



Extreme Reliability for Severe Applications

Minimal Maintenance

Decreased Downtime

Seamless Integration

Fully Customizable

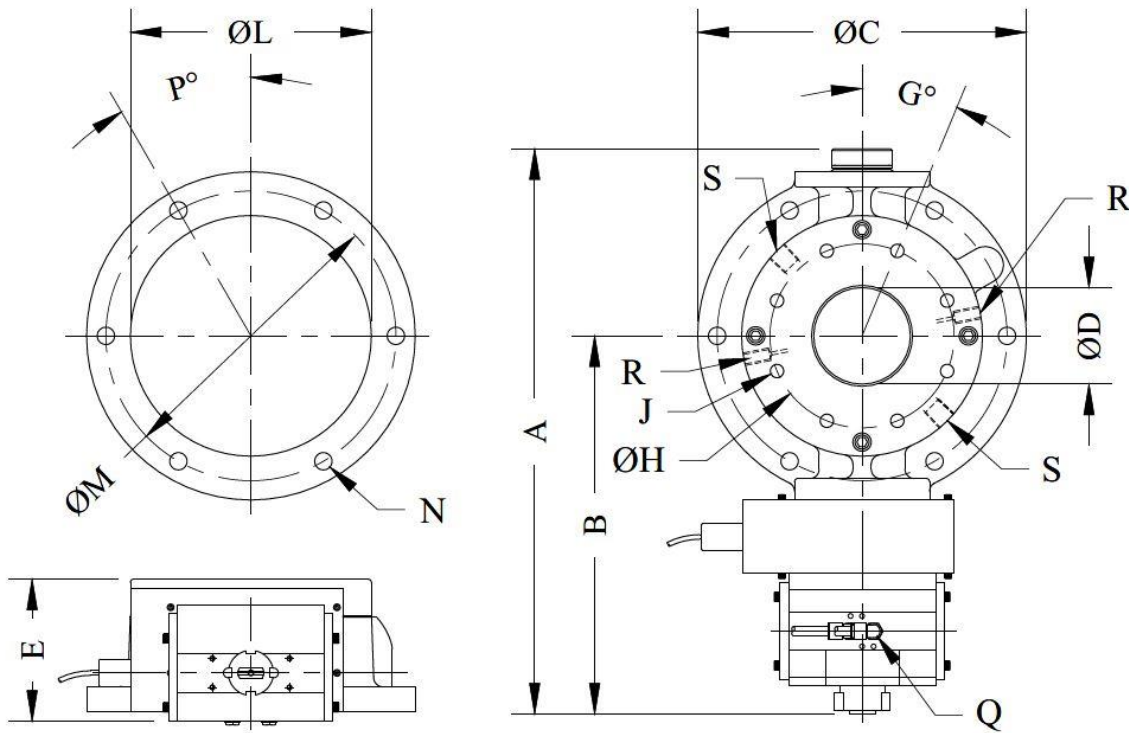
The Macawber Dome Valve® is a hemispherical actuating valve utilized as the filling valve to our various low velocity pneumatic conveying systems allowing a full-port flow of material from a material feed source, such as a hopper or silo. Its unique sealing technique ensures the valve will provide a reliable bubble-tight seal even when handling the most abrasive bulk materials across high pressure differentials and high temperatures. Water is circulated through the top plate, body and when temperatures exceed 400°F, across the dome itself. The seal member is able to compensate for wear achieving long life and reliability. Due to its simplicity, functionality and robust design it has been deployed into various applications from vessel filling valve to emptying valve in reactors, gasifiers, driers and mixer as well as electrostatic precipitators, baghouses and many others.

- Original patent holder (patent no. 4,137,935 | 5,642,751)
- Temperature rating up to < 662°F (350°C)
- Pressure rating up to 1300 psig (91 barg)
- Designs available from 1 inch to 30 inches
- Standard material A278 cast iron
- Standard #150 ANSI flange pattern. Available in standard custom patterns.
- Available in 304/316 stainless steel, aluminum, galvanized, and others
- Food grade, FDA, and pharmaceutical finishes
- Industrial coatings such as Teflon®, tungsten carbide, nickel, and others
- Elastomer options neoprene, silicone, Viton, EPDM, FDA rubber
- Fully assembled and tested prior to shipment / Manufactured in Maryville, TN USA
- Global customer support for service and spare parts
- ISO 9001:2015 Certified

