

Butterfly Valve type 044

			
<p>Type 044 with hand lever Wafer style valve</p>	<p>Type 044 with manual gear Wafer style valve</p>	<p>Type 044 with pneumatic actuator FC/FO Wafer style valve</p>	<p>Type 044 with pneumatic actuator DA Wafer style valve</p>

Product description

The butterfly valve type 044 is a high performance butterfly valve which is particularly suitable for applications in the chemical industry due to the materials used.

- Isostatically molded seat liner made of PTFE in 3 mm wall thickness.
- The valve disc and shaft are made out of one single piece of stainless steel micro investment casting.
- The disc is injection molded with a 3mm thick mechanically anchored PFA layer.
- The shape of the valve disc achieves optimum Kv or Cv values, minimizing flow resistance and thus pressure loss.

Benefits/features

- Wafer Style
- 2-piece carbon steel body (ASTM 216 WCB)
- Installation length: EN 558 row 20
- Interface according to DIN EN ISO 5211
- From vacuum to 16 bar (depending on DN and temperature)
- Single-piece axis with square profile
- Intermediate flange DIN PN10, PN16 AND ASME B16.5 150 Lbs. (others on request)
- PTFE seat liner with silicone backing
- Disc 1.4542 stainless steel, in 3 mm thick PFA encapsulated
- Aluminum lever with 6 regulating position and padlock device

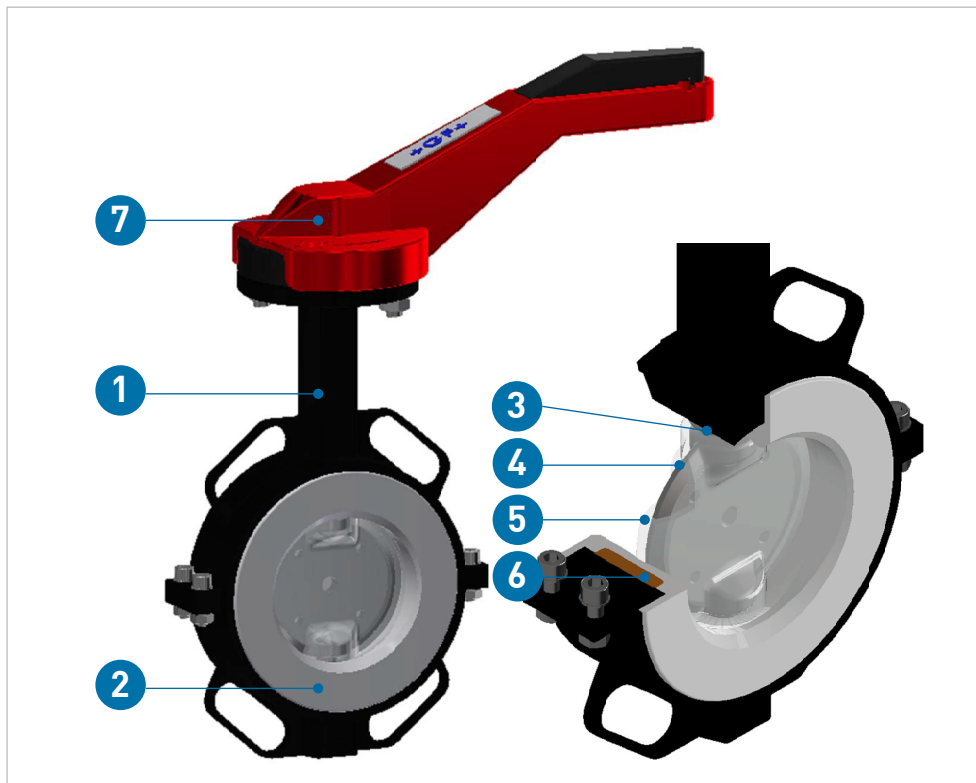
Flow media

- Especially suitable for liquid chemical and corrosive media (demineralized water, acids and solvents)
- Suitable for gaseous media such as exhaust gases, chlorine gas, hydrocarbon, oxygen and vacuum
- Suitable for abrasive and aggressive substances such as wet chlorine, sodium chloride, pigments, brine and sugar solutions
- Suitable for viscous media such as fats, oils, mash, sludge and cellulose mixtures

