SAPAG
VALVES

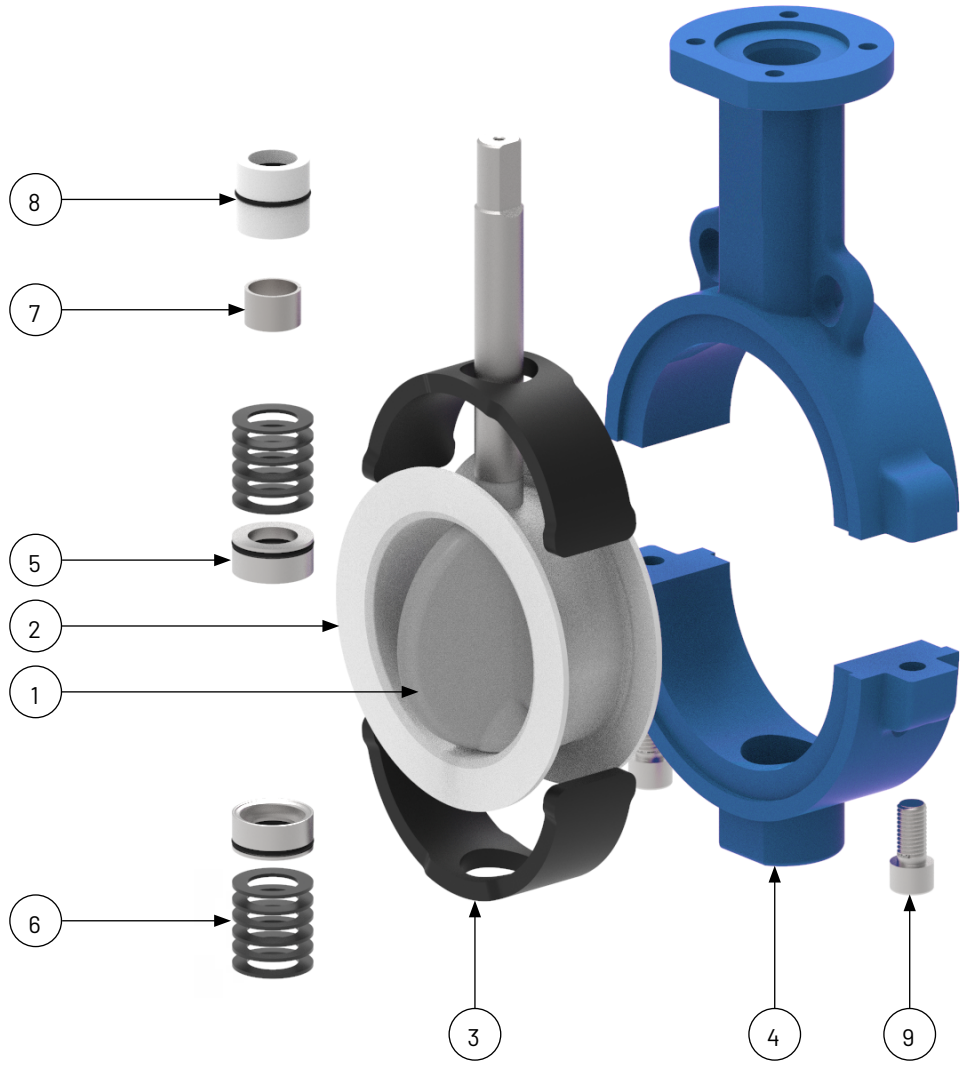
JMT
Butterfly Valve

CONTENTS

PRODUCT CHARACTERISTICS

Type JMT	Butterfly Valve with virgin PTFE / modified PTFE Liner
Body Types	Wafer DN50-300*  Lug DN25-1200  * Can be made from DN350 to DN1200 with lug body and unthreaded holes.
Scope of Application	Butterly valve lined with PTFE/PFA or mod. PTFE/PFA for high chemical demands. To shut off and control corrosive and abrasive liquids or gases.
Face to Face Dimensions	• ISO 5752, Basic Range 20; • EN 558-1, Basic Range 20
Head Flange	According to EN ISO 5211
Max. Operating Pressure	• DN25-450: 10 bar • DN500-600: 6 bar • DN700-1200: 3 bar
Connection Standards	• PN10-16 (DN25-150), • PN10 (DN200- 600), • PN6 (DN700-1050), • ANSI CL150
Temperature Range	-60 °C up to +200 °C (see Pressure / Temperature diagram on p.9)
Identification Marking	EN 19
In-Shop Testing	• Porosity Test of Disc Coating (PFA) and Liner (PTFE / mod.PTFE) acc. to EN 60243-1 • Leakage Test acc. to EN 12266-1/P12 • Leakage Rate A • Check of Torque
TA-Luft	Compliance Leakage Certificate according to Position 5.2.6.4. of the Technical Instruction Air (TA-Luft), VDI 2440.
CE 1250	Compliance of the Safety Requirements of the European Pressure Equipment Directive 2014/68/EU.
Atex	Atex 2014/34/EU compliant Version for explosive surroundings Group II, Zones 0, 1, 2 (and 20, 21, 22 respectively).
Food	• Food (EC) 1935/2004 • FDA

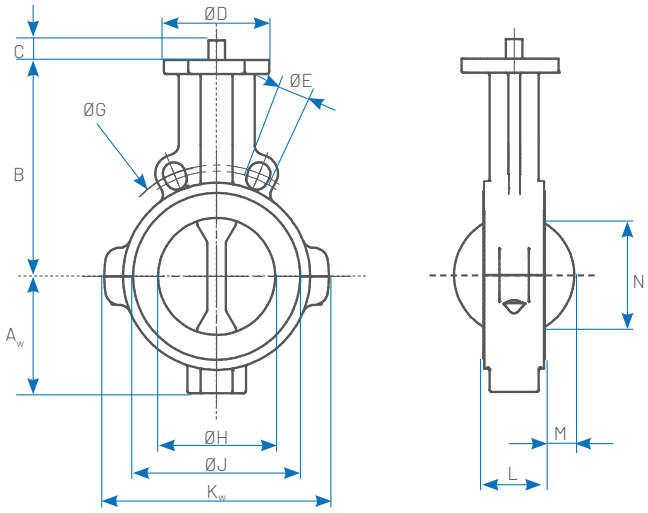
COMPONENTS



	Description	Materials
1	Disc	PFA PFAc, Conductive PFA Stainless Steel, 1.4404 Duplex, 1.4462, 1.4469 Titanium Grade 2, 3.7035 Hastelloy C, 2.4602, 2.4819
2	Liner	PTFE Modified PTFE Modified & Conductive PTFE UHMPE
3	Backup	VMQ EPDM FKM
4	Body	Ductile Iron, 5.3103 Stainless Steel, 1.4404 Carbon Steel, S355J2 Duroplast, VE-CF

	Description	Materials
5	Pusher	1.4301 with FKM O-Ring
6	Belleville Springs	Galvanized Carbon Steel
7	Shaft Bushing	PTFE Stainless Steel
8	Top Bushing	POM with FKM O-ring
9	Body Bolts	8.8 A4