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China – Macawber China



PH1 = 536 F MAX. / BULKHEAD CONFIGURATION

VALVE SIZE	A	B	C	D	E	Degree G	Inlet Fig. BC H	Inlet Fig. Bolt hole J	No. Inlet Fig. Holes	L	Outlet Fig. BC M	Outlet Fig. Bolt hole N	No. Outlet Fig. Holes	Degree P	Q	R	S	NET WT (LBS)
2"	16 5/8"	10 1/2"	9"	2 1/8"	7 3/16"	45	4 3/4"	5/8" 11UNC	4	5 1/2"	7 1/2"	5/8" THRU	6	30	1/4" NPT	1/8" NPT	3/8" NPT	66
4"	23 1/16"	15 7/16"	13 3/8"	4 1/8"	7 1/4"	22.5	7 1/2"	5/8" 11UNC	8	7 3/4"	11 11/16"	11/16" THRU	6	30	1/4" NPT	1/4" NPT	1/2" NPT	123
6"	28 13/16"	18 15/16"	17 5/16"	6 3/16"	8 9/16"	22.5	9 1/2"	3/4" 10UNC	8	12 1/4"	15 3/8"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	1/2" NPT	217
8"	32 15/16"	21 5/16"	20 1/2"	8 1/8"	10 1/16"	22.5	11 3/4"	7/8" 10UNC	8	13 1/4"	18 1/2"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	344
10"	39 3/16"	24 3/4"	24 3/8"	9 15/16"	10 11/16"	15	14 1/4"	7/8" 9UNC	12	19 5/16"	22 3/64"	1 1/16" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	543
12"	43 1/2"	27 1/2"	27 3/16"	12 1/16"	13 1/4"	15	17"	7/8" 9UNC	12	19 11/16"	24 13/16"	1 1/8" THRU	12	15	1/4" NPT	1/4" NPT	1" NPT	790
16"	68 5/8"	34 1/2"	35 13/16"	15 13/16"	16 15/16"	11.25	21 1/4"	1" 8UNC	16	26 7/16"	33 1/16"	1 3/8" THRU	20	0	1/4" NPT	1/4" NPT	1" NPT	1190

