

# ORBIS

VALVES INDUSTRIES

“complete global flow control and solution”

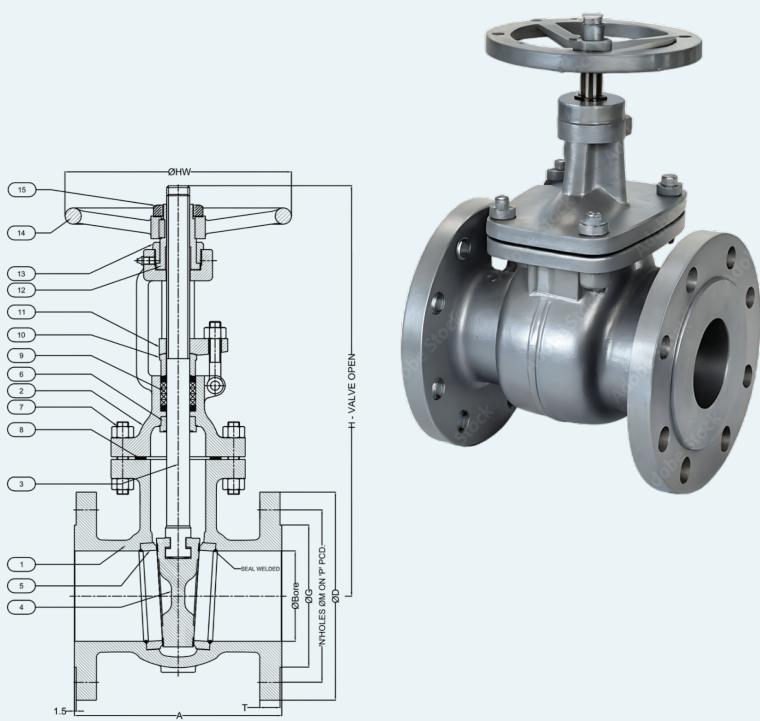


# ABOUT US

Welcome to Orbis, a trusted name in industrial hardware solutions, based in Ahmedabad, India. We specialize in the supply of high-quality industrial valves and straining equipment. Our product range includes wafer type check valves, gate valves, globe valves, and dual plate check valves, all designed to meet the highest standards of performance and reliability. At Orbis, we are committed to delivering durable and efficient products that serve a wide range of industries, including water treatment, oil and gas, chemical processing, and more. With a focus on quality, precision engineering, and customer satisfaction, we strive to be a reliable partner in your industrial operations.

"ORBIS" make Gate Valves are Primarily Designed to start or stop flow & when a straight line flow of fluid & minimum flowrestriction are needed. In services this valve generally are either fully open or fully closed.

NO	DESCRIPTION	MATERIAL	QTY.
01.	BODY	ASTM A 216 Gr. WCB/CF8/CF8M	1
02.	BONNET	ASTM A 216 Gr. WCB/CF8/CF8M	1
03.	WEDGE	ASTM A 216 Gr. WCB/CF8/CF8M	1
04.	SEAT RING	AISI 410 (13% CR) / SS 304 / 316	2
05.	STEM	AISI 410 (13% CR) / SS 304 / 316	1
06.	GLAND	CARBON STEEL	1
07.	YOKE SLEEVE	NI - RESIST - NODULAR CAST IRON	1
08.	BACK SEAT	AISI 410 (13% CR) / SS 304 / 316	1
09.	GASKET	SPRAL WOUND METALIC	1
10.	GLAND PACKING	METALIC WIRE REINFORCE	—
		GRAPHOIL ASBESTOS	Req.
11.	BONNET STUB & NUT	ASTM A 193 Gr. B7 / ASTM A 194 Gr. 2H	Req.
12.	EYE BOLT & NUT	ASTM A 193 Gr. B7 / ASTM A 194 Gr. 2H	2SET
13.	HAND WHEEL	S G IRON	1
14.	HAND WHEEL NUT	CARBON STEEL	1



TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	BS-1414 / AP / 600
TESTING & INSPECTION STD.	AP I 598
END CONNECTIONS :	FLANGED AS PER ANSI B-16.5
SEAL WALL THICKNESS	ANSI B 16.34
FACE TO FACE :	AS PER ANSI / B 16.10

