



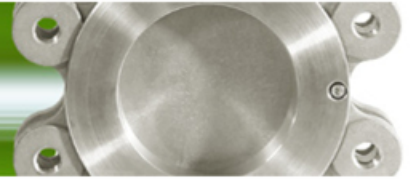
TA-Luft

M-99 Series Flanged Wafer Full Port Ball Valve



PMP PRECISION VALVE CO. LTD.





M-99 Series Flanged Wafer Full Port Ball Valve

Series M-99 wafer ball valves

Bi - directional

ANSI class 150 RF flanged

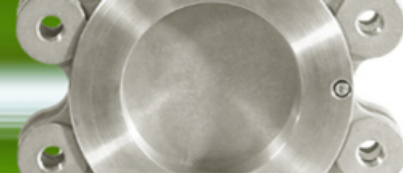
ISO 5211 direct mount

PMP series 99 wafer ball valves are of a compact design offering less weight and space requirements as compared to conventional flanged valves but offering the same capabilities.

The unique stem design has maintenance free, live loaded triple stem sealing. This design is certified to **TA-Luft** low emissions standards and is ideal for applications in air, water, gas, steam, chemicals and other liquid processes.

The rugged body design meets the requirement for Oil & Gas pipeline service and meets **NACE** specification **MR-0175** for Sour gas and complies with **API 607** Fire Safe design requirements.





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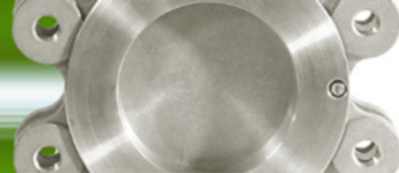
Features

- Full Port design
- Compact body
- Investment cast body
- ISO 5211 direct mounting pad for actuation
- Blow out proof stem with anti - static device
- Maintenance free, live loaded triple stem sealing, in compliance with TA-Luft low emission standards.



- PMP offers a wide selection of resilient seats for bi - directional zero leakage applications:
 - PTFE
 - Cavity filled PTFE
 - RPTFE
 - Carbon filled PTFE
 - Stainless steel filled PTFE
 - TFM 1600
 - MG1241
 - Delrin
 - Peek
 - UHMW

Please contact your PMP distributor for assistance in selecting the correct material for your application



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Design Standards

- Construction :** One-Piece Investment Cast Construction, Full Port.
- Size Range :** 1/2" to 6" (DN15 to DN 150).
- Pressure Rating :** ANSI 150, ANSI 300.
- Valve Material :**
Standard : ASTM A351 Gr. CF8M / DIN 1.4408.
Options : WCB, 316L S/S, Titanium, Duplex S/S, Hastelloy C....etc.
- Seat Material :**
Standard : RTFE
Options : TFM 1600, PTFE, Carbon filled PTFE, Delrin, UHMWPE, 50/50 S/S filled PTFE, Metal Seats....and others.
- Inspection and Test :** API 598, BS6755 Part 1.
- Material Certificate :** EN 10204 - 3.1.
- Quality System :** ISO 9001.
- NACE MR - 0175 :** The rugged, high performance Series 99 ball valves meet requirement for oil and gas pipeline service and meet NACE specification MR - 0175 for sour gas.

Approvals :



0035
PED/97/23/EC
Category III
Module H



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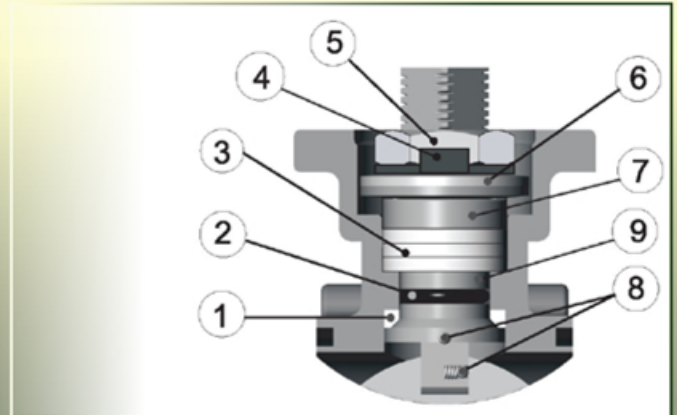
II 3 GD
ATEX 94/9/EC

