

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

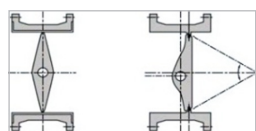
Butterfly valves of types 567 and 578 are corrosion -resistant and reliable control and shut-off valves that can be used in most applications in industrial water treatment, the chemical process industry, chemical trade, galvanization and in power plants. The valves are intended for wafer style and lug 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.

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 torque than centric 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 actuating torque than centric valves
- Leak-tightness within and without: double, internal axis gasket on both sides

Flow media

- Very well suited for liquid media
- Suited for gaseous media
- Conditionally suited for media containing solids
- Conditionally suited for viscous media

Applications

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

Technical data



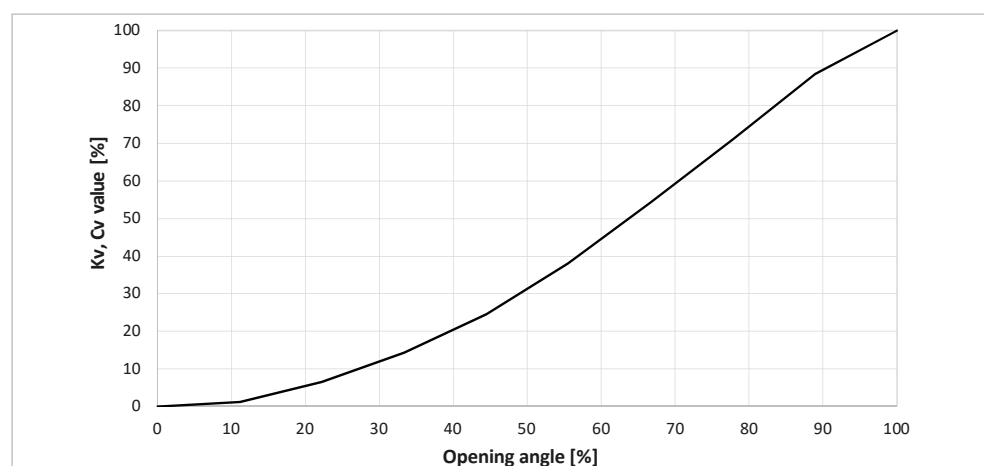
- ① Hand lever clip
- ② Lever
- ③ Grid positioning
- ④ Lever handle, lockable
- ⑤ Outer housing
- ⑥ Inner housing
- ⑦ Flange seal
- ⑧ Profile seal
- ⑨ Disc

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, FKM, FKM/PTFE	
Pressure ratings	Type 567	PN4 – PN10
	Type 578	PN10
Connections	Flanges	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
	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	General	ACS, ABS, DIBt, TA Luft, BV, TSSA, DNV-GL, LR, NSF61, NSF 1970
Overall length	ISO 5752 / EN 558 DN50-200 Series 25, DN25-300 Series 16	
Flange standards	EN 1092 PN 10, ASME B16.5 Class 150, BS 1560-3.2 Class 150, JIS B2220 10K	
Interface head flange	EN ISO 5211	
Tightness requirement	ISO 9393-2, EN 12266 (leak rate A)	
Marking	EN ISO 16136	
Product standard	ISO 9393-1, EN ISO 16136	

