

NELES INDIA HIGH PERFORMANCE DOUBLE OFFSET BUTTERFLY VALVE

FEATURES

Product description

- Double eccentric butterfly valves designed according to EN 593, IS: 13095, AWWA C504, AWWA C516.
- Sizes up to DN 5000 (NPS 200)

Test/Approvals

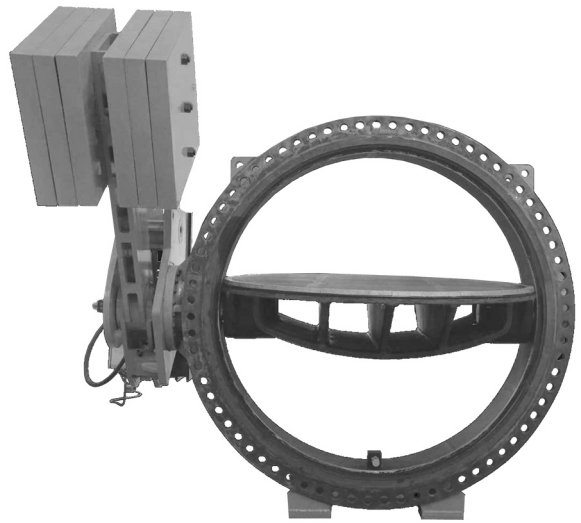
- Hydraulic test according to EN 12266.

Principle

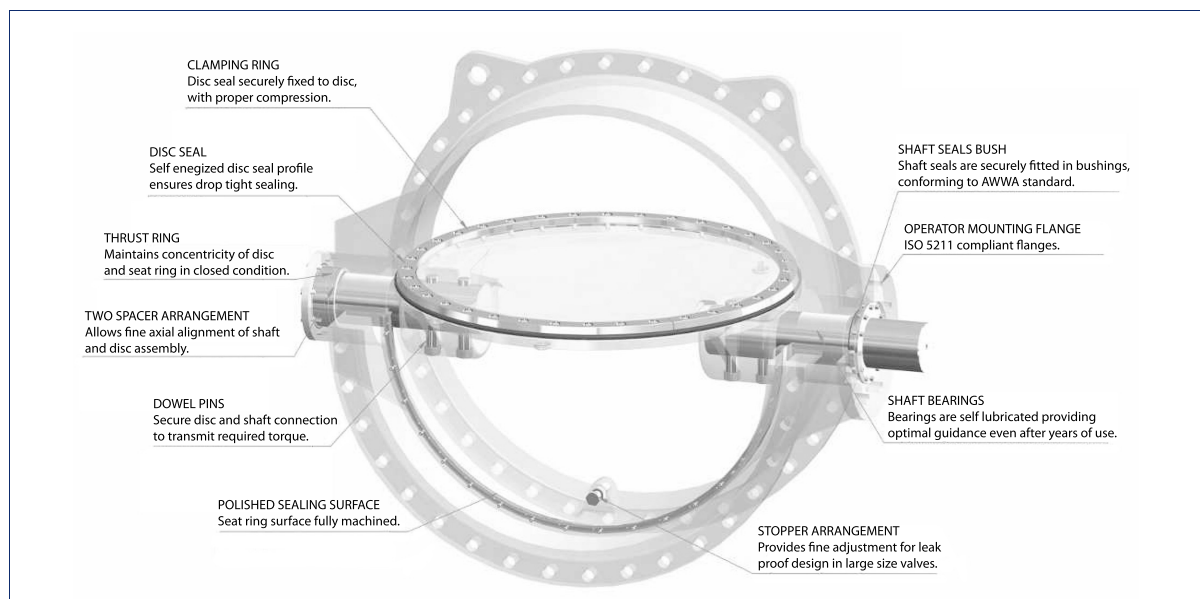
- The offset disc releases the compression of the disc sealing after a few degrees of opening, which extends the durability and gives low operating torques.

Features

- A streamline disc profile provides smooth flow and ensures low pressure drop.
- Disc assembly perfectly aligned and secured in valve body bore to prevent uneven seal wear and disc fluttering.
- Special self energising sealing system to handle varying pressure conditions.
- The disc seal profile ensures low closing torques
- Stainless steel seal retainer ring, is in a segmental form, for a large diameter valve to facilitate uniform seal seating and ease in rebuilding the valve.
- Seat seal can be replaced while the valve is in the pipeline.
- Replaceable version of seat ring is fixed by fasteners and sealed by an O-ring.
- Stainless steel shaft with self-lubricating bearings.
- Optionally, lined valves for severe applications are available.



Valve can be used as a chamberless valve / buried valve with extension.



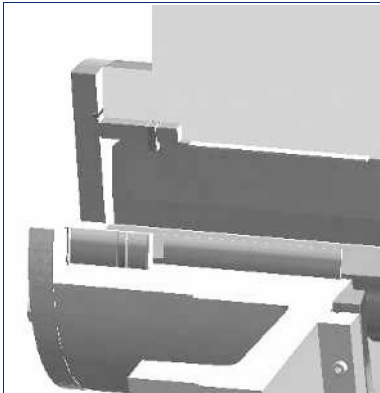
WHY NELES BUTTERFLY VALVE

DOES YOUR VALVE LEAK DUE TO LOOSENING OF CLAMP RING FASTENERS?