CLASS	WORKING PRES.	TEMP.	PRIMARY SERVICE RATING & TEST PRESSURE	
			HYD. TEST PRESS. BODY	SEAT
150	150 PSIG	500°F	425 PSIG	300 PSIG
300	300 PSIG	800°F	1100 PSIG	800 PSIG
<b>AIR TEST - SEAT - 80 PSIG + 10 PSIG</b>				

SIZE		CLASS - 150							
IN.	M.M.	A	B	ØC	ØD	ØM	N	P.C.D.	ØW
1"	25	127.0	11.0	51	108.0	16	4	79.2	100
1.1/2"	40	165.1	14.2	73	127.0	16	4	98.5	135
2"	50	177.8	15.7	92	152.0	19	4	120.6	200
2.1/2"	65	190.5	17.5	105	178.0	19	4	139.7	250
3"	80	203.2	19.0	127	190.5	19	4	152.4	250
4"	100	228.6	24.0	157	229.0	19	8	190.5	300
5"	125	254.0	24.0	186	254.0	22	8	215.9	350
6"	150	266.7	25.0	216	279.0	22	8	241.3	350
8"	200	292.1	28.5	270	343.0	22	8	298.4	400
10"	250	330.2	30.0	324	406.0	25	12	362.0	450
12"	300	335.6	32.0	381	483.0	25	12	431.8	500
14"	350	381.0	35.0	413	534.0	28	12	476.2	508
16"	400	406.4	36.5	470	597.0	28	16	539.0	508

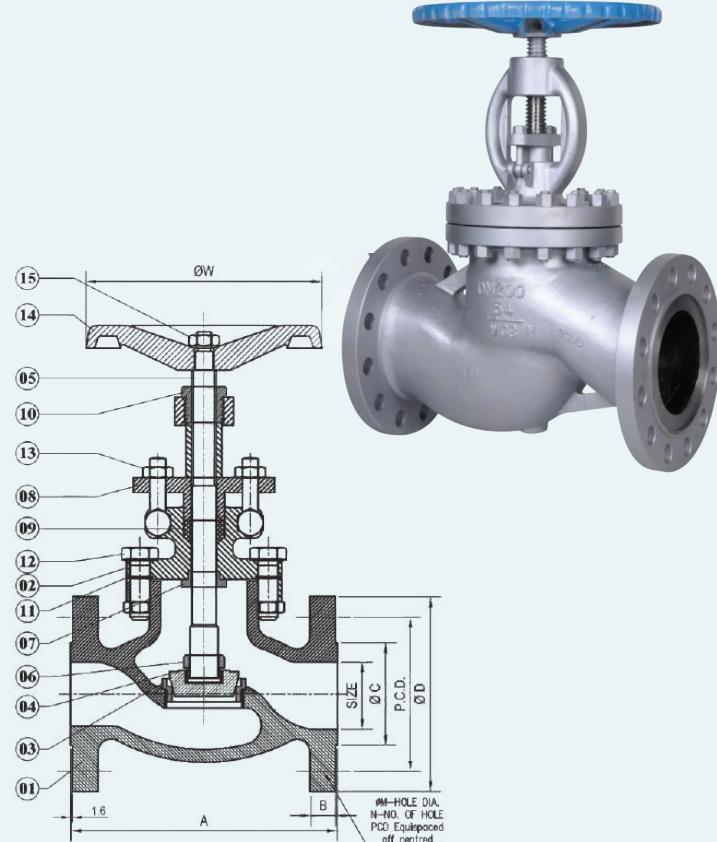
SIZE		CLASS - 300							
IN.	M.M.	A	B	ØC	ØD	ØM	N	P.C.D.	ØW
1.1/2"	40	190.5	20.5	73	155.4	22	4	114.3	152
2"	50	215.9	22.0	92	166.0	19	8	127.0	203
2.1/2"	65	241.3	25.0	105	190.5	22	8	149.3	203
3"	80	282.5	28.5	127	209.5	22	8	168.1	254
4"	100	304.8	32.0	157	254.0	22	8	200.1	305
5"	125	381.0	35.0	186	279.4	22	8	234.9	356
6"	150	403.2	36.5	216	317.5	22	12	269.7	356
8"	200	419.1	41.0	270	381.0	25	12	330.2	407
10"	250	457.2	48.0	324	444.5	29	16	387.3	457
12"	300	501.6	51.0	381	520.7	32	16	450.8	508
14"	350	762.0	54.0	413	584.2	32	20	514.3	508
16"	400	838.2	57.0	470	647.7	35	20	571.5	508

"ORBIS" make globe valves is a linear motion valve and are primarily designed to stop, start and regulate flow. the disc of a globe valve can be totally removed from the flowpath or it can completely close the flowpath.

