

MANUAL BUTTERFLY VALVES



GENERAL

The BS-HWC4 Manual Butterfly Valves is designed for Chilled & Hot Water to be operated by Hand lever or Gear Box (BS-MWC4)

FEATURES

- Wide Size range (40DN to 300DN)
- Operated by Lever or Gear Box
- 90 degree opening and closing operation
- Cast iron Body with powder coating.
- Epoxy Coated Ductile Iron disc.
- Wafer type Connection

SPECIFICATIONS

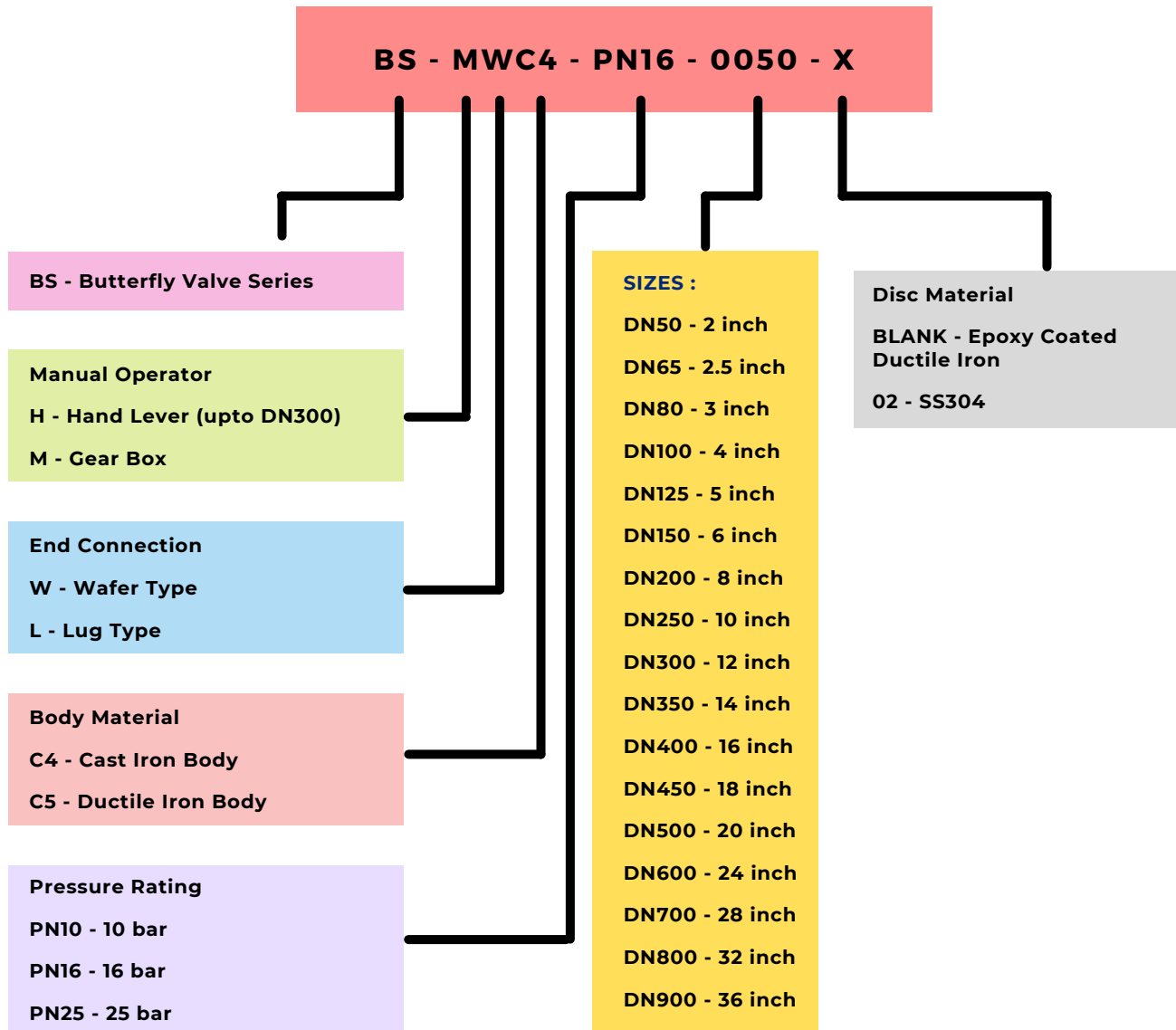
- Sizes: DN50...DN900
- Nominal pressure: PN16, P N25
- Medium Temperature: -10 ~ +100 Maximum
- Body Material IS: Cast Iron / WCB / CF8 / CF8M
- Stem Material: ASTM A276, GR SS 410 / SS304 / SS316
- Disc Material: Epoxy Coated Ductile Iron / CI / CF8 / CF8M
- Lever: MS. / SS
- Leakage Rated: No visible leakage
- Medium Typed: Water / AIR/ OIL
- Flange standard: IS 1538
- Shell Test pressure: 24bar
- Seal Test pressure: 17bar