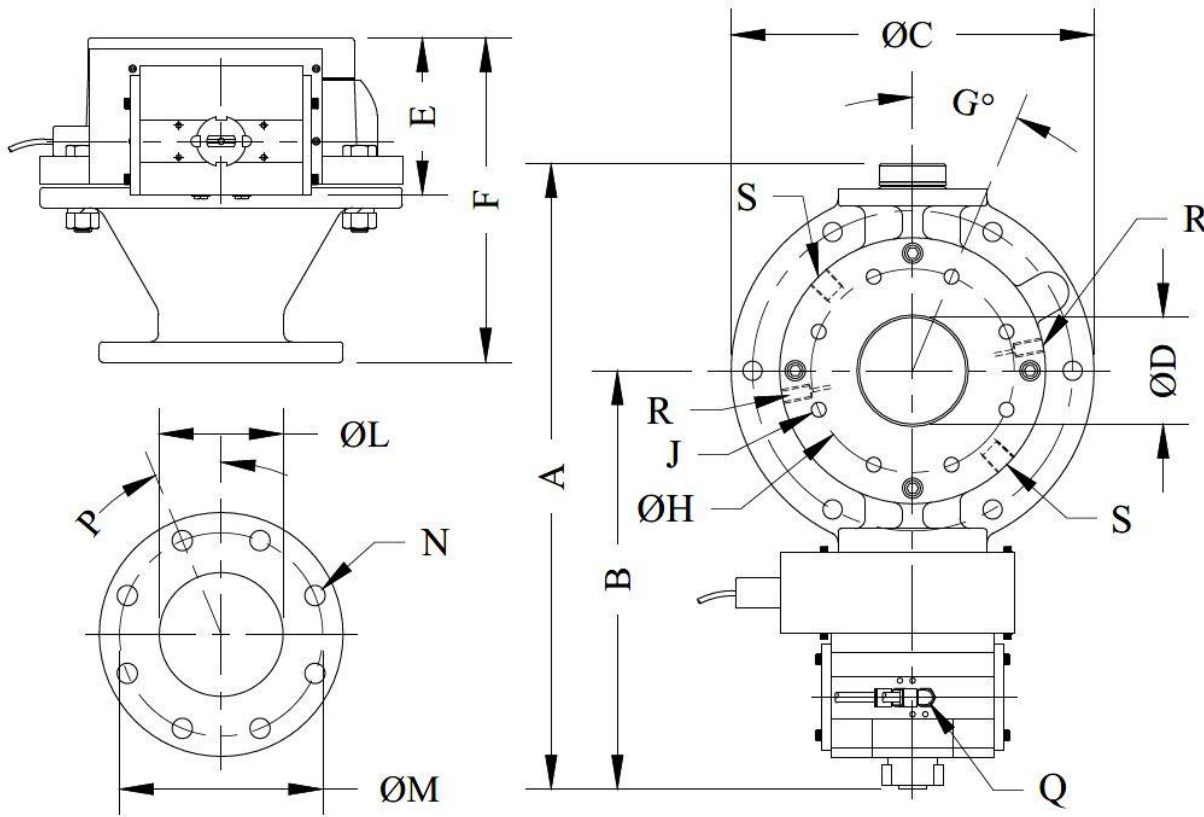
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PH1 = 536 F MAX /INLINE CONFIGURATION																			
VALVE SIZE	A	B	C	D	E	F	Degree G	Inlet Flg. BC H	Inlet Flg. Bolt hole J	No. Inlet Flg. Holes	L	Outlet Flg. BC M	Outlet Flg. Bolt hole N	No. Outlet Flg. Holes	Degree P	Q	R	S	NET WT (LBS)
2"	16 5/8"	10 1/2"	9"	2 1/8"	7 3/16"	12 7/16"	45	4 3/4"	5/8" 11UNC	4	2"	4 3/4"	3/4" THRU	4	45	1/4" NPT	1/4" NPT	3/8" NPT	86
4"	23 1/16"	15 7/16"	13 3/8"	4 1/8"	7 1/4"	13 3/4"	22.5	7 1/2"	5/8" 11UNC	8	4"	7 1/2"	3/4" THRU	8	22.5	1/4" NPT	1/2" NPT	1/2" NPT	163
6"	28 13/16"	18 15/16"	17 5/16"	6 3/16"	8 9/16"	16 15/16"	22.5	9 1/2"	3/4" 10UNC	8	6 1/16"	9 1/2"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	1/2" NPT	290
8"	32 15/16"	21 5/16"	20 1/2"	8 1/8"	10 1/16"	19 1/8"	22.5	11 3/4"	3/4" 10UNC	8	8"	11 3/4"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	420
10"	39 3/16"	24 3/4"	24 3/8"	9 15/16"	10 11/16"	21 3/4"	15	14 1/4"	7/8" 9UNC	12	10"	14 1/4"	1" THRU	12	15	1/4" NPT	1/4" NPT	3/4" NPT	682
12"	43 1/2"	27 1/2"	27 3/16"	12 1/16"	13 1/4"	24 13/16"	15	17"	7/8" 9UNC	12	12"	17"	1" THRU	12	15	1/4" NPT	1/4" NPT	1" NPT	1022
16"	68 9/16"	34 1/2"	35 13/16"	15 13/16"	16 15/16"	31 3/4"	11.25	21 1/4"	1" 8UNC	16	15 1/2"	21 1/4"	1 1/8" THRU	16	11.25	1/4" NPT	1/4" NPT	1" NPT	1660

