Wafer, Semi Lug, Lug and Flanged Type

Specification

Description : GVC concentric rubber lined butterfly valves suitable for bi-directional flow and bubble tight shut-off at full rated pressure with Direct Mount ISO table, replaceable or bonded (vulcanized onto the inside of the valve body) rubber liner, pinned disc, one piece blow -out proof stem, reliable stem sealing system.

Numbering System :

Series CWR	:	Concentric WAFER	type Rubber lined butterfly Valve
Series CSR	:	Concentric SEMI-LUG	type Rubber lined butterfly Valve
Series CLR	:	Concentric LUG	type Rubber Lined butterfly Valve
Series CFR	:	Concentric FLANGED	type Rubber Lined butterfly Valve

WAFER Series CWR | SEMI-LUG Series CSR | LUG Series CLR | FLANGED Series CFR

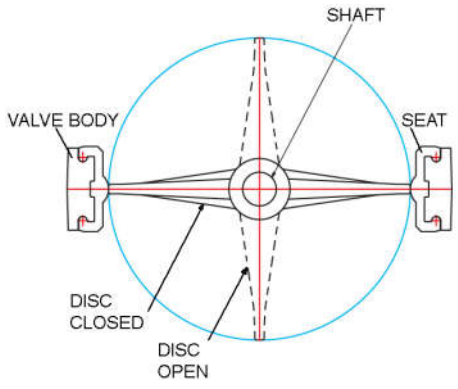
Face to Face : EN 558, API 609, ISO 5752, KSV 7490, JIS F7480, JIS B2032, JIS B2064 or BS 5155.

Production Range :

Size	: DN 50 - DN 4000 (2” - 160”)	
Working Pressure	: Up to 20 Bar (Depending on size)	
Working Temperature	: NBR	up to +70°C
	EPDM	up to +100°C
	Viton	up to +230°C
	Silicone	up to +140°C

Pressure Classes : PN6, 10 and 16 (EN 1092, ISO 7005)
ANSI/ASME Class 125# and 150#
KS/JIS 5K, 10K and 16K

Sealing Design : The axis of disc rotation is in the center of the valve seat (Concentric design).
The valve disc in this design concept has an efficient streamlined shape resulting in good flow characteristics and low pressure drop.
The concentric placed valve stem ensures low operating torque values.
The valve lining, covering the complete inside of the valve body, provides good protection to the valve body and also acts as flange gasket making normal flange gaskets redundant.



Specification

Materials : Body :
- Cast Iron
- Nodular Cast Iron (Ductile Iron)
- Cast Steel
- Stainless Steel
- (Super) Duplex Stainless Steel
- (Ni) Alubronze

Disc :
- (Nodular) Cast Iron, Nylon coated
- Alloyed Steel
- Stainless Steel
- (Super) Duplex Stainless Steel
- (Ni) Alubronze


Stainless Steel disc

Stem / Pins :
- Stainless Steel (304, 316, 410, 420, 630 [17-4PH], Monel)

Seat / Liner :
- NBR
- EPDM
- Viton
- Silicon

- Others materials available on request

Standard material configurations:
Configuration **A**: NCI body, Alubr. disc, NBR seat, SS stem (General Marine applications)
Configuration **B**: NCI body, SS316 disc, EPDM seat, SS stem (General Industrial applications)
Configuration **C**: NCI body, NCI Nylon lined disc, EPDM seat, SS stem

Certification : CE/PED, ABS Design Assessment, BV / DNV / KRS / LRS / RMRS type approvals, marine Class society certified foundries and materials, NACE MR0175 certified materials, UL-listed, GOST-R.
Please consult us for further information.

Operation : ISO 5211 top flange for direct mount of;
- Hand lever
- Manual Worm Gear
- Single or Double acting Pneumatic actuator
- Electric actuator
- Single or Double acting Hydraulic actuator


ISO 5211 Direct Mount

General Application : Concentric rubber lined butterfly valves are designed for low pressure flow applications in general. Because of their design concentric rubber lined butterfly valves are widely used in the shipbuilding industry, water works, heating and ventilation industry, power plants, oil refineries, chemical plants etc.
Due to the wide variety in materials the concentric rubber lined butterfly valves can be used for many applications, please contact us for further information.