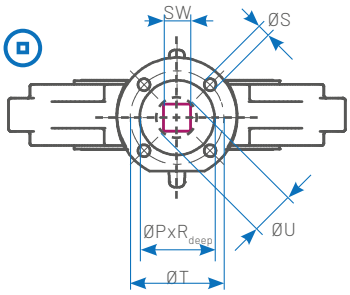
DIMENSIONS | WAFER



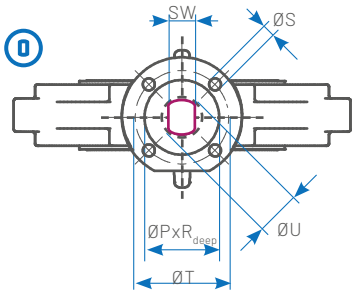
DN	50	65	80	100	125	150	200	250	300
NPS	2"	2½"	3"	4"	5"	6"	8"	10"	12"
A_W	60	70	84	100	110	130	158	194	225
B	130	146	165	185	202	217	245	270	308
C_{P2}	19	19	19	25	25	30	-	-	-
$C_{D4/P4}$	17	17	17	17	17	22	26	30	30
ØD	90	90	90	90	90	90	125	125	125
$ØE_{ISO}$	18	18	18	18	18	22	22	22	22
$ØE_{ANSI}$	19	19	19	19	22	22	22	26	26
$ØG_{ISO}$	125	145	160	180	210	240	295	350	400
$ØG_{ANSI}$	120.7	139.7	152.4	190.5	215.9	241.3	298.4	362	431.8
ØH	50	62	75	100	125	141	195	244	295
ØJ	85	106	122	143	166	193	251	301	349
K_W	124	148	165	192	223	253	312	374	424
L	43	46	46	52	56	56	60	68	78
M	6	11	17	27	38	47	71	92	112
N	31	47	63	90	118	137	190	240	290
kg_W	3	4	5	6.3	7.7	10	16.5	24.5	37

Note: Other sizes (from DN350 to DN1200) can be made with lug body with unthreaded holes.

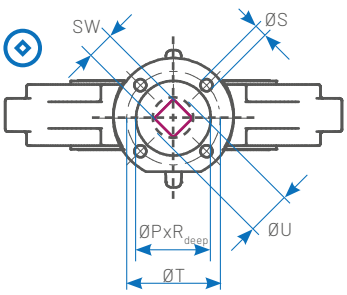
P4 - Standard



P2 - Option

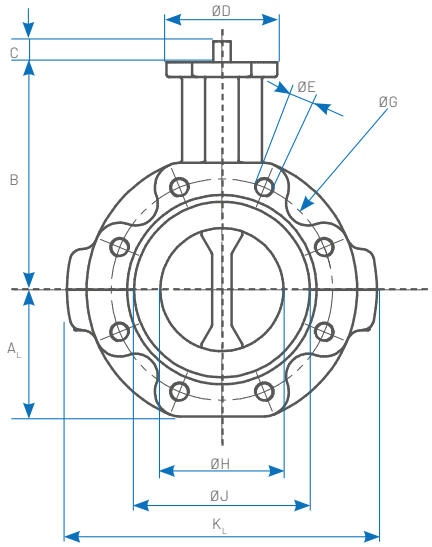


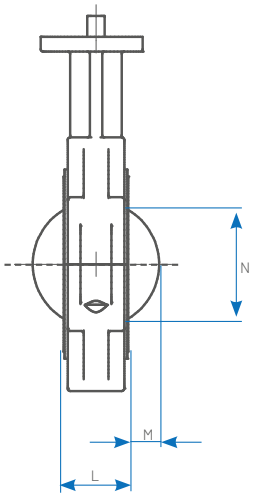
D4 - Option



DN	50	65	80	100	125	150	200	250	300
NPS	2"	2½"	3"	4"	5"	6"	8"	10"	12"
$SW_{P2/D4}$	11	11	11	14	14	17	-	-	-
SW_{P4}	11	11	11	14	14	17	19	22	22
ØU	14	14	14	18	18	22	24	28	28
ISO	F07	F07	F07	F07	F07	F07	F10	F10	F10
ØT	70	70	70	70	70	70	102	102	102
ØS	4x9	4x9	4x9	4x9	4x9	4x9	4x11	4x11	4x11
$ØP \times R_{DEEP}$	56x3.5	56x3.5	56x3.5	56x3.5	56x3.5	56x3.5	71x3.5	71x3.5	71x3.5

DIMENSIONS | LUG





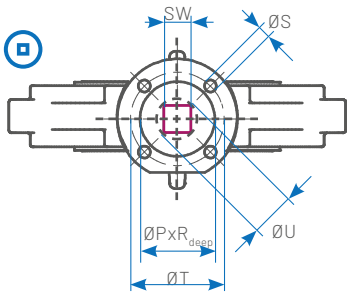
DN	25	40	50	65	80	100	125	150	200	250	300	350
NPS	1"	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"
A_L	53	53	60	81	88	103	117	128	160	194	228	255
B	94	94	130	146	165	185	202	217	245	270	308	330
C_{P2}	19	19	19	19	19	25	25	30	-	-	-	-
$C_{D4/P4}$	17	17	17	17	17	17	17	22	26	30	30	28
ØD	65	65	90	90	90	90	90	90	125	125	125	150
$ØE_{ISO}$	4 x M12	4 x M16	4 x M16	4xM16 8xM16	8 x M16	8 x M16	8 x M16	8 x M20	8 x M20	12 x M20	12 x M20	16 x M20
$ØE_{ANSI}$	$4x^{1/2"}$	$4x^{1/2"}$	$4x^{5/8"}$	$4x^{5/8"}$	$4x^{5/8"}$	$4x^{5/8"}$	$8x^{3/4"}$	$8x^{3/4"}$	$8x^{3/4"}$	$12x^{7/8"}$	$12x^{7/8"}$	12x1"
$ØG_{ISO}$	85	110	125	145	160	180	210	240	295	350	400	460
$ØG_{ANSI}$	79.4	98.4	120.7	139.7	152.4	190.5	215.9	241.3	298.4	362	431.8	476.3
ØH	37	46.4	50	62	75	100.1	124.8	141.5	195.2	244.3	295.3	335.6
K_L	138	138	156	203	218	252	286	310	376	450	520	586
ØJ	60	76	85	106	122	143	166	193	251	301	349	414
L	-*	33	43	46	46	52	56	56	60	68	78	92*
M	3	7	6	11	17	27	38	47	71	92	112	125
N	22	34	31	47	63	90	118	137	190	240	290	328
kg_L	2.6	2.5	5	7	8.1	10.8	14.5	15.8	24.6	33.3	57	87