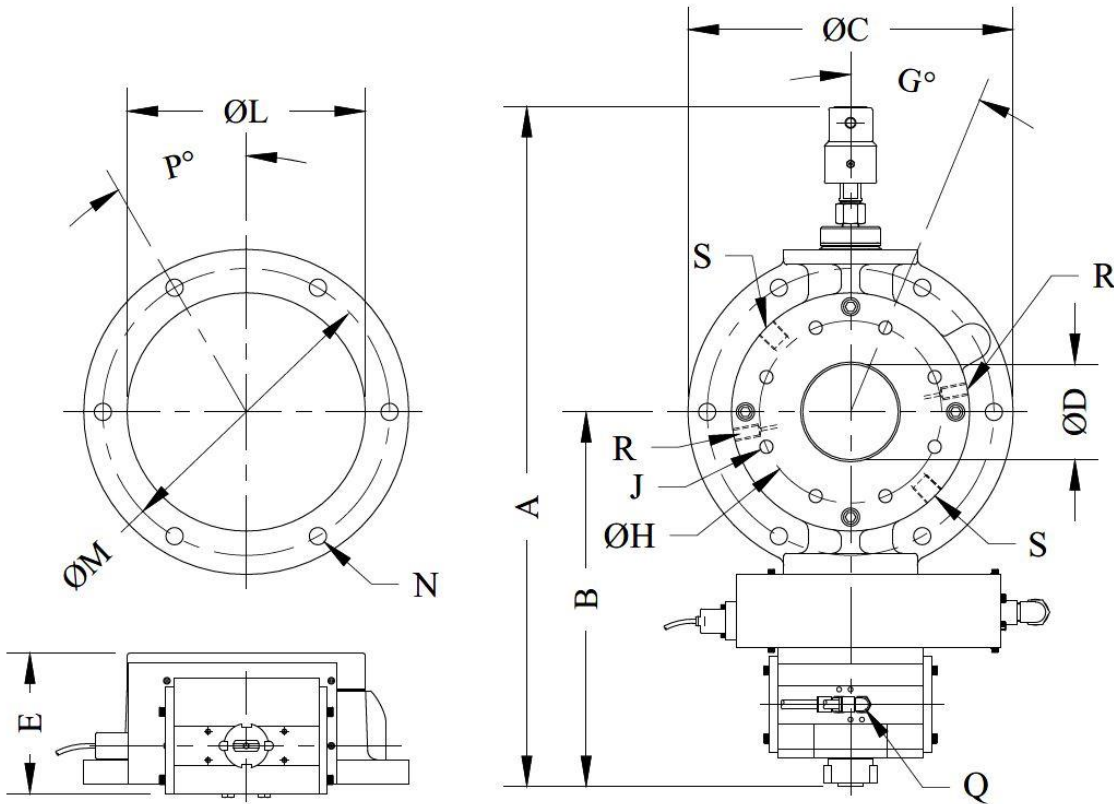
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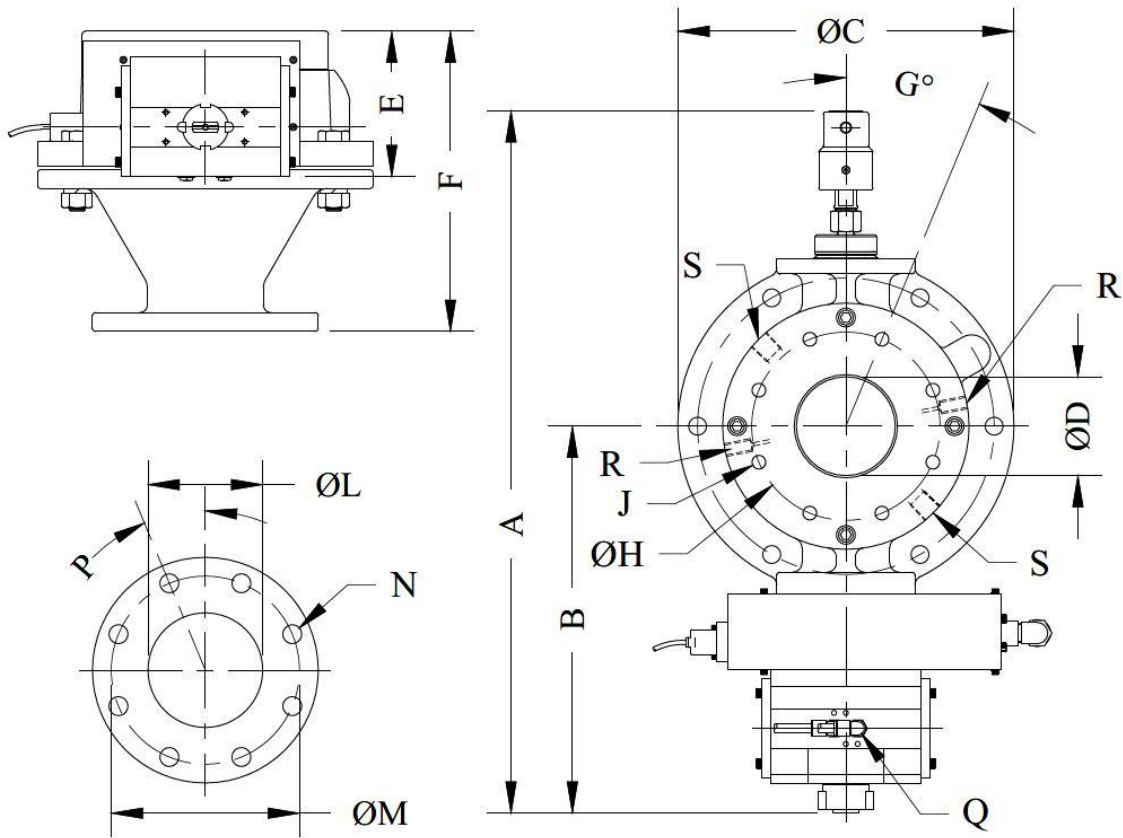