Typical Applications :
- Shipbuilding (Bilge, ballast, Ship side valve applications, etc.)
- FPSO's, FSO's, FDPSO's etc. (Bilge, ballast, Ship side valve applications, etc.)
- Chemical and Petrochemical plants
- Water works (Waste water, water treatment, sewage, drinking water, etc.)
- Power plants (Cooling systems, etc.)
- Pulp and paper plants
- Food plants
- Textile industry
- Sugar refining

Series

WAFER

Series CWR

Size Range : DN 50 - DN 500 (2” - 20”)

Pressure Classes : PN6, PN10 and PN16
ANSI/ASME 125# and 150#
JIS 5K, 10K and 16K

- Valve to be installed with long bolts
- Light weight
- < DN250 2x, >DN200 4x centering lugs
- Direct mount ISO table

SEMI-LUG

Series CSR

Size Range : DN 50 - DN 1200 (2” - 48”)
Pressure Classes : PN6, PN10 and PN16
ANSI/ASME 125# and 150#
JIS 5K, 10K and 16K

- 4 threaded lugged holes
- Upper and lower high strength centering lugs
- Light weight
- End of line application (Consult us for P-rating)
- Direct mount ISO table

LUG

Series CLR

Size Range : DN 50 - DN 1200 (2” - 48”)
Pressure Classes : PN6, PN10 and PN16
ANSI/ASME 125# and 150#
JIS 5K, 10K and 16K

- Full threaded lugged holes
- End of line application (Fully rated)
- Ship side application
- Direct mount ISO table

FLANGED

Series CFR

Size Range : DN 50 - DN 4000 (2” - 160”)
Pressure Classes : PN6, PN10 and PN16
ANSI/ASME 125# and 150#
JIS 5K, 10K and 16K

- Flanged connections
- End of line application (Fully rated)
- Shipside application
- Light weight alternative for gate or globe valve
- Direct mount ISO table

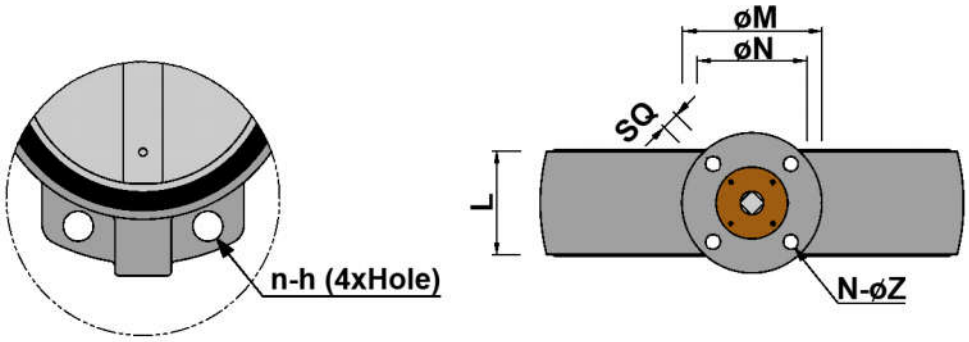
Materials and Parts

No	Part	Material
1	Body	• Cast Iron • Nodular Cast Iron • Carbon Steel • Stainless Steel • Duplex • Super Duplex • Aluminum Bronze • Ni-Aluminum Bronze
2	Disc	• Nodular Cast Iron Nylon coated • Alloyed Steel • Stainless Steel • Duplex • Super Duplex • Aluminum Bronze • Ni-Aluminum Bronze
3	Seat / Liner *	• NBR • EPDM • Viton (FKM) • Silicon
4	Stem	• Stainless steel 410 • Stainless steel 420 • Stainless steel 304 • Stainless steel 316 • Stainless steel 630 • Monel • Duplex
5	Disc Pin(s)	• Stainless Steel • Monel
6	O-rings	Same as Seat / Liner Material
7	Gland Bush	• Bronze • Stainless steel • Steel Galvanized
8	Bush Bolts	• Stainless steel • Steel Galvanized
9	Bearings	PTFE + Pb

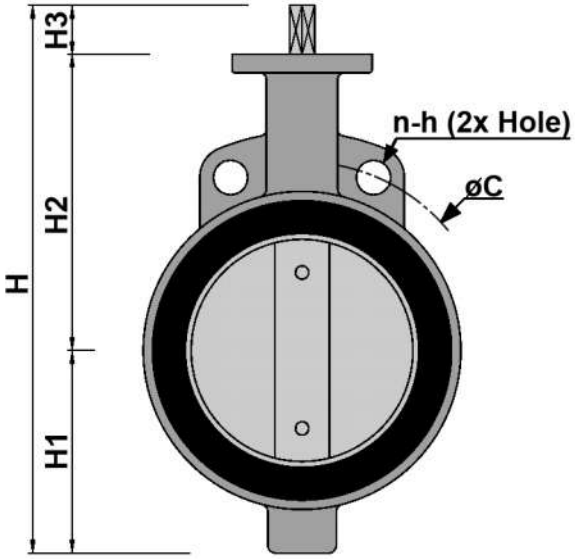
* Photo shows replaceable liner. Bonded liners are available on request for all series (Flanged type with bonded liner also available with EN558-Series 13 Face to Face dimensions). Drawings are available, please contact us.

