350 – DN600



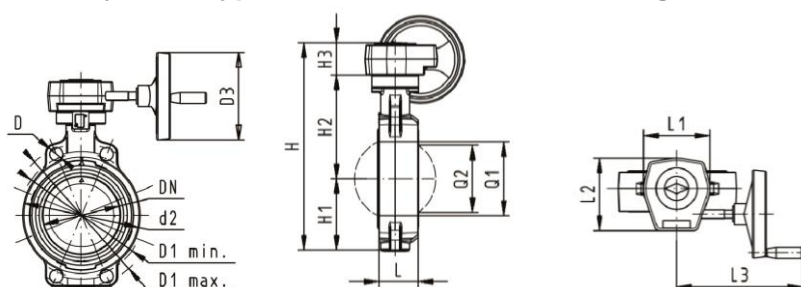
d (mm)	DN (mm)	inch (inch)	PN (bar)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)
d355	DN350	14"	6	445	477	535	268	410	31	100
d400	DN400	16"	6	510	540	595	300	435	31	100
d450	DN450	18"	5	565	578	635	320	520	35	120
d500	DN500	20"	4	620	635	700	350	550	35	120
d630	DN600	24"	4	725	750	813	420	610	35	120

Butterfly valve type 567 with hand lever DN50 – DN300



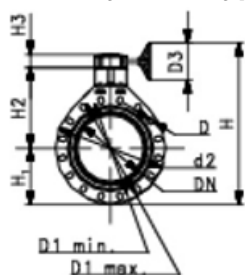
d (mm)	DN (mm)	D (mm)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	I2 (mm)	Q1 (mm)	Q2 (mm)
63	50	19	120.0	125.0	104	264	77	134	54	45	106	205	40	-
75	65	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	80	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	100	19	175.0	190.0	161	325	104	167	55	56	106	255	88	74
140	125	23	210.0	215.9	187	352	117	181	55	64	106	255	113	97
160	150	24	241.3	241.3	215	373	130	189	55	72	106	255	139	123
225	200	23	290.0	295.0	267	435	158	210	67	73	140	408	178	169
280	250	25	353.0	362.0	329	554	205	264	85	113	149	408	210	207
315	300	25	400.0	432.0	379	598	228	285	85	113	149	408	256	253

Butterfly valve type 567 with manual reduction gear DN50 – DN300



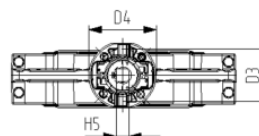
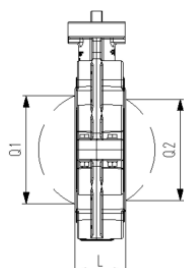
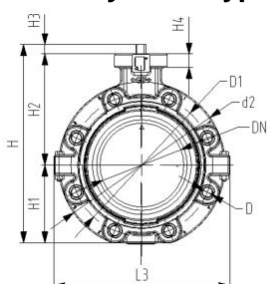
D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	I2 (mm)	I3 (mm)	Q1 (mm)	Q2 (mm)
120.0	125.0	104	160	278	77	134	60	45	120	132	236	40	-
139.7	145.0	115	160	291	83	140	60	46	120	132	236	54	35
150.0	160.0	131	160	303	89	146	60	49	120	132	236	67	50
175.0	190.5	161	160	339	104	167	60	56	120	132	236	88	74
210.0	215.9	187	160	365	117	181	60	64	120	132	236	113	97
241.3	241.3	215	160	387	130	189	60	72	120	132	236	139	123
290.0	295.0	267	160	436	158	210	60	73	120	132	236	178	169
353.0	362.0	329	160	529	205	264	60	113	134	151	261	210	207
400.0	432.0	379	160	573	228	285	60	113	134	151	261	256	253