NO	DESCRIPTION	MATERIAL	QTY.
01	BODY	ASTM A 216 Gr. WCB / CF8 / CF8M	1
02	BONNET	ASTM A 216 Gr. WCB / CF8 / CF8M	1
03	SEAT RING	AISI 410 (13% CR) SS 304 / 316	1
04	DISC	AISI 410 (13% CR) SS 304 / 316	1
05	STEM	AISI 410 (13% CR) SS 304 / 316	1
06	STEM NUT	AISI 410 (13% CR) SS 304 / 316	1
07	BACK SEAT	AISI 410 (13% CR) SS 304 / 316	1
08	GLAND	CARBON STEEL	1
09	GLAND PACKING	METALIC WIRE REINFORCED GRAPHOL ASBESTOS	----
10	YOKE SLEEVE	SG IRON	1
11	BONNET GASKET	ASBESTOS FILTER S.S. 304 SPRIAL WOUNDED / CAF	1
12	BONNET STUD & NUT	ASTM A 193 Gr. B7 ASTM A 194 Gr. 2H	----
13	EYE BOLT & NUT	ASTM A 193 Gr. B7 ASTM A 194 Gr. 2H	2 SET
14	HAND WHEEL	SG IRON	1
15	HAND WHEEL NUT	CARBON STEEL	1

TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	BS 1873
TESTING & INSPECTION STD.	API 598 / BS 5146
END CONNECTIONS :	FLANGED AS PER ANSI B-16.5
SHELL WALL THICKNESS	AVSI B 16.34
FACE TO FACE :	AS PER ANSI / B 16.10

CLASS - 150										
SIZE	IN.	M.M.	A	B	ØC	ØD	ØM	N	P.C.D.	ØW
1"	25	127	11.0	51	108.0	16	4	79.2	100	
1.1/2"	40	165	14.2	73	127.0	16	4	98.5	135	
2"	50	203	15.7	92	152.0	19	4	120.6	200	
2.1/2"	65	216	17.5	105	178.0	19	4	139.7	250	
3"	80	241	19.0	127	190.5	19	4	152.4	250	
4"	100	292	24.0	157	229.0	19	8	190.5	300	
5"	125	356	24.0	186	254.0	22	8	215.9	350	
6"	150	406	25.0	216	279.0	22	8	241.3	350	
8"	200	495	28.5	270	343.0	22	8	298.4	400	
10"	250	622	30.0	324	406.0	25	12	362.0	450	
12"	300	698	32.0	381	483.0	25	12	431.8	500	

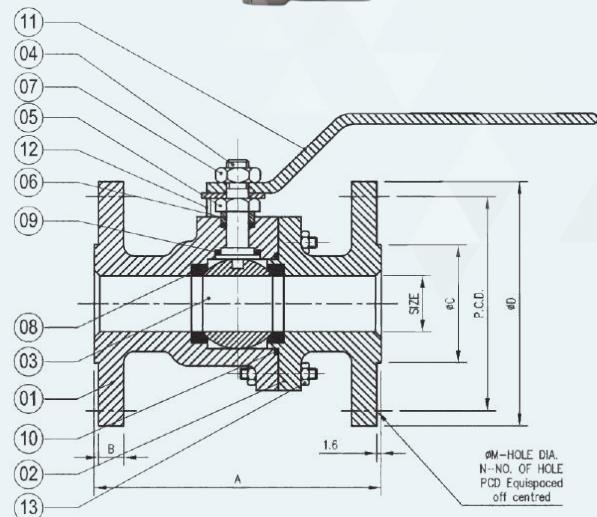


PRIMARY SERVICE RATING & TEST PRESSURE				
CLASS	WORKING PRES.	TEMP.	HYD. TEST PRESS. BODY	SEAT
150	150 PSIG	500°F	425 PSIG	300 PSIG
300	300 PSIG	800°F	1100 PSIG	800 PSIG

