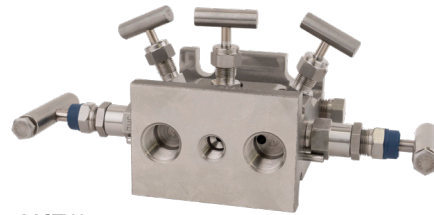


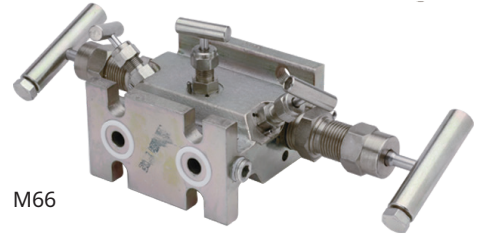
Five valve manifolds with a 3/16" (4.8 mm) or 3/8" (9.5 mm) orifice for differential pressure natural gas services to 6000 psig (414 barg).

General Application

M6TW and M6TAW offer a choice of connection options for remotely mounted differential pressure transmitter applications. The M66 offers a larger orifice for positive drainage of wet gas and hydrates and reduced signal variance in pulsating flows.



M6TW



M66

Technical Data

Materials	CS, 316 SS, Monel®
Seats	Metal or soft
Connections	Instrument: Flanged
	Process: Flanged or 1/2" NPT
Pressure (max):	6000 psig (414 barg) standard
Temperature (min/max)	-70°F to 1000°F (-57°C to 538°C)

Hastelloy® is a registered trademark of Haynes International, Inc.

Features

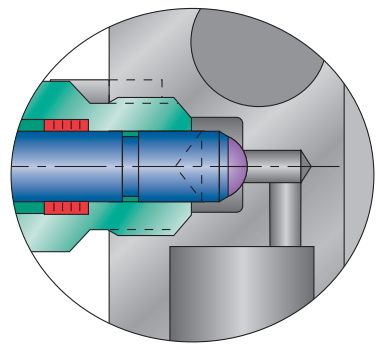
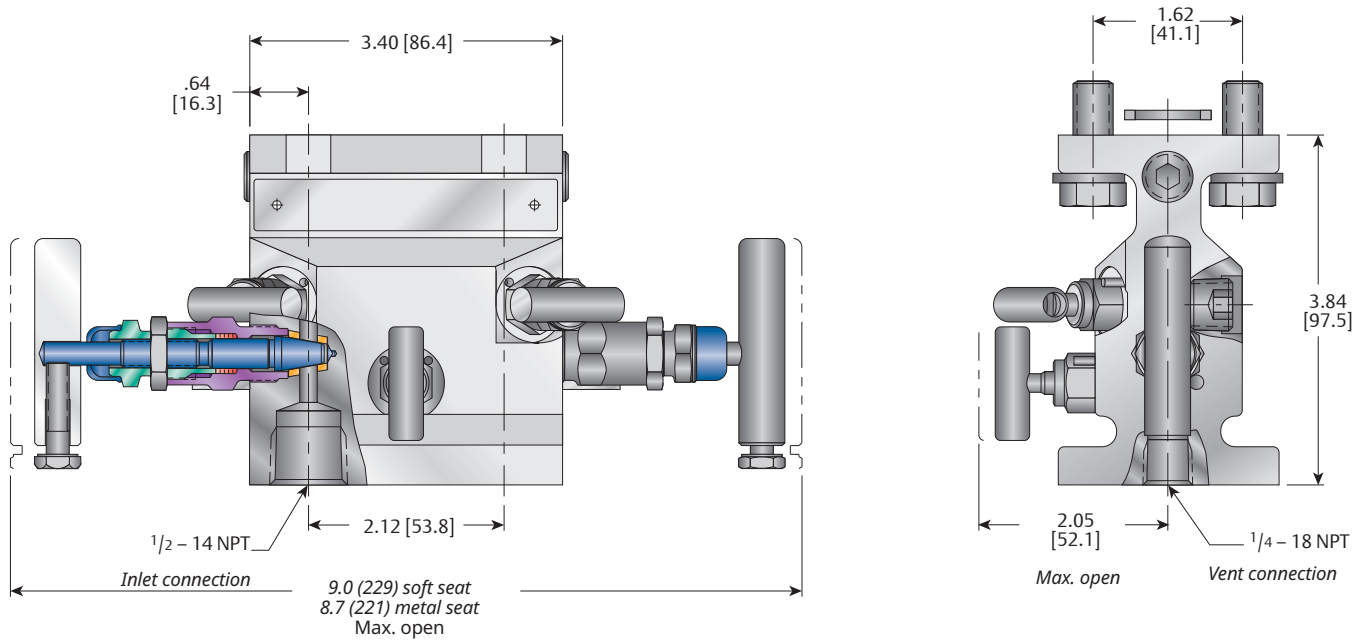
- Easy Installation of lightweight M6TW and M66 using pipestand mount with no additional support required.
- Upstream or downstream 1/4" FNPT ports for connecting the static pressure to the meter.
- Hard or field-replaceable soft seats for bubble-tight performance in dirty applications.
- FKM O-ring with PTFE back-up ring standard stem packing with long life assured by mirror finish stem in the packing area.
- Integral hard back seat forms a secondary seal for the stem threads when valve is fully opened.
- ENC plated rolled stem threads increase strength and extend life.
- Straight bore through block valves in soft seats 3/16" or 3/8" reduce plugging in natural gas service applications.