DN	400	450	500	600	700	750	800	900	1000	1050	1200
NPS	16"	18"	20"	24"	28"	30"	32"	36"	40"	42"	48"
A_L	290	314	342	401	577	603	637	684	732	757	905
B	365	400	435	510	582	608	637	684	732	757	905
C_{P2}	-	-	-	-	-	-	-	-	-	-	-
$C_{D4/P4}$	28	37	37	47	47	56	56	56	56	56	56
ØD	150	175	175	210	210	300	300	300	300	300	300
$ØE_{ISO}$	16 x M24	20 x M24	20 x M24	20 x M27	24 x M27	-	24 x M30	28 x M30	28 x M33	-	32 x M36
$ØE_{ANSI}$	16 x 1"	16 x $1^{1/8"}$	20 x $1^{1/8"}$	20 x $1^{1/4"}$	28 x $1^{1/4"}$	28 x $1^{1/4"}$	28 x $1^{1/2"}$	32 x $1^{1/2"}$	36 x $1^{1/2"}$	36 x $1^{1/2"}$	44 x $1^{1/2"}$
$ØG_{ISO}$	515	565	620	725	840	-	950	1050	1160	-	1380
$ØG_{ANSI}$	539.8	577.9	635	749.3	863.6	914.4	977.9	1085.8	1200.15	1257.3	1422.4
ØH	389.9	437.9	491.4	579.9	676.1	726	776.8	877.8	965.8	1016	1169.3
K_L	650	700	745	870	1000	1050	1130	1245	1410	1410	1530_{ISO} 1620_{ANSI}
ØJ	460	515	570	672	787	851	894	1016	1101	1170	1305_{ISO} 1345_{ANSI}
L	102	114	127	154	154*	154*	154*	154*	154*	154*	154*
M	146	164	184	215	264	289	314	364	408	433	508
N	378	424	477	561	665	717	768	868	957	1010	1160
kg_L	107	152	185	306	442	490	630	781	946	985	1212

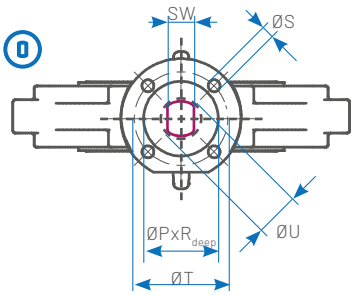
*Not according to ISO 5752 or EN 558-1, Series 20

DIMENSIONS | LUG

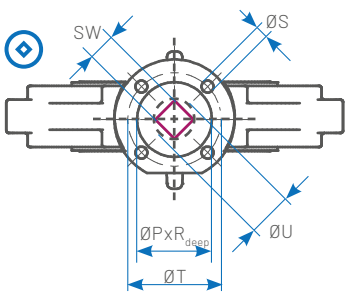
P4 - Standard



P2 - Option

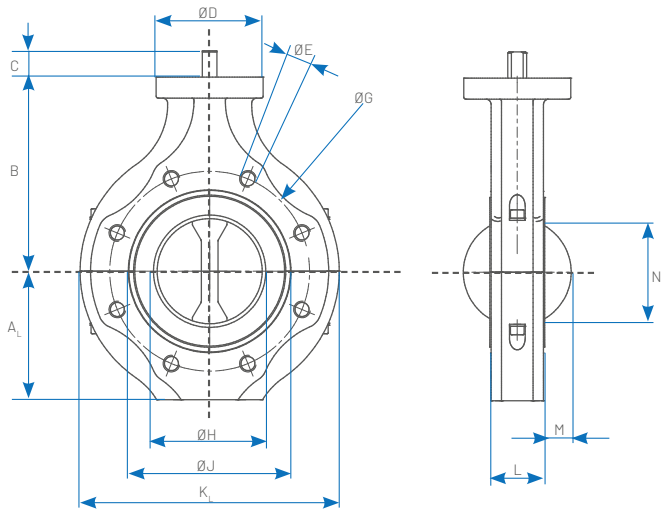


D4 - Option



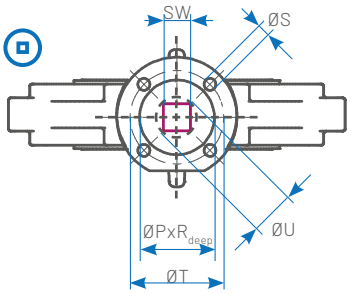
DN	25	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	1050	1200
NPS	1"	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	30"	32"	36"	40"	42"	48"
$SW_{P2/D4}$	9	9	11	11	11	14	14	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SW_{P4}	9	9	11	11	11	14	14	17	19	22	22	27	27	36	36	46	46	55	55	55	55	55	55
ØU	13	13	14	14	14	18	18	22	24	28	28	35	35	47	47	58	60	72	72	72	72	72	72
ISO	F05	F05	F07	F07	F07	F07	F07	F07	F10	F10	F10	F12	F12	F14	F14	F16	F16	F16	F25	F25	F25	F25	F25
ØT	50	50	70	70	70	70	70	70	102	102	102	125	125	140	140	165	165	165	254	254	254	254	254
ØS	4x7	4x7	4x9	4x9	4x9	4x9	4x9	4x9	4x11	4x11	4x11	4x13	4x13	4x17	4x17	4x21	4x21	4x21	8x17	8x17	8x17	8x17	8x17
ØP x R_{DEEP}	36 x 3.5	36 x 3.5	56 x 3.5	56 x 3.5	56 x 3.5	56 x 3.5	56 x 3.5	56 x 3.5	71 x 3.5	71 x 3.5	71 x 3.5	87 x 3.5	87 x 3.5	102 x 4.5	102 x 4.5	132 x 5.5	132 x 5.5	132 x 5.5	202 x 5.5	202 x 5.5	202 x 5.5	202 x 5.5	202 X 5.5

DIMENSIONS | JMT-K DUROPLAST

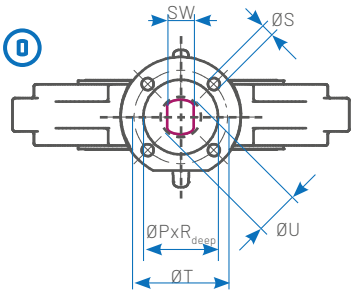


DN	50	65	80	100	150	200	250	300
NPS	2"	2½"	3"	4"	6"	8"	10"	12"
A_L	80	85	108	123.5	151	182	225	262
B	130	146	165	185	217	245	270	308
C_{P2}	19	19	19	25	30	-	-	-
$C_{D4/P4}$	17	17	17	17	22	26	30	30
ØD	102	102	102	102	102	152	152	152
$ØE_{ISO}$	4 x M16	-	8 x M16	8 x M16	8 x M20	8 x M20	12 x M20	12 x M20
$ØE_{ANSI}$	4x19	4x19	4x19	4x19	8x22	8x22	12x26	12x26
$ØG_{ISO}$	125	145	160	180	240	295	350	400
$ØG_{ANSI}$	120.7	139.7	152.4	190.5	241.3	298.4	362	431.8
ØH	60	60	80	100	150	199.5	249	300
K_L	181	200	216	247	302	364	450	524
ØJ	85	106	122	143	193	251	301	349
L	43	46	46	52	56	60	68	78
M	11	10	20	27	50	72	94	114
N	49	46	71	91	145	196	246	296
kg_L	1.8	2.1	2.5	3.6	6.8	10.8	19.4	31