Kv 100 values

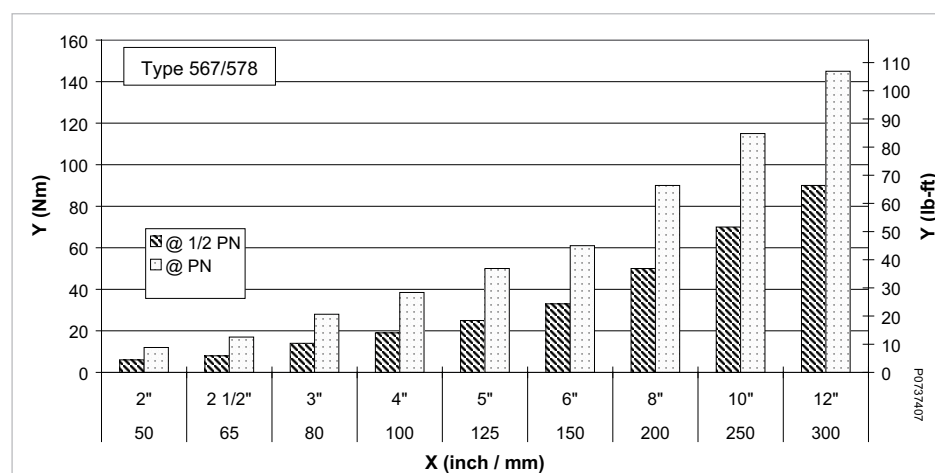
DN (mm)	Inch (inch)	d (mm)	Kv 100 (l/min)	Cv 100 (US gal./min)	Kv 100 (m³/h)
50	2	63	740	52	44
65	2 ½	75	1500	105	90
80	3	90	2400	168	144
100	4	110	3800	266	228
125	5	140	8600	602	516
150	6	160	11 400	798	684
200	8	225	19 900	1393	1194
250	10	280	34 000	2380	2040
300	12	315	50 000	3500	3000
350	14	335	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

Flow characteristics



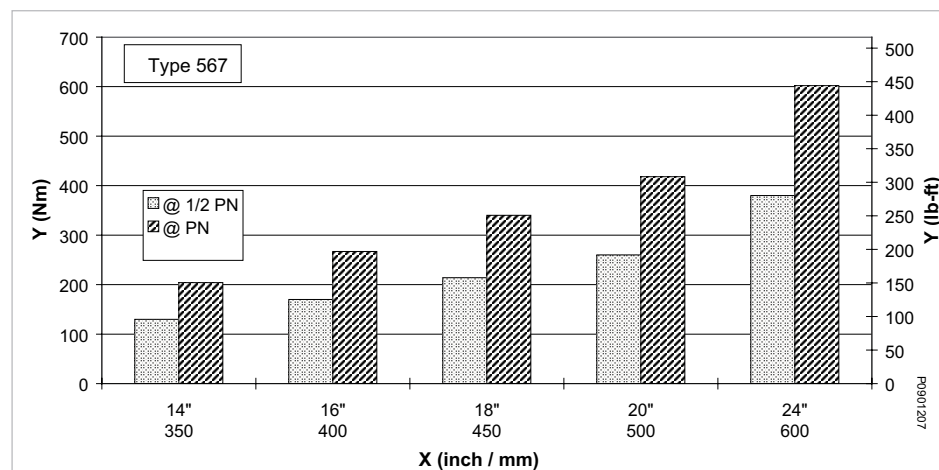
Operating torque

DN50 – DN300 for opening/closing (standard valve, as delivered)



X Nominal diameter DN
(mm, inch)
Y Tightening torque
(Nm, lb-ft)

DN350 – DN600



X Nominal diameter DN (mm, inch)
Y Tightening torque (Nm, lb-ft)

Depending on the operation conditions (e.g. control time, medium, temperature, etc.) the stated operating torque can increase up to 4 times.

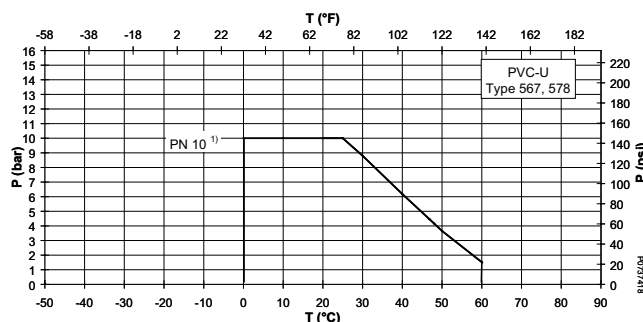
Pressure-temperature diagrams

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

T Temperature (°C, °F)

