

Fisher Internal Valves

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C477



C471



C407



Bergquist

Threaded Internal Valves

Fisher offers the widest variety of threaded internal valves in the industry. While their most frequent use is in the liquid and vapor openings of bobtail and transport trucks, the valves can also be used in stationary storage tanks, complying with NFPA 58 requirements. Designed as primary shutoff valves, the units are designed with several features that help control product discharge.

Steel and stainless steel constructions are standard throughout with total stainless steel construction available. The valves have spring-loaded PTFE packing for an effective seal against leakage. Standard disc material is Nitrile (NBR), but PTFE, Perfluoroelastomer (FFKM), Fluorocarbon (FKM), Ethylenepropylene (EPDM), and Neoprene are available. (Note: PTFE seats are not bubble tight.)

All Fisher® brand internal valves are suitable for LP-Gas or anhydrous ammonia (NH₃) service. Special construction is available for other compressed gases. All internal valves have a compact, one-piece body design. They can be actuated manually, by cable control, or with an air cylinder. The use of non-Fisher actuators will void internal valve warranty and may result in leakage of the gland packing caused by premature wear.

C407-10 Series (1 1/4" Body Size) - An excellent valve for vapor return lines on bobtail trucks. Other applications include use as a main valve on small capacity pumping systems, NH₃ nurse tanks and in-line installations.

C400 Series (2" & 3" Body Sizes)

Fisher offers two different body styles in 2" and 3" threaded sizes so that the best body style can be selected for the particular application.

C477 Series (Straight-Through Body) - The most compact and economical unit in the series, the C477 Series has one bottom outlet. The C477 Series can be used on bobtail, transport, stationary tank and in-line installations.

C471 Series (Tee Body) - This unit is designed with two outlets, bottom and side. The side outlet permits installing horizontal piping immediately adjacent to the tank without the need for extra pipe fittings. Either connection can be used for truck filling or withdrawal. The C471 is used primarily on bobtails and transport trucks.

Threaded Internal Valves

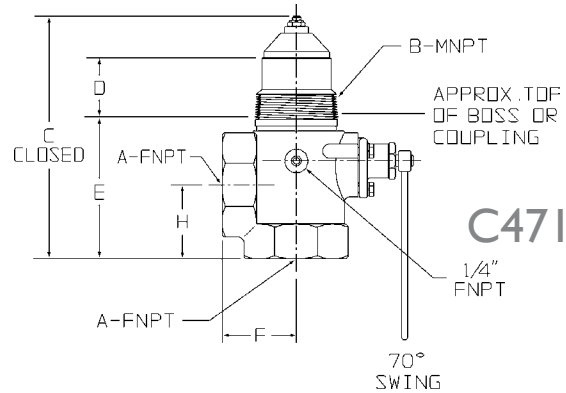
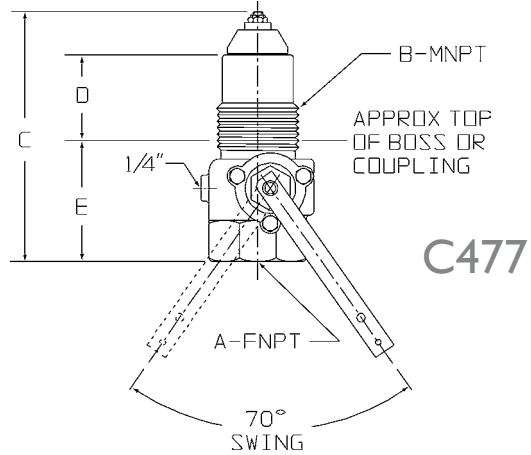
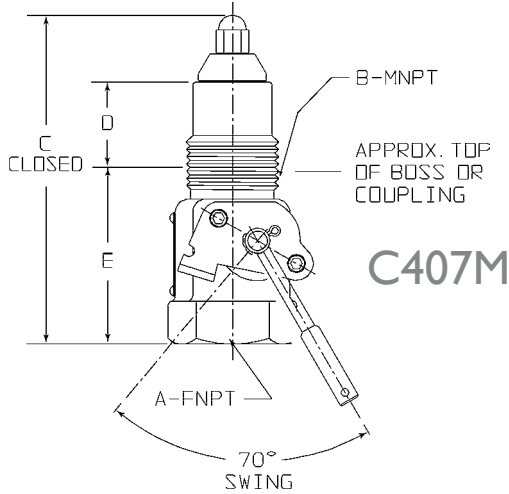
Threaded Internal Valves							
Connections Inlet x Outlet	Type Number		Closing Flow GPM Propane		Vapor Capacity SCFH Propane		
	Straight Body	Tee Body	Half Coupling	Full Coupling	25 psig Inlet Half Coupling	100 psig Inlet Half Coupling	100 psig Inlet Full Coupling
1 1/4" MNPT x 1 1/4" FNPT	C407-10-03	-	30	-	5,600	-	9,300
	C407-10-05	-	50	35	7,800	-	13,200
	C407-10-08	-	80	65	11,200	-	19,200
2" MNPT x 2" FNPT	C477-16-100	C471-16-105	105	60	-	45,000	49,000
	C477-16-150	C471-16-150	150	80	-	69,000	69,000
	C477-16-250	C471-16-250	250	130	-	-	-
3" MNPT x 3" FNPT	C477-24-160	C471-24-160	160	120	-	71,000	71,000
	C477-24-260	C471-24-260	265	230	-	127,000	127,000
	C477-24-370	C471-24-370	375	320	-	178,000	178,000
	C477-24-460	C471-24-460	460	160	-	-	-

