

Consistent bolt mounting dimensions make adaptations effortless.

Anti-Extrusion Packing Protector to contain packing material.

Precision investment casting makes the M/C unit highly corrosion-resistant and capable of withstanding harsh environments.

Precision polished stem is blow out proof to ensure maximum operating safety.

A strategically placed monitoring connection allows for the adaption of a pressure gauge, sniffer sensor, or sealant injection. This ensures early detection of primary stem leaks.

Plugged port as standard.

A PTFE gasket placed between the valve and M/C unit blocks possible leaks and isolates media from the atmosphere.

Our precision-machined stem Double D flat provides easy installation of manual handle or actuator device.

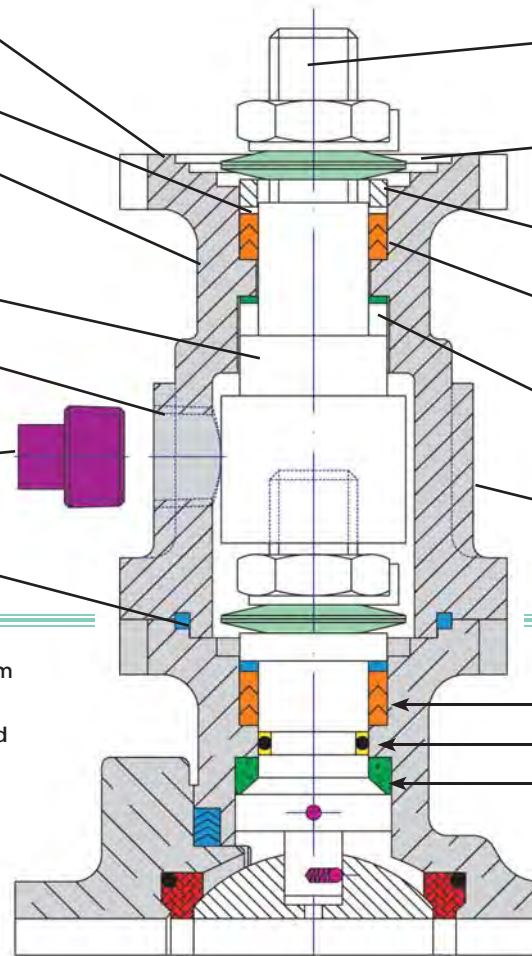
Two sets of Belleville washers provide automatic compensation of temperature and pressure fluctuation to maintain a valve leak-tight seal for longer cycle life.

Packing follower to provide better stem seal.

4-6pcs of V-ring TFM stem packing rings form a rigid secondary stem seal to isolate media from the atmosphere.

One 50/50 thrust bearing and one TFM thrust washer function as a primary stem seal.

Optional 2nd port for check valve injection or positive displacement. The other standard port can also be utilized.



Flo-Tite's Van Guard Stem Sealing System

This High-Tech Sealing System is standard on the following Valve Series:

Multi-Choice	3PC
Tri-Pro	3PC
Full Flo	Flanged

Stage I: Blow-out proof stem shoulder with 45 degree machined slope adds more sealing surface, effectively blocking all leak paths during rotation.

Stage II: O-Ring provides low torque resilient type seal, bringing old and new technologies together (O-Ring & V-Ring).

Stage III: Energized with spring washers and V-Ring packing set.

Certificate of Approval Valve Emission Test



For additional information, please see Tech Bulletin Page 45-20 and Tech Bulletin Page 58-20 or Consult Factory.

Award Winning Product

Media Containment Unit
Certified ISO 15848-1:2015
Methane Fugitive Emission Testing



CARING ABOUT OUR ENVIRONMENT

Recent years have been marked by the increasing demands for a cleaner environment. This translates into unyielding regulations for emission control of hazardous materials. While the United States has taken the primary steps in passing clean air legislation, few additional countries, until now, have followed our example. Today, many nations now recognize that early detection of fugitive emissions is a key step in ensuring cleaner air and waters.

In any industry that uses valves and pipes, one of the primary concerns is the potential leak path through the valve stem seals. Repeated cycling of the valve over extended periods of time usually is the cause of fugitive emissions through the primary valve stem packing. Flo-Tite's M/C unit, in addition to serving as a monitoring system, also provides a secondary sealing system for the valve stem. Considering the possibility of a plant shutdown due to emissions, EPA fine, workmen's compensation, lawsuit, bad public relations in the community, and higher insurance premium, our M/C unit is well worth its modest investment cost.

Dangerous High Temperature Severe Service Applications

Severe Service Design

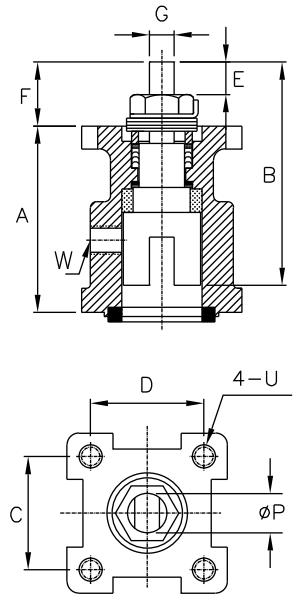
Flo-Tite's Media Cap unit provides an added safety feature with the addition of a secondary set of graphite stem packing. A live-loaded design using Belleville washers automatically compensates for temperature and pressure fluctuation, maintaining a leak proof seal for an extended cycle life. The unit's added height helps distance the valve operator from dangerously high temperature media.

