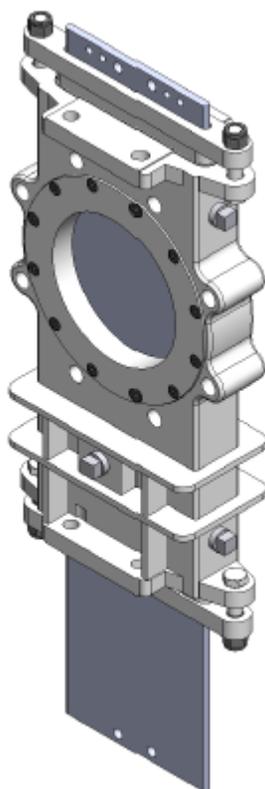


DeZURIK 2-24" KGO-CST O-PORT GATE VALVE



Instruction **D11049**

June 2021

Instructions

These instructions are for use by personnel who are responsible for the installation, operation and maintenance of DeZURIK valves, actuators or accessories.

Safety Messages

All safety messages in the instructions are identified by a general warning sign and the signal word CAUTION, WARNING or DANGER. These messages indicate procedures to avoid injury or death.

Safety label(s) on the product indicate hazards that can cause injury or death. If a safety label becomes difficult to see or read, or if a label has been removed, please contact DeZURIK for replacement label(s).

⚠WARNING

Personnel involved in the installation or maintenance of valves should be constantly alert to potential emission of pipeline material and take appropriate safety precautions. Always wear suitable protection when dealing with hazardous pipeline materials. Handle valves which have been removed from service with suitable protection for any potential pipeline material in the valve.

Inspection

Your DeZURIK product has been packaged to provide protection during shipment; however, items can be damaged in transport. Carefully inspect the unit for damage upon arrival and file a claim with the carrier if damage is apparent.

Parts

Replaceable wear parts are listed on the assembly drawing. These parts can be stocked to minimize downtime. Order parts from your local DeZURIK sales representative or directly from DeZURIK. When ordering parts please provide the following information:

If the valve has a data plate: please include the 7-digit part number with either 4-digit revision number (example: 9999999R000) or 8-digit serial number (example: S1900001) whichever is applicable. The data plate will be attached to the valve assembly. Also, include the part name, the assembly drawing number, the balloon number and the quantity stated on the assembly drawing.

If there isn't any data plate visible on the valve: please include valve model number, part name, and item number from the assembly drawing. You may contact your local DeZURIK Representative to help you identify your valve.

DeZURIK Service

DeZURIK service personnel are available to maintain and repair all DeZURIK products. DeZURIK also offers customized training programs and consultation services. For more information, contact your local DeZURIK sales representative or visit our website at DeZURIK.com.

Table of Contents

Description - - - - -	4
Handling - - - - -	4
Installing Valve - - - - -	4
Operation - - - - -	4
Drawing - - - - -	5
Purging - - - - -	6
Packing - - - - -	6
Replacing Packing - - - - -	6
Seat Replacement - - - - -	8
Troubleshooting - - - - -	8

DeZURIK

2-24" KGO-CST O-Port Gate Valves

Description

The DeZURIK KGO O-Port Valve is a bonnetless, wafer gate valve. A choice of materials, actuators, and accessories is available.

Handling

Lifting the valve improperly may damage it. Lift the valve with slings, chains or cables fastened around the valve body, or fastened to bolts or rods through bolt holes in the flanges.

Installing Valve

Inspect the valve body port and associated equipment for any damage that may have occurred and for any foreign matter that may have collected in shipping or storage. Make certain the body interior is clean. Check the packing set (A5) prior to installation. If the packing set (A5) has dried out, it should be replaced. Inspect the pipeline and mating flanges, making sure the pipe is free of foreign material and the flanges are clean and have no burrs or pits that could cause leakage.

Position the valve in the line with the higher pressure against the side opposite the seal when the valve is closed. Align the mating pipeline flanges. Select flange bolts so that the bolts will not bottom out in the blind holes when tightened. Studs with nuts are recommended in blind holes. Bolt the valve in line using a crisscross pattern to tighten the flange bolts. Bolts should be torqued sufficiently to prevent leakage at the flange gasket. Do not over tighten the flange bolts. Over tightening can distort the valve body and damage the valve.

Operation

After the valve has been installed, cycle the valve once completely to insure proper operation. When the system is pressurized, check for packing gland leakage. If leakage is detected, tighten packing gland bolts just enough to stop leakage. If leakage continues, the packing should be replaced.

