



HIGH PERFORMANCE BUTTERFLY VALVE

MODEL**HPMB****HIGH PERFORMANCE BUTTERFLY VALVE**

The HPMB valve has a double offset disc that seals against a torque energized seat. It can provide tight shutoff from vacuum to the pressure rating without any modifications. The two-piece stem is available with soft seat, metal seat or API 607 fire-safe. Soft seat provide excellent sealing capabilities in both directions. The pressure-assisted metal seal ring provides excellent

shutoff against pressure applied in the recommended flow direction for both liquid and gas applications.

GENERAL APPLICATION

- Chemical and petrochemical industries
- Oil and Gas
- Air Separation
- Pulp & paper mills
- Combustion plants
- Steel mills
- Hot water and steam systems
- District heat supply
- Vacuum systems
- Shipbuilding
- Gas process technology
- Food industries
- Heavy duty services

CONSTRUCTION & DESIGN

- Shut-off and control of gaseous and liquid media
- Disc and shaft have double offset bearing
- Seal variants: Soft sealing (PTFE) 230°C max; metallic sealing (INCONEL) 450°C max.
- Maintenance-free
- Long service life, even at high switching frequencies
- DN 80 - DN 600 respectively 3" - 24" (Larger size on request)
- Nominal pressure ASME B16.5 RF Class 150 - 300
- Temperature rating from -29°C to +450°C (High temperature on request)
- Connection design: Wafer, Lugged, Flanged
- Fire safe tested design

TECHNICAL FEATURES**The double offset principle**

Due to the double displacement of the shaft the disc is raised up from the seat at the beginning of the opening movement. The seat is then free from heavy pressure over the whole circumference, this means that 90° turning is frictionless at even reduced torques.

Excellent tightness

With increasing differential pressure the contact pressure of the seat against the spherical sealing area of the disc is increased. The sealing function gets higher with rising differential pressure and ensures absolute tightness at lowest differential pressures up to PN 40 / PN 63

Reliability

The double eccentric principle with spherical sealing surface at the disc allows operation with a minimum of wear and offers at the same time the highest level of tightness and lowest torques

ACTUATORS

Because of the use of a standard flange connection on the Butterfly valve that is in accordance with DIN \ ISO 5211 we are able to assemble different types of actuator.

Actuators may be pneumatic, hydraulic, electric or manual gear. Fast acting actuators for Emergency Shut Down function (ESD)

Also if required additional control equipment such as a solenoid valve, limit switch or positioner can be supplied. These are all assembled according to individual requirements.

STANDARDS**ANSI**

Design	API 609
Connection	ASME B16.5 RF
Face to face	API 609 cat.B
Testing	EN 12266/1
Fire safe tested	ISO 10497

OPTIONS

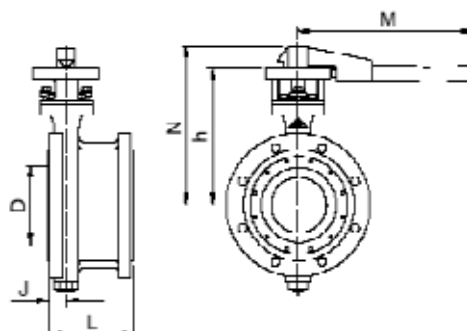
- Metal to metal tightness
- DIN connection

MODEL

HPMB

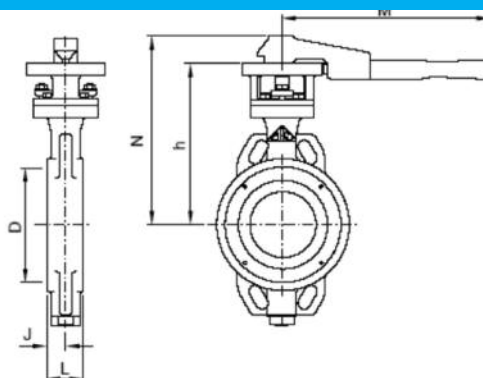


DIMENSIONS / Flanged Valves – PN16



NPS	D	L	M	N	h	J	PAR - TORQUE *	PESO - WEIGHT
	mm						Nm	kg
80	74,6	50	300	253	210	27	52	20
100	86,7	55,5	300	271	228	28,6	90	23
125	117,5	60	400	240	200	31,7	125	32
150	144,1	67	400	308	268	31,7	165	38
200	193,8	72	400	330	290	35	290	47
250	235,8	84	—	401	347	39,3	550	77

