

“V”-Ring Seal Globe and Angle Valves for Bulk Storage Containers, Transports, Bobtails and Plant Piping A7500 Series and TA7500 Series

Application

Specifically designed to ensure positive shut-off and long, maintenance free service life in liquid or vapor service on bulk storage containers, transports, bobtails, cylinder filling plants and plant piping.

The high quality construction and wide variety of sizes make them highly suited for use with LP-Gas, anhydrous ammonia and in the chemical and petrochemical industries.

Features

- “V”-ring spring-loaded pressure stem seal provides for leak-proof operation. No packing to retighten or replace.
- Circular bridge in the globe design and a dropped seat in the angle design achieve greater flow with less pressure drop.
- Swivel seat disc assembly minimizes the seat disc from grinding on the body seat. The seat disc stops rotating as soon as it touches the body seat. This feature provides for good seat alignment and ensures long seat life.
- ¼” F. NPT plugged boss on the downstream side of the valve body allows attachment of a hydrostatic relief valve or vent valve.
- “V”-ring stem seal virtually eliminates hard to turn handles frequently encountered with packed type seals.
- Heavy duty rolled ACME stem threads provide quick action and long service life.

Materials

Body Ductile Iron
 Bonnet (7034, 7505-7508)..... Steel
 Bonnet (7509-7518)..... Ductile Iron
 Valve Stem Stainless Steel
 Wiper Ring..... Synthetic Rubber
 Seat Disc See Ordering Chart
 “V”-Rings Teflon
 Handwheel..... Ductile Iron
 Spring Stainless Steel



A7518FP



TA7034



A7505AP



A7513AP



A7514AP



A7517AP



A7517FP



Ordering Information

Part Number				Inlet and Outlet Connection	Port Diameter	Flow at 1 PSIG Pressure Drop (Cv) (GPM/Propane)***		Accessories	
Buna N Seat Discs		Teflon Seat Discs*				Globe	Angle	Hydrostatic Relief Valve	Vent Valve
Globe	Angle	Globe	Angle						
-	-	TA7034P	TA7034LP	½” F. NPT	¾”	10.0	14.8	SS8001U	TSS3169
A7505AP	A7506AP	TA7505AP	TA7506AP	¾” F. NPT		12.0	17.7		
A7507AP	A7508AP	TA7507AP	-	1” F. NPT	1”	17.8	22.0		
A7509BP	A7510BP	TA7509BP	TA7510BP	1¼” F. NPT	1¼”	36.5	54.0		
A7511AP	A7512AP	TA7511AP	TA7512AP	1½” F. NPT	1½”	43.0	55.5		
A7511FP	-	TA7511FP	-	1½” Flange**		46.0	-		
A7513AP	A7514AP	TA7513AP	-	2” F. NPT	2”	75.0	88.5		
A7513FP	A7514FP	TA7513FP	TA7514FP	2” Flange**		78.0	133.0		
A7517AP	A7518AP	TA7517AP	-	3” F. NPT	3½”	197.0	303.0		
A7517FP	A7518FP	TA7517FP	-	3” Flange**					

* Teflon seat discs on valves built to order.

** 300# ANSI R.F. Flange.

*** To obtain approximate flow at other than 1 PSIG pressure drop, multiply flow in chart by square root of pressure drop. Example: 7514FP @ 9 PSIG = 133 x 9 = 399 GPM/propane. For NH₃ flow, multiple propane flow by .90.