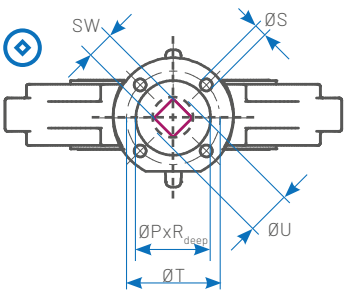
P4 - Standard



P2 - On request

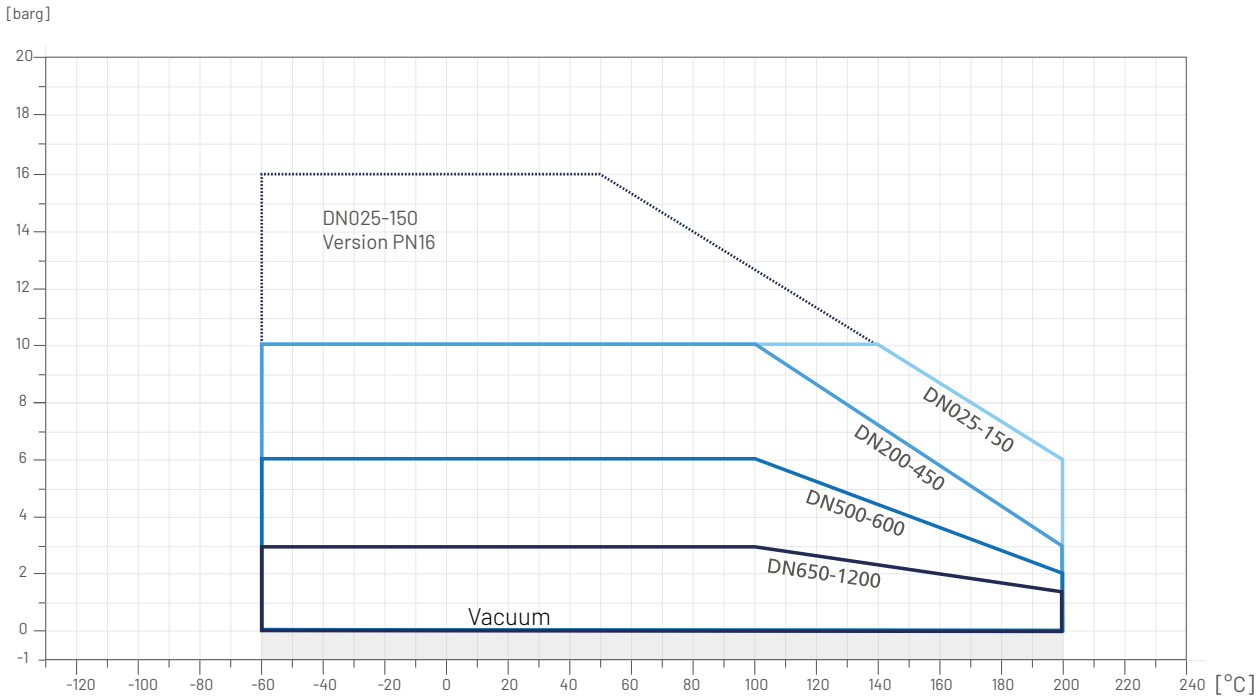


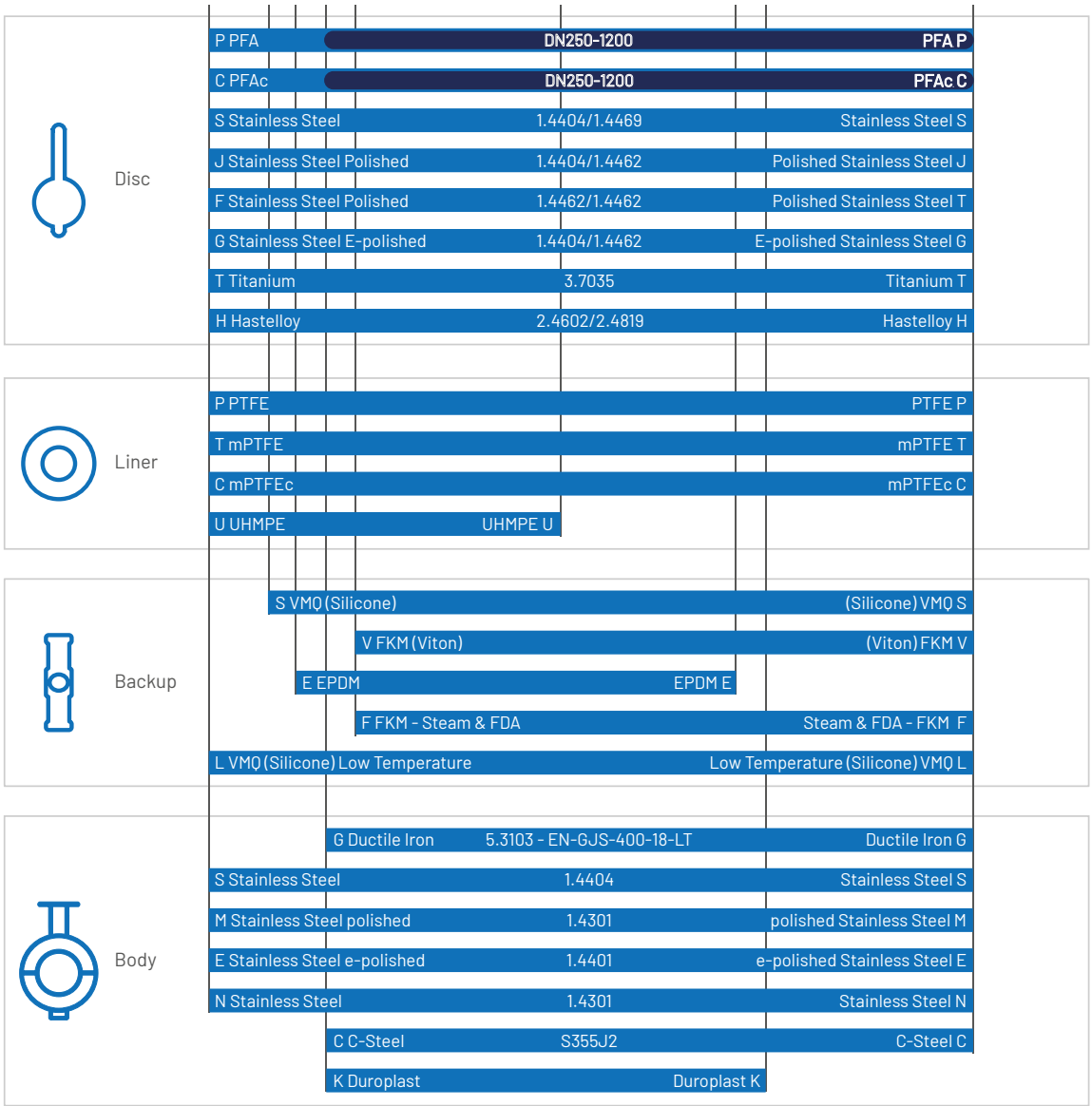
D4 - On request



DN	50	65	80	100	150	200	250	300
NPS	2"	2½"	3"	4"	6"	8"	10"	12"
SW_{P2}	11	11	11	14	17	-	-	-
$SW_{D4/P4}$	11	11	11	14	17	19	22	22
ØU	14	14	14	18	22	24	28	28
ISO	F07	F07	F07	F07	F07	F10	F10	F10
ØT	70	70	70	70	70	102	102	102
ØS	4x9	4x9	4x9	4x9	4x9	4x11	4x11	4x11
$ØP \times R_{DEEP}$	56x3.5	56x3.5	56x3.5	56x3.5	56x3.5	71x3.5	71x3.5	71x3.5