MANUAL BUTTERFLY VALVES TABLE (1) VALVE SIZE

SIZE	MODEL NO.	MAX KVS.	MANUAL OPERATOR	OPERATOR WEIGHT KG	TOTAL WEIGHT KG
DN50	BS-MWC4-PN16-0050	115	Gear Box	4.5	6.8
DN65	BS-MWC4-PN16-0065	196	Gear Box	4.5	7.3
DN80	BS-MWC4-PN16-0080	302	Gear Box	4.5	7.8
DN100	BS-MWC4-PN16-0100	600	Gear Box	4.5	9.4
DN125	BS-MWC4-PN16-0125	1022	Gear Box	4.5	10.9
DN150	BS-MWC4-PN16-0150	1579	Gear Box	4.5	12.2
DN200	BS-MWC4-PN16-0200	3136	Gear Box	13	25.9
DN250	BS-MWC4-PN16-0250	5340	Gear Box	13	32.2
DN300	BS-MWC4-PN16-0300	8250	Gear Box	15	47.5
DN350	BS-MWC4-PN16-0350	11917	Gear Box	15	56.3
DN400	BS-MWC4-PN16-0400	16388	Gear Box	57	118
DN450	BS-MWC4-PN16-0450	21705	Gear Box	57	136
DN500	BS-MWC4-PN16-0500	27908	Gear Box	57	185
DN600	BS-MWC4-PN16-0600	43116	Gear Box	72	260
DN700	BS-MWC4-PN16-0700	58696	Gear Box	85	361
DN800	BS-MWC4-PN16-0800	68250	Gear Box	85	445
DN900	BS-MWC4-PN16-0900	83375	Gear Box	124	830.8
DN50	BS-HWC4-PN16-0050	115	Lever	0.270	2.6
DN65	BS-HWC4-PN16-0065	196	Lever	0.270	3.1
DN80	BS-HWC4-PN16-0080	302	Lever	0.460	3.8
DN100	BS-HWC4-PN16-0100	600	Lever	0.460	5.4
DN125	BS-HWC4-PN16-0125	1022	Lever	0.630	7.1
DN150	BS-HWC4-PN16-0150	1579	Lever	0.630	8.3
DN200	BS-HWC4-PN16-0200	3136	Lever	0.630	14.7
DN250	BS-HWC4-PN16-0250	5340	Lever	1.155	20.7
DN300	BS-HWC4-PN16-0300	8250	Lever	1.155	30

The labeling system for Manual Butterfly Valves is as follows

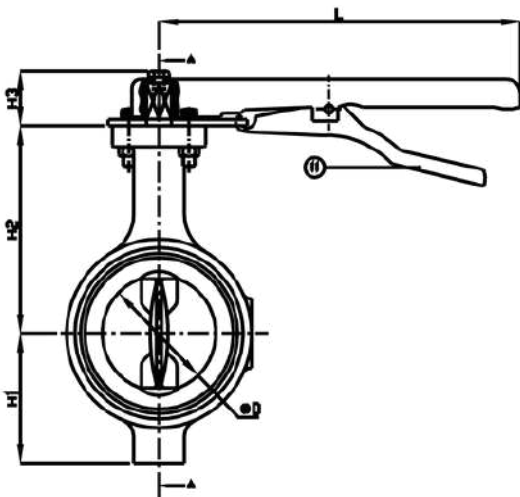


Eg. BS-HWC4-PN16-0050 : Butterfly Valve Series, Hand Lever Operator, End connection Wafer type, Cast Iron Body, Nominal Pressure 16 bar, Size DN50-2 inch, Epoxy Coated Ductile Iron Disc.