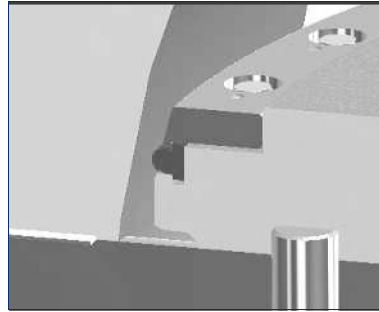
Each bolt is fixed with a lock washer. This ensures continuous faultless operation under vibration, pressure change etc.

DOES YOUR VALVE SEAL WEAR DUE TO UNEVEN SEALING OR SEATING?



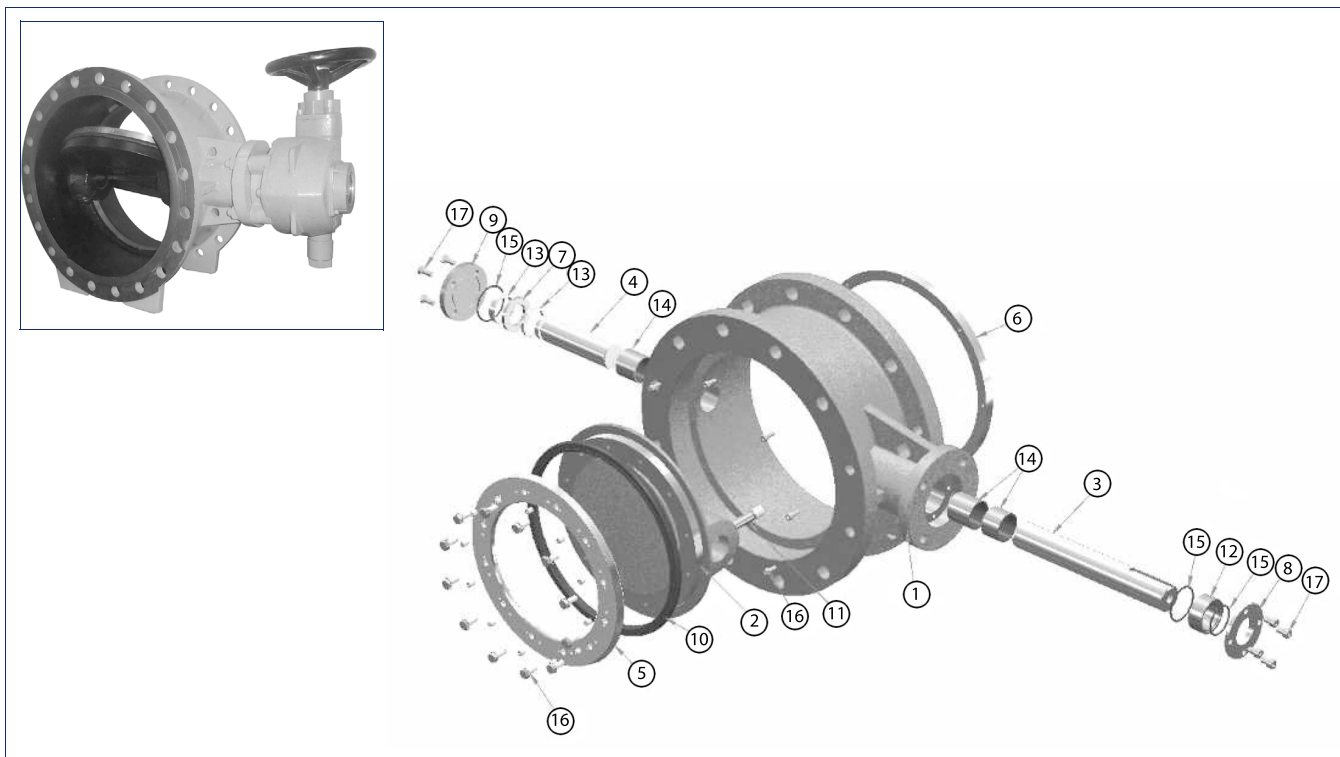
Dual spacer provision ensures disc assembly is perfectly centered, and adjustable spacer ensures flexibility of centering the disc during assembly.

DOES YOUR VALVE LEAK DUE TO THE SEAL COMING OUT?



Neles has years of experience perfecting sealing technology. This technology has generated a unique T seal which precisely fits into the groove. Ensures that the seal will not come out during flow, vibration, long time closed condition, etc.