- Please consult us for exact material standard and grade
- Other materials and special demands upon request

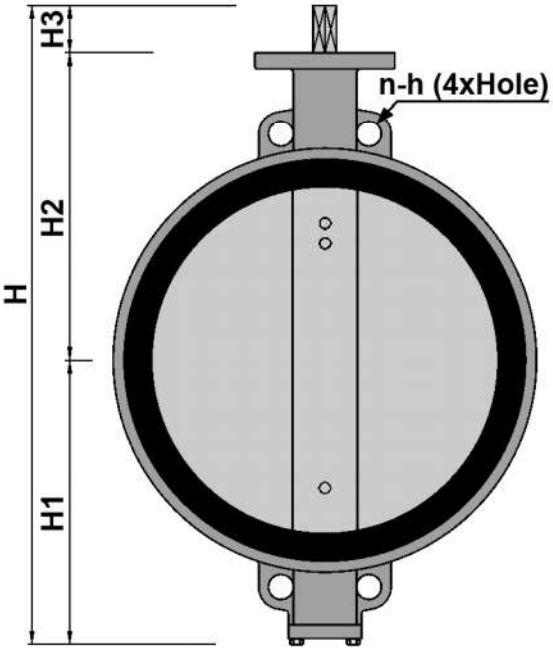
Series CWR Wafer Type DN 50 - 500



DN250 (10") ~ DN350 (14")



≤ DN200 (8")

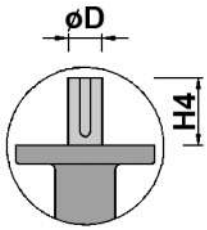


≥ DN400 (16")

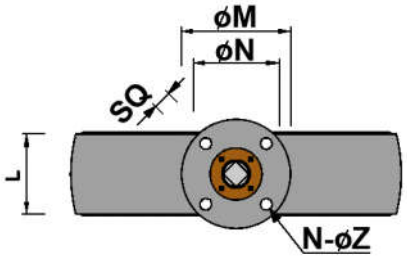
Dimensions DN 50 - 500, **DIN PN10, PN16, ANSI 150** [mm]

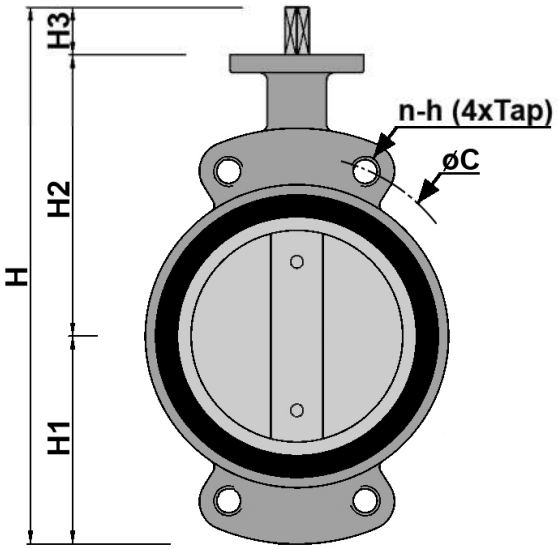
DN	L	H	H1	H2	H3	SQ	Top Flange				Kg	DIN PN10		DIN PN16		ANSI 150	
							ISO 5211	N	M	nxo		C	n-h	C	n-h	C	n-h
50	43	216	55	128	33	9	F07	70	90	4x9	7	125	4x18	125	4x18	120.5	4x 19
65	46	239	66	140	33	9	F07	70	90	4x9	8	145	4/8x18	145	4/8x18	139.5	4x 19
80	46	258	75	150	33	9	F07	70	90	4x9	8	160	8x18	160	8x18	152.5	4x 19
100	52	293	95	165	33	12	F07	70	90	4x9	9	180	8x18	180	8x18	190.5	8x 19
125	56	326	115	178	33	12	F07	70	90	4x9	11	210	8x18	210	8x18	216.0	8x 22
150	56	353	130	190	33	12	F07	70	90	4x9	13	240	8x22	240	8x22	241.5	8x 22
200	60	435	155	230	50	17	F10	102	125	4x12	17	295	8x22	295	12x22	298.5	8x 22
250	68	535	215	270	50	17	F10	102	125	4x12	24	350	12x22	355	12x26	362.0	12x 25
300	78	611	251	310	50	22	F10	102	125	4x12	36	400	12x22	410	12x26	432.0	12x 25
350	78	655	270	335	50	27	F10	102	125	4x12	58	460	16x22	470	16x26	476.0	12x 29
400	102	755	325	370	60	27	F14	140	175	4x18	91	515	16x26	525	16x30	539.5	16x 29
450	114	797	347	390	60	27	F14	140	175	4x18	102	565	20x26	585	20x30	578.0	16x 32
500	127	883	383	420	60	36	F16	165	210	4x22	145	620	20x26	650	20x33	635.0	20x 32