Eg. BS-MWC5-PN25-0100-02 : Butterfly Valve Series, Gear Box Operator, End connection Wafer type, Cast Iron Body, Nominal Pressure 25 bar, Size DN80-4 inch, SS304 Disc

Valve size DN50...200 with Lever Operator (PN16)

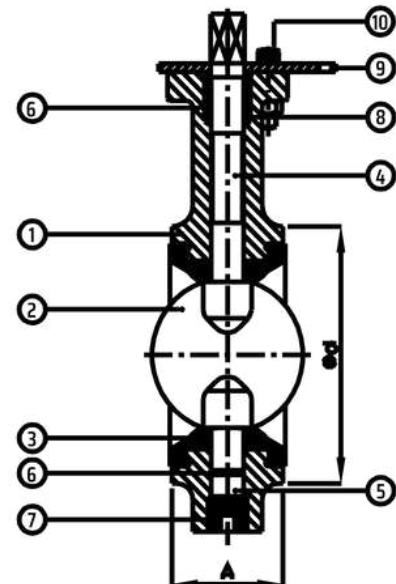
Outside Dimension (mm)



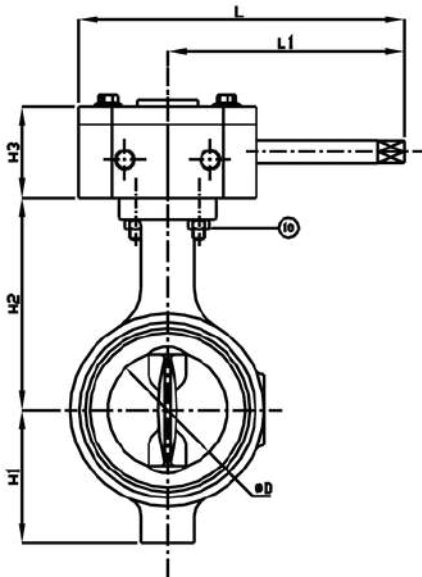
VALVE SIZE	A	H1	H2	H3	L	D	
DN50	43	67	110	28	175	50.5	94
DN65	46	75	118	34	216	65	110
DN80	46	82	130	34	216	80	127
DN100	52	100	145	39	267	100	150
DN125	56	114	156	39	267	123	175
DN150	56	135	176	39	267	148.5	205
DN200	60	161	220	45	350	197	265
DN250	68	205	280	45	350	250.5	325
DN300	78	230	305	45	350	299.5	376

Part Description

NO.	DESCRIPTION	MATERIAL
1	Body	IS:210 Gr FG200
2	Disc	D.I (Epoxy Coated)
3	Liner	EPDM
4	Upper Stem	ASTM A 276, Gr SS410
5	Lower Stem	ASTM A 276, Gr SS410
6	O-Ring	EPDM
7	Plug	M. S (Chrome Plated)
8	Bush	PTFE
9	notch Plate	M. S. (Powder Coating)
10	Fastener	S. S
11	Hand Lever	M. S Powder Coating)



Valve Size DN250...400 with Gear Box Operator (PN16)

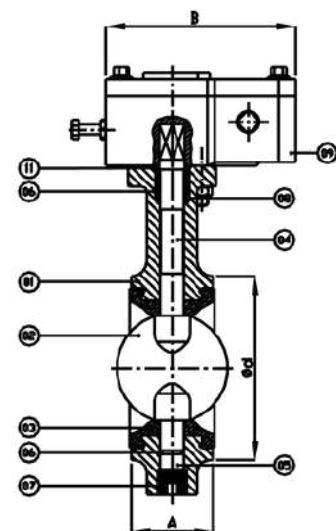


Outside Dimension (mm)

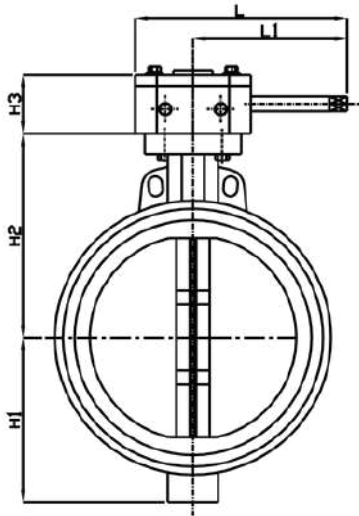
SIZE	A	H1	H2	H3	L	L1	B	D	
DN250	68	205	110	60	182	115	112	250.5	325
DN300	78	230	118	60	182	115	112	299.5	376
DN350	92	280	130	72	308	195	155	351	444
DN400	102	305	145	72	308	195	155	403	501

Part Description

NO.	DESCRIPTION	MATERIAL
1	Body	IS:210 Gr FG200
2	Disc	D.I (Epoxy Coated)
3	Liner	EPDM
4	Upper Stem	ASTM A 276, Gr SS410
5	Lower Stem	ASTM A 276, Gr SS410
6	O-Ring	EPDM
7	Plug	M. S (Chrome Plated)
8	Bush	PTFE
9	Gear Box	Cast Iron
10	Fastener	S. S