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Stem Packing

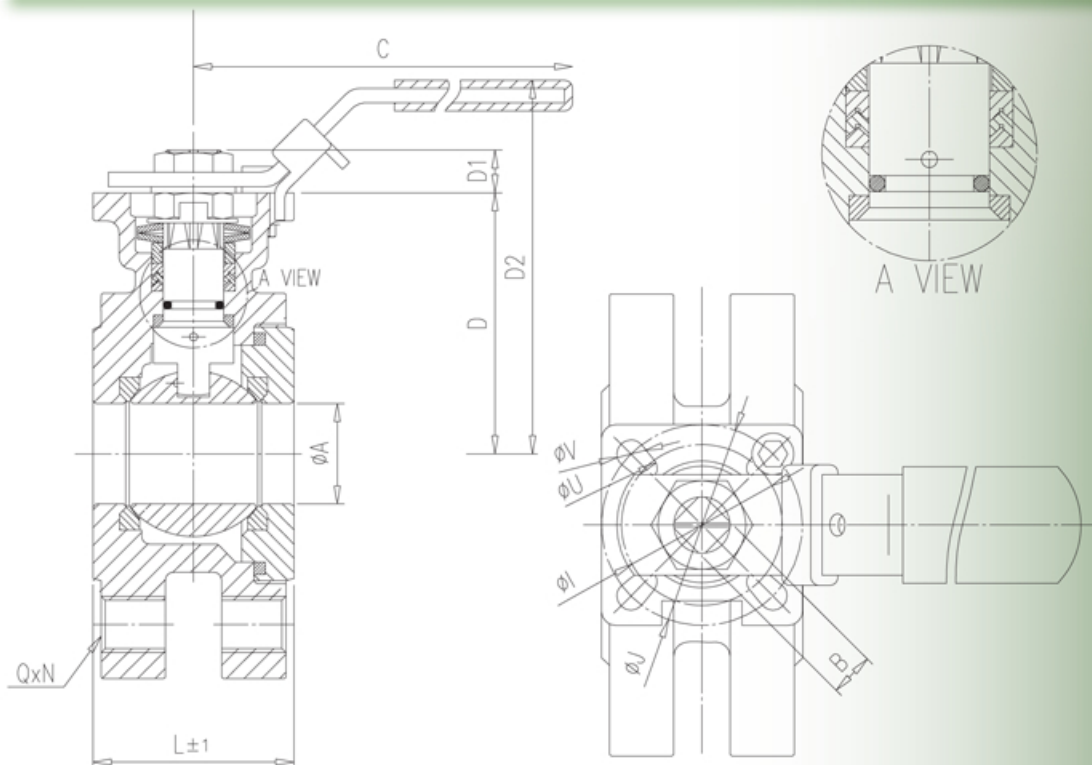


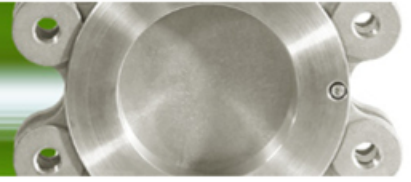
1. **Pyramidal Stem with Stem Seal**
First stage of defense against leakage. The 45° slope of the stem accompanied by the stem seal effectively blocks all leak paths during rotation.
2. **O-Ring Stem Packing**
Second stage of defense against leakage. Enhances stem seal and maintains stem alignment, provides extra longer service life.
3. **V-Ring Stem Packing**
Third stage of defense against leakage. Multiple layers of V-Ring Chevron Packing expand side way as it is being compressed, blocking all air pockets to prevent leak path.
4. **Lock Saddle**
Stabilizes the entire stem nut to keep it from loosening during operation.
5. **Stem Nut**
Compress the entire stem system to enable blocking of leakage.
6. **Belleville Washers**
Automatically compress the seals to adjust for wear, pressure, and temperature fluctuations.
7. **Gland**
Made of Stainless steel, equally distributes the compressive force on the packing and seal.
8. **Anti-Static Device**
Stem-to-Ball and Stem-to-Body as standard.
9. **Super Smooth Stem Finish**
Reduces seal friction and operating torque, prolongs service life.