Series CSR Semi-Lug Type DN 50 - 1200

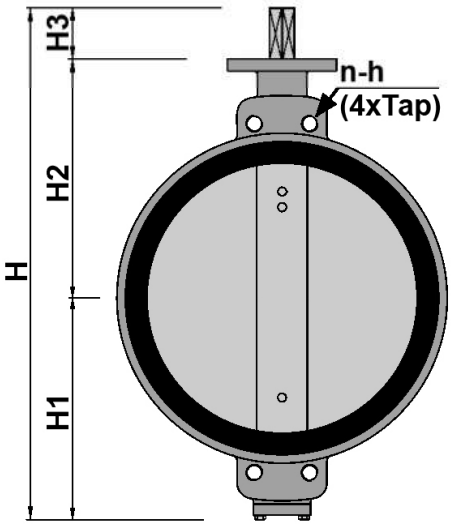


≥ DN800 (32")





≤ DN350 (14")



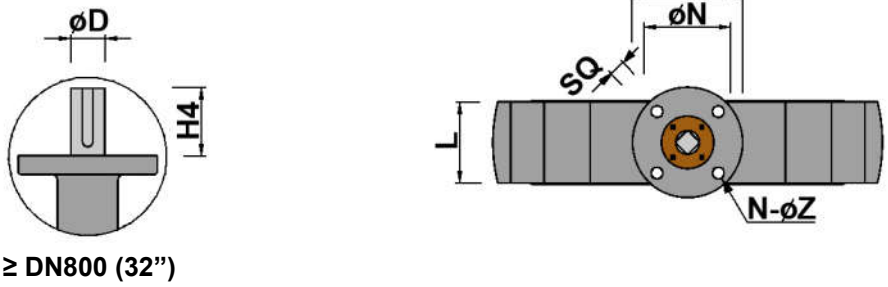
≥ DN400 (16")

Dimensions DN 50 - 1200, **DIN PN10, PN16, ANSI 150** [mm]

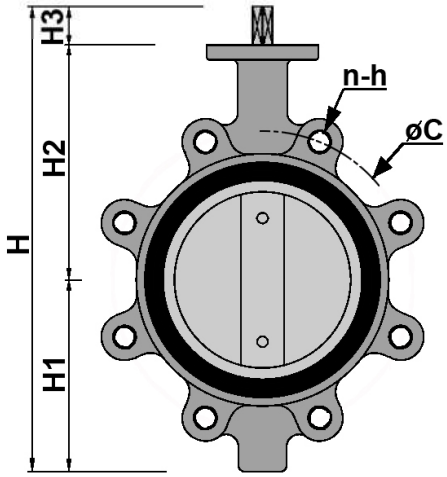
DN	L	H	H1	H2	H4	Stem				Top Flange				Kg	DIN PN10		DIN PN16		ANSI 150	
						Round		Square		ISO 5211	N	M	nxo		C	n-h	C	n-h	C	n-h
						D	Key	SQ	H3											
50	43	216	55	128	33	14	5x5	9	33	F07	70	90	4x9	10	125	4xM16	125	4xM16	120.5	4x⅝"
65	46	239	66	140	33	14	5x5	9	33	F07	70	90	4x9	11	145	4/8xM16	145	4/8xM16	139.5	4x⅝"
80	46	258	75	150	33	14	5x5	9	33	F07	70	90	4x9	11	160	8xM16	160	8xM16	152.5	4x⅝"
100	52	293	95	165	33	19	6x6	12	33	F07	70	90	4x9	12	180	8xM16	180	8xM16	190.5	8x⅝"
125	56	326	115	178	33	19	6x6	12	33	F07	70	90	4x9	13	210	8xM16	210	8xM16	216.0	8x¾"
150	56	353	130	190	33	19	6x6	12	33	F07	70	90	4x9	15	240	8xM20	240	8xM20	241.5	8x¾"
200	60	435	155	230	50	22	8x7	17	50	F10	102	125	4x12	19	295	8xM20	295	12xM20	298.5	8x¾"
250	68	535	215	270	50	25	8x7	17	50	F10	102	125	4x12	37	350	12xM20	355	12xM24	362.0	12x⅞"
300	78	611	251	310	50	32	10x8	22	50	F10	102	125	4x12	47	400	12xM20	410	12xM24	432.0	12x⅞"
350	78	655	270	335	50	32	10x8	27	50	F10	140	175	4x12	67	460	16xM20	470	16xM24	476.0	12x1"
400	102	755	325	370	60	40	12x8	27	60	F14	140	175	4x18	91	515	16xM24	525	16xM27	539.5	16x1"
450	114	797	347	390	60	40	12x8	27	60	F14	140	175	4x18	104	565	20xM24	585	20xM27	578.0	16x1⅛"
500	127	883	383	420	80	45	14x9	36	80	F16	165	210	4x22	154	620	20xM24	650	20xM30	635.0	20x1⅛"
600	154	1028	453	495	80	65	20x12	50	80	F16	165	210	4x22	240	725	20xM27	770	20xM33	749.5	20x1¼"
700	165	1150	515	555	80	65	20x12	50	90	F16	165	210	4x22	305	840	24xM27	840	24xM33	863.5	28x1¼"
800	190	1352	592	640	90	65	20x12	--	--	F25	254	300	8x18	403	950	24xM30	950	24xM36	978.0	28x1½"
900	203	1488	658	700	130	80	22x14	--	--	F25	254	300	8x18	607	1050	28xM30	1050	28xM36	1086.0	32x1½"
1000	216	1645	725	770	150	95	25x14	--	--	F30	298	350	8x23	829	1160	28xM33	1170	28xM39	1200.0	36x1½"

Sizes DN550 (22"), DN650 (26"), DN750 (30"), DN850 (34"), DN1100 (44") and DN1200 (48") on request.