Valve Size DN450...600 with Gear Box Operator (PN16)

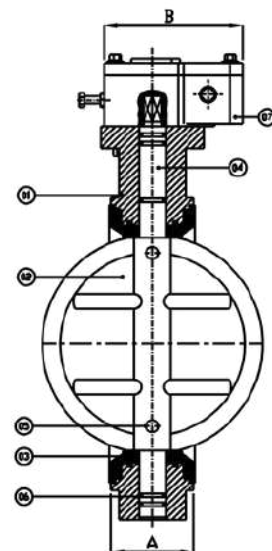


Outside Dimension (mm)

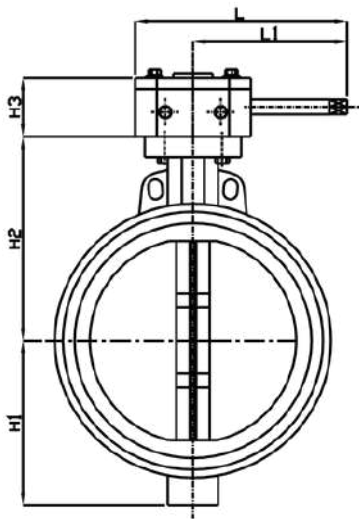
SIZE	A	H1	H2	H3	L	L1	B	D		
DN450	114	318	443	72	308	195	155	453	555	360
DN500	127	357	472	72	308	195	155	503	620	360
DN600	154	402	517	72	308	195	155	603	705	360

Part Description

NO.	DESCRIPTION	MATERIAL
1	Body	IS:210 Gr FG200
2	Disc	D.I (Epoxy Coated)
3	Liner	EPDM
4	Stem	ASTM A 276, Gr SS410
5	Pin	SS 410
6	O-Ring	EPDM
7	Gear Box	Cast Iron
8	Fastener	S.S.



Valve Size DN700...900 with Gear Box Operator (PN16)

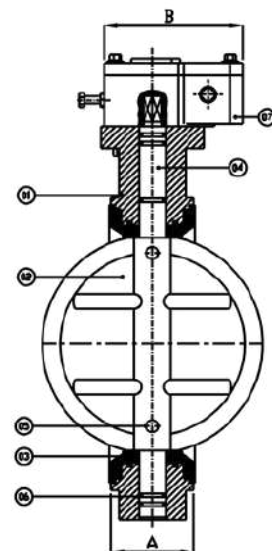


Outside Dimension (mm)

SIZE	A	H1	H2	H3	L	L1	B	D		
DN700	229	520	625	72	308	195	155	703	805	360
DN800	241	590	670	72	308	195	155	803	914	360
DN900	241	655	720	72	308	195	155	901	1012	360

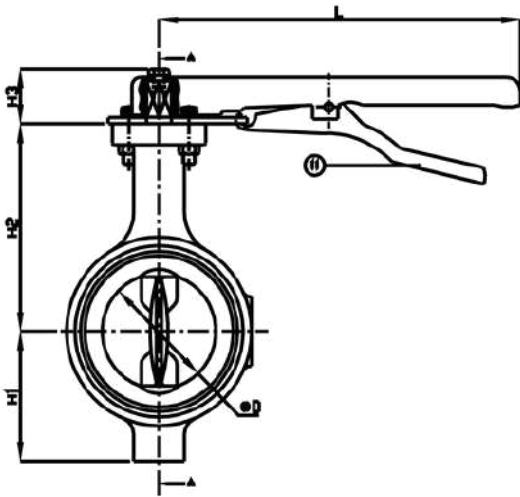
Part Description

NO.	DESCRIPTION	MATERIAL
1	Body	IS:210 Gr FG200
2	Disc	D.I (Epoxy Coated)
3	Liner	EPDM
4	Stem	ASTM A 276, Gr SS410
5	Pin	SS 410
6	O-Ring	EPDM
7	Gear Box	Cast Iron
8	Fastener	S.S.