PRESSURE / TEMPERATURE DIAGRAM





FLOW RATE | KV VALUES

Flow Rate / Kv - Value [m³/h]

	DN										
Opening Angle	**25**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**
20°	0.001	1.4	2.1	4.4	8.1	17	28	39	85	119	181
30°	1.0	5.1	6.7	14	22	48	74	97	202	274	404
40°	3.0	11	14	27	41	91	145	194	415	527	771
50°	6.0	22	28	49	75	160	244	316	658	949	1329
60°	10	38	46	80	123	259	392	503	1036	1484	2179
70°	16	56	69	118	179	375	563	717	1463	2038	3083
80°	21	75	92	158	240	502	754	958	1956	2727	4124
90°	28	102	124	211	318	660	985	1244	2523	3514	5315

	DN											
Opening Angle	**350**	**400**	**450**	**500**	**600**	**700**	**750**	**800**	**900**	**1000**	**1050**	**1200**
20°	277	393	528	647	843	1050	1181	1353	1861	2131	2398	3131
30°	602	856	1148	1434	1861	2347	2675	3064	4394	4827	5431	7092
40°	1139	1650	2173	2418	3473	4324	4864	5570	7621	8777	9874	12894
50°	2034	2893	3414	3980	5706	7104	7991	9207	11817	13792	15516	20262
60°	3335	4628	5742	6490	9427	11737	13203	15120	19791	23195	26095	34077
70°	4718	6711	8535	10268	14140	17606	19804	22282	30783	34480	38790	50655
80°	6312	8979	12043	14983	19349	24246	27274	31433	44252	50152	56422	73680
90°	8134	11571	15519	19308	24807	30887	34744	39789	55653	62690	70528	92100

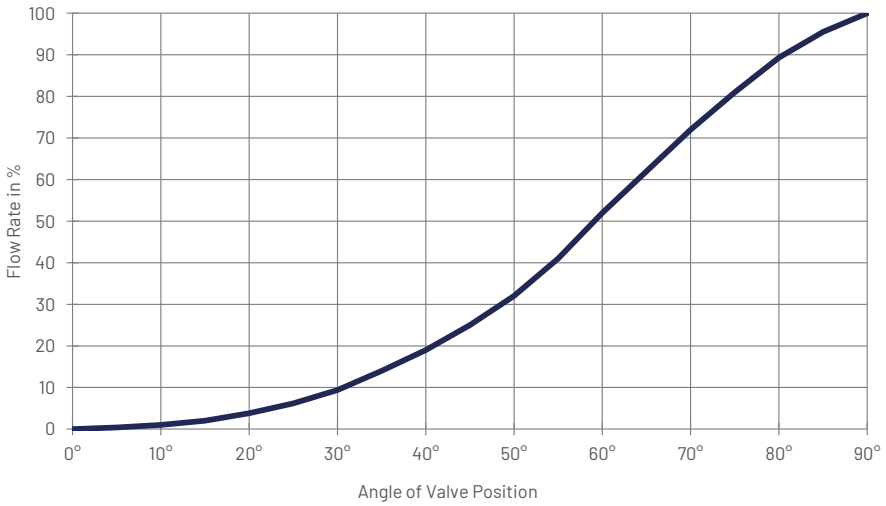
Liquid

$$Kv = Q\sqrt{\frac{\rho}{\Delta p}}$$

Gas

$$Kv = \frac{Q_n}{514}\sqrt{\frac{\rho_n \bullet T}{\Delta p \bullet p_2}}$$

Flow Curve



TORQUE VALUES

Breakaway Torque [Nm]

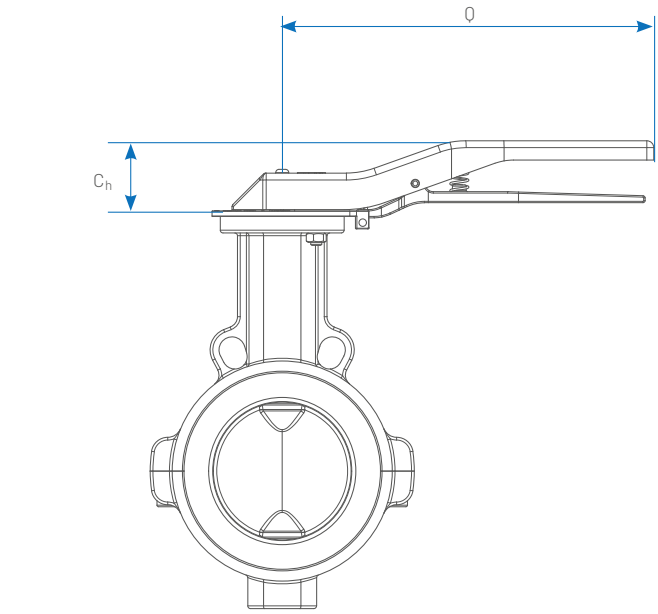
DN	Δp = 1 bar	Δp = PS
25	22	
40	22	26
50	26	31
65	36	43
80	46	55
100	60	72
125	80	96
150	110	132
200	167	200
250	278	334
300	333	400
350	450	540
400	500	600
450	600	720
500	650	715
600	890	979
700	1500	1650
750	2000	2200
800	2300	2970
900	2700	3960
1000	3400	
1050	3600	
1200	4800	

Max. Allowable Torque for Stem Connection [Nm]

	P4		
DN	**Steel 1.4469 / 1.4462**	**Titanium Grd.2 3.7035**	**Hastelloy C 2.4602 / 2.4819**
25	48	32	31
40	48	32	31
50	89	59	57
65	89	59	57
80	89	59	57
100	183	121	118
125	183	121	118
150	327	216	211
200	456	302	295
250	664	469	457
300	664	469	457
350	1227	866	845
400	1227	866	845
450	2909	2053	2004
500	2909	2053	2004
600	6069	4283	4181
700	6069	4283	4181
750	10374	7321	7147
800	10374	7321	7147
900	10374	7321	7147
1000	10374	7321	7147
1050	10374	7321	7147
1200	10374	7321	7147

The indicated initial breakaway torque includes 10% security. These values have to be multiplied by 1.2 (Δp ≤ 0.5×PS) or 1.4 (Δp = PS) within dry and unlubricated service.

