

# UNIMAC BUTTERFLY VALVES



Wafer type butterfly valve with an integrally bonded elastomer liner. Requiring absolutely no form of maintenance the **UNIMAC** is a perfect "Fit and forget" valve. Available with either a flangeless or lugged body, in a size range of 50-600 mm, a pressure rating of up to PN 16 and offered with latching lever or actuation as well as different combination of disc and seat materials, "UNIMAC" is a truly versatile valve.

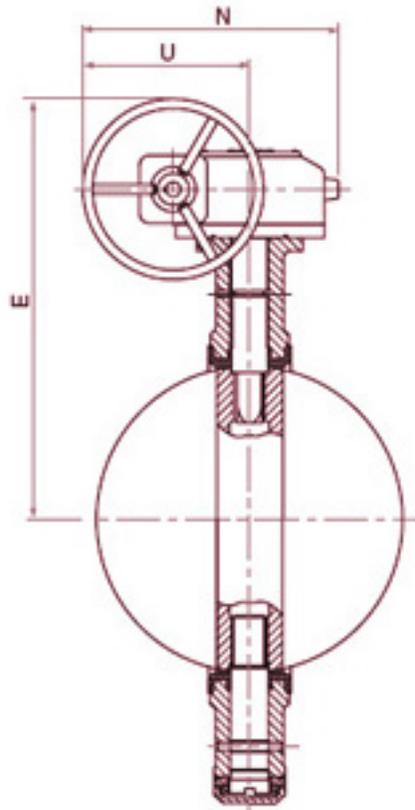
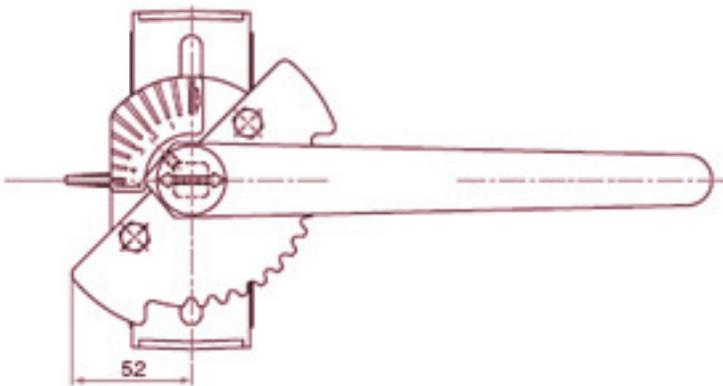
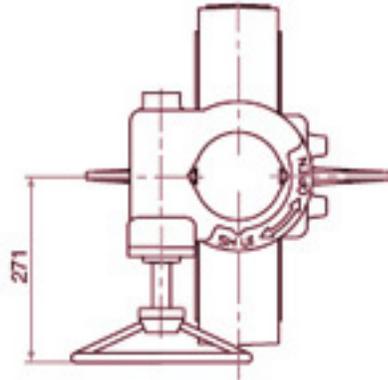
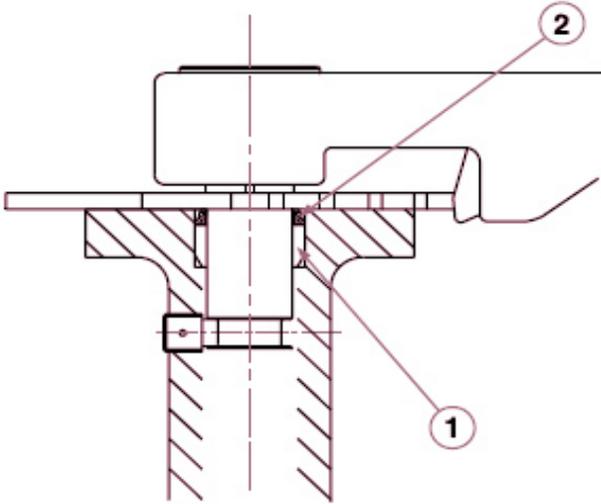
Features	Benefits
Integrally bonded body seat	Easy And Trouble free mounting in the pipeline. No maintenance. No tearing and distortion of liner. Exceptionally long seat life. Uniform sealing. Suitable for vacuum and high flow applications.
Stainless steel fully machined shaft (Optional) PTFE coated	Permanent dry lubrication. Ease of operation. Prevents corrosion on shaft.
Primary and secondary seals integral with body lining	Ensures compatibility with media
Different disc and seat combination available	Suitable for a wide range of applications.
Weatherseal feature	Atmospheric sealing to valve internals.
Spherical machined and polished disc (optional)	Ensures longer seat life, easier operation and tight shut-off.