Drawings

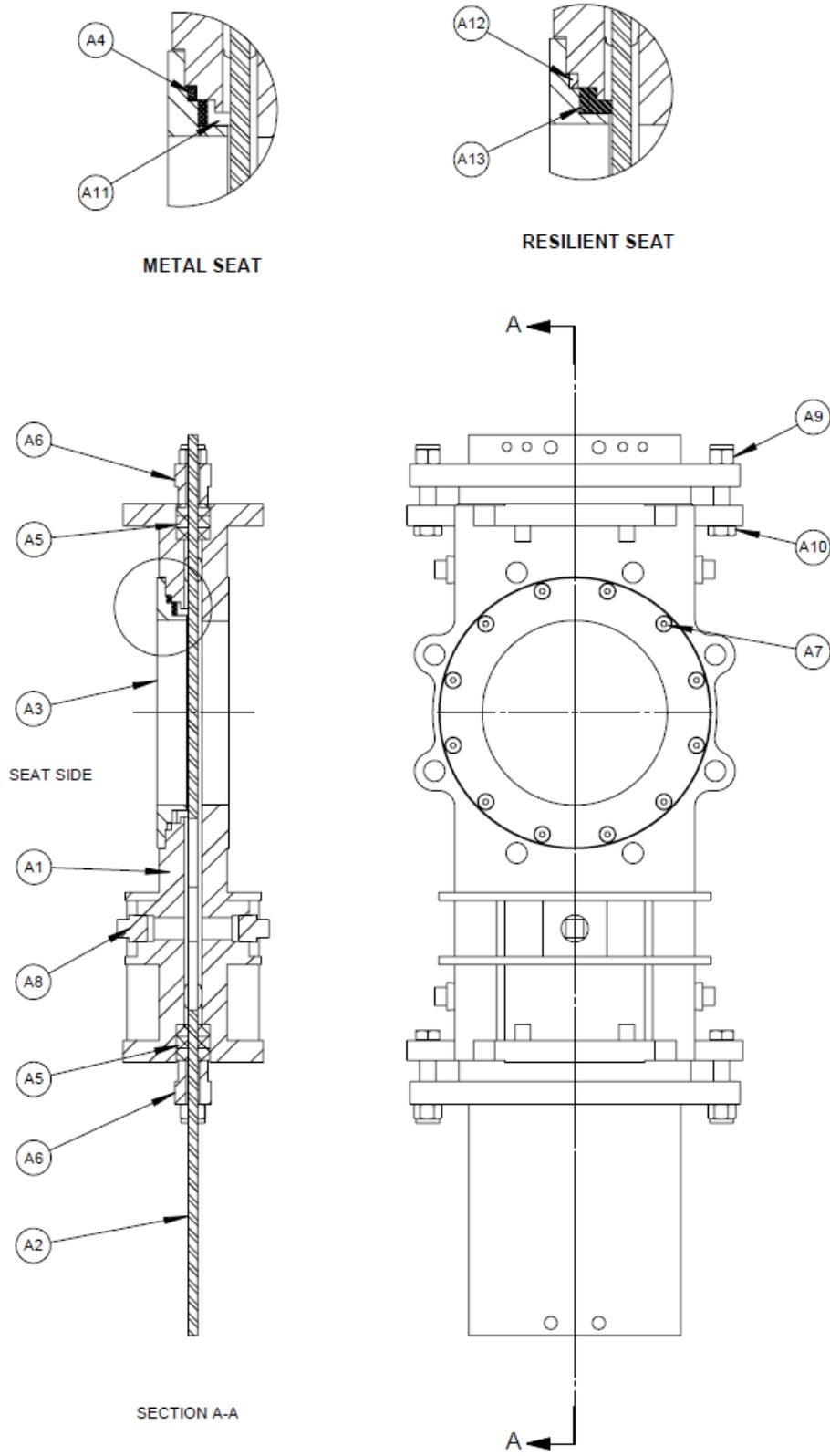


Figure 1 – 2-24" KGO-CST Valve

Purging

KGO O-Port Valves are equipped with purge ports. Purge lines must be the same size and purge pressures must be equal to or greater than the pipeline pressure.

Packing

If packing leaks, tighten the adjustment nuts on top of the packing follower just enough to stop leakage. Tighten the nuts evenly and gently. Over tightening will cause excessive operating forces, and will decrease the life of the packing.

Replacing Packing



WARNING!

Pipeline pressure can cause personal injury or equipment damage. Relieve the pressure in the pipeline before removing the packing follower.

1. Relieve pipeline pressure and close valve.



WARNING!

Accidental operation of powered actuator can cause personal injury or equipment damage. Disconnect and lock out power to actuator before servicing.