Distributed by: **DUNCAN CO** Ph: 612-331-1776
www.duncanco.com

TESCOMAGI_M6TW_M6TAW_M66 03012023

M6TW Dimensions

Soft seat (metal seat available) Dimensions, Inches [mm]



M6TW and M6TAW Metal Seat

NOTES

- M6TW installation kit consists of 4 B7 CS bolts $\frac{7}{16}$ -inch -20 x 1-inch A193-B7, 4 washers, and 2 PTFE as standard.
- Approximate valve weight: 6.0 lb [2.7 kg].

Metal seat:

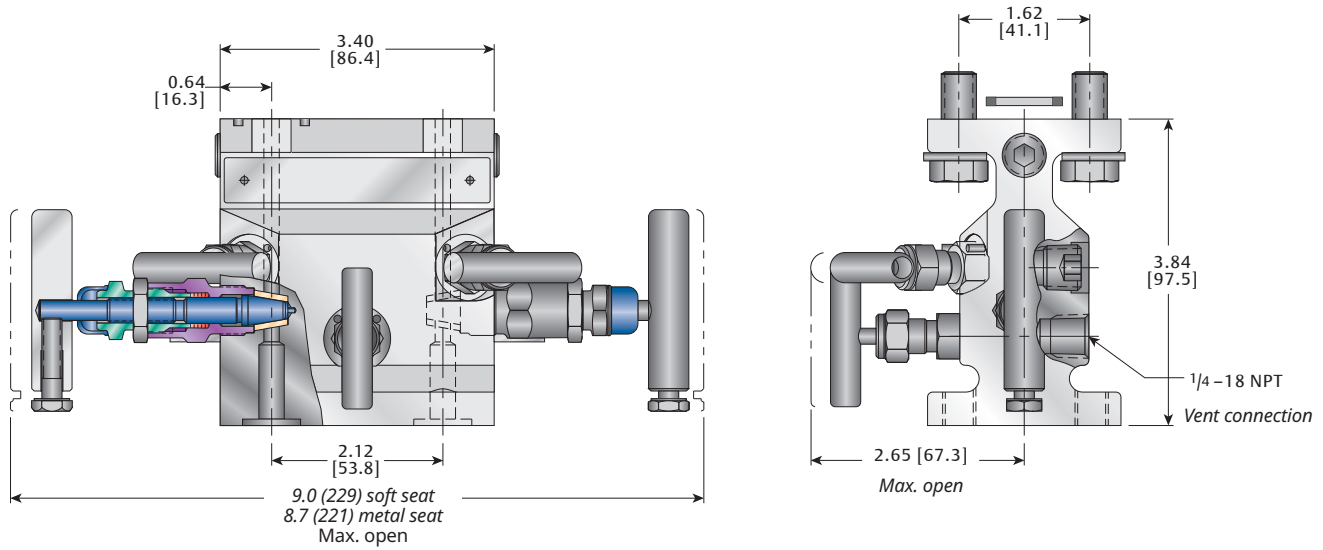
0.156-inch (4.0 mm) diameter orifice.
Valve Cv 0.36 maximum.