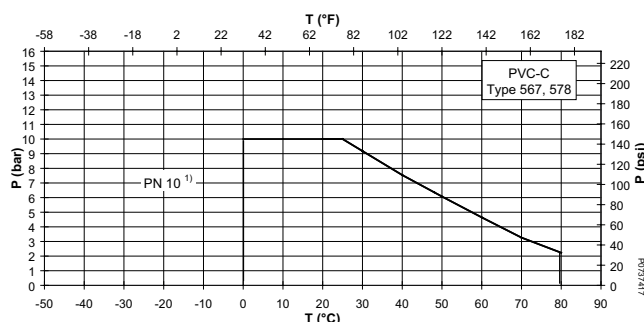
P Permissible pressure (bar, psi)

PVC-U (DN50 – DN300)



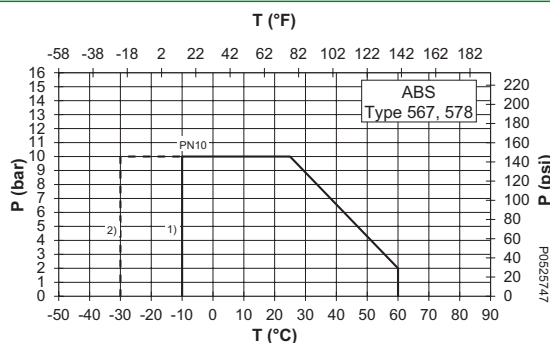
1) DN50 – DN300

PVC-C (DN50 – DN300)



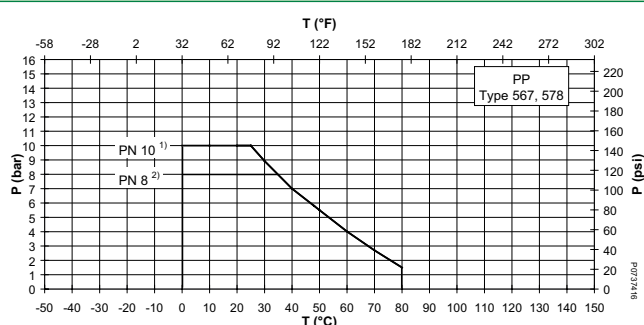
1) DN50 – DN300

ABS (DN50 – DN300)



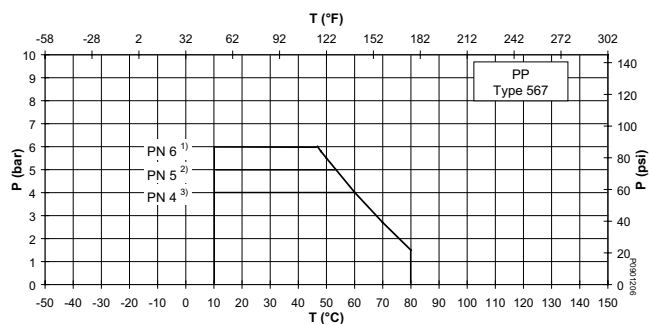
- 1) with standard Type 567/578
- 2) - with PE flange adapter: only with COOL-FIT version of Type 567
- with ABS flange adapter: with standard Type 567 in installation direction A-B, or with COOL-FIT version of Type 567

PP (DN50 – DN300)

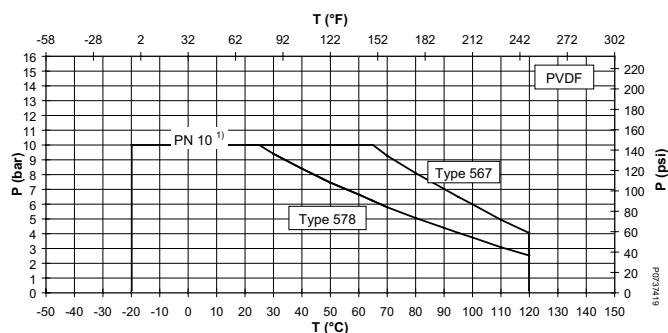


- 1) DN50 – DN200
- 2) DN250 – DN300

PP (DN350 – DN600)



PVDF (DN50 – DN300)