2. Remove the packing gland nuts (A9) and glands (A6). Remove all old packing set (A5) and clean the stuffing box and gate (A2).
3. Insert one end of the bottom row of packing into the stuffing box as shown in Figure 2. **IMPORTANT:** do not push packing to the bottom of the stuffing box until the entire row has been inserted.
4. Continue inserting packing being careful not to stretch or twist the packing, particularly in the corners. If the packing is stretched at installation it may shrink in service, resulting in gland leakage. If the packing is twisted it will not lay flat and may not seal properly.
5. When the packing reaches the second end of the stuffing box, insert the free end of the packing as shown in Figure 3, leaving an excess loop of packing.
6. Insert the remainder of the packing into the stuffing box working the excess back around the gate so that there are no lumps or bulges.
7. When the entire length of packing has been inserted, push the packing to the bottom of the stuffing box. If the packing does not fit tightly into the corners of the stuffing box as shown in Figure 4, cut small pieces of packing and force into these voids.
8. Install the remaining rows of packing, following steps 3-7. Alternate the joints in each row as shown in Figure 2 to eliminate a potential leak path.
9. Install gland and tighten gland fasteners (A9, A10).
10. The pipeline may now be pressurized. If packing leakage occurs, tighten the packing gland nuts (A9) evenly and slowly — just enough to stop the leakage.

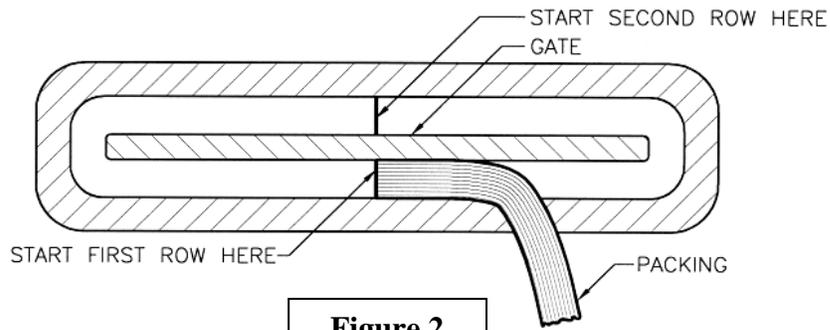


Figure 2

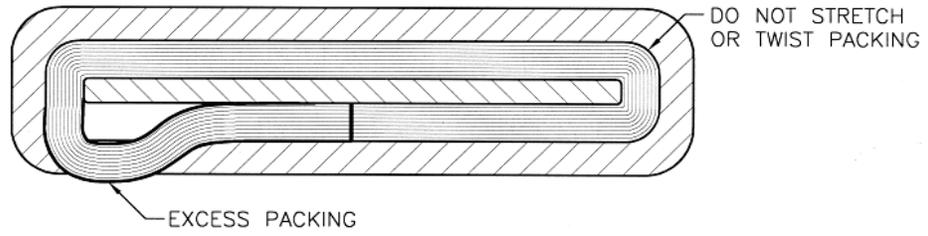


Figure 3

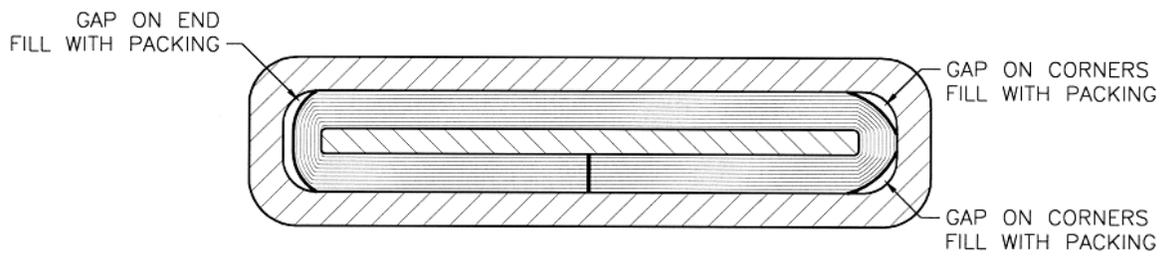


Figure 4

DeZURIK

2-24" KGO-CST O-Port Gate Valves

Seat Replacement



WARNING!

Pipeline pressure can cause personal injury or equipment damage. Relieve the pressure in the pipeline before removing flange bolts and flanges.

1. Relieve pressure in the pipeline and close the valve.



WARNING!

Accidental operation of powered actuator can cause personal injury or equipment damage. Disconnect and lock out power to actuator before servicing.

2. Remove the flange bolting, and remove the valve from the pipeline.
3. Remove the seat retainer screws (A7), and remove the retainer (A3) from the body.
4. Remove seat.
5. Clean all gasket material and/or seat material from the body and seat retainer.
6. Install seat:
 - Resilient seat – install new o-ring (A12), new seat ring (A13) into retainer (A3) and install retainer
 - Metal seat – Install new metal seat (A11), new gasket set (A4) and install retainer (A3)
7. Install the valve in pipeline

Troubleshooting

Condition	Possible Cause	Corrective Action
Packing leaks.	Packing is loose.	Adjust packing gland.
	Packing is worn.	Replace packing.
Valve leaks when fully closed.	Seat is worn.	Replace seat.
Valve body leaks from body joint.	Pipeline flange bolting is loose.	Tighten pipeline flange bolts or studs.
	Gasket or o-ring is worn.	Replace gasket(s) or o-ring.