Applications

- Biotechnology
- Fertilizer Industry
- Semiconductor Industry
- cosmetics industry
- Food Industry
- Seawater desalination RO
- pharmaceutical industry
- Pigment processing systems
- Cleanroom applications
- Ultrapure water treatment

Technical data



- 1 Body
- 2 Seat liner
- 3 Shaft
- 4 Disc
- 5 Disc encapsulated
- 6 Backing
- 7 Hand lever

Specifications			
Dimensions	d63/DN50 – d315/DN300, 2" – 12"		
Materials	Body	1	Ductile iron ASTM A395
	Seat liner	2	PTFE® (wall thickness ≥ 3 mm)
	Shaft	3	Stainless steel 1.4542
	Disc	4 5	Stainless steel 1.4542, encapsulated with PFA® (wall thickness ≥ 3 mm)
	Backing	6	Silicone
	Lever	7	Die-cast aluminum
Pressure ratings	DN50 – DN150	PN16	
	DN200 – DN300	PN10	
Interface	DIN EN ISO 5211		
Installation length	EN 558 row 20 or ISO 5752/20		
Actuation variants	Manually operated: Lever , reduction gear with handwheel Pneumatically actuated: FC, FO and DA		
Connections	Flange connections	EN1092-1	PN10/16
		DIN2501	PN10/16
		ANSI B16.5	Class 150
	Valve flange	ISO/DIN, BS, ASTM	
Standards	ISO/DIN		
Product standard	EN 593		
Test standard	ISO 5208 (leakage rate A)		
Approvals	FDA		

Kv100 values (flow characteristics)

Nominal diameter DN		Opening angle (m ³ /h)							
(mm)	(inch)	20°	30°	40°	50°	60°	70°	80°	90°
50	2"	7	16	26	43	69	110	170	190
65	2 ½"	9	22	38	60	95	155	250	280
80	3"	14	33	57	95	150	240	370	430
100	4"	24	54	95	155	240	400	620	710
125	5"	38	86	155	240	390	640	950	1'100
150	6"	52	120	220	345	550	950	1'400	1'600
200	8"	95	220	345	600	950	1'600	2'400	2'800
250	10"	155	345	610	950	1'600	2'600	4'000	4'700
300	12"	220	510	860	1'500	2'300	3'800	5'900	6'900