DIMENSIONS | HANDLEVER

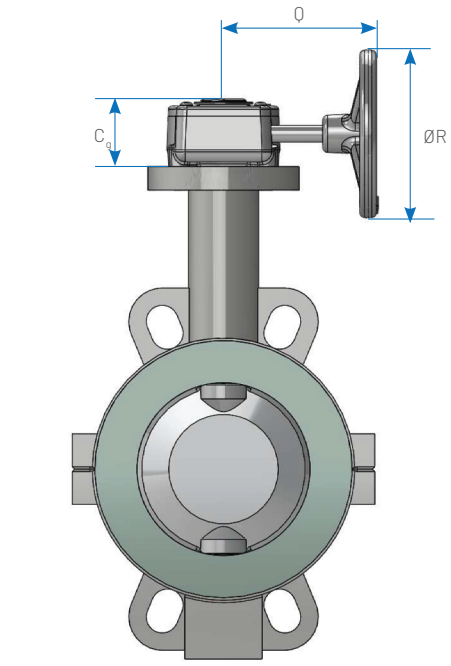


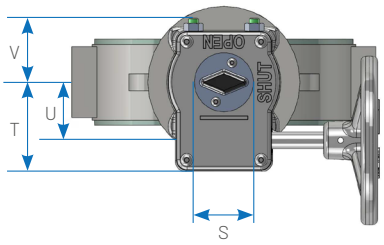
Handlever	
Part	**Material**
Grip	Stainless Steel
Ratchet Disc	Stainless Steel

DN	40	50	65	80	100	125	150	200	250	300
NPS	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"
C_h	46	46	46	46	55	55	55	55	55	55
Q	230	230	230	230	270	270	325	349	349	349
T	51	51	51	51	51	51	51	76	76	76
V	63	63	63	63	63	63	63	88	88	88
kg*	0.9	0.9	0.9	0.9	1.2	1.2	1.5	2	2	2

(*) Weight of operating actuator

DIMENSIONS | MANUAL GEARBOX - R242





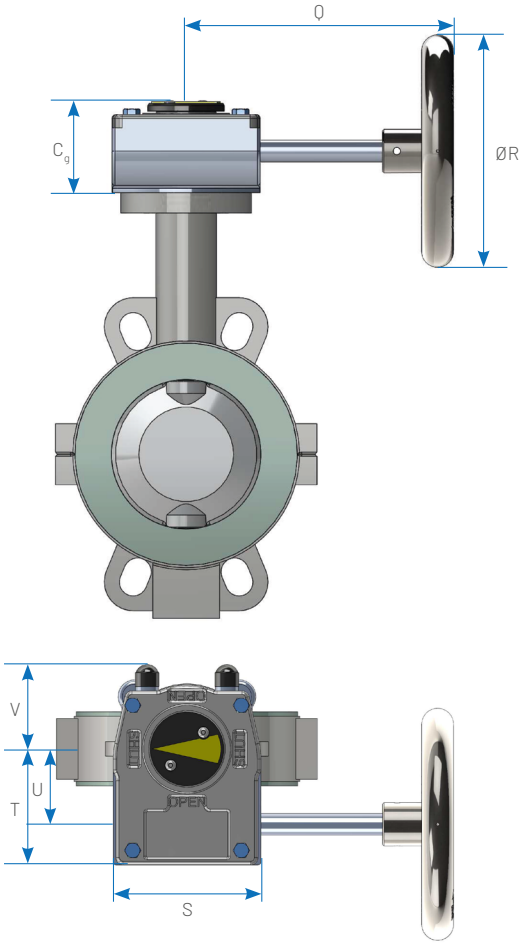
Configuration	
Valve size	DN40-500
Protection rating	IP67
Temperature	-20 °C / +120 °C
Stem connection	P4

Material	
Gearcase and cover	Cast iron (Grey)
Quadrant	Ductile iron
Worm	Carbon steel
Input shaft	Carbon steel
Seals	Nitrile rubber
Fasteners	Zinc plated
Indicator	Stainless steel

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500
Inch	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"
Gear Ref.	242-10M-L11	242-10M-L14					242-20M-L19		242-40S-L22		242-40S-L27		242-50S-L36	
C_g	40	40					50		67		67		74,25	
Q	92	92					140		278		278		298	
ØR	100	100					200		400		400		500	
S	66	66					92		135		135		185	
T	53	53					63		103		103		129	
U	34	34					41		69		69		94	
V	33	33					46		59		59		71	
kg*	1,3	1,3					2,9		6,7		6,7		11,5	

(*) Weight of operating actuator

DIMENSIONS | MANUAL GEARBOX - AB



Configuration	
Valve size	DN40-1050
Protection rating	IP67
Temperature	-20 °C / +120 °C
Stem connection	P4

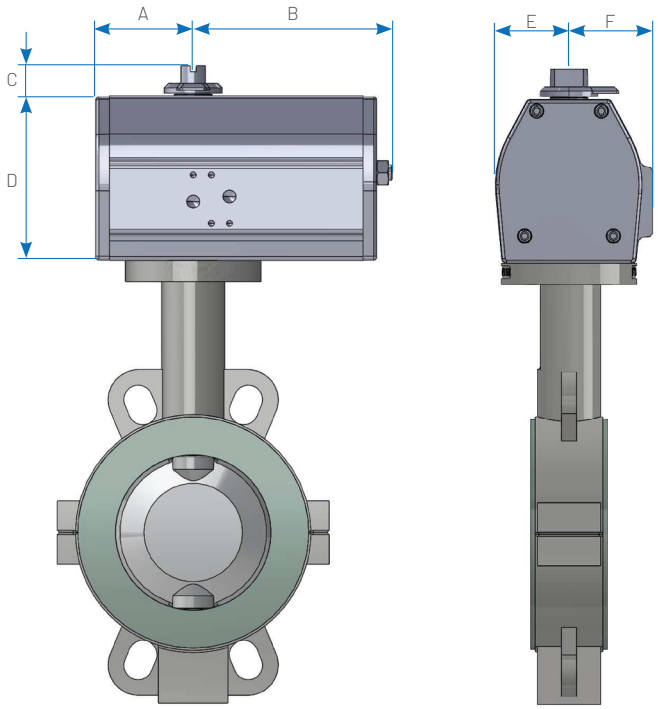
Material	
Gearcase and cover	Cast iron (Grey)
Quadrant	Ductile iron
Worm	Carbon steel
Input shaft	Carbon steel
Seals	Nitrile rubber
Fasteners	Zinc plated
Indicator	Polypropylene

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	750	800	900	1000	1050
NPS	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"	28"	30"	32"	36"	40"	42"
Gear Ref.	**AB 210N - L19**	**AB 210N - L19**							**AB 550N - L22**		**AB 550N - L27**		**AB 880N - L36**		**AB 1250N - L46**		**AB 1950N / PR4 - L55**	**AB 1950N / PR4 - L55**			
C_g	63	63							45				92,5		102		126				
Q	193	193							282				305		346		397				
ØR	Ø160	Ø160							Ø300				Ø500		Ø600		Ø400				
S	102	102							138				200		220		285				
T	79,5	79							105				126		148		180				
U	52	52							71				86		104,5		130				
V	48	48							69				100		110		142,5				
kg*	4	4							9				14		22		39				

(*) Weight of operating actuator

DIMENSIONS | PNEUMATIC ACTUATOR - DR

DOUBLE ACTING



Configuration	
Valve size	DN50-DN700
Type	Scotch Yoke
Operating pressure	5 bar (max. pressure: 10 bar)
Température	-20 °C / +80 °C
Solenoid valve connection	NAMUR
Fitting accessoiries	VDI/VDE 3845, NAMUR
Stem connection	P4