CLASS - 300										
SIZE	IN.	M.M.	A	B	ØC	ØD	ØM	N	P.C.D.	ØW
1"	25	203.0	17.5	51	124.0	19	4	89.0	135	
1.1/2"	40	229.0	20.5	73	155.5	22	4	114.3	200	
2"	50	267.0	22.0	92	165.0	19	8	127.0	200	
2.1/2"	65	292.0	25.0	105	190.5	22	8	149.3	200	
3"	80	317.5	28.5	127	209.5	22	8	168.0	300	
4"	100	356.0	32.0	157	254.0	22	8	200.0	350	
5"	125	400.0	35.0	186	279.4	22	8	235.0	350	
6"	150	444.5	36.5	216	317.5	22	12	269.7	400	
8"	200	559.0	41.0	270	381.0	25	12	330.2	550	
10"	250	622.0	47.5	324	444.5	28	16	387.4	600	
12"	300	711.0	51.0	381	521.0	32	16	450.8	600	

"ORBIS" make ball valve is a form of quarter-turn valve which uses a hollow, perforated and pivoting ball to control flow through it. It is open when the ball's hole is in line with the flow and closed when it is pivoted 90 degrees by the valve handle.

NO	DESCRIPTION	MATERIAL	QTY.
01	BODY	C.S. / CF8 / CF8M	1
02	BODY CONNECTOR	C.S. / CF8 / CF8M	1
03	BALL	S.S. 202 / 304 / 316	1
04	STEM	S.S. 202 / 304 / 316	1
05	GLAND NUT	S.S. 202 / 304 / 316 / M.S.	1
06	GLAND BUSH	S.S. 202 / 304 / 316 / M.S.	1
07	LOCK NUT	S.S. 202 / 304 / 316 / M.S.	1
08	SEAT RING	PTFE	2
09	SEAT SEAL	PTFE	2
10	BODY SEALENT RING	PTFE	1
11	LEVER	M.S. / S.S. 304 / S.S. 316	1
12	STOPPER PIN	M.S. / S.S. 304 / S.S. 316	1
13	STUD & NUT	M.S. / S.S.	---



TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	BS 5351 / API 6 D
TESTING & INSPECTION STD.	API 598 / BS 5146
END CONNECTIONS :	FLANGED AS PER ANSI B 16.5
SOCKET WELD ENDS	
FACE TO FACE :	AS PER ANSI B 16.10

PRIMARY SERVICE RATING & TEST PRESSURE				
CLASS	WORKING PRES.	TEMP.	HYD. TEST PRESS.	BODY SEAT
150	150 PSIG	180°F	425 PSIG	300 PSIG
300	300 PSIG	200°F	1100 PSIG	800 PSIG

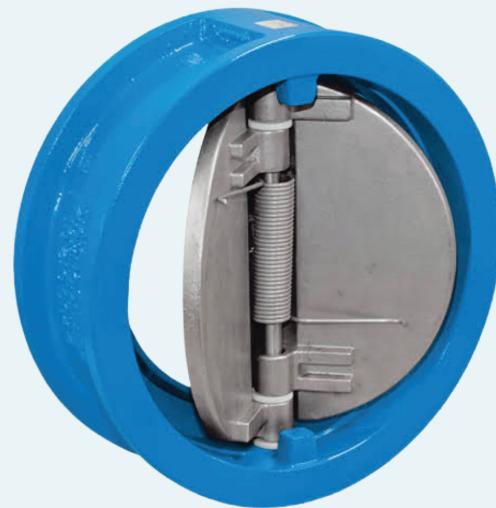
SIZE		CLASS - 150						
IN.	M.M.	A	B	ØC	ØD	ØM	N	P.C.D.
1/2"	15	108	10.0	35	89.0	16	4	60.4
3/4"	20	118	10.5	43	98.0	16	4	69.8
1"	25	127	11.0	51	108.0	16	4	79.2
1.1/4"	32	140	12.7	64	117.0	16	4	88.9
1.1/2"	40	165	14.2	73	127.0	16	4	98.5
2"	50	178	15.7	92	152.0	19	4	120.6
2.1/2"	65	191	17.5	105	178.0	19	4	139.7
3"	80	203	19.0	127	190.5	19	4	152.4
4"	100	229	24.0	157	229.0	19	8	190.5
5"	125	254	24.0	186	254.0	22	8	215.9
6"	150	267	25.0	216	279.0	22	8	241.3
8"	200	292	28.5	270	343.0	22	8	298.4
10"	250	330	30.0	324	406.0	25	12	362.0