## Applications

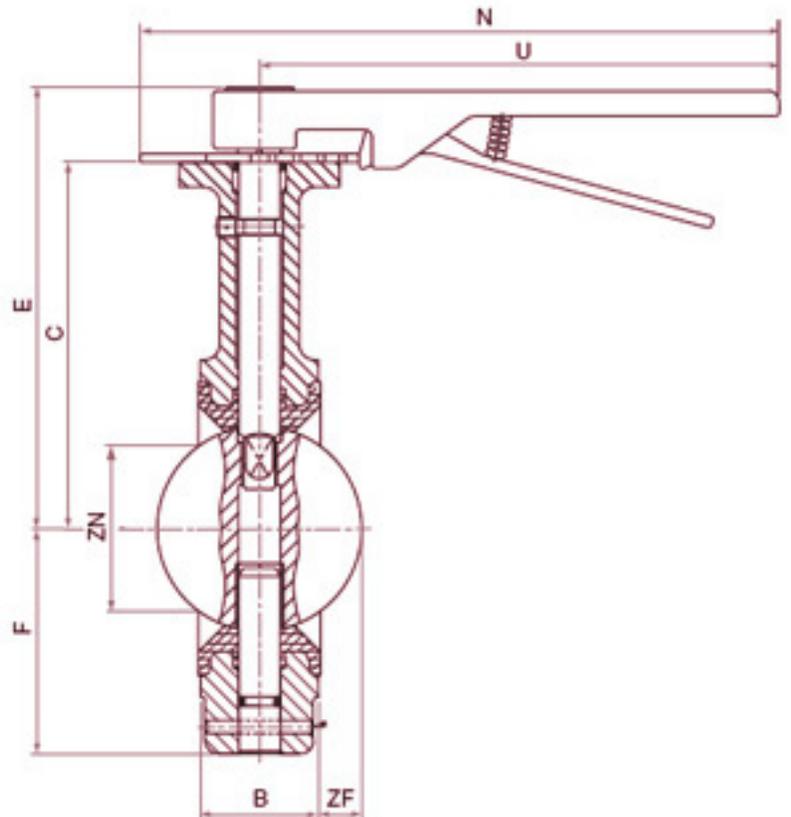
General Applications	Continuous Working Temperature Range	Maximum Working Pressure	Disc Material	Seat Material
Oils, fuels, water, air, gases, powders, pellets, slurries etc	Hydrocarbons (Except aromatics) - 10C to 90C Other Liquids - 10C to 80C Dry Services - 10C to 60C	16 bar	Epoxy coated SG iron	Black Nitrile
Brines, sea water, estuary water, marine bilge and ballast systems	Liquids - 10C to 80C	16 bar	Aluminium Bronze	
Steam, water, hot gases, powders, slurries and aqueous slurries of an abrasive nature	Liquids - 10C to 120C Dry services - 10C to 100C	16 bar	Stainless steel Periphery Polished	General Purpose EPDM

### Additional Feature

1. O ring is provided to reduce the actuator torque and atmospheric sealing of the valve interior.
2. It is provide for up to 600 mm dia.
3. Long extended Neck for insulation purpose on request.
4. Detachable hand lever to stop misuse of valve
5. Special material combination as per buyers' request.