Control Maintenance

Flo-Tite's valves with ISO Mount pads are designed to accommodate the use of our media cap. It's an ideal economical solution to reduce costly down time due to unscheduled maintenance repairs on ball valves. In many plant environments valves with stem leaks must be shut down for immediate repairs. These unscheduled repairs in many systems will cost the plant many times more than the actual installed ball valve. Flo-Tite's media cap seals off unlikely valve stem leaks easily and quickly in line and under pressure.

Dimensions

UNIT	mm/inch	A	B	C	D	E	F	G	P	U	W	Weight
MCU-1	inch	1.97	2.32	1.17	1.17	0.24	0.54	0.25	0.38	#10-24	1/8" NPT	0.7lbs
	mm	50	59	29.7	29.7	6	14	6.4	9.5			
MCU-2	inch	2.91	3.25	1.39	1.39	0.35	0.72	0.32	0.437	1/4-20unc	1/4" NPT	1.5lbs
	mm	74	82.5	35.4	35.4	9	18	8	11.1			
MCU-3	inch	2.91	3.35	1.95	1.95	0.43	0.9	0.38	0.625	5/16-18unc	1/4" NPT	2.1lbs
	mm	74	85	49.5	49.5	11	23	9.5	15.9			
MCU-4	inch	4.53	6.06	2.84	2.84	1.75	3.05	0.67	1.1	1/2-13unc	1/4" NPT	11.3lbs
	mm	115	154	72.1	72.1	44	77	17	28			
MCU-5	inch	7.22	8.87	3.48	3.48	1.65	3.61	1.02	1.71	1/2-13unc	1/4" NPT	C/F
	mm	183	225	88.4	88.4	42	91	26	43.5			



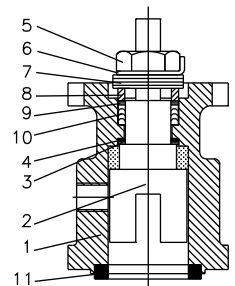
Valve Size Selection

Unit	F150/F300 300/200, HPF/HPS	SF150 RF15/RF30
MC-1	1/4-3/4 6-20	—
MC-2	1-1 1/4 25-32	—
MC-3	1 1/2-2 40/50	2 50
MC-4*	2 1/2-4 65-100	3-6 75-150
MC-5*	6-8 150-200	8-10 200-250

*MC4 & MC5 cannot be field mounted

Bill of Materials

ITEM	PART NAME	MATERIAL	QTY
1	Body Housing	A351 Gr CF8M	1
2	Stem	SS316	1
3	Thrust Bearing	50/50	1
4	Thrust Washers	TFM	2
5	Gland Nut	SS304	1
6	Lock Washer	SS304	2
7	Belleville Washers	SS304	1
8	Packing Gland Sleeve	SS304	1
9	Packing Protector	50/50	1
10	Stem Packing	RPTFE/Graphite	3/1
11	Gasket	RPTFE/Graphite	1



MC1, MC2, & MC3 field mounts to standard valves with our ISO Mount Pads, either at the factory or in the field onto existing Flo-Tite ball valves. Designed for both automated and manual service.

Flo-Tites Media Containment Unity (MC) can be mounted directly to the following valve models:

Flanged Ends

2 pc Full-Port, F150 & F300 1/2-2"

1 pc Reduced Port, SF150 & SF300

3 pc Threaded, Socket, & Buttweld Connections

Multi-Choice & Tri-pro Series sizes 1/4-2"

UNIQUE MEDIA CONTAINMENT BY Flo-Tite

Fugitive Emissions



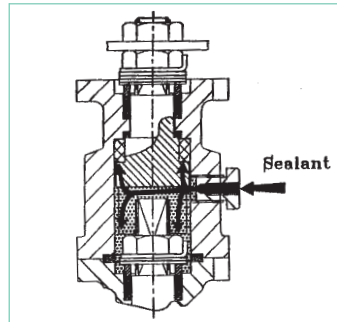
Flo-Tite's unique design allows for a strategically placed monitoring or sensing device to be fitted between the two sealing systems in the unlikely event of valve stem failure. An alert can be immediately identified.

Maintenance



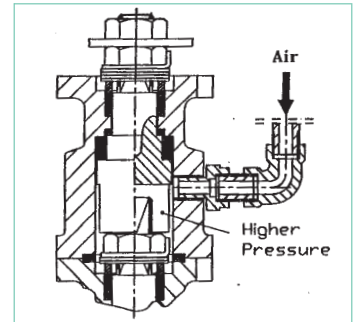
At Flo-Tite, we continue to work hard on the advancement of simple technology and sound ideas that offer economical solutions to reduce costly down time due to unscheduled maintenance repairs. Our M/C Unit seals off unlikely stem leaks easily and quickly. It is an ideal device that can be used many times over.

Lubricant/Sealing



Our Flo-Tite M/C unit can be adapted with a button head check valve to inject sealant providing an additional third seal or an emergency shut-off if needed.

Positive Displacement



An air line may be permanently connected to our M/C device, providing a positive pressure supply that exceeds the valve line pressure. This will insure against the possibility of any valve stem leak into the atmosphere.

Elimination or reduction of fugitive emissions allows process industries to save millions of dollars while safeguarding our environment.

Our M/C unit is easily adapted to Flo-Tite's standard ball valve in three easy steps without special tools



Unbolt Actuator set or dismantle handle from the ball valve.



Place PTFE gasket with M/C unit on top of ball valve recess



Reinstall the actuator set or handle to M/C unit.

Ideal Design when valve operation must be elevated from external temperature range of -150° to +1000° F



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Due to continuous development & improvement of our product range, we reserve the right to alter the dimensions and techcal data included in this brochure.

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