Soft seat:

0.187-inch (4.8 mm) diameter orifice.
Valve Cv 0.83 maximum.

M6TAW Dimensions

Soft Seat (Metal Seat available) Dimensions, Inches [mm]



NOTES

1. Approximate valve weight: 6.0 lb (2.7 kg).

Metal seat:

0.156-inch (4.0 mm) diameter orifice.
Valve Cv 0.36 maximum.

Soft seat:

0.187-inch (4.8 mm) diameter orifice.
Valve Cv 0.83 maximum.

- M6TAW installation kit consists of 4 B7 Cs bolts $\frac{7}{16}$ -inch -20 x 1-inch A193-B7, 4 washers, and 2 PTFE as standard.
- The M6TAW high pressure extrusion has flanged (integral) instrument and process connections.

Bonnet Assemblies

The M6TW and M6TAW offer the option of metal or soft seats. All stem threads are rolled and lubricated to prevent galling and reduce operating torque. All bonnets are assembled with a bonnet locking pin to prevent accidental removal while in service and a protective dust cap is fitted to contain stem lubricant and prevent the influx of contaminants.

Soft-seated Bonnet Assemblies

The soft-seated isolation/block bonnet assemblies have a one-piece rotating stem and plug with standard stem packing provided by an FKM O-ring and PTFE back-up ring or PTFE packing.

Metal-seated Bonnet Assemblies

The metal-seated isolation/block bonnet assemblies have a rotating stem with free swivel ball-type seat for long service life. The specially hardened ball seat is ideal for natural gas service. The stem seal is PTFE or Graphite packing gland is adjustable in service.

Standard Materials

Valve	Seat	Body	Bonnet	Block Valve	Ball	Flow washer
CS ^[1]	Soft	A105	A108	A276-316	N/A	316
CS ^[1] PTFE/Graphite	Integral	A105	A108/A479-316	A276-316	17-4PH	N/A
316 SS	Soft	A479-316	A479-316	A276-316	N/A	316
316 SS	Integral	A479-316	A479-316	A276-316	316	N/A
SG	Soft	A479-316	A479-316	Monel® 400	N/A	316
SG ^[4]	Integral	A479-316	A479-316	Monel® 400	Monel® K500	N/A
SG3 ^[5]	Hastelloy® C-276	Hastelloy® C-276	Hastelloy® C-276	Hastelloy® C-276	Elgiloy®	Hastelloy®

Pressure and Temperature Ratings

Valve	Packing	Seat material	Standard bolting		SS bolting	
CS ^[1] , 316 SS, SG ^[4] , SG3 ^[5]	PTFE O-ring	Delrin®	3000 psig at 200°F	[207 barg at 93°C]	3000 psig at 200°F	[207 barg at 93°C]
CS ^[1] , 316 SS, SG ^[4] , SG3 ^[5]	PTFE O-ring	PEEK	6000 psig at 200°F	[414 barg at 93°C]	4500 psig at 100°F	[310 barg at 38°C]
			3000 psig at 300°F	[207 barg at 149°C]	3000 psig at 300°F	[207 barg at 149°C]
CS ^[1] , 316 SS, SG ^[4] , SG3 ^[5]	PTFE	PTFE ^[3]	1000 psig at 150°F	[69 barg at 66°C]	1000 psig at 150°F	[69 barg at 66°C]
			200 psig at 500°F	[14 barg at 260°C]	200 psig at 500°F	[14 barg at 260°C]
CS ^[1] , 316 SS, SG ^[4] , SG3 ^[5]	PTFE	Body material	6000 psig at 200°F	[414 barg at 93°C]	4500 psig at 100°F	[310 barg at 38°C]
	Graphite/Low emissions		6000 psig at 200°F	[414 barg at 93°C]	4500 psig at 100°F	[310 barg at 38°C]
	Graphite		1500 psig at 1000°F	[103 barg at 538°C]	4500 psig at 100°F	[310 barg at 38°C]

NOTES

[1] CS parts are zinc TCP plated to prevent corrosion.