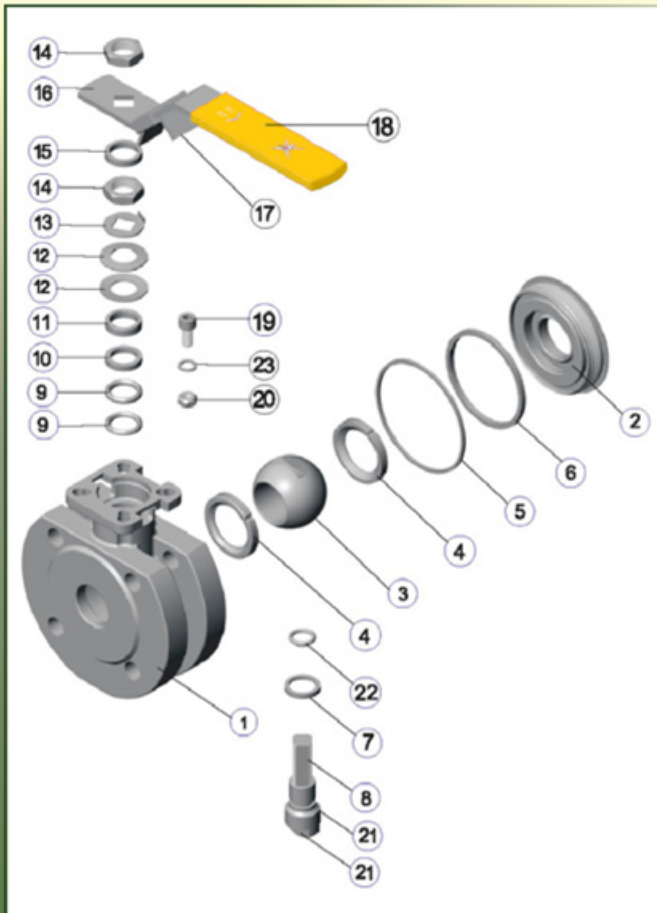
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	Size	ΦA	B	C	D	D1	D2	ΦI	ΦJ	L	N	Q	ΦU	ΦV	ISO 5211
mm	DN15	15	9	139	48.7	7.0	85	36	42	40.8	4	1/2-	6.0	6	F03/F04
in	0.50	0.50	0.36	5.48	1.92	0.28	3.35	1.42	1.66	1.61	0.16	13UNC	0.24	0.24	
mm	DN20	20	9	139	53.7	8.0	90	36	42	44.0	4	1/2-	6.0	6	F03/F04
in	0.75	0.75	0.36	5.48	2.12	0.32	3.55	1.42	1.66	1.74	0.16	13UNC	0.24	0.24	
mm	DN25	25	11	165	65.0	12.0	104	40	50	50.0	4	1/2-	6.0	7	F04/F05
in	1.00	1.00	0.44	6.50	2.56	0.48	4.10	1.58	1.97	1.97	0.16	13UNC	0.24	0.28	
mm	DN32	32	11	165	77.0	11.3	116	40	50	60.0	4	1/2-	6.0	7	F04/F05
in	1.25	1.25	0.44	6.50	3.04	0.45	4.57	1.58	1.97	2.37	0.16	13UNC	0.24	0.28	
mm	DN40	38	14	215	85.5	15.5	135	50	70	65.0	4	1/2-	7.5	9	F05/F07
in	1.50	1.50	0.56	8.47	3.37	0.62	5.32	1.97	2.76	2.56	0.16	13UNC	0.3	0.36	
mm	DN50	50	14	215	93.0	16.0	142	50	70	80.0	4	5/8-	7.5	9	F05/F07
in	2.00	2.00	0.56	8.47	3.67	0.63	5.60	1.97	2.76	3.15	0.16	11UNC	0.3	0.36	
mm	DN65	65	17	263	109.7	15.8	168	70	102	110.0	4	5/8-	10.0	12	F07/F10
in	2.50	2.50	0.67	10.40	4.32	0.63	6.62	2.76	4.02	4.34	0.16	11UNC	0.4	0.48	
mm	DN80	80	17	313	119.5	16.0	178	70	102	120.0	4	5/8-	10.0	12	F07/F10
in	3.00	3.00	0.67	12.30	4.71	0.63	7.01	2.76	4.02	4.73	0.16	11UNC	0.4	0.48	
mm	DN100	100	17	344	132.7	17.8	191	70	102	150.0	8	5/8-	10.0	12	F07/F10
in	4.00	4.00	0.67	13.60	5.23	0.71	7.52	2.76	4.02	5.91	0.32	11UNC	0.4	0.48	
mm	DN150	150	2	750	210	28.5	292	125	140	240	8	3/4-	14.0	18	F12/F14
in	6.00	6.00	0.08	29.50	8.28	1.13	11.50	4.93	5.52	9.45	0.32	10UNC	0.56	0.71	



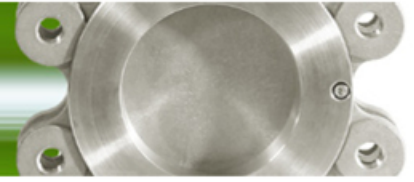


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No.	Part Name	Material	Qty
1	Body	1.4408 / GS-C25	1
2	End Cap	1.4408 / GS-C25	1
3	Ball	SUS316	1
4	Seat	PTFE / RTFE	2
5	Joint Gasket	PTFE	1
6	Joint Gasket	PTFE	1
7	Stem Seal	RPTFE	1
8	Stem	SUS316	1
9	Stem Packing	PTFE	*
10	Stem Packing	25% Glass Fiber Filled - PTFE	1
11	Gland Bush	SUS304	1
12	Belleville Washer	SUS301	2
13	Lock Saddle	SUS304	1
14	Stem Nut	SUS304	2
15	Stem Washer	SUS304	1
16	Handle	SUS304	1
17	Locking Device	SUS304	1
18	Handle Sleeve	Vinyl	1
19	Stop Pin	SUS304	1
20	Pin Nut	SUS304	1
21	Antistatic - Device	SUS316	2
22	O-Ring	Viton	1
23	Washer	SUS304	1

* For 1/2"-2" 2pcs
For 2 1/2"-4" 3pcs



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Accessories



TSM Unit - Adds extra safety and long service life

The TSM unit designed for possible fugitive safe and clean environment, and provides a secondary stem seal for the valve stem, prolongs service life.

Function as stem extension for insulation.

Cast bosses for monitoring device.

Electric Actuator



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