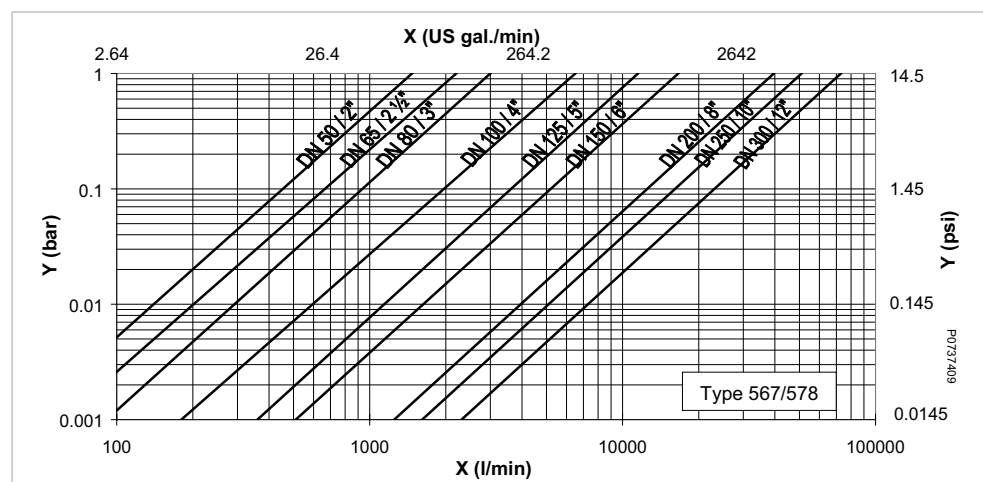


- 1) DN350 – DN400
- 2) DN450
- 3) DN500 – DN600

- 1) DN50 – DN300

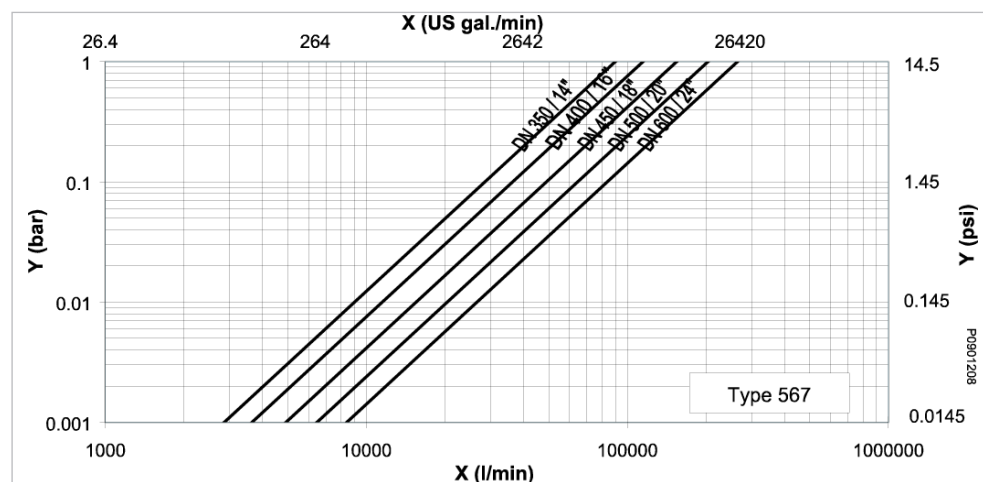
Pressure losses

DN50 – DN300



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

DN350 – DN600



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

Reference values for tightening torque of screws

DN50 – DN300

Reference values for tightening torque of screws AK Type 567/578 in ISO flange connections

d (mm)	DN (mm)	Inch (inch)	Total number of screws	Maximum screw tightening torque	
				(Nm)	Inch-lbs
63	50	2	4 x M16 x 140mm	25	221
75	65	2 ½	4 x M16 x 140mm	25	221
90	80	3	8 x M16 x 150mm	25	221
110	100	4	8 x M16 x 180mm	30	265
140	125	5	8 x M16 x 200mm	35	310
160	150	6	8 x M20 x 220mm	40	352
225	200	8	8 x M20 x 220mm	50	442
280	250	10	8 x M20 x 300mm	80	708
315	300	12	12 x M20 x 300mm	80	708