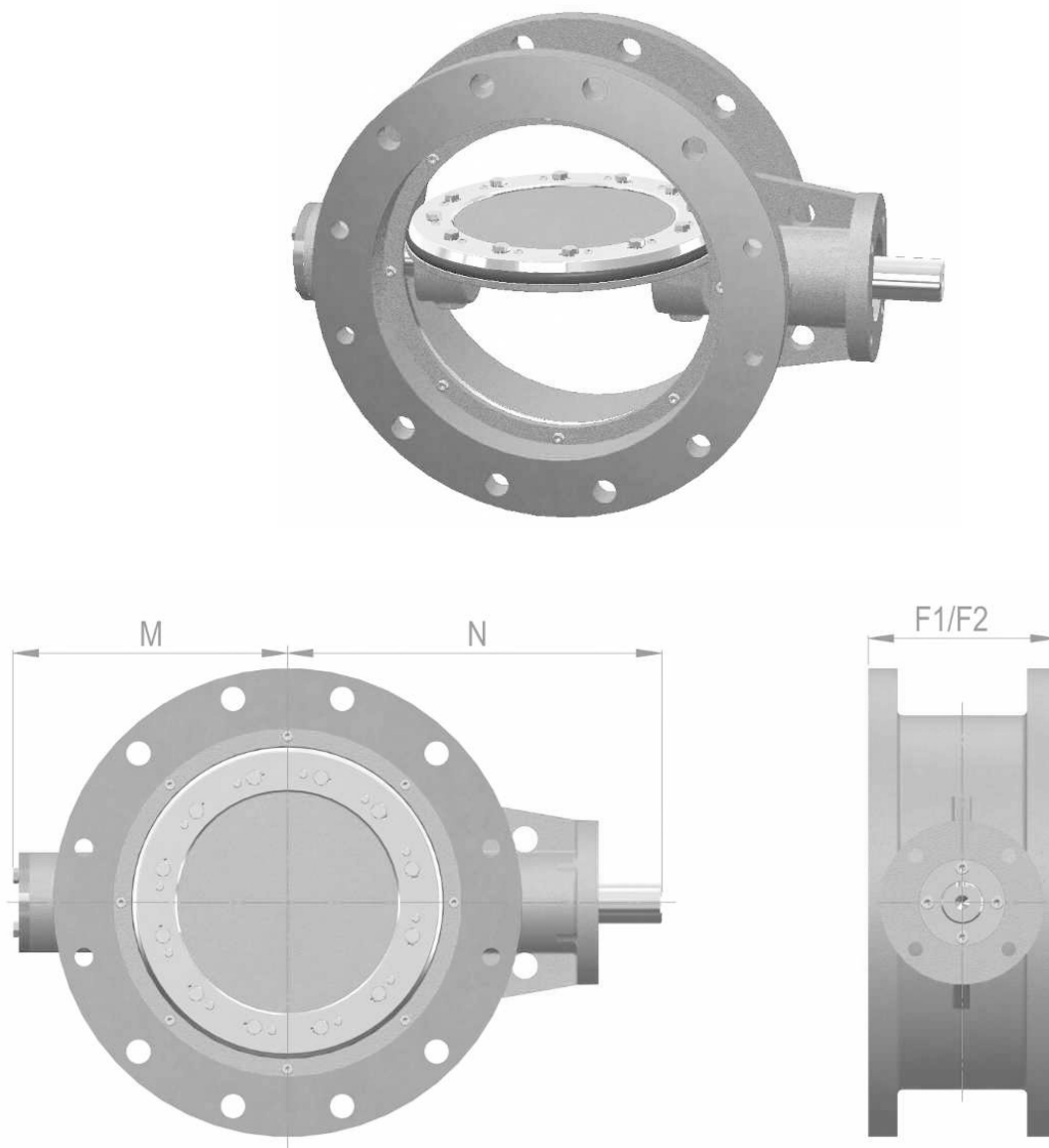
EXPLODED VIEW



SR. NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
1	BODY	CI FG260/ CI FG300/ 2% Ni CI 260/ CS WCB/ SGI 400/15/ SGI 500/7/ SS CF8/ SS CF8M
2	DISC	CI FG260/ CI Fg300/ 2% Ni CI 260/ CS WCB/ SGI 400/15/ SGI 500/7/ SS CF8/ SS CF8M
3	DRIVE SHAFT	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
4	NON DRIVE SHAFT	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
5	CLAMPING RING	CS WCB/ SS CF8/ SS CF8M/ SS CF3/ SS CF3 M/ MS Fe E250
6	BODY SEAT RING	SS 304/ SS 304L/ SS 316/ SS 316L/ SS 410/ SS 431/ BOLTED OR INTEGRAL
7	THRUST RING	BRONZE IS:318, Gr. LTB2/ SS A276 316/ SS A276 316L
8	DRIVE END COVER	MS / STAINLESS STEEL
9	NON DRIVE END COVER	MS / STAINLESS STEEL
10	VALVE SEAL	NITRILE RUBBER/EPDM RUBBER/VITON RUBBER/SILICON RUBBER/ FLUOROSILICONE/ FOOD GRADE EPDM/ PTFE
11	DOWEL PIN	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
12	DRIVE SHAFT SLEEVE	MS /STAINLESS STEEL
13	SPACER	MS / STAINLESS STEEL
14	SLEEVE BEARINGS	SS BACKED PTFE
15	'O'RINGS/SHAFT SEALS	NITRILE RUBBER/EPDM RUBBER/VITON RUBBER/SILICON RUBBER
16	INTERNAL FASTENERS	SS 304/ SS 304L/ SS 316/ SS 316L
17	EXTERNAL FASTENERS	CS/ HTS/ SS 304/ SS 304L/ SS 316/ SS 316L

W152-3EN - 11/2020

GENERAL ARRANGEMENT



Normal Size	F1 (SHORT BODY)	F2 (LONG BODY)	M (Approx.)	N (Approx.)
80	114	180	125	210
100	127	190	135	225
150	140	210	165	250
200	152	230	195	280
250	165	250	230	350
300	178	270	265	380
350	190	290	300	415
400	216	310	325	460
450	222	330	355	560
500	229	350	390	620