Note - Type number C471 and C477 are the new style Jet-Bleed® internal valves

Fisher Internal Valves

Threaded Valve Specifications

Pressure Rating: 400 psig WOG
 Temperature: Up to 150°F
 Body: Ductile iron (C471 & C477)
 Cast steel (C407)
 Packing: TFE
 Seat Discs: Synthetic rubber
 Stub Shaft & Stem: Stainless steel



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Threaded Valves

Threaded Valves - All imensions are in inches								
Type Number	A FNPT	B MNPT	C	D	E	F	H	Installation Clearance Diameter
C407-10	1.25	1.25	5.90	1.86	2.88	---	---	5.00
C471-16	2.00	2.00	8.07	2.40	4.05	2.76	2.66	10.00
C471-24	3.00	3.00	9.00	2.60	4.57	3.25	3.26	13.38
C477-16	2.00	2.00	8.07	2.40	4.05	---	---	10.00
C477-24	3.00	3.00	9.00	2.60	4.57	---	---	13.38



WARNING

A line break downstream of a pump may not actuate the excess flow valve. If any break occurs in the system or if the excess flow valve closes, the system should be shut down immediately.

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C484-24



C483-24



C404A32



Flanged Internal Valves

Flanged valves provide a sturdy and compact means of directly mounting a pump or piping connection. Special stud bolts, weakened with a groove on the outside diameter, are furnished with the valves to permit the pump or piping to shear off in the event of an accident, leaving the valve intact. A built-in excess flow valve reduces the chance of uncontrolled product discharge when flow exceeds the rated flow capacity.

All flanged valves have an internal screen for pump protection that can be easily removed if the valve is used primarily for filling the tank. They also contain PTFE packing to resist stub shaft leakage. These valves can be activated manually, by cable control or by air cylinder.

3" Flanged Sizes

Type C484-24 - A single-flange unit widely used on bobtail and transport trucks for a compact means of direct pump connection to the valve outlet.

Type C483-24 - A double-flange unit designed for special bobtail truck applications where the pump must be lowered to clear the truck frame or other obstacles. A special shear section in the body permits the lower section of the valve to shear off in the event of an accident, leaving the critical shutoff parts within the tank.

4" Flanged Size (Stainless Steel Construction)

Type C404-32 - Used widely on transport trucks and large storage tanks, the 4" flanged unit comes standard with all stainless steel construction for maximum protection against rust and corrosion. For easy field maintenance, the seat ring is field replaceable.

The C404-32 is the only internal valve that cannot be opened and closed by the Type P650 cable control. An Allegheny or Wheaton control is recommended.

Factory installation of an air cylinder or manual operating handle (with remote release mechanism) is available on the 4" flanged valves. Refer to ordering information below.

3" Flanged Internal Valves

Type Number	Flange Connection Size		Closing Flow GPM Propane	Vapor Capacity SCFH Propane	
	Inlet	Outlet			
Single Flange			Standard	100 psig Inlet Standard	
C484-24-160	3" 300 lb. ANSI RF Modified (4 5/8" dia. Bore)	3" 300 lb. ANSI RF	160	71,000	
C484-24-250			250	-	
C484-24-400			400	181,000	
Double Flange					
C483-24-160			160	71,000	
C483-24-260			265	127,000	
C483-24-400	400	181,000			