[2] PCTFE is no longer available (Polychlorotrifluoroethylene) is the exact equivalent of Kel-F®.

[3] Block valves only.

[4] SG (Sour Gas) meets the requirements of NACE MR0175/ISO 15156-3 (for chloride conditions ≤ 50 mg/l [ppm]) and NACE MR0103-2005.

[5] SG3 (Sour Gas) meets the requirements of NACE MR0175/ISO 15156-3 (for chloride conditions > 50 mg/l [ppm]).

[6] 316 SS bolts lower pressure ratings to a maximum of 4500 psi [310 barg]. Consult factory for full rating with 316 SS bolts.

[7] Minimum Temperature:

Carbon Steel -20°F (-29°C); 316 SS -70°F (-57°C), except for Oring -20°F (-29°C); and 316 SS PTFE bonnet Delrin® seats -40°F (-40°C)

Selection Guide - M6TW, M6TAW (3/16-inch (4.8 mm) Orifice)

M6TAW	V	D	S	-4	-SG
BASIC SERIES	PACKING	SEAT	BODY MATERIAL	PROCESS CONNECTIONS	OPTIONS
M6TW Pipe x flange	V PTFE	SOFT	C CS, A105	4 ^[2] 1/2-inch FNPT	AM AGI Mount kit for 2-inch pipe AMS AGI Mount kit for 2-inch pipe stand 316SS BC Accessory bracket for mounting conduit with AGCO Mount HD Hydrostatic testing (100 percent) (MSS SP-61) OC00 Cleaned for oxygen service R3V^[4] Add for use with Rosemount® model 3051C (SS 18-8 bolts) SSA^[4] SS Flange bolt (grade 18-8) - maximum pressure rating 4500 psi [310 barg] SSB 316 SS Flange bolt (B8M Class 2) - will provide full pressure rating SSC^[4] 316 Flange bolt (B8M) - maximum pressure rating 4500 psi [310 barg] SG (Sour Gas) meets the requirements of NACE MR0175/ISO 15156-3 for chloride conditions ≤ 50 mg/l [ppm] and NACE MR0103-2005 SG3 (Sour Gas) meets the requirements of NACE MR0175/ISO 15156-3 for chloride conditions > 50 mg/l [ppm] OR O-ring seals for gaskets PMI00 PMI Body PMI01 PMI Body and Bonnet PMI02 PMI Body, Bonnet and STEM T Wide groove for gasket seal TB Bottom test port
		V PTFE (block valves only)			
M6TAW Flange x flange	R O-ring H Graphite	D Delrin®	S 316 SS, A479-316		
		E PEEK	J Hastelloy®		
		HARD			
		I Integral (body material)			