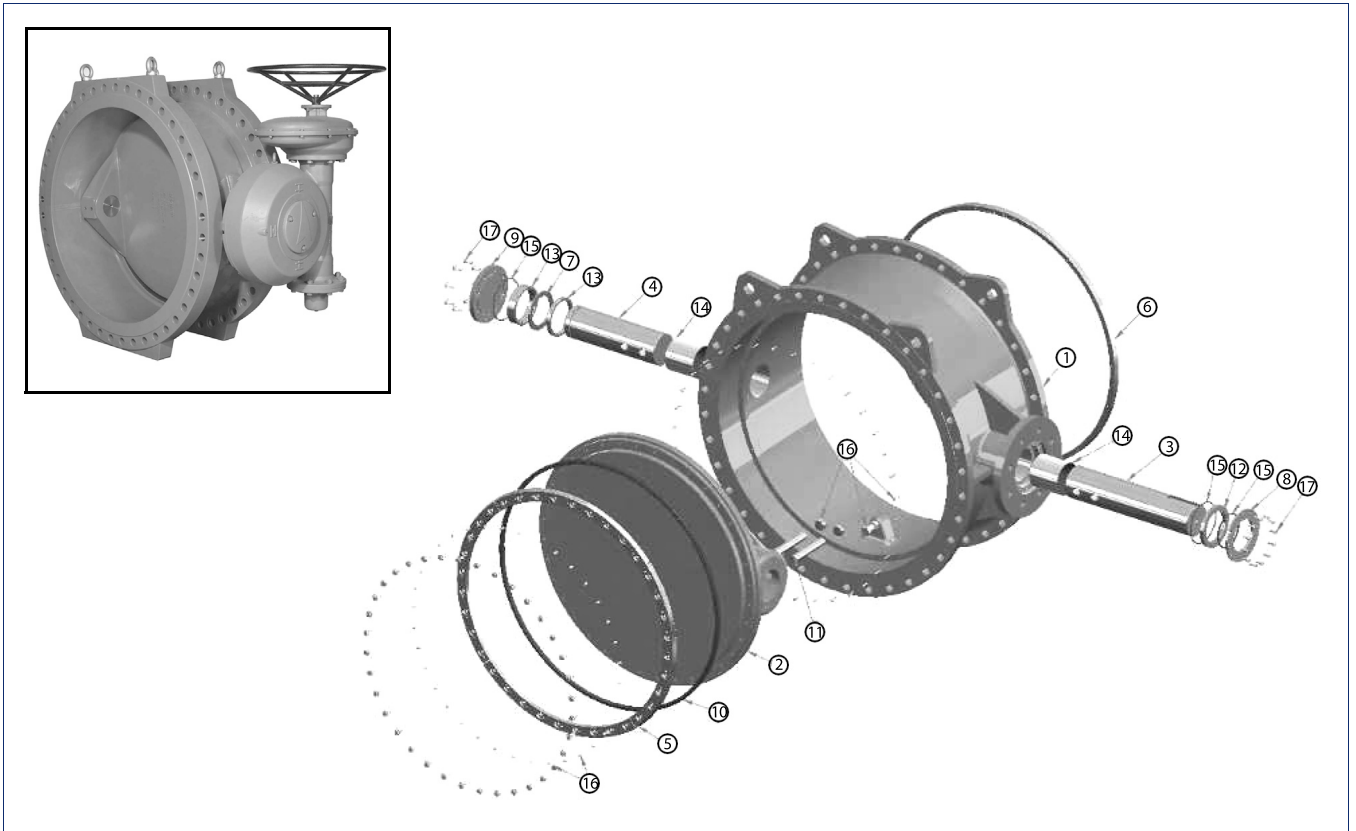
Note:

1. Dimensions M and N may vary depending upon valve pressure rating and type of actuation.
2. All dimensions are in mm

DOUBLE FLANGE DESIGN BUTTERFLY VALVE

600 MM AND ABOVE

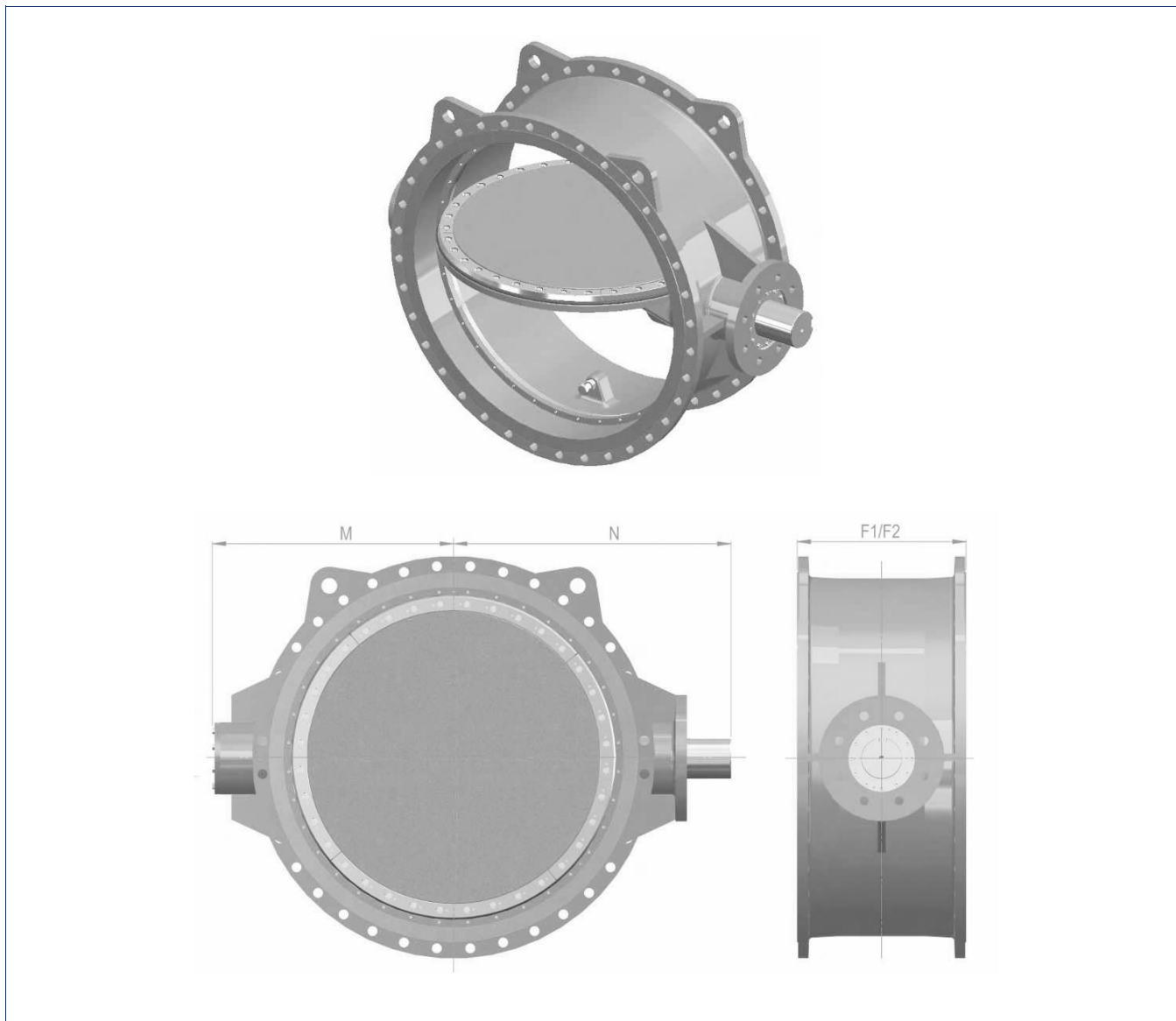
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4	NON DRIVE SHAFT	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
5	CLAMPING RING	CS WCB/ SS CF8/ SS CF8M/ SS CF3/ SS CF3 M/ MS Fe E250
6	BODY SEAT RING	SS 304/ SS 304L/ SS 316/ SS 316L/ SS 410/ SS 431/ BOLTED OR INTEGRAL
7	THRUST RING	BRONZE IS:318, Gr. LTB2/ SS A276 316/ SS A276 316L
8	DRIVE END COVER	MS / STAINLESS STEEL
9	NON DRIVE END COVER	MS / STAINLESS STEEL
10	VALVE SEAL	NITRILE RUBBER/EPDM RUBBER/VITON RUBBER/SILICON RUBBER/ FLUOROSILICONE/ FOOD GRADE EPDM/ PTFE
11	DOWEL PIN	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
12	DRIVE SHAFT SLEEVE	MS /STAINLESS STEEL
13	SPACER	MS / STAINLESS STEEL
14	SLEEVE BEARINGS	SS BACKED PTFE
15	O'RINGS/SHAFT SEALS	NITRILE RUBBER/EPDM RUBBER/VITON RUBBER/SILICON RUBBER
16	INTERNAL FASTENERS	SS 304/ SS 304L/ SS 316/ SS 316L
17	EXTERNAL FASTENERS	CS/ HTS/ SS 304/ SS 304L/ SS 316/ SS 316L

*Components may be substituted with equivalent or higher class materials without prior notification

GENERAL ARRANGEMENT



BSEN 593 / IS 13095

Normal size	Face to face		M	N
	F1 (SHORT BODY)	F2 (LONG BODY)		
600	267	390	455	620
700	292	430	520	670
800	318	470	580	780
900	330	510	620	850
1000	410	550	690	925
1200	470	630	800	1070
1400	530	710	950	1260
1500	565	750	1055	1320
1600	600	790	1050	1410
1800	670	870	1170	1580
2000	760	950	1270	1640
2200	590	1030	1370	1810
2400	660	1110	1490	1950
2500	660	1150	1600	2020
2600	660	1190	1650	2100