4" Flanged Internal Valves

4" Size Available in Single Flange Only			Flange Connection Size		Closing Flow GPM Propane	Vapor Capacity SCFH Propane	
Cable	Air	Manual	Inlet	Outlet		25 PSIG Inlet	100 psig Inlet
C404-32-34	C404A-32-34	C404M-32-34	4" 300 lb. ANSI RF Modified (5 7/8" dia. Bore)	4" 300 lb. ANSI RF	340	61,600	104,800
C404-32-40	C404A-32-40	C404M-32-40			400	63,900	108,600
C404-32-60	C404A-32-60	C404M-32-60			600	83,200	141,500
C404-32-80	C404A-32-80	C404M-32-80			800	259,600	356,200
C404-32-100	C404A-32-100	C404M-32-100			1000	- - -	- - -

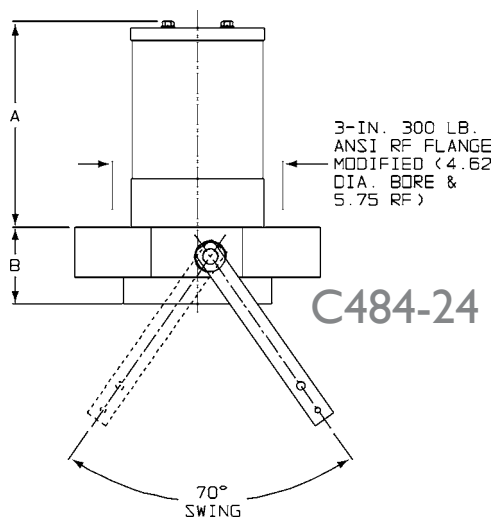
Fisher Internal Valves



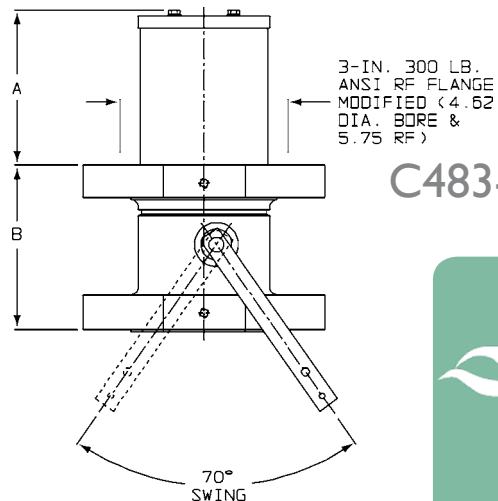
Flanged Valve Specifications

Pressure Rating: 400 psig WOG
 Temperature: Up to 150°F
 Body: Cast steel (C483 & C484)
 Stainless steel (C484)

Packing: TFE
 Seat Discs: Synthetic rubber
 Stub Shaft & Stem: Stainless steel
 Gaskets: Non-asbestos spiral wound graphite



C484-24

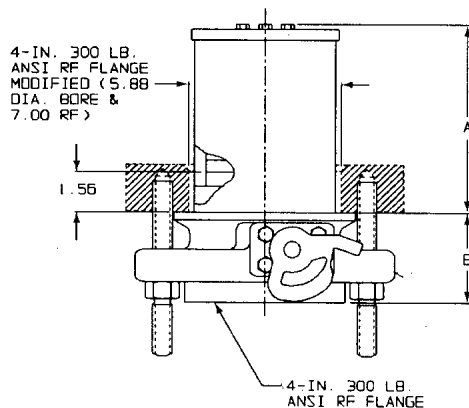


C483-24

Flanged Valves

Dimensions are in inches

Type Number	Tank Connections	A	B
C484-24	3" 300 LB. ANSI RF Flange	6.75	2.56
C483-24	3" 300 LB. ANSI RF Flange	5.33	5.62
C404-32	4" 300 LB. ANSI RF Flange	7.55	3.48

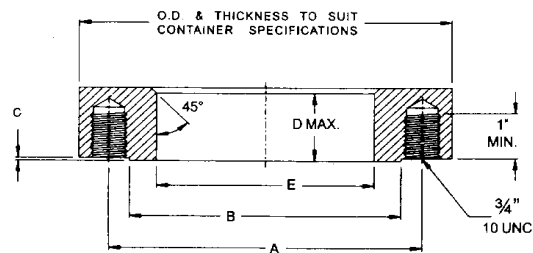


C404-32

Tank Connections

All dimensions are in inches

300 LB. ANSI RF Flange	A			B RF	C RF	D	E	Mating Flange O.D.
	DBC	NO.	SIZE					
2	5.00	8	.63	3.59	.06	1.45	2.25	6.50
3	6.62	8	.75	5.75	.06	1.50	4.62	8.25
4	7.88	8	.75	7.00	.06	1.56	5.88	10.00



Studding Outlet