Valve size DN50...200 with Lever Operator (PN25)

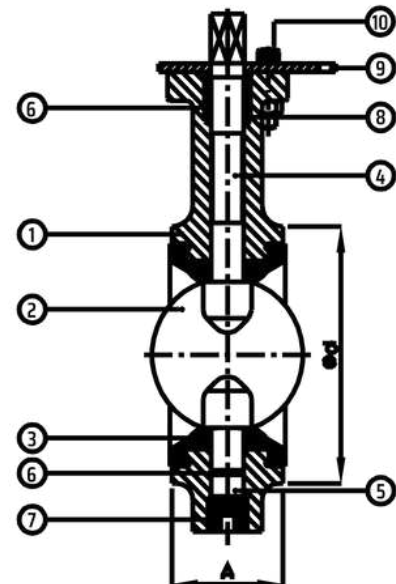
Outside Dimension (mm)



VALVE SIZE	A	H1	H2	H3	L	D
DN50(2")	43	67	110	28	175	50.5 94
DN65(2.5")	46	75	118	34	216	65 110
DN80(3")	46	82	130	34	216	80 127
DN100(4")	52	100	145	39	267	100 150
DN125(5")	56	114	156	39	267	123 175
DN150(6")	56	135	176	39	267	148.5 205
DN200(8")	60	161	220	45	350	197 265
DN250(10")	68	205	280	45	350	250.5 325
DN300(12")	78	230	305	45	350	299.5 376

Part Description

NO.	DESCRIPTION	MATERIAL
1	Body	D.I
2	Disc	D.I (Epoxy Coated)
3	Liner	EPDM
4	Upper Stem	ASTM A 276, Gr SS304
5	Lower Stem	ASTM A 276, Gr SS304
6	O-Ring	EPDM
7	Plug	M. S (Chrome Plated)
8	Bush	PTFE
9	notch Plate	M. S. (Powder Coating)
10	Fastener	S. S
11	Hand Lever	M. S Powder Coating)



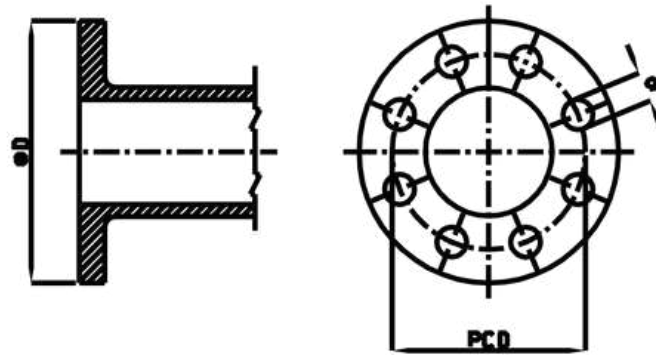
- Piping Connection Flange meets IS:1538
- It can be operated by lever or Gear Box.

HYDRAULIC CHARACTERISTICS

THE BELOW TABLE SHOWS THE KVS AT DIFFERENT OPENING ANGLES

SIZE	10	20	30	40	50	60	70	80	90
DN50	0.1	5	12	24	45	64	90	125	115
DN65	0.2	8	20	37	65	98	144	204	196
DN80	0.3	12	22	39	70	116	183	275	302
DN100	0.5	17	36	78	139	230	364	546	600
DN125	0.8	29	61	133	237	392	620	930	1022
DN150	2	45	95	205	366	605	958	1,437	1579
DN200	3	89	188	408	727	1,202	1,903	2,854	3136
DN250	4	151	320	694	1237	2,047	3,240	4,859	5340
DN300	5	324	495	1072	1911	3,162	5,005	7,507	8250
DN350	6	338	715	1549	2761	4,568	7,230	10,844	11917
DN400	8	464	983	2130	3,797	6,282	9,942	14,913	16388
DN450	11	615	1302	2822	5,028	8,320	13,168	19,752	21705
DN500	14	791	1674	3628	6,465	10,698	16,931	25,396	27908
DN600	22	1222	2587	5605	9,989	16,528	26,175	39,236	43116
DN700	30	1663	3522	7,639	12,659	20,036	30,482	46,890	58696
DN800	45	2387	4791	8736	13,788	20,613	31,395	48,117	68250
DN900	60	3021	6063	11,059	18749	26,086	39,731	60,855	83375

Flange Dimensions (As per IS: 1538) compatible with Butterfly Valve



SIZE	FLANGE D	PCD	HOLE DIA(d)	NO. OF HOLES
DN50	165	125	19	4
DN65	185	145	19	4
DN80	200	160	19	4
DN100	220	180	19	8
DN125	250	210	19	8
DN150	285	240	23	8
DN200	340	295	23	8
DN250	395	350	23	12
DN300	445	400	23	12
DN350	505	450	23	16
DN400	565	515	28	16
DN450	615	565	28	20
DN500	670	620	28	20
DN600	780	725	31	20
DN700	895	840	31	24
DN800	1015	950	34	24
DN900	1115	1050	34	28