1. Dimensions M and N may vary depending upon valve pressure rating and type of actuation.
 2. All dimensions are in mm.

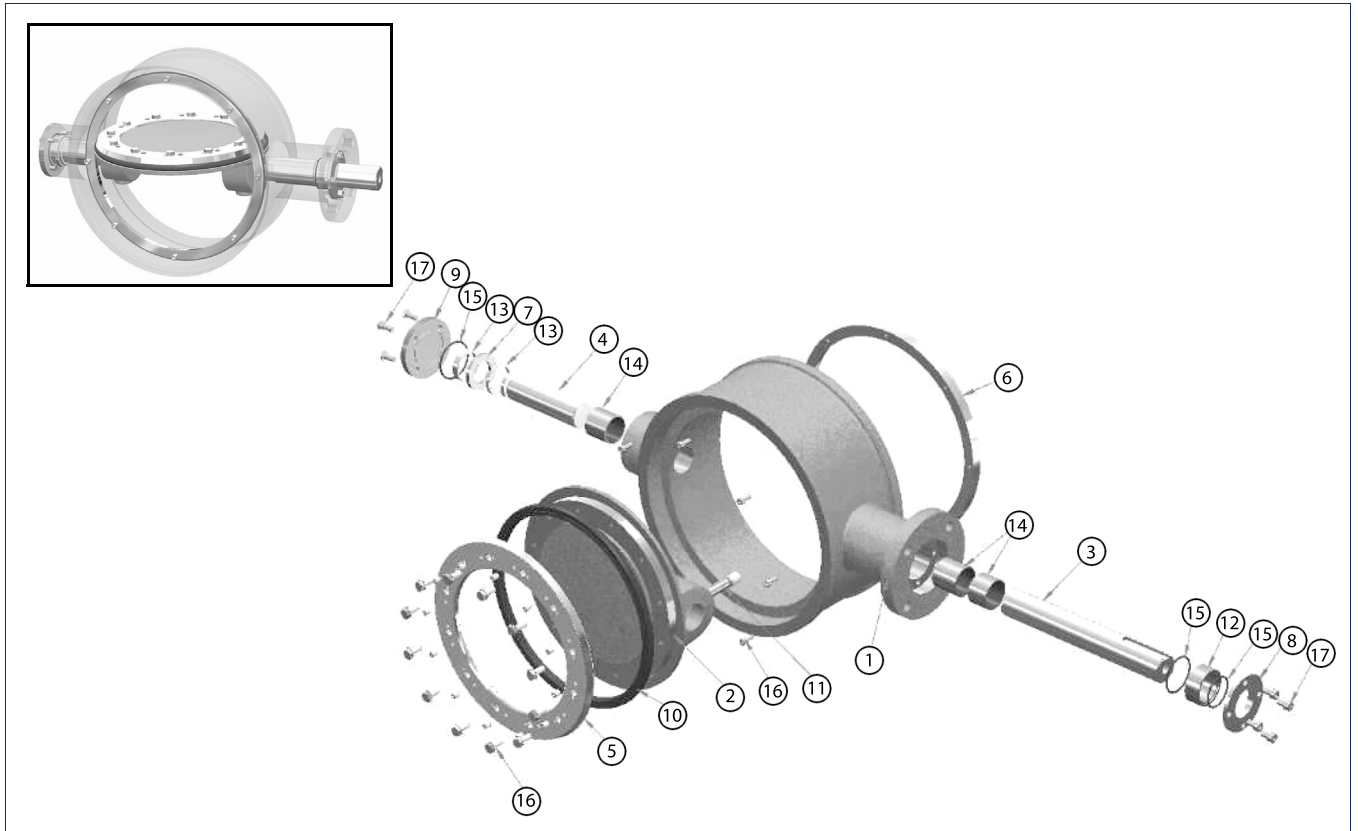
AWWA C - 504 / AWWA C - 516

Normal size	Face to face F1 (SHORT BODY)	M	N
600	203	450	620
750	305	540	690
900	305	620	850
1050	305	700	975
1200	381	820	1070
1350	381	890	1120
1500	381	980	1320
1600	457	1050	1410
1700	457	1105	1470
1800	457	1170	1580
2000	590	1220	1640
2100	590	1350	1780
2200	590	1370	1810
2400	660	1490	1950
2600	660	1650	2100