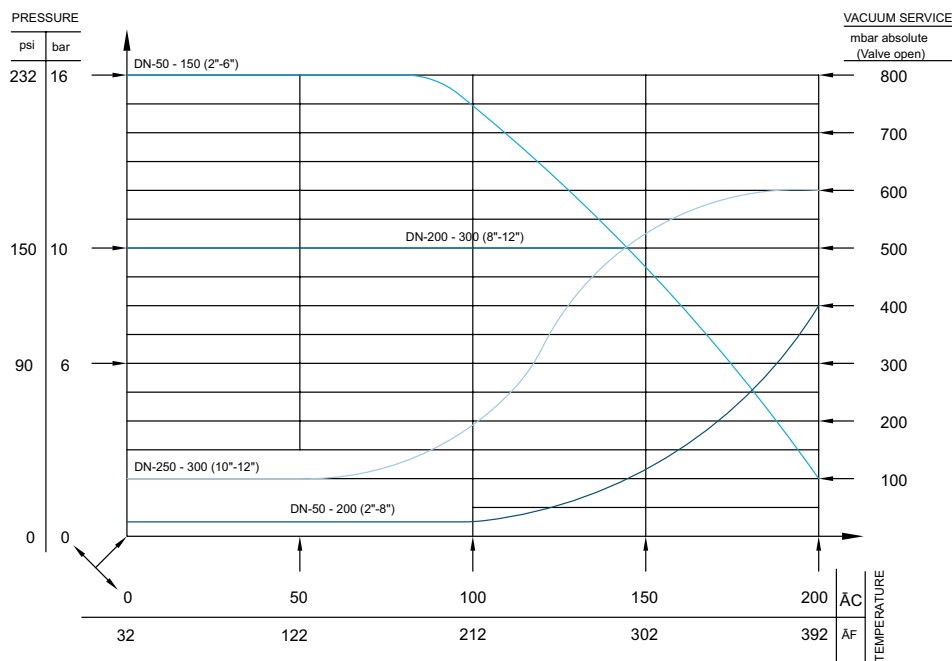
Pressure-temperature diagrams

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)

Type 044 (DN50 – DN300)

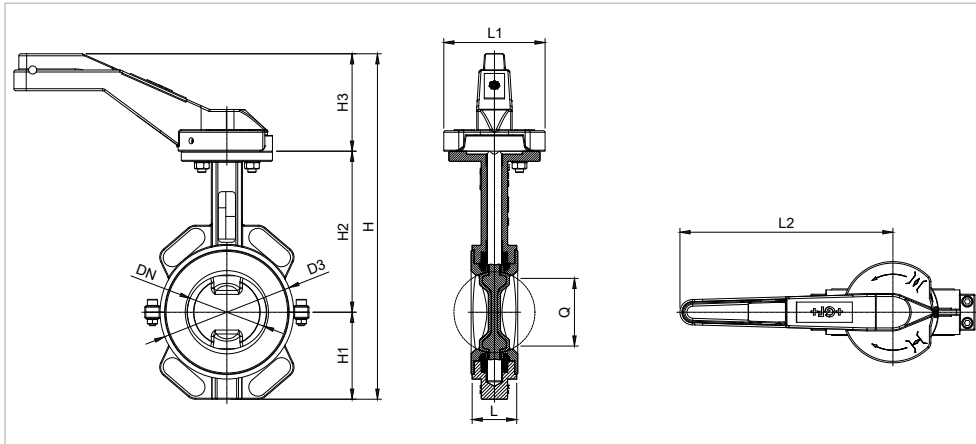


Reference values for tightening torque of screws

DN (mm)	d (mm)	DN (inch)	Total number of screws	Tightening torque	
				Nm	Lbs-Inch
50	63	2"	4 x M16 x 120mm	109	965
65	75	2 ½"	4 x M16 x 125mm	109	965
80	90	3"	8 x M16 x 130mm	109	965
100	110	4"	8 x M16 x 135mm	109	965
125	140	5"	8 x M16 x 140mm	109	965
150	160	6"	8 x M20 x 150mm	212	1'876
200	225	8"	8 x M20 x 160mm	212	1'876
250	280	10"	12 x M20 x 170mm	212	1'876
300	315	12"	12 x M20 x 180mm	212	1'876

