

"V"-Ring Seal Globe and Angle Valves

General Information

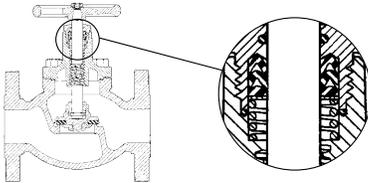
RegO® Globe and Angle Valves are designed and manufactured especially to meet the rigid requirements of the anhydrous ammonia industry. The high quality construction and wide variety of sizes and styles also make them highly suited to many other industries such as chemical and petrochemical.

These ductile iron valves are available in both threaded and flanged connections. Threaded connections are available in 1/2" F. NPT to 3" F. NPT sizes. Flanged connections are available in 1 1/2", 2" and 3" pipe sizes.

The ductile iron used in these valves has a 60,000 PSIG tensile strength which closely approaches that of steel castings. Its yield strength of 45,000 PSIG and elongation of 15% is also comparable to that of steel castings. These material features assure the ability of the valve body to withstand impact, wrenching stresses and thermal shock. This ductile iron conforms to ASTM specification A395.

RegO® globe and angle valves are designed for working pressures up to 400 PSIG WOG and for operating temperatures from -40° F. to +160° F.

"V"-Ring Stem Seal



The "V"-ring spring-loaded pressure seal used in these RegO® globe and angle valves is the most effective stem seal yet developed. It should not be confused with conventional valve stem packing where the seal is obtained by compressing the packing around the stem by means of a packing gland with resultant hard operation and frequent packing replacement.

The wax like surface of the teflon "V"-ring seal and consequent low friction assures leak-tight performance for an indefinite period where periodic retightening of the packing is not required and the seal provides extra long service life.

In the RegO® "V"-ring design, the seal is effected by the pressure expanding the "V"-shape of the seal, forcing it against the stem and bonnet surfaces to prevent leakage. The higher the pressure within the valve, the more effective the seal becomes. A spring loaded washer under the "V"-rings keeps them in an expanded position to assure an effective seal under low pressure conditions. A wiper ring, located above the seal, keeps the seal free from grit, and/or other foreign material that may hamper operation.

Installation and Operation Note

Containers and pipe lines should be thoroughly cleaned before globe and angle valves are installed. Large particles of solid foreign matter can permanently damage the seating surface in the valve body, causing the valve to leak. Use a minimum amount of a suitable pipe dope on the male connecting threads as excess amounts may fall off and be carried into the valve, causing damage to the seat or other operating parts.

It is totally unnecessary to use excess force in opening or closing RegO® valves. The type of seat disc material used and the general design of these valves permits them to be opened and closed easily. Proper valve operation insures unusually long life.

Wrenches must never be used to operate valves equipped with handwheels and designed for hand operation.

Downstream Accessory Boss

These RegO® valves incorporate a plugged 1/4" F. NPT boss on the downstream side of the body for attaching either a hydrostatic relief valve or vent valve. Boss size on the 2" and 3" valves has been increased to allow a 3/4" drilling for accommodation of a standard by-pass valve or jumper lines.