Globe and Angle Valve Dimensions

Drawing	Valve Number (A or TA Prefix)	Inlet & Outlet	Port Diameter	Dimensions						
				A	B	C	Flanges			G
							D	E	F	
	7034P	1/2" F. NPT	3/4"	4 3/4"	-	3 11/16"	-	-	-	-
	7505AP	3/4" F. NPT				4 5/16"				
	7507AP	1" F. NPT	1"							
	7034LP	1/2" F. NPT	3/4"	4 3/4"	1 3/4"	-	-	-	-	-
	7506AP	3/4" F. NPT								
	7508AP	1" F. NPT	1"							
	7509BP	1/4" F. NPT	1 1/4"	7 1/16"	-	4 7/8"	-	-	-	-
	7511AP	1/2" F. NPT	1 1/2"	6 3/4"		5 5/16"				
	7513AP	2" F. NPT	2"	7 3/16"		5 7/8"				
	7517AP	3" F. NPT	3 3/8"	13 1/4"		9"				
	7510BP	1/4" F. NPT	1 1/4"	6 3/4"	2 1/4"	-	-	-	-	5 1/4"
	7512AP	1/2" F. NPT	1 1/2"	6 13/16"	2 7/16"					
	7514AP	2" F. NPT	2"	7 3/16"	2 11/16"					
	7518AP	3" F. NPT	3 3/8"	11 3/4"	4"					
	7511FP	1 1/2" Flange	1 1/2"	7 9/16"	-	7 1/2"	6 1/8"	3/4"	2 7/8"	5 1/4"
	7513FP	2" Flange	2"	8 7/16"		8 1/2"	6 1/2"	1 3/16"	3 5/8"	
	7517FP	3" Flange	3 3/8"	13 1/4"		11 1/8"	8 1/4"	1 1/8"	5"	
	7514FP	2" Flange	2"	7 1/2"	5 1/4"	-	6 1/2"	1 3/16"	3 5/8"	5 1/4"
	7518FP	3" Flange	3 3/8"	11 1/4"	6 1/4"		8 1/4"	1 1/8"	5"	9"

NOTE: Regarding 7505AP through 7510BP — the thread used for assembling the bonnet to the body of the valve is a left hand thread. We advise our customers to be cognizant of this assembly design in attempting to remove the bonnets of these valves in order to avoid serious damage to the valves.

Flange Dimensions

	Valve Number (A or TA Prefix)	Size	Flange Drilling	D	E	F	H
	7511FP	1 1/2"	7/8" Bolt Holes on a 4 1/2" Bolt Circle Diameter	6 1/8"	1 3/16"	2 7/8"	3/4"
	7513FP	2"	3/4" Bolt Holes on a 5" Bolt Circle Diameter	6 1/2"	7/8"	3 5/8"	1 3/16"
	7514FP						
	7517FP	3"	7/8" Bolt Holes on a 6 5/8" Bolt Circle Diameter	8 1/4"	1 1/8"	5"	1 1/16"
7518FP							

* Reducing screwed flanges are available for reducing 1 1/2" flange to 1 or 1 1/4" pipe thread and 3" flange to 2 1/2" pipe thread. Order from your local piping supplier.

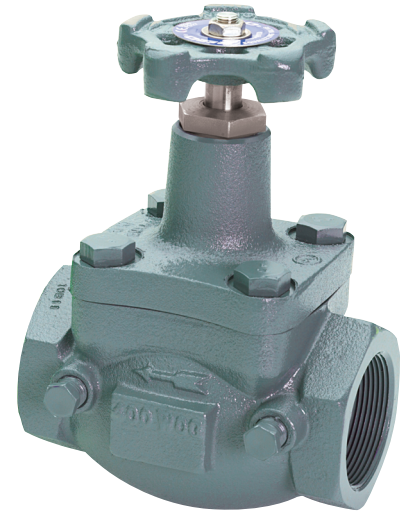
2" & 3" Globe/Angle valves with Built-in Automatic Back Check HA7513AP/HA7514AP and HA7517AP/HA7518AP

Application

Designed for use in conjunction with our 6588LE and 6589LE low emission filler valves installed on bobtails and transports. The valves are designed to stop flow out of the container when the hand-wheel is closed. They incorporate an automatic integral back check that is designed to allow flow back into the container to prevent liquid from becoming trapped between the 6588/89LE and the closed globe/angle valve.

Features

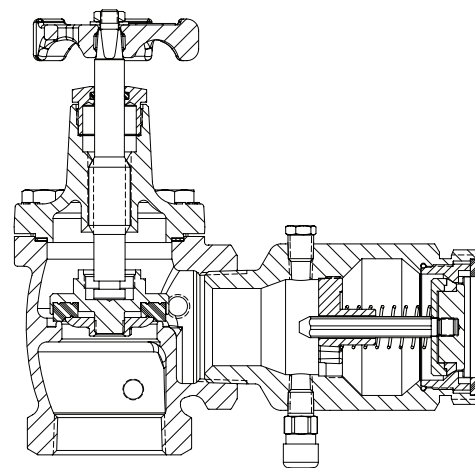
- V-ring spring loaded pressure stem seal provides for leak-proof operation. No packing to retighten or replace.
- Circular bridge in globe design and a dropped seat in the angle design achieve greater flow with less pressure drop.
- Swivel seat disc assembly minimizes wear which provides for good alignment and long seat life.
- 1/4" F.NPT plugged holes on upstream and downstream sides of the valve.
- Heavy duty rolled ACME stem threads provide quick action and long service life.
- Seat Disc assembly incorporates an automatic back check valve, eliminating the need for a separate hydrostatic relief valve.