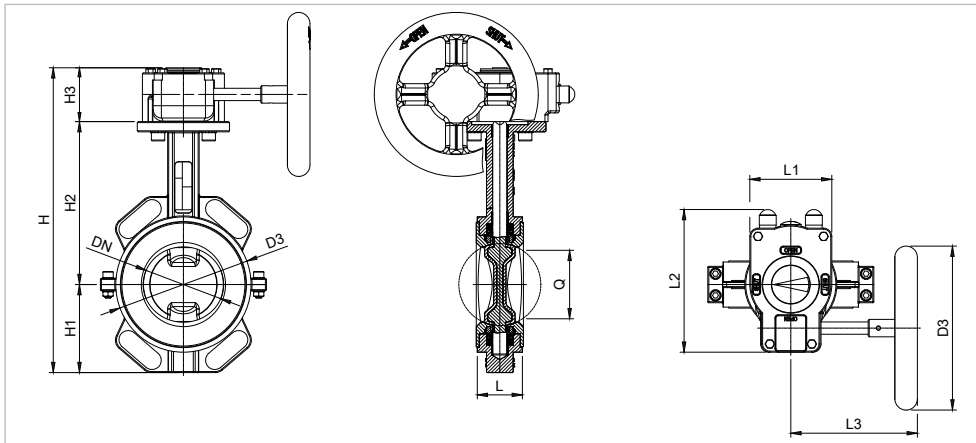
Dimensions

Butterfly Valve type 044 with hand lever DN50 – DN150



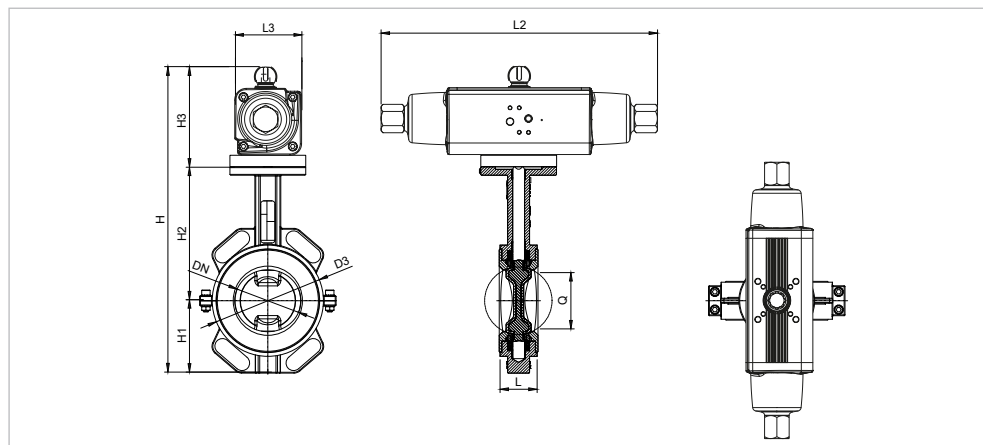
DN (mm)	d (mm)	DN (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	Q (mm)	Weight (kg)
50	63	2"	95	287	57	135	95	43	220	27.4	3.5
65	75	2 ½"	114	303	63	145	95	46	220	46.6	4.2
80	90	3"	132	340	86	159	95	46	220	66.1	4.7
100	110	4"	152	374	105	175	95	52	220	85.5	5.9
125	140	5"	182	403	118	190	95	56	320	110.0	7.6
150	160	6"	207	430	132	203	95	56	320	140.3	8.8