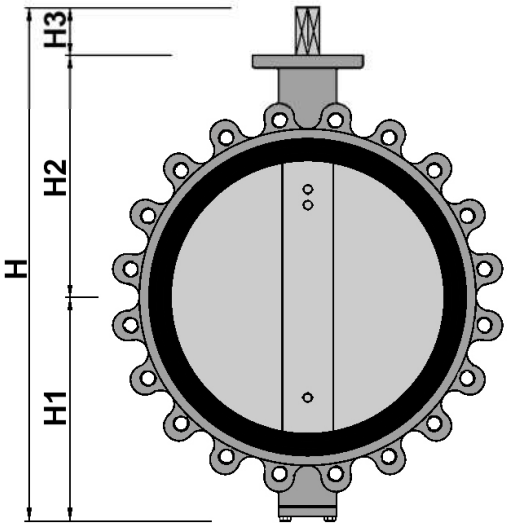
Series CLR Lug Type DN 50 - 1200



≥ DN800 (32")



≤ DN350 (14")



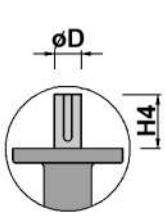
≥ DN400 (16")

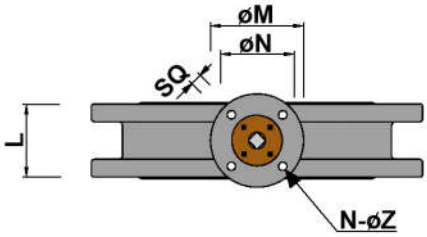
Dimensions DN 50 - 1200, **DIN PN10, PN16, ANSI 150** [mm]

DN	L	H	H1	H2	H4	Stem				Top Flange				Kg	DIN PN10		DIN PN16		ANSI 150	
						Round		Square		ISO 5211	N	M	nxo		C	n-h	C	n-h	C	n-h
						D	Key	SQ	H3											
50	43	216	55	128	33	14	5x5	9	33	F07	70	90	4x9	10	125	4xM16	125	4xM16	120.5	4x⅝"
65	46	239	66	140	33	14	5x5	9	33	F07	70	90	4x9	11	145	4/8xM16	145	4/8xM16	139.5	4x⅝"
80	46	258	75	150	33	14	5x5	9	33	F07	70	90	4x9	13	160	8xM16	160	8xM16	152.5	4x⅝"
100	52	293	95	165	33	19	6x6	12	33	F07	70	90	4x9	15	180	8xM16	180	8xM16	190.5	8x⅝"
125	56	326	115	178	33	19	6x6	12	33	F07	70	90	4x9	20	210	8xM16	210	8xM16	216.0	8x¾"
150	56	353	130	190	33	19	6x6	12	33	F07	70	90	4x9	22	240	8xM20	240	8xM20	241.5	8x¾"
200	60	435	155	230	50	22	8x7	17	50	F10	102	125	4x12	31	295	8xM20	295	12xM20	298.5	8x¾"
250	68	535	215	270	50	25	8x7	17	50	F10	102	125	4x12	47	350	12xM20	355	12xM24	362.0	12x⅞"
300	78	611	251	310	50	32	10x8	22	50	F10	102	125	4x12	59	400	12xM20	410	12xM24	432.0	12x⅞"
350	78	655	270	335	50	32	10x8	27	50	F10	140	175	4x12	85	460	16xM20	470	16xM24	476.0	12x1"
400	102	755	325	370	60	40	12x8	27	60	F14	140	175	4x18	130	515	16xM24	525	16xM27	539.5	16x1"
450	114	797	347	390	60	40	12x8	27	60	F14	140	175	4x18	154	565	20xM24	585	20xM27	578.0	16x1⅛"
500	127	883	383	420	80	45	14x9	36	80	F16	165	210	4x22	263	620	20xM24	650	20xM30	635.0	20x1⅛"
600	154	1028	453	495	80	65	20x12	50	80	F16	165	210	4x22	314	725	20xM27	770	20xM33	749.5	20x1¼"
700	165	1150	515	555	80	65	20x12	50	90	F16	165	210	4x22	389	840	24xM27	840	24xM33	863.5	28x1¼"
800	190	1352	592	640	90	65	20x12	--	--	F25	254	300	8x18	597	950	24xM30	950	24xM36	978.0	28x1½"
900	203	1488	658	700	130	80	22x14	--	--	F25	254	300	8x18	956	1050	28xM30	1050	28xM36	1086.0	32x1½"
1000	216	1645	725	770	150	95	25x14	--	--	F30	298	350	8x23	1209	1160	28xM33	1170	28xM39	1200.0	36x1½"