PH2 = 550 F MAX / BULKHEAD CONFIGURATION																		
VALVE SIZE	A	B	C	D	E	Degree G	Inlet Fig. BC H	Inlet Fig. Bolt hole J	No. Inlet Fig. Holes	L	Outlet Fig. BC M	Outlet Fig. Bolt hole N	No. Outlet Fig. Holes	Degree P	Q	R	S	NET WT (LBS)
2"	24 1/16"	13 15/16"	9"	2 1/8"	7 3/16"	45	4 3/4"	5/8" 11UNC	4	5 1/2"	7 1/2"	5/8" THRU	6	30	1/4" NPT	1/4" NPT	3/8" NPT	66
4"	30 7/8"	15 5/16"	13 3/8"	4 1/8"	7 1/4"	22.5	7 1/2"	5/8" 11UNC	8	7 3/4"	11 11/16"	11/16" THRU	6	30	1/4" NPT	1/4" NPT	1/2" NPT	123
6"	31 1/4"	21"	17 5/16"	6 3/16"	8 9/16"	22.5	9 1/2"	3/4" 10UNC	8	12 1/4"	15 3/8"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	329
8"	41 13/16"	23 5/8"	20 1/2"	8 1/8"	10 1/16"	22.5	11 3/4"	3/4" 10UNC	8	13 1/4"	18 1/2"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	344
10"	41 15/16"	27 1/2"	24 3/8"	9 15/16"	10 11/16"	15	14 1/4"	7/8" 9UNC	12	19 5/16"	22 3/64"	1 1/16" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	543
12"	53 3/8"	30 1/8"	27 3/16"	12 1/16"	13 1/4"	15	17"	7/8" 9UNC	12	19 11/16"	24 13/16"	1 1/8" THRU	12	15	1/4" NPT	1/4" NPT	1" NPT	790
16"	76 7/8"	42 5/8"	35 13/16"	15 13/16"	16 15/16"	11 1/4"	21 1/4"	1" 8UNC	16	26 7/16"	33 1/16"	1 3/8" THRU	20	0	1/4" NPT	1/4" NPT	1" NPT	1190

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PH2 = 550 F MAX / INLINE CONFIGURATION																			
VALVE SIZE	A	B	C	D	E	F	Degree G	Inlet Fig. BC H	Inlet Fig. Bolt hole J	No. Inlet Fig. Holes	L	Outlet Fig. BC M	Outlet Fig. Bolt hole N	No. Outlet Fig. Holes	Degree P	Q	R	S	NET WT (LBS)
2"	20 1/16"	13 15/16"	9"	2 1/8"	7 3/16"	12 7/16"	45	4 3/4"	5/8" 11UNC	4	2"	4 3/4"	3/4" THRU	4	45	1/4" NPT	1/4" NPT	3/8" NPT	86
4"	30 7/8"	17 5/16"	13 3/8"	4 1/8"	7 1/4"	13 3/4"	22.5	7 1/2"	5/8" 11UNC	8	4"	7 1/2"	3/4" THRU	8	22.5	1/4" NPT	1/2" NPT	1/2" NPT	163
6"	31 1/4"	20 15/16"	17 5/16"	6 3/16"	8 9/16"	16 15/16"	22.5	9 1/2"	3/4" 10UNC	8	16"	9 1/2"	7/8" THRU	8	22.5	1/4" NPT	1/2" NPT	1/4" NPT	290
8"	35 15/16"	23 15/16"	20 1/2"	8 1/16"	10 1/16"	19 1/8"	22.5	11 3/4"	3/4" 10UNC	8	8"	11 3/4"	7/8" THRU	8	22.5	1/4" NPT	1/4" NPT	3/4" NPT	420
10"	41 15/16"	27 1/2"	24 3/8"	9 15/16"	10 11/16"	21 3/4"	15	14 1/4"	7/8" 9UNC	12	10"	14 1/4"	1" THRU	12	15	1/4" NPT	1/4" NPT	3/4" NPT	682
12"	52 3/8"	30 1/8"	27 3/16"	12 1/16"	13 1/4"	24 13/16"	15	17"	7/8" 9UNC	12	12"	17"	1" THRU	12	15	1/4" NPT	1/4" NPT	1" NPT	1022
16"	76 7/8"	42 5/8"	31 13/16"	15 13/16"	16 15/16"	31 1/4"	11.25	21 1/4"	1" 8UNC	16	15 1/2"	21 1/4"	1 1/8" THRU	16	11.25	1/4" NPT	1/4" NPT	1" NPT	1660

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