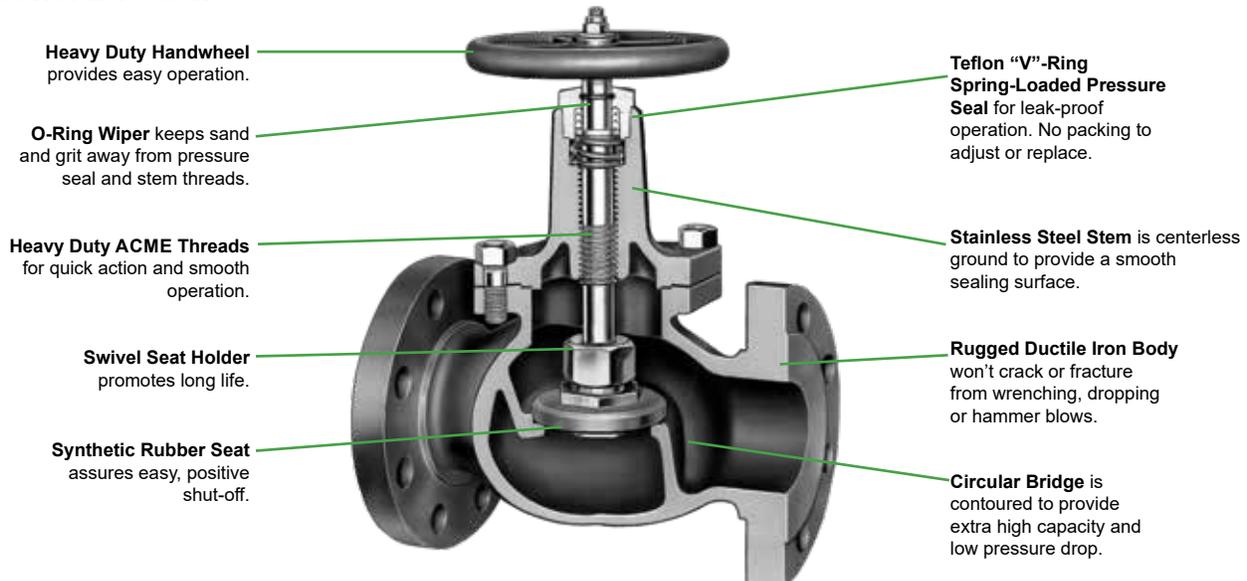
Hydrostatic Relief—When the design of the piping installation is such that liquid may be locked between two shut-off valves, a hydrostatic relief valve should be installed in the lines between the valves. The pressures which can develop due to temperature increase in a liquidfull line are tremendous and can easily damage the valves or piping unless a hydrostatic relief valve is installed.

Vent Valve—If the globe or angle valve is used as a shut-off valve on a loading hose, a vent valve should be installed in the downstream boss to allow liquid trapped beyond the shut-off valve to be vented before disconnecting the hose coupling.

Replace Gate Valves with Flanged Valves

Except for standard flange sizes, RegO® Flanged Globe and Angle Valves are smaller and lighter than contemporary valves, thus reducing price and shipping costs and making them far easier to install. RegO® face to face flange dimensions conform to gate valve dimensions, making replacement of most gate or plug valves with RegO® valves simple and easy.

General Features



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

Application

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

The high quality construction and wide variety of sizes make them highly suited for use with 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 assures 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



TA7034



A7518FP



A7505AP



A7514AP



A7513AP



A7517AP



A7517FP



Ordering Information

Part Number				Inlet and Outlet Connection	Port Diameter	Flow at 1 PSIG Pressure Drop (Cv) (GPM/NH3)***		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"	9	13.32	SS8001U	TSS3169
A7505AP	A7506AP	TA7505AP	TA7506AP	¾" F. NPT		10.8	15.93		
A7507AP	A7508AP	TA7507AP	-	1" F. NPT	1"	16.2	19.8		
A7509BP	A7510BP	TA7509BP	TA7510BP	1¼" F. NPT		32.85	48.6		
A7511AP	A7512AP	TA7511AP	TA7512AP	1½" F. NPT	1½"	38.7	49.95		
A7511FP	-	TA7511FP	-	1½" Flange**		41.4	-		
A7513AP	A7514AP	TA7513AP	-	2" F. NPT	2"	67.5	79.65		
A7513FP	A7514FP	TA7513FP	TA7514FP	2" Flange**		70.2	119.7		
A7517AP	A7518AP	TA7517AP	-	3" F. NPT	3½"	177.3	272.7		
A7517FP	A7518FP	TA7517FP	-	3" Flange**					

* Teflon seat discs on valves built to order.

** 300# ANSI R.F. Flange.