Valve with gear unit



Valve with lever

Valve size mm (Inches)	50 (2)	65 (2.5)	80 (3)	100 (4)	125 (5)	150 (6)	200 (8)	250 (10)	300 (12)	350 (14)	400 (16)	450 (18)	500 (20)	600 (24)
B	43.5	45.5	45.5	53	56.5	56.5	61	68.5	79	79	103	115	128	155
C	140	153	160	178	194	203	239	271	310	318	370	410	440	500
E - Flow control lever	180	193	200	218	234	243	306	338	377	-	-	-	-	-
Standard gear unit	427	440	447	465	481	490	409	441	-	-	-	-	-	-
Heavy duty gear unit	-	-	-	-	-	-	455	488	527	535	587	790	820	880
F	65	78	85	105	118	144	169	237	272	342	377	447	477	547
H - Wafer flangeless	103	110	130	161	193	220	273	328	378	438	489	532	580	685
Wafer lugged	121	135	180	208	238	261	322	394	462	531	598	644	710	836
N - Flow control lever	311	311	311	311	311	311	619	619	619	-	-	-	-	-
Standard gear unit	152	152	152	152	152	152	267	267	-	-	-	-	-	-
HEavy duty gera unit	-	-	-	-	-	-	375	375	375	375	375	552	552	552
U - Flow control lever	268	268	268	268	268	268	508	508	508	-	-	-	-	-
Standard gear unit	76	76	76	76	76	76	187	187	-	-	-	-	-	-
Heavy duty gear unit	-	-	-	-	-	-	255	255	255	255	255	437	437	437
ZN	27	47	63	83	107	136	185	234	280	328	377	424	476	573
ZF	4	10	16	23	32	45	67	88	106	130	144	163	183	220
Handwheel dia.	152	152	152	152	152	152	250	250	-	-	-	-	-	-
- Standard gear unit	-	-	-	-	-	-	300	300	300	300	300	578	578	578
- Heavy duty gear unit	-	-	-	-	-	-	-	-	-	-	-	-	-	-



#### Pressure Rating

Seat	Rating	Test Pressures (bar)	
		Body/Disc	Seat
Black Nitrile/EPDM	16	24	17.6

#### Operation

Valve Type	Size Range(mm)
Flow Control Lever	50 to 300
Standard Gear Unit	50 to 250
Heavy Duty Gear Unit	200 to 600

Material Specification	
Part	Material of Construction
Body	Cast Iron to BS 1452 Gr 220
	SG Iron to BS 2789 Gr 420/12 Stainless steel ; ICCF8 /ICCF8M
	C/S to ASTM A216 Gr WCB
Body liner	Black Nitrile
	EPDM/ NEOPRENE /PTFE
Disc	SG Iron to BS 2789 Gr 420/12 with EPOXY coating
	Al. Bronze to BS 1400 Gr AB2/AB1
	S/S to ASTM A351 Gr CF8/CF8M edge polishd
Shaft	Fully machined SS 410 / SS304 / SS316
Bearing	
	Matching O ring as required
Standard flow control lever	MS Powder coated Iron to BS 2789 Gr 420/12

Torque Data - Nm*		
Valve Size (mm)	Line Pressur (bar)	
	14	16
50	11.5	12.5
65	16.5	19.5
80	24.5	27.5
100	35.5	40.5
125	54.5	61.5
150	82	94
200	160.5	182.5
250	245	280
300	280	319
350	452.5	514.5
400	814	926
450	1048	1193
500	1326	1507
600	2663	3030

Standards		
	Size(mm)	Standards
Face to Face	50 to 300	BS 5155 - Wafer Short API 609 - Category A MSS SP 67 - Narrow Body ISO 5752 - Short IS 13095
	350 to 600	BS 5155 - Wafer Medium PI 609 - Category A(Except DN 350) MSS SP 67 - Wide Body ISO 5752 - Medium IS 13095
Valve Design		BS 5155/IS 13095 - Specification for Butterfly Valves API 609 - Lug and Wafer type Butterfly Valves MSS SP 67 - Butterfly Valves ISO - Metal valves for use in flanged pipe system. Face to face and centre to face dimensions

### Flanges

The valves are of short pattern type and have been designed to fit between flanges without gaskets drilled to BS 10 Tables 'D', 'E', and 'F', ANSI 125/150, DIN PN 10/16, BS 4504(PN 10/16), Tables 6 to 9 of IS : 6418, Table 10 to 20 of IS : 6392 and Tables 4 to 6 of IS : 1538

### Accessories

UNIMAC butterfly valves can be supplied with factory fitted pneumatic, hydraulic or electric actuators along with other accessories such as limit switches, manual overrides, positioners etc. to form a complete flow control package. Heavy duty gear unit are supplied for valves to be fitted with electric actuators.

Installation, Operating and Maintenance instructions for the are available on request.

**Note : Due to constant up gradation, dimensions are subject to change by the manufacturer.**