DIMENSIONS / Wafer Valves – ASME Class 150 & 300



NPS DN		CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300
	D	L		M		N		h		J		PAR–TORQUE ★		PESO–WEIGHT	
	mm											Nm		kg	
3"	74,6	50	50	300	300	253	253	210	210	27	27	57	90	7,5	7,5
4"	89,7	55,5	55,5	300	300	271	271	228	228	28,6	28,6	97	145	10,6	10,6
6"	144,1	60	60	400	400	308	308	268	268	31,7	31,7	175	302	19,5	19,5
8"	193,8	67	76	400	–	330	371	290	317	35	38	333	612	27,5	28
10"	235,8	72	86	–	–	401	456	347	402	39,3	44	638	1208	45,5	56
12"	286	84	94	–	–	452	497	398	426	46	50,8	1179	2000	68	78
14"	304,5	92	117	–	–	508	587	437	507	52	58	1300	2200	88	120
16"	360	102	133	–	–	556	653	476	573	58	72	1500	2400	160	230
18"	410	114	149	–	–	606	695	526	605	67	78	2100	4240	210	290
20"	459	127	159	–	–	684	742	594	642	70	80	3000	4836	310	382
24"	556	154	181	–	–	748	802	648	692	83	83	4000	6019	444	605

ORBINOX S.A. reserves the right to change specifications without notice.

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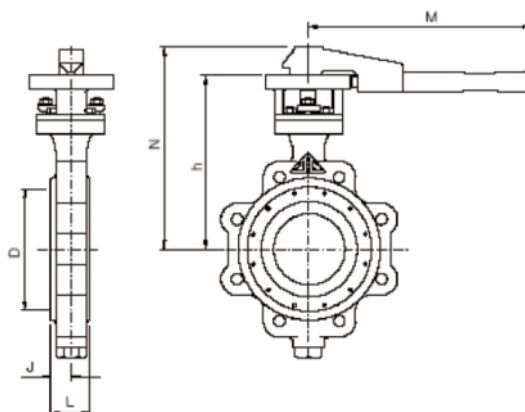
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MODEL

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DIMENSIONS / Lugged Valves – ASME Class 150 & 300



NPS		CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300	CLASS 150	CLASS 300
	D	L		M		N		h		J		PAR-TORQUE *		PESO – WEIGHT	
	mm												Nm		kg
3"	74,6	50	50	300	300	253	253	210	210	27	27	60	90	9	9
4"	89,7	55,5	55,5	300	300	271	271	228	228	28,6	28,6	100	150	14,5	14,5
6"	144,1	60	60	400	400	308	308	268	268	31,7	31,7	185	300	25	27,5
8"	193,8	67	76	400	–	330	371	290	317	35	38	350	600	32	46
10"	235,8	72	86	–	–	401	456	347	402	39,3	44	650	1100	50	75
12"	286	84	94	–	–	452	497	398	426	46	50,8	1260	2060	75	104
14"	304,5	92	117	–	–	508	587	437	507	52	58	1450	2300	110	160
16"	360	102	133	–	–	556	653	476	573	58	72	1600	2600	175	290
18"	410	114	149	–	–	606	695	526	605	67	78	2000	4200	188	355
20"	459	127	159	–	–	684	742	594	642	70	80	2900	5000	385	460
24"	556	154	181	–	–	748	802	648	692	83	83	4000	6100	470	705