NOTES

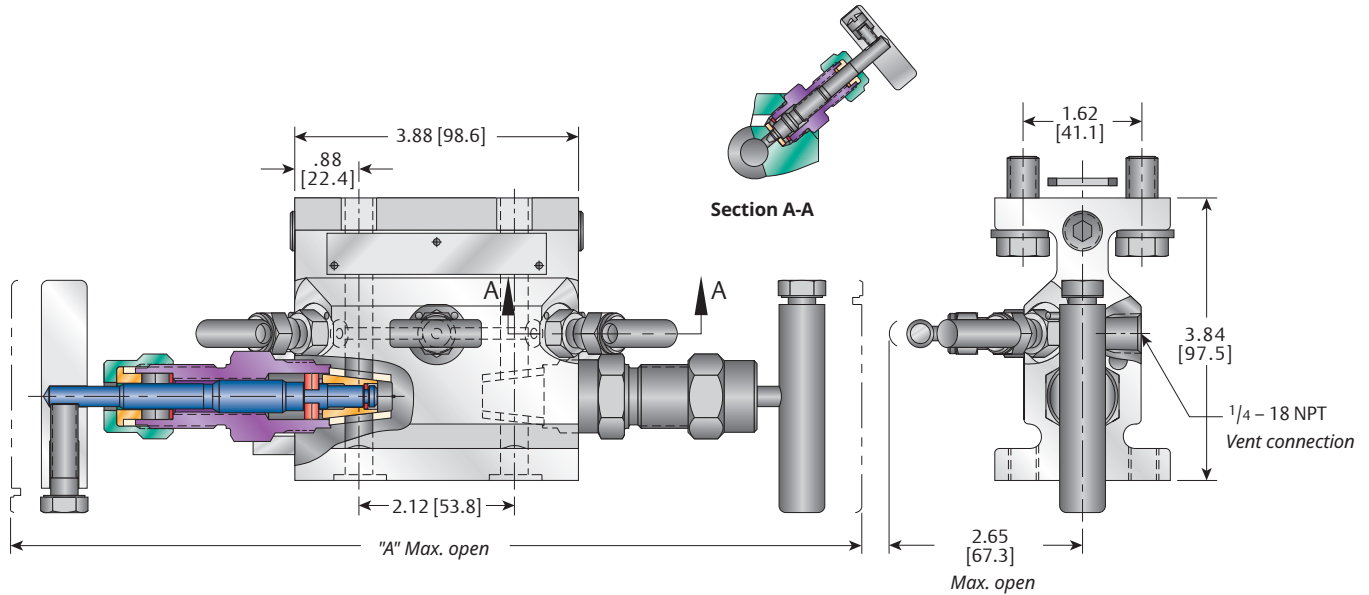
[1] For close couple Futbols (NPT and tube-ended) and adapter kits, order by part number noted within respective tables or as part of ACCU-Mount™ Catalog.

[2] Available for M6TW only.

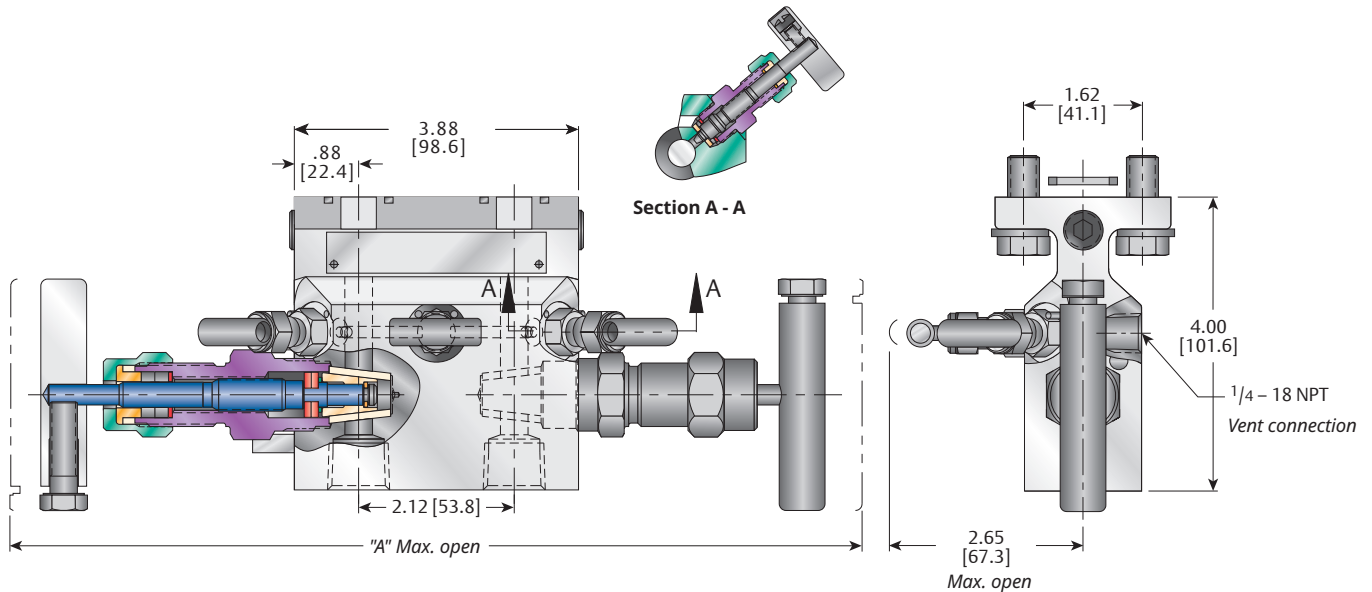
[3] Available for M6TW only.