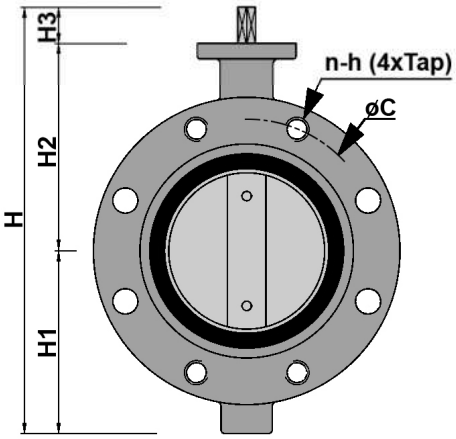
Sizes DN550 (22"), DN650 (26"), DN750 (30"), DN850 (34"), DN1100 (44") and DN1200 (48") on request.

Series CFR Flanged Type DN 50 - 4000

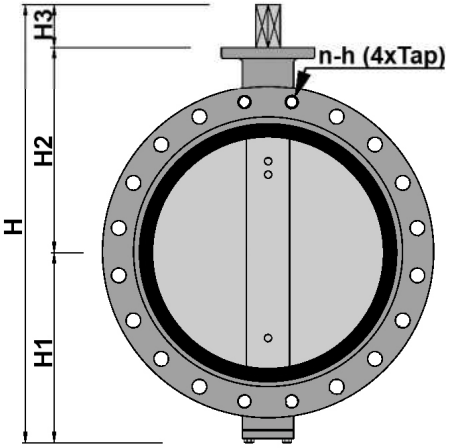




≥ DN800 (32")



≤ DN350 (14")



≥ DN400 (16")

Dimensions DN 50 - 4000, **DIN PN10, PN16, ANSI 150** [mm]

DN	L	H	H1	H2	H4	Stem				Top Flange				Kg	DIN PN10		DIN PN16		ANSI 150	
						Round		Square		ISO 5211	N	M	nxo		C	n-h	C	n-h	C	n-h
						D	Key	SQ	H3											
50	40	249	88	128	33	14	5x5	9	33	F07	70	90	4x9	14	125	4x18	125	4x18	120.5	4x 19
65	40	271	98	140	33	14	5x5	9	33	F07	70	90	4x9	14	145	4/8x18	145	4/8x18	139.5	4x 19
80	60	288	105	150	33	14	5x5	9	33	F07	70	90	4x9	16	160	8x18	160	8x18	152.5	4x 19
100	60	218	120	165	33	19	6x6	12	33	F07	70	90	4x9	22	180	8x18	180	8x18	190.5	8x 19
125	100	351	140	178	33	19	6x6	12	33	F07	70	90	4x9	29	210	8x18	210	8x18	216.0	8x 22
150	100	388	165	190	33	19	6x6	12	33	F07	70	90	4x9	35	240	8x22	240	8x22	241.5	8x 22
200	100	470	190	230	50	22	8x7	17	50	F10	102	125	4x12	47	295	8x22	295	12x22	298.5	8x 22
250	110	535	215	270	50	25	8x7	17	50	F10	102	125	4x12	66	350	12x22	355	12x26	362.0	12x 25
300	110	611	251	310	50	32	10x8	22	50	F10	102	125	4x12	78	400	12x22	410	12x26	432.0	12x 25
350	120	655	270	335	50	32	10x8	27	50	F10	140	175	4x12	100	460	16x22	470	16x26	476.0	12x 29
400	130	755	325	370	60	40	12x8	27	60	F14	140	175	4x18	147	515	16x26	525	16x30	539.5	16x 29
450	150	797	347	390	60	40	12x8	27	60	F14	140	175	4x18	174	565	20x26	585	20x30	578.0	16x 32
500	160	883	383	420	80	45	14x9	36	80	F16	165	210	4x22	222	620	20x26	650	20x33	635.0	20x 32
600	170	1028	453	495	80	65	20x12	50	80	F16	165	210	4x22	323	725	20x30	770	20x36	749.5	20x 32
700	180	1150	515	555	80	65	20x12	50	90	F16	165	210	4x22	415	840	24x30	840	24x36	863.5	24x 32
800	200	1352	592	640	90	65	20x12	50	90	F25	254	300	8x18	599	950	24x33	950	24x39	978.0	28x 32
900	230	1488	658	700	130	80	22x14	--	--	F25	254	300	8x18	854	1050	28x33	1050	28x39	1086.0	32x 40
1000	250	1645	725	770	150	95	25x14	--	--	F30	298	350	8x23	1071	1160	28x36	1170	28x42	1200.0	36x 40
1200	300	1880	840	890	150	95	25x14	--	--	F30	298	350	8x23	1553	1380	32x39	1390	32x48	1422.4	44x 40
1400	330	2129	949	1000	180	130	32x18	--	--	F35	356	415	8x33	2052	1590	36x42	1590	36x48	--	--
1600	360	2450	1120	1150	180	140	36x20	--	--	F35	356	415	8x33	3587	1820	40x48	1820	40x56	--	--
1800	360	2701	1221	1270	210	160	40x22	--	--	F35	356	415	8x33	4116	2020	44x48	2020	44x56	--	--