Butterfly Valve type 044 with manual reduction gear DN50 – DN300



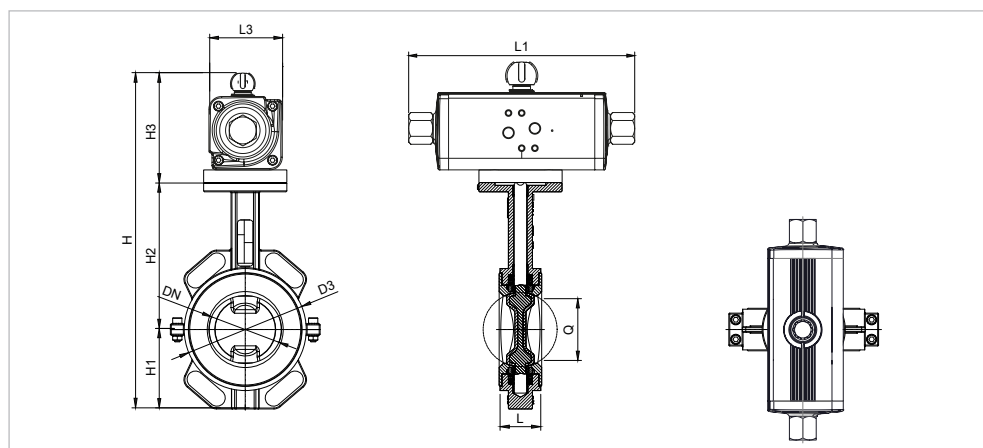
DN (mm)	d (mm)	DN (inch)	D3 (mm)	D5 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	Q (mm)	Weight (kg)
50	63	2"	95	140	250.3	57	135	58.3	43	88	145.5	38.5	107.3	27.4	3.3
65	75	2 ½"	114	140	266.3	63	145	58.3	46	88	145.5	38.5	107.3	46.6	4.0
80	90	3"	132	140	303.3	86	159	58.3	46	88	145.5	38.5	107.3	66.1	4.3
100	110	4"	152	140	337.3	104	175	58.3	52	88	145.5	38.5	107.3	85.5	5.7
125	140	5"	182	140	366.3	118	190	58.3	56	88	145.5	38.5	107.3	110.0	7.4
150	160	6"	207	140	393.3	132	206	58.3	56	88	145.5	38.5	107.3	140.3	8.9
200	225	8"	260	140	458.3	160	240	58.3	60	88	145.5	38.5	107.3	188.7	13.5
250	280	10"	327	250	534.6	198	275	62.6	68	102	212.0	52.0	130.0	237.5	22.8
300	315	12"	375	250	604.6	232	310	62.6	78	102	212.0	52.0	130.0	286.6	31.7

Butterfly Valve type 044 FC with pneumatic actuator DN50 – DN300



DN (mm)	d (mm)	DN (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L2 (mm)	L3 (mm)	Q (mm)	Weight (kg)
50	63	2"	95	337	57	135	145	43	281	120	27.4	9.6
65	75	2 ½"	114	353	63	145	145	46	281	120	46.6	10.3
80	90	3"	132	390	86	159	145	46	281	120	66.1	10.8
100	110	4"	152	451	104	175	172	52	310	134	85.5	15.5
125	140	5"	182	480	118	190	172	56	310	134	110.0	17.1
150	160	6"	207	520	132	203	185	56	362	141	140.3	22.2
200	225	8"	260	585	160	240	185	60	362	141	188.7	26.7
250	280	10"	327	742	198	275	270	68	474	196	237.5	58.7
300	315	12"	375	832	232	310	290	78	575	220	286.6	84.0

Butterfly Valve type 044 DA with pneumatic actuator DN50 – DN300



DN (mm)	d (mm)	DN (inch)	D3 (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	L (mm)	L1 (mm)	L3 (mm)	Q (mm)	Weight (kg)
50	63	2"	95	312	57	135	120	43	281	120	27.4	9.6
65	75	2 ½"	114	328	63	145	120	46	281	120	46.6	10.3
80	90	3"	132	365	86	159	120	46	281	120	66.1	10.8
100	110	4"	152	409	104	175	130	52	310	134	85.5	15.5
125	140	5"	182	438	118	190	130	56	310	134	110.0	17.1
150	160	6"	207	480	132	203	145	56	362	141	140.3	22.2
200	225	8"	260	572	160	240	172	60	362	141	188.7	26.7
250	280	10"	327	657	198	275	185	68	474	196	237.5	58.7
300	315	12"	375	747	232	310	205	78	575	220	286.6	84.0

Accessories

Integrated electrical feedback (IER)

- Feedback unit in combination with actuators
- For both manual valve and manual gear

General technical data of the IER:

- Protection class with DIN connector (2): IP65
- Protection class with cable gland: IP67
- Ambient temperature: -10 °C to +50 °C

Assignment of IER to butterfly valves type 567/578 and 044:

Axis		Dimension
1	11 mm	DN50 – DN80
2	14 mm	DN100 – DN125
3	17 mm	DN150 – DN200
4	22 mm	DN250 – DN300

i 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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