SIZE		CLASS - 300						
IN.	M.M.	A	B	ØC	D	ØM	N	P.C.D.
1"	25	165.0	17.5	51	124.0	19	4	88.9
1.1/2"	40	190.5	20.5	73	155.5	22	4	114.3
2"	50	216.0	22.0	92	165.0	19	8	127.0
2.1/2"	65	241.0	25.0	105	190.5	22	8	149.3
3"	80	282.5	28.5	127	209.5	22	8	168.0
4"	100	305.0	32.0	157	254.0	22	8	200.0
5"	125	381.0	35.0	186	279.4	22	8	235.0
6"	150	403.0	36.5	216	317.5	22	12	269.7
8"	200	419.0	41.0	270	381.0	25	12	330.2
10"	250	457.0	47.5	324	444.5	28	16	387.4

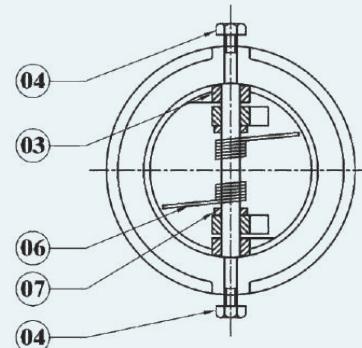
"Complete global flow control and solution"

"ORBIS" make butterfly valves is a quarter turn, rotary motion valve that is used to stop, regulate, and start fluid (air, water, gas) flow in pipes. BFV are easily and quickly operated because of a 90 rotation of disc from a fully closed to fully open position.

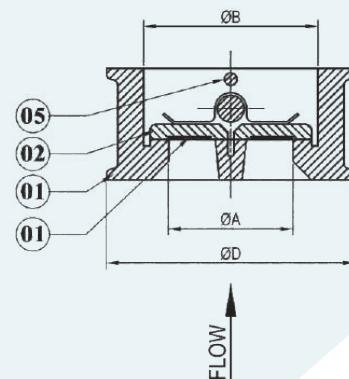
NO	PART NAME	MATERIAL	QTY.
01	BODY	C.I. - IS:210 GR. FG 200 / ASTM A 216 GR. WCB	1
02	DISC	A 351 GR. CF8	2
03	HINGE PIN	AISI 304 / AISI 316	1
04	PLUG	AISI 304 / AISI 316	2
05	STOP PIN	AISI 304 / AISI 316	1
06	SPRING	AISI 304 / AISI 316	2
07	BEARING	AISI 304 / AISI 316	1
08	SEAT	NBR, EPDM, VITON	1



TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	API 594
TESTING & INSPECTION STD.	API 598
END CONNECTIONS	WAFER TYPE SUIT TO ANSI B 16.5 (150#)
FACE TO FACE	API 594



SIZE		DIMENSION		
IN	MM	ØA	ØB	ØD
2"	50	50	60	105
2.1/2"	65	65	75	124
3"	80	76	90	134
4"	100	100	115	172
5"	125	125	135	196
6"	150	150	165	220
8"	200	200	220	276
10"	250	250	265	338
12"	300	300	320	407
14"	350	350	350	448
16"	400	400	400	514
18"	450	450	450	549
20"	500	500	500	603
24"	600	600	600	718



PRIMARY SERVICE RATING & TEST PRESSURE			
CLASS	WORKING PRESSURE	TEMP.	HYD. TEST PRESSURE BODY SEAT
150	20°F TO 180°F		21 PSIG 11 PSIG

"ORBIS" make wafer type check valve primarily single plate swing check valve with a short pattern wafer body. the low internal disc design enables the valve to open or close with a very low differential pressure.