DN50 – DN300

Reference values for tightening torque of screws AK Type 567/578 in ANSI flange connections

d (mm)	DN (mm)	Inch (inch)	Total number of screws	Maximum screw tightening torque	
				(Nm)	Inch-lbs
63	50	2	4 x ⅝ x 3	25	221
75	65	2 ½	4 x ⅝ x 3 ½	25	221
90	80	3	4 x ⅝ x 3 ¾	25	221
110	100	4	8 x ⅝ x 4	30	265
140	125	5	8 x ¾ x 4 ½	35	310
160	150	6	8 x ¾ x 4 ¾	40	352
225	200	8	8 x ⅞ x 5 ¼	50	442
280	250	10	8 x ⅞ x 6	80	708
315	300	12	12 x ⅞ x 6 ½	80	708

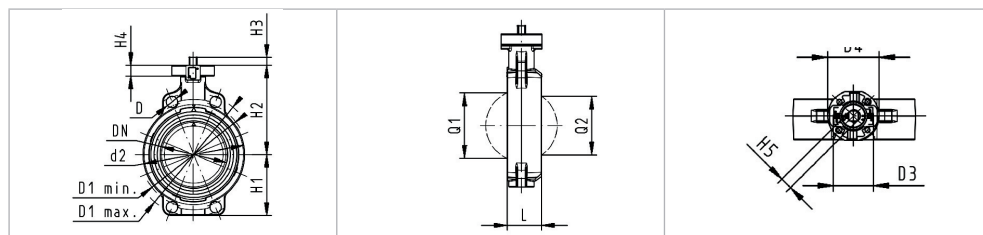
DN350 – DN600

Reference values for tightening torque of screws AK Type 567/578

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

Dimensions

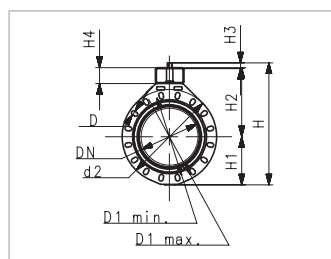
Butterfly Valve Type 567 with open shaft end DN50 – DN300



d (mm)	DN (mm)	D (mm)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	D3 (mm)	D4 (mm)	H (mm)
63	50	19	120.0	125.0	104	70	90	264
75	65	19	139.7	145.0	115	70	90	277
90	80	19	150.0	160.0	131	70	90	289
110	100	19	175.0	190.0	161	70	90	325
140	125	23	210.0	215.9	187	70	90	352
160	150	24	241.3	241.3	215	70	90	373
225	200	23	290.0	295.0	267	70	90	435
280	250	25	353.0	362.0	329	102	125	554
315	300	25	400.0	432.0	379	102	125	598

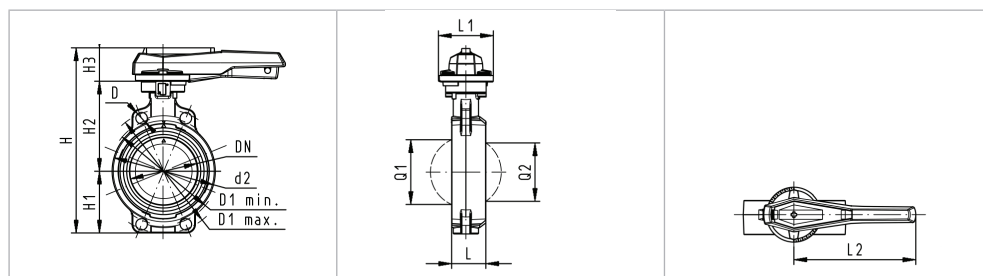
H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)	L (mm)	Q1 (mm)	Q2 (mm)
77	134	27	23	11	45	40	-
83	140	27	23	11	46	54	35
89	146	27	23	11	49	67	50
104	167	16	23	14	56	88	74
117	181	16	23	14	64	113	97
130	189	19	23	17	72	139	123
158	210	19	23	17	73	178	169
205	264	40	23	22	113	210	207
228	285	40	23	22	113	256	253