Sizes DN550 (22"), DN650 (26"), DN750 (30"), DN850 (34"), DN1100 (44"), DN1300 (52"), DN1500 (60") and larger sizes on request.

Torque Figures

"Everything you need to size"

Torque

Torque figures as mentioned in the torque table are;

- Initial break away and seating values in Nm (Newton Meters)
- Excluding any safety factor
- For valves that are operated at least once per month
- Temperature 0° to 50°C

Safety factor (sf)

For sizing and safe operation purposes the specified torque values need to be multiplied with the following minimum safety factors;

- For liquid and lubricant media sf = 1.30
- For powdery (non-lubricant) media sf = 1.6~2.0
- For dry gasses and high viscous media sf = 2.0

Service

For assistance in sizing and dimensioning actuators-valve combinations please contact our Engineers. We have wide experience in sizing Pneumatic, Electric and Hydraulic actuators.

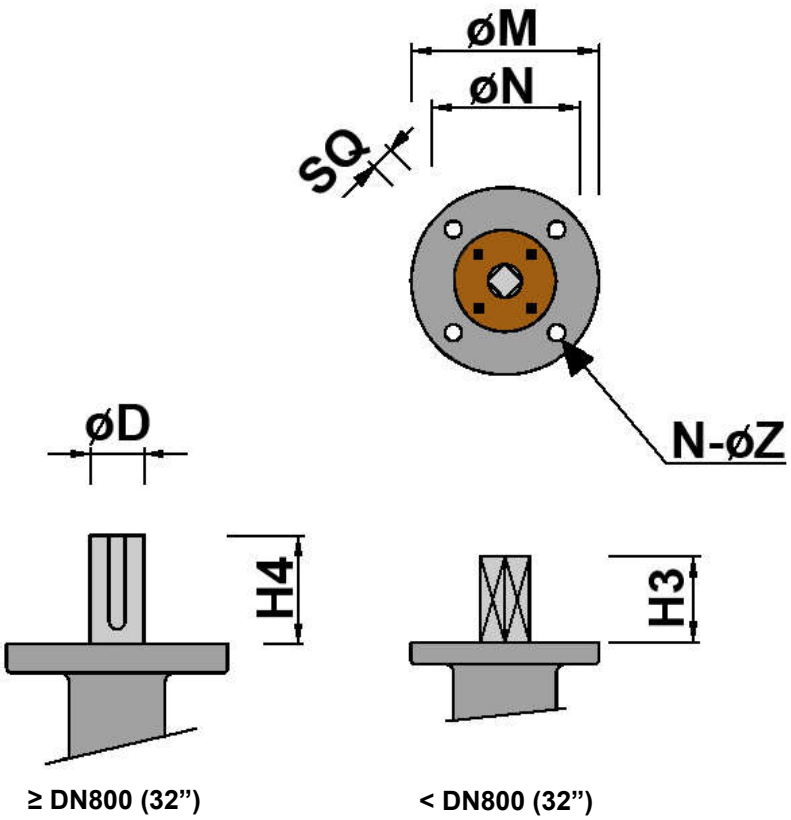
Notes

Sizes DN550 (22"), DN650 (26"), DN750 (30"), DN1100 (44") and larger sizes up to and including DN4000 on request

Torque Table

DN	P 3 bar	P 5 bar	P 10 bar	P 13 bar	P 16 bar
50	7.1	8.9	11.1	13.3	15.6
65	8.9	11.1	15.6	18.7	21.6
80	11.6	14.5	20.0	24.0	27.2
100	13.3	16.7	22.2	26.6	28.3
125	20.4	25.5	33.3	39.9	44.4
150	24.9	31.1	42.1	50.6	54.9
200	63.2	79.0	182	218	249
250	125	164	285	342	378
300	218	272	388	466	538
350	364	455	643	775	804
400	452	565	798	958	942
450	583	706	1092	1310	1673
500	750	937	1529	1835	2050
600	1197	1496	2205	2646	3047
700	1906	2382	3446	4135	4598
800	2792	3490	4930	5916	6481
900	3856	4820	7091	8521	9306
1000	5850	6750	9506	12896	13039
1200	10724	13405	19498	23398	24483