Butterfly valve type 567 with manual reduction gear DN350 – DN600



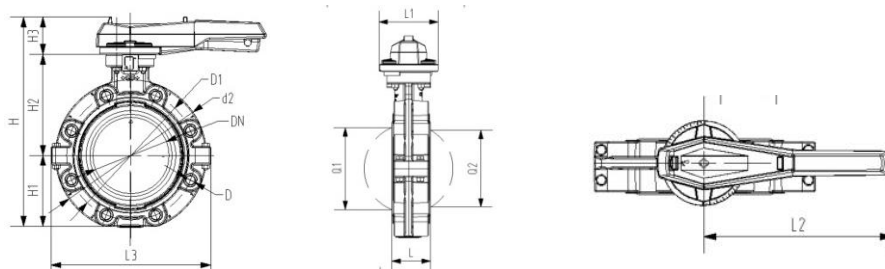
d (mm)	DN (mm)	Inch (inch)	PN (bar)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	D31 (mm)	H1 (mm)	H2 (mm)	H3 (mm)
d355	DN350	14"	6	445	477	535	140	268	410	31
d400	DN400	16"	6	510	540	595	140	300	435	31
d450	DN450	18"	5	565	578	635	165	320	520	35
d500	DN500	20"	4	620	635	700	165	350	550	35
d630	DN600	24"	4	725	750	813	165	420	610	35

Butterfly valve type 578 with open shaft end DN50 – DN300



d (mm)	d inch	DN (mm)	d2 (mm)	D	D ANSI	D1 (mm)	D1 _{ANSI} (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	I2 (mm)	I3 (mm)	Q1 (mm)	Q2 (mm)
63	2	50	160	M16	UNC 5/8	125	120.6	265	77	134	54	45	23	205	165	40	-
75	2½	65	180	M16	UNC 5/8	145	139.7	277	83	140	54	46	23	205	182	54	35
90	3	80	195	M16	UNC 5/8	160	152.4	289	89	146	54	49	23	205	210	67	50
110	4	100	226	M16	UNC 5/8	180	190.5	328	106	167	55	56	23	255	240	88	74
140	5	125	258	M16	UNC 3/4	210	215.9	357	121	181	55	64	23	255	272	113	97
160	6	150	284	M20	UNC 3/4	240	241.3	377	133	189	55	72	23	255	300	139	123
225	8	200	341	M20	UNC 3/4	295	298.4	436	159	210	67	73	23	408	360	178	169
280	10	250	412	M20	UNC 7/8	350	362.0	536	205	264	67	113	23	408	440	210	207
315	12	300	482	M20	UNC 7/8	400	431.8	586	234	285	67	113	23	408	510	256	253

Butterfly valve type 578 with hand lever DN50 – DN300



D (mm)	d (inch)	DN (mm)	d2 (mm)	D	D ANSI	D1 (mm)	D1 ANSI (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	I3 (mm)	L4 (mm)	Q1 (mm)	Q2 (mm)
63	2	50	160	M16	UNC %	125	120.6	150	261	77	134	50	45	110	120	165	155	40	-
75	2½	65	180	M16	UNC %	145	139.7	150	273	83	140	50	46	110	120	182	155	54	35
90	3	80	195	M16	UNC %	160	152.4	150	285	89	146	50	49	110	120	210	155	67	50
110	4	100	226	M16	UNC %	180	190.5	150	323	106	167	50	56	110	120	240	155	88	74
140	5	125	258	M16	UNC ¾	210	215.9	150	352	121	181	50	64	110	120	272	155	113	97
160	6	150	284	M20	UNC ¾	240	241.3	150	372	133	189	50	72	110	120	300	155	139	123
225	8	200	341	M20	UNC ¾	295	298.4	150	419	159	210	50	73	110	120	360	155	178	169
280	10	250	412	M20	UNC ¾	350	362.0	200	524	205	264	55	113	130	140	440	200	210	207
315	12	300	482	M20	UNC ¾	400	431.8	200	574	234	285	55	113	130	140	510	200	256	253

Accessories

Integrated electrical position indicator (IER)

- Position indicator in combination with actuators
- For manual valve as well as for manual reduction gear
- General technical data of the electrical position indicator:
- Protection rating with DIN plug (2) IP65
- Protection rating with cable gland IP67
- Ambient temperature: -10 °C to +50 °C

Assignment of the electrical position indicator to butterfly valve of types 567 and 578:

Shaft	Dimension
1	11 mm DN50 – DN80
2	14 mm DN100 – DN125
3	17 mm DN150 – DN200



For further information on accessories, refer to the online product catalog at www.gfps.com

Rev A (1/16)

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