[4] 316 SS bolts lower pressure ratings to a maximum of 4500 psi [310 barg]. Consult factory for full rating with 316 SS bolts.

M6TW Dimensions



M66T Dimensions, Inches (mm)

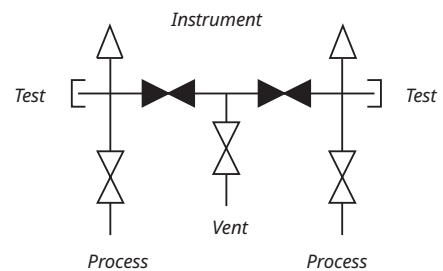


Dimensions, Inches (mm)

Packing	A
PTFE	11.98 (304.3)
O-ring	11.44 (290.6)

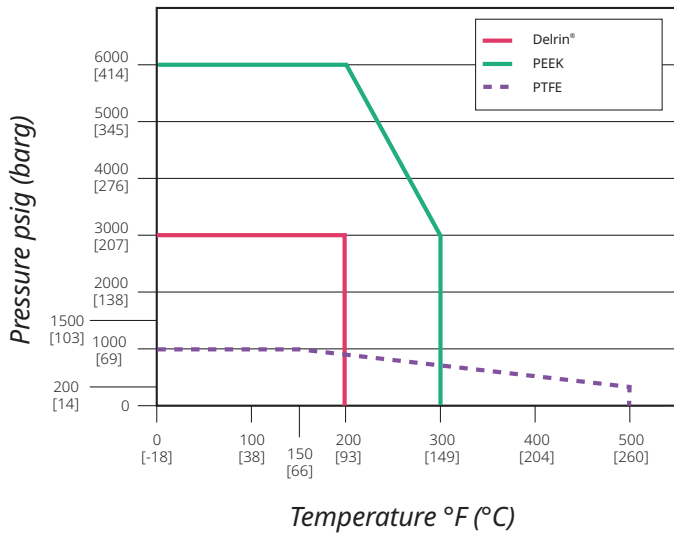
NOTES

1. Approximate valve weight: 7.6 lb (3.4 kg). 0.375-inch [9.5 mm] diameter orifice. Valve Cv 3.0 maximum.
2. Bottom static pressure connections 1/4-inch - 18 NPT available.
3. Installation kit consists of 4 B7 CS bolts 7/16-inch - 20 x 1-inch A193-B7, 4 washers, and 2 PTFE as standard.

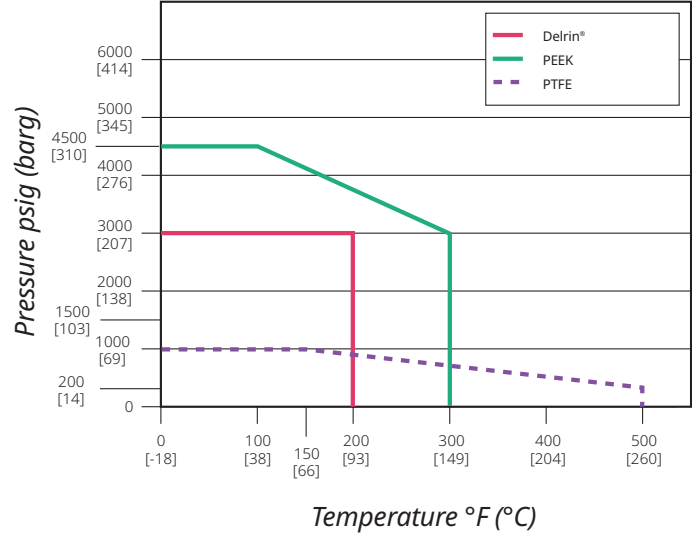


Pressure vs. Temperature

Pressure vs. Temperature – Standard Bolting^[1]