WAFER DESIGN BUTTERFLY VALVE

80-500 MM

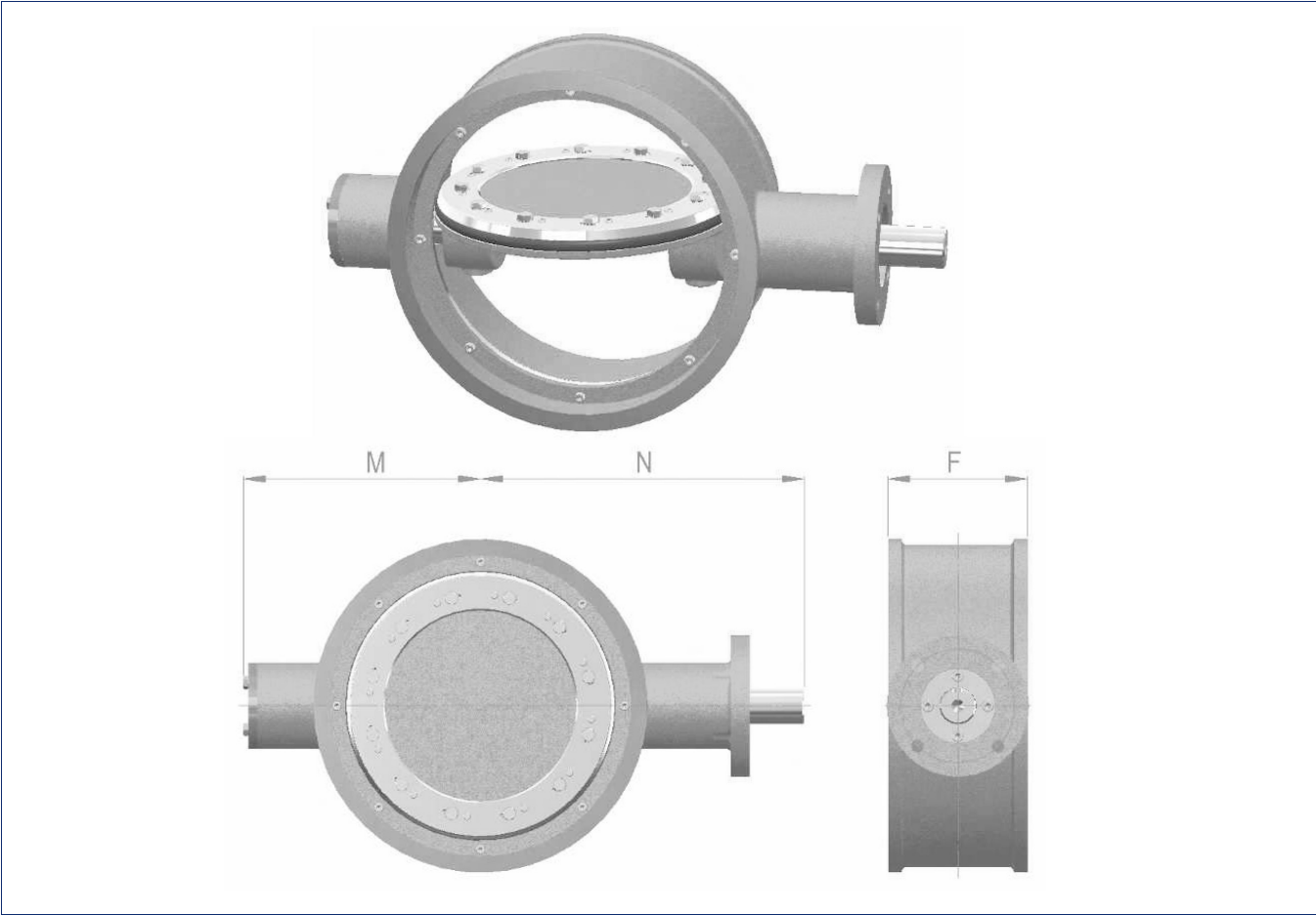
EXPLODED VIEW



SR. NO.	PART DESCRIPTION	MATERIAL DESCRIPTION
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3	DRIVE SHAFT	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
4	NON DRIVE SHAFT	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
5	CLAMPING RING	CS WCB/ SS CF8/ SS CF8M/ SS CF3/ SS CF3 M/ MS Fe E250
6	BODY SEAT RING	SS 304/ SS 304L/ SS 316/ SS 316L/ SS 410/ SS 431/ BOLTED OR INTEGRAL
7	THRUST RING	BRONZE IS:318, Gr. LTB2/ SS A276 316/ SS A276 316L
8	DRIVE END COVER	MS / STAINLESS STEEL
9	NON DRIVE END COVER	MS / STAINLESS STEEL
10	VALVE SEAL	NITRILE RUBBER/EPDM RUBBER/VITON RUBBER/SILICON RUBBER/ FLUOROSILICONE/ FOOD GRADE EPDM/ PTFE
11	DOWEL PIN	SS 410/ SS 420/ SS 431/ SS 304/ SS 304L/ SS 316/ SS 316L/ SS 431S29
12	DRIVE SHAFT SLEEVE	MS /STAINLESS STEEL
13	SPACER	MS / STAINLESS STEEL
14	SLEEVE BEARINGS	SS BACKED PTFE
15	O'RINGS/SHAFT SEALS	NITRILE RUBBER/EPDM RUBBER/VITON RUBBER/SILICON RUBBER
16	INTERNAL FASTENERS	SS 304/ SS 304L/ SS 316/ SS 316L
17	EXTERNAL FASTENERS	CS/ HTS/ SS 304/ SS 304L/ SS 316/ SS 316L

Components may be substituted with equivalent or higher class materials without prior notification

GENERAL ARRANGEMENT AND DIMENSIONS



Normal size	F WAFLR LONG)	M (Approx.)	N (Approx.)
80	64	125	210
100	64	135	225
150	76	165	250
200	89	195	280
250	114	230	350
300	114	265	380
350	127	300	415
400	140	325	460
450	152	355	560
500	152	390	620

Note:

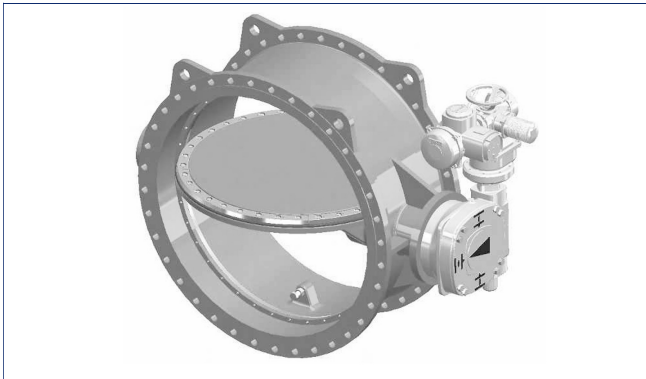
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2. All dimensions are in mm

VARIATIONS AND CUSTOMIZATIONS



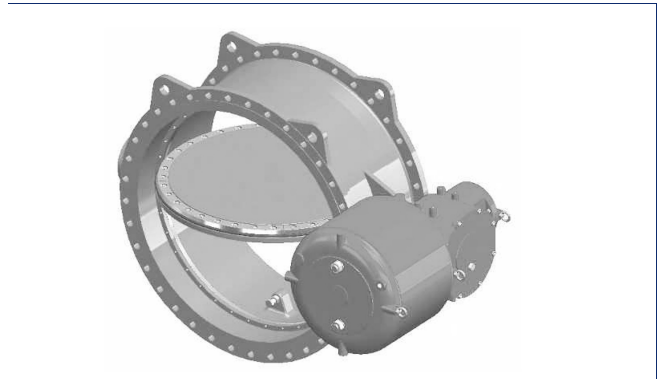
MANUAL GEAR BOX OPERATED

Operators are suitable for manual operation. End stops are provided to ensure open and shut rotation.