Butterfly Valve Type 567 with open shaft end DN350 – DN600



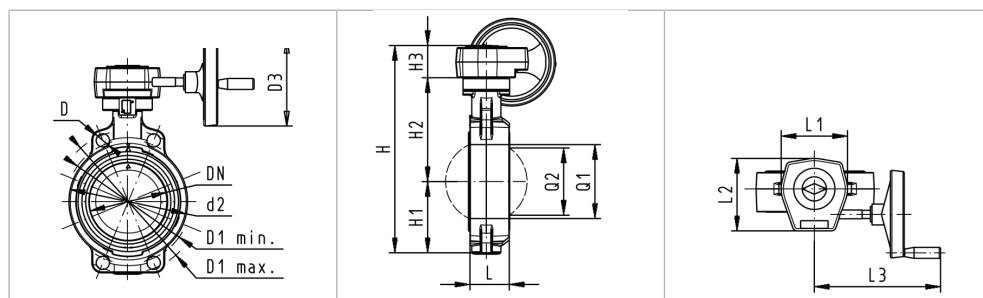
d (mm)	DN (mm)	inch	PN (bar)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)
d355	DN350	14"	6	445	477	535	268	410	31	100
d400	DN400	16"	6	510	540	595	300	435	31	100
d450	DN450	18"	5	565	578	635	320	520	35	120
d500	DN500	20"	4	620	635	700	350	550	35	120
d630	DN600	24"	4	725	750	813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

Butterfly Valve Type 567 with hand lever DN50 – DN300



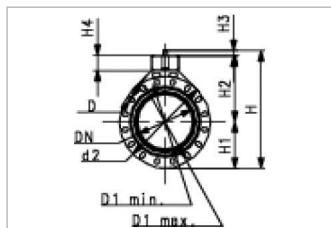
d (mm)	DN (mm)	D (mm)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	l2 (mm)	Q1 (mm)	Q2 (mm)
63	50	19	120.0	125.0	104	264	77	134	54	45	106	205	40	-
75	65	19	139.7	145.0	115	277	83	140	54	46	106	205	54	35
90	80	19	150.0	160.0	131	289	89	146	54	49	106	205	67	50
110	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



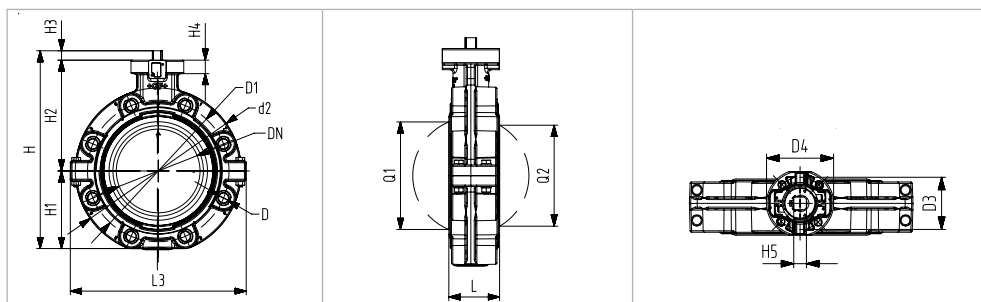
d (mm)	DN (mm)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	l2 (mm)	l3 (mm)	Q1 (mm)	Q2 (mm)
63	50	120.0	125.0	104	160	278	77	134	60	45	120	132	236	40	-
75	65	139.7	145.0	115	160	291	83	140	60	46	120	132	236	54	35
90	80	150.0	160.0	131	160	303	89	146	60	49	120	132	236	67	50
110	100	175.0	190.5	161	160	339	104	167	60	56	120	132	236	88	74
140	125	210.0	215.9	187	160	365	117	181	60	64	120	132	236	113	97
160	150	241.3	241.3	215	160	387	130	189	60	72	120	132	236	139	123
225	200	290.0	295.0	267	160	436	158	210	60	73	120	132	236	178	169
280	250	353.0	362.0	329	160	529	205	264	60	113	134	151	261	210	207
315	300	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