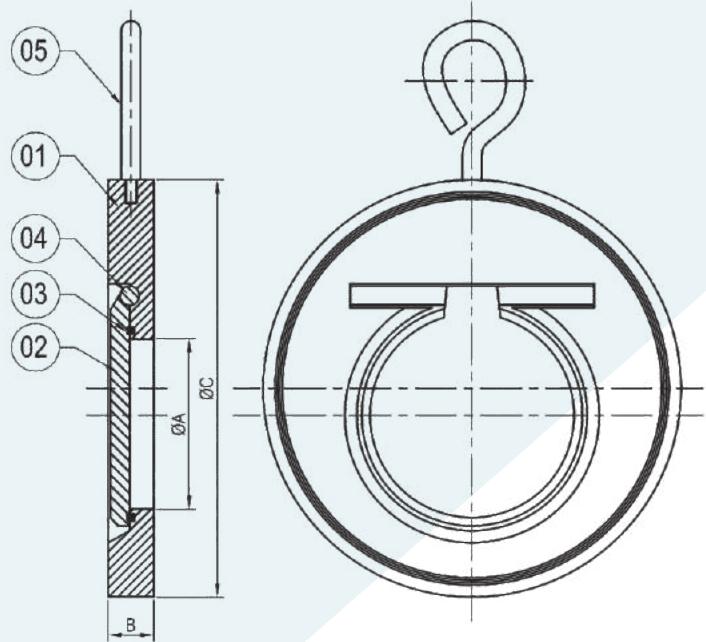
NO	DESCRIPTION	MATERIAL	QTY.
01	BODY	C.I. / M.S. / Cf8 / CF8M / Cf3 / CF3M	1
02	DISC	C.I. / M.S. / Cf8 / CF8M / Cf3 / CF3M	
03	'O' RING	NITRILE, EPDM, VTION, SILICON, PTEE	1
04	HINGE PIN	AISI 304, 316, M.S.	1
05	LIFTING HOOK	M.S. / S.S.	1



TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	API 6D / ANSI B 16.34
TESTING & INSPECTION STD.	API 598
PRESSURE CLASS	150#

PRIMARY SERVICE RATING & TEST PRESSURE				
CLASS	WORKING PRESSURE	TEMP.	HYD. TEST PRESSURE BODY	SEAT
150 #	20°F TO 180°F		225 PSIG	150 PSIG

SIZE		DIMENSION		
IN	MM	ØA	B	ØC
1"	25	14	16	64
1½"	40	22	19	86
2"	50	30	19	104
2½"	65	40	19	123
3"	80	52	19	136
4"	100	71	19	174
5"	125	93	19	196
6"	150	114	19	221
8"	200	157	28	278
10"	250	195	28	339
12"	300	230	38	409
14"	350	270	44	449
16"	400	310	50	512
18"	450	360	60	545
20"	500	406	63	605
24"	600	490	70	714



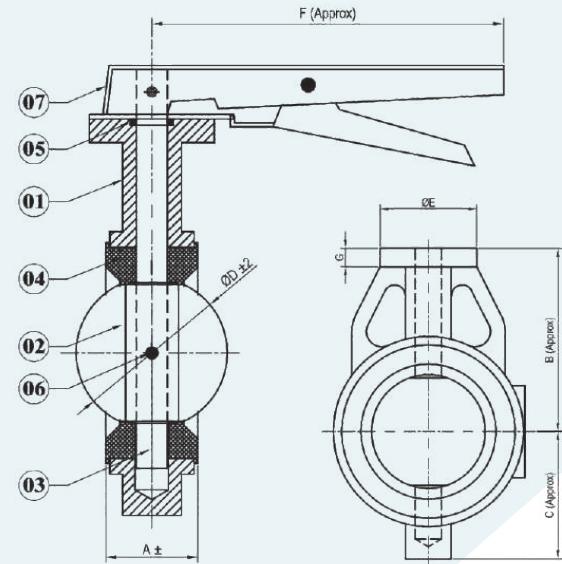
"ORBIS" make butter fly valves is a quarter turn, rotary motion valve that is used to stop, regulate, and start fluid (air, water, gas) flow in pipes. BFV are easily and quickly operated because of a 90 rotation of disc from a fully closed to fully closed to fully opened position.

NO	DESCRIPTION	MATERIAL	QTY.
01	BODY	CAST IRON. CAST STEEL / SS 304 - 316	1
02	DISC	CI / SG IRON / CAST STEEL / SS 304 - 316	1
03	SPINDLE	SS 410 / 304 / 316	1
04	BODY LINING	NITRILE / EPDM / SILICON / VITON / HYPALON	-
05	"O" RING	NITRILE / EPDM	1
06	PIN	SS 304 / 316	1
07	LEVER	MS FABRICATED	1



SEAT TYPE	TEMPERATURE RANGE	
	MINIMUM	MAXIMUM
NITRILE	-13° F (-25° C)	212° F (100° C)
EPDM	-13° F (-25° C)	250° F (120° C)
SILICON	-58° F (-50° C)	356° F (180° C)
VITON	-23° F (-5° C)	392° F (200° C)
HYPALON	-4° F (-20° C)	250° F (120° C)

TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	BS 5155 / API 609 / EN 593 / IS 13095
FACE TO FACE DIMENSION	BS 5155 / ISO 5792 / API 609
TOP FLANGE DRILLING	ISO 5211
INSPECTION & TESTING	BS 6755 PART -1 / API 598 / EN 1266-1
FLANGE STANDARD CONFORMITY	ANSI 150 / ANSI 125 / BS 10 TAB D & E
	IS 6392 NP 0.6 / 1.0 / 1.6



SIZE		A	B	C	D	E	F	G	TOP FLANGE MOUNTING (I.S.O. 5211)
IN.	M.M.								
1.1/2"	40	36	92	52	40	65	180	15	F 05
2"	50	43	103	70	50	65	180	15	F 05
2.1/2"	65	46	110	76	63	65	180	15	F 05
3"	80	46	118	85	76	65	215	15	F 05
4"	100	52	148	102	100	65	215	15	F 05
5"	125	56	164	115	125	65	215	15	F 05
6"	150	56	176	130	150	65	265	15	F 05
8"	200	60	230	156	200	75	325	15	F 07

PRESSURE RATING	HYDROSTATIC SHELL TEST		HYDROSTATIC SHELL TEST	
	KG / CM2	PSIG	KG / CM2	PSIG
PN 16	22	310	16	225
PN 10	15	210	10	140

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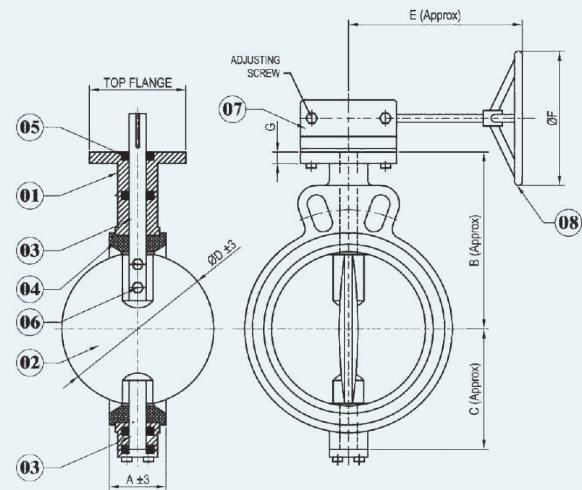
"ORBIS" make butter fly valves is a quarter turn,rotary motion valve that is used to stop,regulate, and start fluid (air, water, gas) flow in pipes. BFV are easily and quickly operated because of a 90 rotation of disc from a fully closed to fully closed to fully opened position.

NO	DESCRIPTION	MATERIAL	QTY.
01	BODY	CAST IRON / CAST STEEL / SS 304-316	1
02	DISC	CI / SG.IRON / CAST STEEL / SS 304-316	1
03	SPINDLE	SS 410 / 304 / 316	1
04	BODY LINING	NITRILE / EPDM / SILICON / VITON / HYPALON	--
05	"O" RING	NITRILE / EPDM	1
06	PIN	SS 304 / 316	1
07	GEAR BOX	CAST IRON	1
08	HAND WHEEL	MS FABRICATED	1



SEAT TYPE	TEMPERATURE RANGE	
	Minimum	Maximum
NITRILE	-13° F (-25°C)	212° F (-25°C)
EPDM	-13° F (-25°C)	250° F (120°C)
SILICON	-58° F (-50°C)	356° F (180°C)
VITON	-23° F (-5°C)	392° F (200°C)
HYPALON	-4° F (-20°C)	250° F (120°C)

PRESSURE RATING	HYDROSTATIC SHELL TEST		HYDROSTATIC SHELL TEST	
	Kg/CM <sup>2</sup>	PSI	Kg/CM <sup>2</sup>	PSI
PN 16	22	310	16	225
PN 10	15	210	10	140



SIZE M.M	IN.	A	B	C	D	E	F	G	TOP FLANGE MOUNTING (I.S.O. 5211)
200	8"	60	230	156	200	285	300	15	F 10
250	10"	68	266	196	250	285	350	18	F 10
300	12"	78	300	230	298	285	350	18	F 12
350	14"	92	320	272	348	300	350	22	F 12
400	16"	102	385	302	394	305	500	22	F 14
450	18"	114	405	325	433	305	500	24	F 14