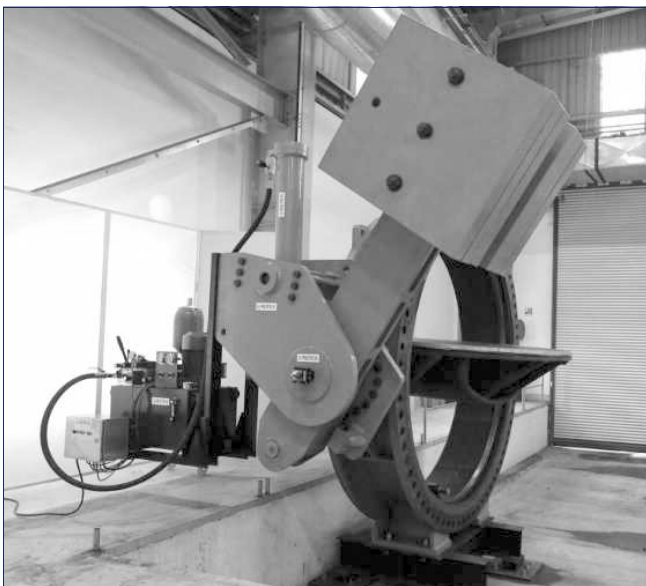
ELECTRICAL ACTUATOR OPERATED

Recommended where frequent and remote operation is required.



PNEUMATIC ACTUATOR OPERATED

Recommended for fast operation, fail safe arrangement is possible, can also be provided with manual override with the help of declutching mechanism.



ELECTROHYDRAULIC ACTUATOR OPERATED

Recommended for pump discharge valves with dead weight to ensure emergency closure on flow reversal.



HOW TO ORDER

1.	DESIGN STD, ECCENTRICITY, BODY TYPE & FACE TO FACE
2A	BSEN 593 , DOUBLE ECC, DOUBLE FLANGE, SHORT
2B	BSEN 593 , DOUBLE ECC, DOUBLE FLANGE, LONG
2C	IS:13095 , DOUBLE ECC, DOUBLE FLANGE, SHORT
2D	IS:13095 , DOUBLE ECC, DOUBLE FLANGE, LONG
2E	AWWA C-504 , DOUBLE ECC, DOUBLE FLANGE, SHORT
2F	AWWA C-504 , DOUBLE ECC, DOUBLE FLANGE, LONG
2G	BSEN 593, DOUBLE ECC, WAFER
2H	IS:13095, DOUBLE ECC, WAFER

2.	VALVE SIZE
3	DN80
4	DN100
6	DN150
8	DN200
10	DN250
12	DN300
14	DN350
16	DN400
18	DN450
20	DN500
24	DN600
28	DN700
32	DN800
36	DN900
40	DN1000
44	DN1100
48	DN1200
56	DN1400
60	DN1500
64	DN1600
68	DN1700
72	DN1800
80	DN2000
88	DN2200
96	DN2400
9A	DN2500
9B	DN2600

3.	PRESSURE RATING
1	PN 6 / PN0.6
2	PN10 / PN1.0
3	PN16 / PN1.6
4	75# A
5	150# A
6	75# B
7	150# B

4.	BODY MATERIAL
01	CI Gr.FG260
02	CI Gr.FG300
03	2% NiCI Gr.260
04	MS E250, A
05	MS E250, BR
06	CS WCB
07	SGI 500/7
08	SGI 400/15
09	SS CF8M
10	SS CF8

5.	DISC MATERIAL
01	CI Gr.FG260
02	CI Gr.FG300
03	2% NiCI Gr.260
04	MS E250, A
05	MS E250, BR
06	CS WCB
07	SGI 500/7
08	SGI 400/15
09	SS CF8M
10	SS CF8

6.	SHAFT MATERIAL
01	SS 410
02	SS 420
03	SS 431
04	SS 431S29
05	SS 304
06	SS 304L
07	SS 316
08	SS 316L

7.	VALVE SEAL MATERIAL
NB	NBR
EP	EPDM
SL	SILICON
VT	VITON
PT	PTFE
FS	FLUROSILICON
FE	FOOD GRADE EPDM

8.	SEAT RING MATERIAL
01	SS 304 (BOLTED)
02	SS 304L (BOLTED)
03	SS 316 (BOLTED)
04	SS 316L (BOLTED)
05	SS 410 (BOLTED)
06	SS 431 (BOLTED)
07	SS 304 (WELDED)
08	SS 304L (WELDED)
09	SS 316 (WELDED)
10	SS 316L (WELDED)
11	SS 410 (WELDED)
12	SS 431 (WELDED)

9.	CLAMPING RING MATERIAL
01	MS E250, BR +Std. Screw
02	CS WCB +Std. Screw
03	SS CF8+Std. Screw
04	SS CF8M +Std. Screw
05	SS CF3 +Std. Screw
06	SS CF3 M +Std. Screw
07	MS E250, BR +Set Flush Screw
08	CS WCB + Set Flush Screw
09	SS CF8 + Set Flush Screw
9A	SS CF8M + Set Flush Screw
9B	SS CF3 + Set Flush Screw
9C	SS CF3 M + Set Flush Screw

10.	FLANGE DRILLING CONNECTION
1	IS:1538, Table 4 & 6
2	IS:1538, Table 5 (RF)
3	BS 10, Table D
4	BS 10, Table E
5	BSEN1092 PN10 (Bs4504)
6	BSEN1092 PN16 (Bs4504)
7	BSEN1092 PN25 (Bs4504)
8	ASAB16.1CL125/B16.5CL150(FF)
9	ANSI B16.5 CL150(RF)
A	IS:6392 TABLE 11
B	IS:6392 TABLE 17
C	AWWA C207 CL-B (86 PSI)
D	AWWA C207 CL-D (175-150 PSI)
E	WAFFER ENDS
F	Undrilled flanges
G	As per Customer's specs.

11.	MODE OF OPERATION
L	LEVER (Up to 150mm Size)
G	GEAR
B	BARE

12.	SPECIALTY
1	NA
2	YES (REFER ORDER)

Neles

Vanha Porvoontie 229, 01380 Vantaa, Finland.
Tel. +358 10 417 5000.

neles.com

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