Pressure vs. Temperature – SS Bolting^[2]



Minimum Temperature

Carbon steel	-20°F	[-29°C]
316 SS O-ring seal	-20°F	[-29°C]
316 SS, Monel®, Hastelloy®, PTFE packed	-70°F	[-57°C]
316 SS, Monel®, Hastelloy®, Graphite packed	-70°F	[-57°C]

NOTES

1. PCTFE (Polychlorotrifluoroethylene) is no longer available, PCTFE is the exact equivalent of Kel-F®.
2. 316 SS bolts lower pressure ratings to a maximum of 4500 psi [310 barg]. Consult factory for full rating with 316 SS bolts.
3. Minimum Temperature:
Carbon Steel -20°F (-29°C); 316SS -70°F (-57°C), except for O-ring -20°F (-29°C);
and 316 SS PTFE bonnet Delrin® seats -40°F (-40°C).

Bonnet Assemblies

The M66 offers the option of metal or soft seats. All stem threads are rolled and lubricated to prevent galling and reduce operating torque. All bonnets are assembled with a bonnet locking pin to prevent accidental removal while in service.

Soft-seated Bonnet Assemblies

The 3/8" soft-seated bonnet block/Isolation assemblies have a two-piece non rotating stem and plug with standard stem packing provided by an FKM O-ring and PTFE back-up ring.

Metal-seated Bonnet Assemblies

The 3/8" metal-seated bonnet block/Isolation assemblies have a two piece non rotating stem and plug with seat for long service life. The stem seal is PTFE packing gland which is adjustable in service.

Selection Guide - M66 (3/8 inch (9.5 mm) Orifice)

M66A	V	D	S	-4	-SG
BASIC SERIES	PACKING	SEAT (CONE) SOFT (BLOCK VALVES ONLY)	BODY MATERIAL	PROCESS CONNECTIONS (M66T ONLY)	OPTIONS
M66T Pipe x flange	V PTFE	V PTFE	C CS, (zinc TCP plated to resist corrosion), A105	4 1/2-inch FNPT	<p>AM AGI Mount kit for 2-inch pipe stand mounting of manifold (see table p 6)</p> <p>AMS AGI Mount kit for 2 inch pipe stand mounting 316SS</p> <p>BC Accessory bracket for mounting conduit with AGCO Mount</p> <p>BP Accessory bracket for mounting purge meters with AGCO Mount.</p> <p>HD Hydrostatic testing (100 percent) (MSS SP-61)</p> <p>OC00 Cleaned for oxygen service</p> <p>R3V Add when mounting to Rosemount® model #3051C, 2024, -3095. Specify on all components. Use SS columns for rating</p> <p>SG NACE MR0175/ISO 15156-3 (for chloride conditions ± 50 mg/l [ppm]) and NACE MR0103-2005 (B7 mounting bolts standard, SS mounting bolts optional) (SS valves only) (not available for O-ring packed valves)</p> <p>SG3 NACE MR0175/ISO 15156-3 (for chloride conditions > 50 mg/l [ppm])</p> <p>SSA SS flange bolts (Grade 18-8) - Max. pressure rating 4500 psi [310 barg]</p> <p>SSC SS flange bolts (316 SS) - Max. pressure rating 4500 psi [310 barg]</p> <p>TB Static/test ports (bottom of manifold) ¼" - 18 NPT, 2 places</p> <p>EL() Installed street elbows in static test ports EL1 - Elbow facing bottom of manifold EL2 - Elbow facing outlet of manifold EL3 - Elbow facing top of manifold</p> <p>PMI00 PMI Body</p> <p>PMI01 PMI Body and Bonnet</p> <p>PMI02 PMI Body, Bonnet and STEM</p>
M66A Flange x flange	R O-ring	<p>D Delrin®</p> <p>E PEEK</p>	S 316 SS, A479-316		

Distributed by:  Ph: 612-331-1776
www.duncanco.com