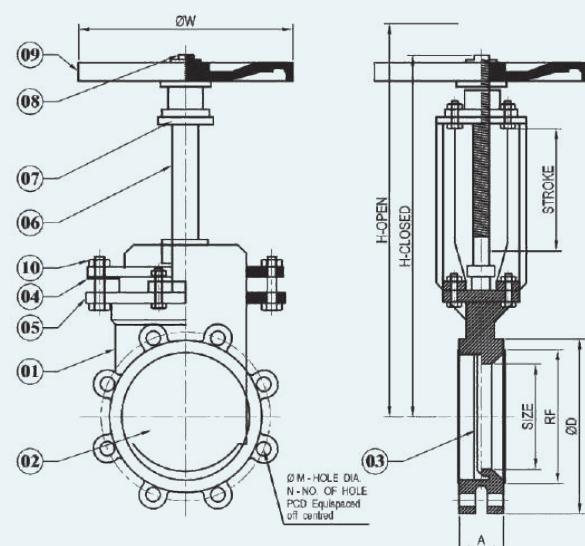
TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	BS 5155 / API 609 EN 593 / IS 13095
FACE TO FACE DIMENSION	BS 5155 / ISO 5792 / API 609
TOP FLANGE DRILLING	ISO 5211
INSPECTION & TESTING	BS 6755 PART -1 / API 598 / EN 1266-1
FLANGE STANDARD CONFORMITY	ANSI 150 / ANSI 125 / BS 10 TAB D & E
	IS 6392 NP 0.6 / 1.0 / 1.6

"Complete global flow control and solution"

"ORBIS" make knife edge gate valve are advantageous in sledge and slurry applications because their blades cut right through thick liquids easily, they are specified in larger sizes for handling thick flows of heavy oils, light grease, slurry paperpulp, varnish and wastewater to name but few knife gate valve application.

NO	DESCRIPTION	MATERIAL	QTY.
01	BODY	WCB / CF 8 / CF8M	1
02	GATE	SS 410 / SS 304 / SS 316	1
03	SEAT	METAL TO METAL, EPDM, PTFE	1
04	GLAND PACKING	PTFE / GRAPHITE	1
05	GLAND	CI / WCB / Cf8 / CF8M	1
06	STEM	SS 410 / SS 304	1
07	YODE SLEEVE	GUN METAL	1
08	STEAM NUT	SG IRON	1
09	HAND WHEEL	SG IRON	1
10	NUT & BOLTS	CS / MS	4

TECHNICAL DATA	
DESIGN & MANUFACTURING STD.	MSS - SP 81
FACE TO FACE :	
END CONNECTIONS :	
TESTING STD.:	MSS - SP 81



PRIMARY SERVICE RATING & TEST PRESSURE					
CLASS	WORKING PRESSURE	TEMP.	HYD. TEST PRESSURE	BODY	SEAT
150	150 PSIG (21 Kg/Cm <sup>2</sup> )	200° F	425 PSIG	40 PSIG	

SIZE		CLASS - 150								
IN.	M.M.	A	ØC	ØD	ØM	N	P.C.D.	ØW	H.OPEN	H-CLOSED
2"	40	47.6	152	92	16	4	120	203	406.4	346
3"	80	50.8	184	152	16	4	152	203	501	406.4
4"	100	50.8	228.6	156	16	8	190.5	203	549	450
6"	150	57.15	279	216	19	8	241.3	305	705	549
8"	200	69.85	343	270	19	8	298.5	305	882	680
10"	250	69.85	406	324	22	12	362	381	1085	816
12"	300	76.20	482	381	22	12	432	381	1235	924
14"	350	76.20	533	413	25	12	476	381	1403	1066.8
16"	400	89	597	470	25	16	540	508	1603	1187
18"	457	89	635	533	28.5	16	578	508	1790	1330
20"	508	114	698.5	584	28.5	20	635	508	2457	1936
24"	610	114	813	693	31.75	20	750	508	2949	2317





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[orbisvalves@gmail.com](mailto:orbisvalves@gmail.com)



06 - Nilkanth Avenue, B/H Palm Hotel  
S.P Ring Rode, Odhav, Ahmedabad-  
382450