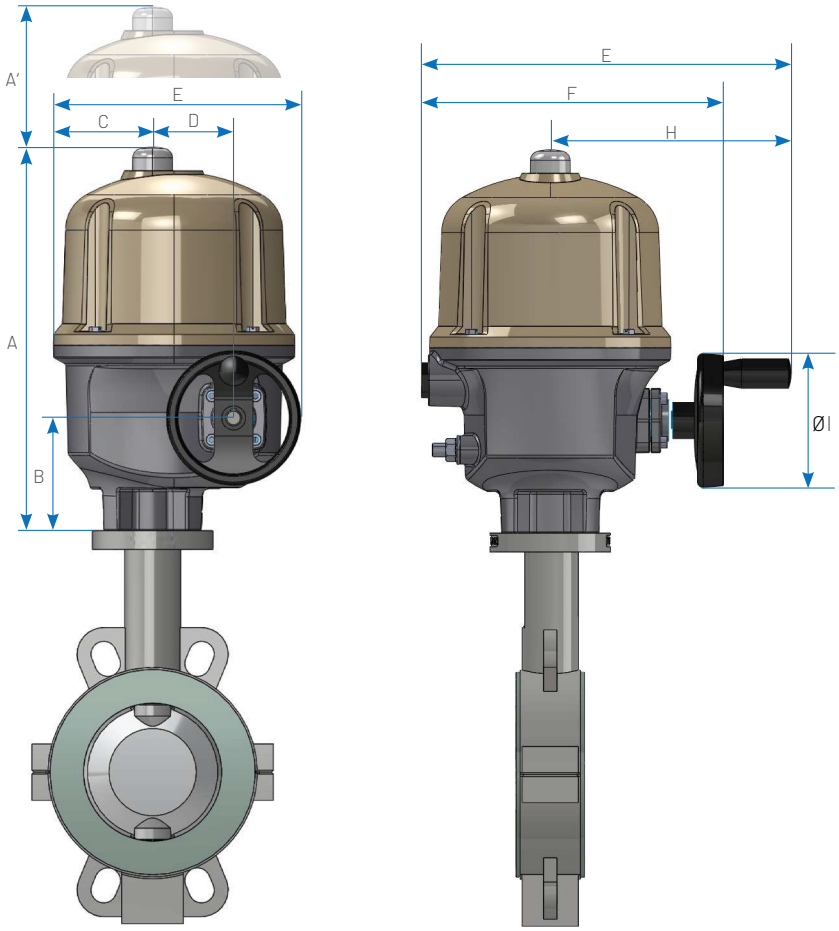
Material	
Body	Aluminium
Actuator body	Anodised aluminium

DN	**50**	**65**	**80**	**100**	**125**	**150**	**200**	**250**	**300**	**350**	**400**	**450**	**500**	**600**	**700**
NPS	**2"**	**2½"**	**3"**	**4"**	**5"**	**6"**	**8"**	**10"**	**12"**	**14"**	**16"**	**18"**	**20"**	**24"**	**28"**
Ref. 5 bar	**DR 10-2**	**DR 20-2**		**DR 30-0**		**DR 40-0**		**DR 60-1**				**DR 70-0**		**DR 72-0**	
A	45	98		65		135		190				145			
B	98	98		135		135		190				295			
C	20	20		20		20		20				30			
D	86	86		110		110		155				248			
E	32	32		49		49		69				110			
F	41	41		55		55		75				110			
kg*	1,2	1,6		3,5		4,9		12,5				32			

(*) Weight of operating actuator

DIMENSIONS | ELECTRIC ACTUATOR - AQ

400V-3PH-50HZ



Configuration	
Valve size	DN50-400
Protection rating	IP68
Temperature	-20 °C / +60 °C
Stem connection	P4

Version	
SWITCH (S)	Electromechanical
LOGIC (L)	Integrated Control

Duty Classification	
On-Off	Class A
Inching / Positioning	Class B (Option)
Modulating	Class C (Option)

DN	50	65	80	100	125	150	200	250	300	350	400
NPS	2"	2½"	3"	4"	5"	6"	8"	10"	12"	14"	16"
Ref. 5 bar	AQ 5-1	AQ 5-1	AQ 10-1	AQ 10-1	AQ 15-1	AQ 25	AQ 25	AQ 50-2	AQ 50-2	AQ 80-1	AQ 80-1
A	286	286	286	286	286	371	371	328	328	365	365
A' (*)	100	100	100	100	100	100	100	100	100	100	100
B	84	84	84	84	84	102	102	111	111	149	149
C	74	74	74	74	74	86	86	86	86	86	86
D	60	60	60	60	60	60	60	160	160	161	161
E	184	184	184	184	184	224	224	260	260	286	286
F	230	230	230	230	230	315	315	347	347	347	347
G	184	184	184	184	184	262	262	310	310	310	310
H	280	280	280	280	280	379	379	427	427	427	427
ØI	Ø100	Ø100	Ø100	Ø100	Ø100	Ø125	Ø125	Ø200	Ø200	Ø250	Ø250
kg(**)	10	10	10	10	10	13	13	15	15	18	18

(*) A' = Dimension to allow for disassembly
(**) Poids de l'actionneur en fonctionnement

INSTALLATION AND OPERATING INSTRUCTION

0. Introduction

For achieving a proper functionality, it is compulsory to follow this Installation and Operating Instruction. Only qualified personnel are allowed to install the valve Qualified personnel is called personnel who is familiar with installation, fitting, initiation, operating and maintenance of the device. The JMT Valve manufacturer will not assume liability for faults resulting of improper installation.

1. Storing and Transportation

The JMT Valve delivered is ready-for-use. It has to be treated with the appropriate care and it has to be transported and stored in the original packing. Never expose the unprotected JMT Valve to dust or humidity. While shipped, the valve is in a slight opened position. This status has tobe kept until the valve has been mounted.

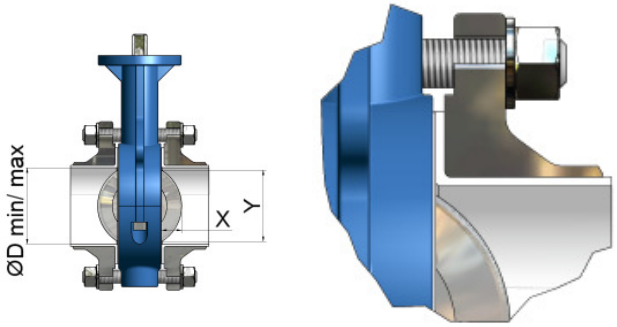
2. Installation Preparation

2.1 Intended Application

The application area of the JMT Valve is subject to the responsibility of the operator of the facility. It is only allowed to use the JMT Valve within the range of pressure and temperature which shows the documentation «Product Information». The resistance of corrosion and media of thevalve, the pressure and the temperature have to be verified for particular operating conditions!

2.2. Flange and Piping Connection

The inner diameter of the pipe has to feature at least the corresponding Y value of the following table. In this case the disc has enough play concerning the internal surface of the pipe. The JMT Valve as a wafer and lug valve has been designed exclusively for installation together with weld neck flanges according to EN 1092-1, Type 11, PN 10-16 and to ASME ANSI B16.5/B16.47 A Class 150.