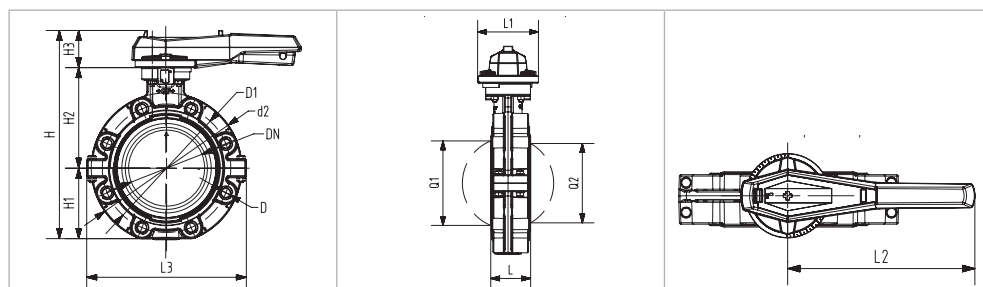
d (mm)	DN (mm)	Inch (inch)	PN (bar)	D1 _{min} (mm)	D1 _{max} (mm)	d2 (mm)	D31 (mm)	H1 (mm)	H2 (mm)	H3 (mm)
d355	DN350	14"	6	445	477	535	140	268	410	31
d400	DN400	16"	6	510	540	595	140	300	435	31
d450	DN450	18"	5	565	578	635	165	320	520	35
d500	DN500	20"	4	620	635	700	165	350	550	35
d630	DN600	24"	4	725	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)	L2 (mm)	L3 (mm)	Q1 (mm)	Q2 (mm)
63	2	50	160	M16	UNC 5/8	125	120.6	265	77	134	27	45	23	205	165	40	-
75	2½	65	180	M16	UNC 5/8	145	139.7	277	83	140	27	46	23	205	182	54	35
90	3	80	195	M16	UNC 5/8	160	152.4	289	89	146	27	49	23	205	210	67	50
110	4	100	226	M16	UNC 5/8	180	190.5	328	106	167	16	56	23	255	240	88	74
140	5	125	258	M16	UNC 3/4	210	215.9	357	121	181	16	64	23	255	272	113	97
160	6	150	284	M20	UNC 3/4	240	241.3	377	133	189	19	72	23	255	300	139	123
225	8	200	341	M20	UNC 3/4	295	298.4	436	159	210	19	73	23	408	360	178	169
280	10	250	412	M20	UNC 7/8	350	362.0	536	205	264	40	113	23	408	440	210	207
315	12	300	482	M20	UNC 7/8	400	431.8	586	234	285	40	113	23	408	510	256	253

Butterfly Valve Type 578 with hand lever DN50 – DN300



D (mm)	d (inch)	DN (mm)	d2 (mm)	D (mm)	D ANSI	D1 (mm)	D1 ANSI (mm)	D3 (mm)	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	M16	UNC 5/8	125	120.6	150	261	77	134	50	45	110	120	165	155	40	-
75	2½	65	180	M16	UNC 5/8	145	139.7	150	273	83	140	50	46	110	120	182	155	54	35
90	3	80	195	M16	UNC 5/8	160	152.4	150	285	89	146	50	49	110	120	210	155	67	50
110	4	100	226	M16	UNC 5/8	180	190.5	150	323	106	167	50	56	110	120	240	155	88	74
140	5	125	258	M16	UNC 3/4	210	215.9	150	352	121	181	50	64	110	120	272	155	113	97
160	6	150	284	M20	UNC 3/4	240	241.3	150	372	133	189	50	72	110	120	300	155	139	123
225	8	200	341	M20	UNC 3/4	295	298.4	150	419	159	210	50	73	110	120	360	155	178	169
280	10	250	412	M20	UNC 7/8	350	362.0	200	524	205	264	55	113	130	140	440	200	210	207
315	12	300	482	M20	UNC 7/8	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

- Mobile apps and online tools to support configuration and calculation at www.gfps.com/tools



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