Sizing Dimensions



≥ DN800 (32") < DN800 (32")

DN	H4	Stem				Top Flange			
		Round		Square		ISO 5211	N	M	nxo
		D	Key	S	H3				
50	33	14	5x5	9	33	F07	70	90	4x9
65	33	14	5x5	9	33	F07	70	90	4x9
80	33	14	5x5	9	33	F07	70	90	4x9
100	33	19	6x6	12	33	F07	70	90	4x9
125	33	19	6x6	12	33	F07	70	90	4x9
150	33	19	6x6	12	33	F07	70	90	4x9
200	50	22	8x7	17	50	F10	102	125	4x12
250	50	25	8x7	17	50	F10	102	125	4x12
300	50	32	10x8	22	50	F10	102	125	4x12
350	50	32	10x8	27	50	F10	140	175	4x12
400	60	40	12x8	27	60	F14	140	175	4x18
450	60	40	12x8	27	60	F14	140	175	4x18
500	80	45	14x9	36	80	F16	165	210	4x22
600	80	65	20x12	50	80	F16	165	210	4x22
700	80	65	20x12	50	90	F16	165	210	4x22
800	90	65	20x12	50	90	F25	254	300	8x18
900	130	80	22x14	--	--	F25	254	300	8x18
1000	150	95	25x14	--	--	F30	298	350	8x23
1200	150	95	25x14	--	--	F30	298	350	8x23

KV Values

KV-value Table

	Opening Angle Disc							
DN	20°	30°	40°	50°	60°	70°	80°	90°
50	10.0	15.1	23.6	38.6	62.3	100	155	185
65	17.0	25.6	39.8	64.9	106	170	261	313
80	25.7	38.8	60.6	98.6	159	258	396	474
100	38.9	60.6	94.3	154	250	403	618	740
125	63.1	94.3	148	240	388	630	967	1157
150	90.0	137	213	347	562	907	1393	1667
200	161	242	378	617	999	1611	2476	2963
250	251	379	590	964	1561	2518	3868	4630
300	362	545	850	1387	2248	3626	4705	6667
350	492	742	1157	1888	3047	4935	7581	9075
400	643	970	1511	2467	3996	6446	9902	11853
450	813	1227	1913	3122	5058	8158	12532	15002
500	1004	1515	2361	3854	6244	10072	15471	18251
600	1446	2182	3400	5550	8992	14503	22279	26670
700	1968	2969	4629	7554	12191	19740	30324	36300
800	2571	3878	6045	9866	15923	25783	39607	47412
900	3253	4908	7651	9892	20231	32632	50128	60006
1000	4016	6059	9446	15416	24880	40287	61886	74082
1100	4860	7332	11429	18654	30105	48747	74881	89639
1200	5781	8725	13602	22199	35827	58013	89116	106678

KV values for intermediate and larger sizes available on request

KV-values

KV values as mentioned in the KV-Value Table are;

- German KV values (m³/hour water of 20°C at a P of 1 bar over the valve)
- Maximum allowable flow velocities;
  - 4 m/sec. for liquids
  - 30 m/sec. for gasses
- Make sure there is no cavitation

Calculations

Pressure drop (P1-P2) and/or flow (Q) calculations can be performed using the formula's below.
You can calculate pressure drop and/or flow with a fully opened disc when the valve is used in on-off applications or you can calculate the pressure drop and/or flow in above intermediate disc positions when the valve is used in throttling and regulating applications.

For Liquids: $$KV = Q \cdot \sqrt{\frac{\rho / \rho 0}{P1 - P2}}$$

For Gasses (Where P1<2·P2): $$KV = \frac{Q}{457} \cdot \sqrt{\frac{G \cdot Ti}{(P1 - P2) P1}}$$

Where

Q	=	Flow	[m³/hr]
ρ	=	Specific Gravity	[Kg/m³]
ρ0	=	Specific Gravity of water under standard conditions (ρ0 = 1000 kg/m³ at 288K)	
P1	=	Inlet Pressure	[Barg]
P2	=	Outlet Pressure	[Barg]
G	=	Relative Specific Gravity in relation to air (G = ρ / ρ air) under standard conditions	
Ti	=	Inlet Temperature	[K]

Service

For assistance on pressure drop calculations and other belonging matters please contact our Engineers.

Product Group C
Concentric Rubber Lined Butterfly Valves

Product Group O
Double Eccentric Replaceable Seat Ring Type Butterfly Valves (Cargo Oil)

Product Group H, F and M
High Performance Butterfly Valves

Product Group T
Triple Eccentric Metal Seated Butterfly Valves

Product Group E
Disc Seated Butterfly Valves

Product Group L
Cryogenic Butterfly Valves (LPG, LNG)
Ball, Gate, Globe and Check Valves

Product Group D
Damper Butterfly Valves

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