DN	NPS	X	Y	D_{min}	D_{max}
40	1½"	7	34	37*	43.1
50	2"	6	31	34*	54.5
65	2½"	11	48	51*	70.3
80	3"	17	63	66*	82.5
100	4"	27	90	93*	107.1
125	5"	38	118	121*	131.7
150	6"	47	137	140*	159.3
200	8"	71	189	192*	206.5
250	10"	92	239	242*	260.4
300	12"	112	290	293*	309.7
350	14"	125	328	331*	341.4
400	16"	146	377	381*	392.2
450	18"	164	417	421*	442.8
500	20"	184	477	481*	493.8
600	24"	215	560	564*	595.8
(750)	30"	289	716	721*	736.6
900	36"	360	861	865*	894.0
(1050)	42"	433	1009	1014*	1022.4

** With a concentrical pair of flanges*

2.3. Positioning / Fitting Position

If the JMT Valve will be mounted in a horizontal piping system we recommend to install the shaft of the valve also in a horizontal manner. The lower edge should open in the direction of the flow. This method avoids the deposition of pollution in the area of the shaft seal.

2.4. Flange Sealing

The JMT Valve with its TFM - Liner needs no sealing if it has been mounted between plane flanges. In case of installation together with non-plane flanges (e.g., gummed or enameled coils of flanges) the use of a PTFE coated sealing is recommended.

3. Dismounting of an Existent Valve

3.1. Warning and Precaution

- During installation and maintenance work adequate protective clothing, work gloves and protective goggles have to be worn.
- For installation and maintenance, the pipe has to be depressurized and depleted. If the valve should be applied with dangerous flow mediums, the pipe has to be depleted completely and rinsed with an adequate cleaning fluid. Inappropriate mediums can harm the valve! ▶

- If flange connections or locking screws will be detached, hot water, steam, caustic fluids or toxic gases can emit. Heavy scalds and burn-ups on the whole body as well as grave contamination are possible!
- During operation the valve is hot or very cold. Installation and maintenance work have only to be realized, if the valve's temperature is the same as the ambient temperature.
- Previous to the dismounting of the valve preventive measures and dispositions against the possible leakaging of dangerous mediums have to be made.
- While dismounting the valve pay attention that disc and liner will not be injured. It is mandatory to replace broken parts with original replacement parts.

3.2. Procedure

1. Turn the disk in a slight opened position.
2. Release and remove all flange connections of the valve.
3. With the adequate tool force the flanges apart and lift the disc out of the piping system.

3.3. Disposal

Inside the valve it is possible that residues exist which are harmful to human and environment. Therefore, the valve has to be treated with the adequate precaution. Parts of the valves which are no longer serviceable have to be disposed professional and beneficial to the environment.

4. Mounting in the Piping System

4.1. Basics

It is absolutely prohibited to mount the JMT Valve between flanges which are not positioned parallel to each other. The axis of the pipes and valves have to be aligned. Furthermore, it is prohibited to weld on the pipe while the JMT Valve is mounted between the flanges. This would destroy the liner of the JMT Valve.

If a lug styled butterfly valve will be installed at the end of the pipe it is mandatory to mount additionally a blind flange as the closing element!

4.2. Recommended Locked Torques of the Flange Screws

The TFM material of the liner tends to cold flow. Therefore, the following locked torques have to be applied:

4.3. Procedure

1. Clean connection flange and sealing surface in order that the lining of the valve as well as the plane flanges will not be destroyed.
2. Remove the casing of the valve.
3. Shift the valve with its slight opened position of the disk (the edge of the disk has to be placed behind the edge of the liner!) accurately between both flanges.
4. Center the valve with screws and studs respectively.
5. Tighten the screw-nut by hand. Subsequently adjust the valve, flange pipe and sealing.
6. Open the valve slowly and fully.
7. Tighten the greased screws and screw-nuts diagonally with the recommended lock torques shown in chapter «4.2. Recommended Locked Torques of the Flange Screws».

4.4. Conform Version to ATEX in the Cluster II

In explosive areas the earth connection adapter of the JMT Valve ATEX Version has to be connected with the correspondent earth connection adapter to establish the appropriate join.

5. Cleaning of the Piping System

After the installation the JMT Valve has to be opened fully and the piping system has to be rinsed before closing the valve. Cleaning mediums and purifiers have to be compatible with the valve. Improper mediums and purifiers can damage the valve.

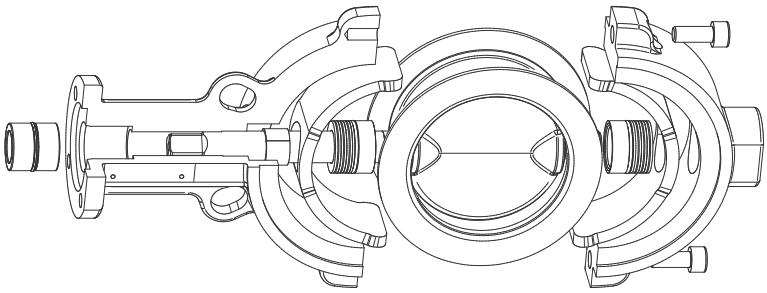
6. Function Control

Subsequent to the cleaning the JMT Valve has to be activated several times while checking its free moving space.

Synoptical Table about Locked Torques

DN	40	50	65	80	100	125	150	200	250	300	350	400	450	500	600	(750)	900	(1050)
NPS	1½"	2"	2½"	3"	4"	5"	6"	8"	10"	12"	4"	16"	18"	20"	24"	30"	36"	42"
Locked Torque (NM)	25	35	40	45	50	60	70	85	95	105	145	165	185	215	230	300	460	500

ORDER CODE



Code Example:
JMT06PPSG100P4WE1-WE2-WA1

Actuation		Disc		Liner		Backup		Body		Size	Stem End		Body Type		Flange	
Code	Device	Code	Material	Code	Material	Code	Material	Code	Material		Code	Shape	Code	Style	Code	Pressure Class
BS	Bare shaft	P	PFA	P	PTFE	S	VMQ (Silicone)	G	5.3103	025-1200	P4	Standard Square Parallel	W	Wafer	E0	PN6
HP	Hand Lever	C	PFAc	T	mPTFE	V	FKM (Viton)	S	1.4404		P2	Option Double D	E	Lug	E1	PN10
05	Gearbox AB	S	Stainless Steel	C	mPTFEc	E	EPDM	M	1.4404 Polished <0.8µm		D4	Option Square Diagonal			E2	PN16
06	Gearbox R242	J	1.4404/ 1.4462 Polished <0.8µm	U	UHMPE	F	FKM Steam & FDA Compatible	E	1.4404 e-polished <0.4µm						EA	PN10-16
SR	Single-acting Pneumatic Actuator	F	1.4462/ 1.4462 Polished <0.8µm			L	VMQ (Silicone) Low Temperature	N	1.4301						A1	ANSI CL150
DR	Double-acting Pneumatic Actuator	G	1.4404/ 1.4462 e-polished <0.4µm					C	C-Steel						J1	JIS 10K
AQ	Electric Actuator AQ	T	Titanium Grade 2					K	Duroplast							
		H	Hastelloy C													
		R	1.4539 Polished <0.8µm													
		O	Hastelloy C Polished <0.8µm													

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ISO 9001:2015 ISO 14001:2015 ISO 45001:2018

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