HA7513AP



HA7514AP



Materials

Body Ductile Iron
 Stem Stainless Steel
 Seat Stainless Steel
 Seat Disc Synthetic Rubber
 Return Spring Stainless Steel



Ordering Information

Part Number		Inlet/Outlet Connection	Port Diameter	Flow at 1 PSIG Pressure drop GPM Propane	
Globe	Angle			Globe	Angle
HA7513AP	HA7514AP	2" -FNPT	2"	75.0	88.5
HA7517AP	HA7518AP	3" -FNPT	3 1/2"	197.0	303.0

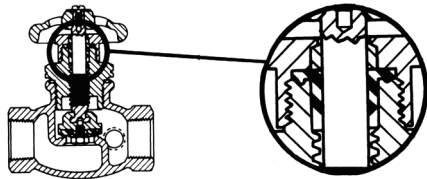
Flange Seal Globe and Angle Valve Information

General Information

Globe and Angle Valves, incorporating the synthetic rubber flange seal design, operate on the same principle as the "V"-ring valves. Gas pressure in the valve is exerted against the synthetic rubber flange, forcing it tightly against the stem.

Leak-tight performance is assured and periodic adjustment is not required. The synthetic rubber construction provides smooth operating performance with long service life.

These valves all incorporate a plugged 1/4" NPT side boss on the downstream side of the valve that can be equipped with a hydrostatic relief valve or vent valve.



Please be familiar with the "Installation and Operation Note" and "Downstream Accessory Boss" section of the "V"-ring valve design general information before ordering these valves.

General Features

Rugged quick-acting ACME threads on stem. Threads are under flange ring . . . dust, sand and grit can't reach them.

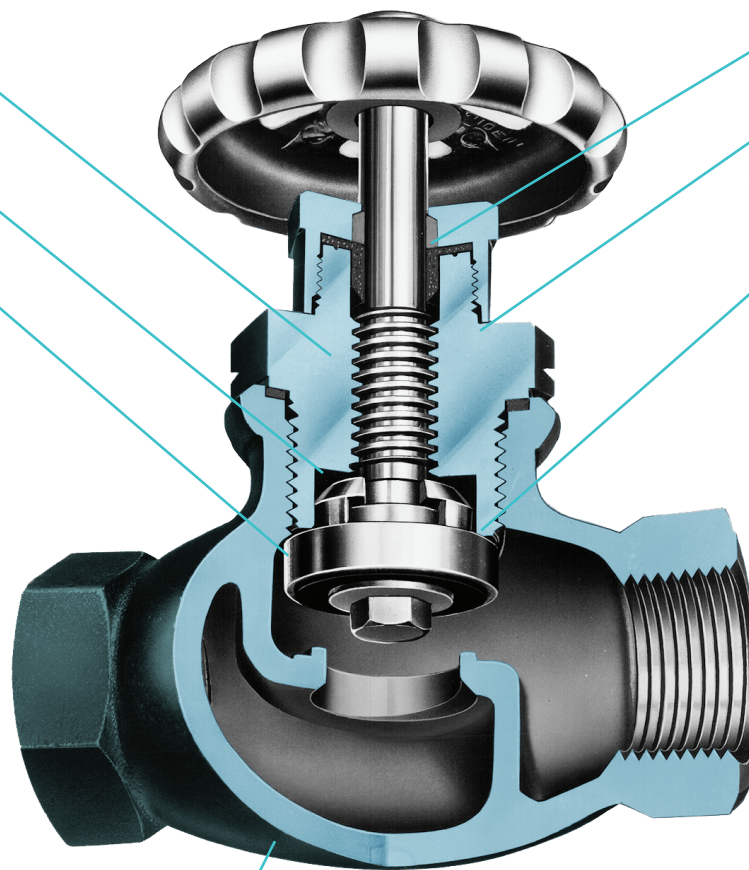
Swivel seat cannot grind during valve opening or closing.

Synthetic Rubber Seat Disc

Nylon bearing surrounds stem to prevent galling.

Rubber flange ring stem seal effectively prevents gas escape. The higher the pressure, the tighter the seal.

Metal to metal back seat permits replacement of flange ring with valve in service.



Valve body made of shell molded ductile iron. Highly resistant to cracking or fracturing from wrenching, dropping or hammer blows. Bonnet and seal cap are steel on "A" prefix valves.