Limited Warranty

DeZURIK, Inc. ("Seller") manufactured products, auxiliaries and parts thereof that we manufacture for a period of twenty-four (24) months from date of shipment from Seller's factory, are warranted to the original purchaser only against defective workmanship and material, but only if properly stored, installed, operated, and serviced in accordance with Seller's recommendations and instructions.

For items proven to be defective within the warranty period, your exclusive remedy under this limited warranty is repair or replacement of the defective item, at Seller's option, FCA Incoterms 2020 Seller's facility with removal, transportation, and installation at your cost.

Products or parts manufactured by others but furnished by Seller are not covered by this limited warranty. Seller may provide repair or replacement for other's products or parts only to the extent provided in and honored by the original manufacturer's warranty to Seller, in each case subject to the limitations contained in the original manufacturer's warranty.

No claim for transportation, labor, or special or consequential damages or any other loss, cost or damage is being provided in this limited warranty. You shall be solely responsible for determining suitability for use and in no event shall Seller be liable in this respect.

This limited warranty does not warrant that any Seller product or part is resistant to corrosion, erosion, abrasion or other sources of failure, nor does Seller warrant a minimum length of service.

Your failure to give written notice to us of any alleged defect under this warranty within twenty (20) days of its discovery, or attempts by someone other than Seller or its authorized representatives to remedy the alleged defects therein, or failure to return product or parts for repair or replacement as herein provided, or failure to store, install, or operate said products and parts according to the recommendations and instructions furnished by Seller shall be a waiver by you of all rights under this limited warranty.

This limited warranty is voided by any misuse, modification, abuse or alteration of Seller's product or part, accident, fire, flood or other Act of God, or your failure to pay entire contract price when due.

The foregoing limited warranty shall be null and void if, after shipment from our factory, the item is modified in any way or a component of another manufacturer, such as but not limited to; an actuator is attached to the item by anyone other than a Seller factory authorized service personnel.

All orders accepted shall be deemed accepted subject to this limited warranty, which shall be exclusive of any other or previous warranty, and this shall be the only effective guarantee or warranty binding on Seller, despite anything to the contrary contained in the purchase order or represented by any agent or employee of Seller in writing or otherwise, notwithstanding, including but not limited to implied warranties.

THE FOREGOING REPAIR AND REPLACEMENT LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY OR OTHERWISE, EXPRESSED OR IMPLIED IN FACT OR BY LAW, AND STATE SELLER'S ENTIRE AND EXCLUSIVE LIABILITY AND YOUR EXCLUSIVE REMEDY FOR ANY CLAIM IN CONNECTION WITH THE SALE AND FURNISHING OF SERVICES, GOODS OR PARTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION OR OPERATIONS. NEITHER ANY PERFORMANCE OR OTHER CONDUCT, NOR ANY ORAL OR WRITTEN INFORMATION, STATEMENT, OR ADVICE PREPARED BY SELLER OR ANY OF OUR EMPLOYEES OR AGENTS WILL CREATE A WARRANTY, OR IN ANY WAY INCREASE THE SCOPE OR DURATION OF THE LIMITED WARRANTY.

Disclaimer

Metric fasteners should not be used with ASME Class 150/300 bolt holes and flange bolt patterns. If you use metric fasteners with ASME Class 150/300 bolt holes and flange bolt patterns, it may lead to product failure, injury, and loss of life. DeZURIK Inc. disclaims all liability associated with the use of metric fasteners with ASME Class 150/300 bolt holes and flange patterns, including but not limited to personal injury, loss of life, loss of product, production time, equipment, property damage, lost profits, consequential damages of any kind and environment damage and/or cleanup. Use of metric fasteners with ASME Class 150/300 bolt holes and flange bolt patterns is a misuse that voids all warranties and contractual assurances. If you use metric fasteners with ASME Class 150/300 bolt holes and flange bolt patterns, you do so at your sole risk and any liability associated with such use shall not be the responsibility of DeZURIK, Inc. In addition to the foregoing, DeZURIK's Manufacturer's Conditions apply.

Limitation of Liability

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO; DAMAGE TO OR LOSS OF OTHER PROPERTY OR EQUIPMENT, BUSINESS INTERRUPTION, COST OF SUBSTITUTE PRODUCTS, LOSS OF TIME, LOSS OF PROFITS OR REVENUE, COST OF CAPTIAL, LOSS OF USE, OR DIMINUTION IN VALUE) WHATSOEVER, AND SELLER'S LIABILITY, UNDER NO CIRCUMSTANCES, WILL EXCEED THE CONTRACT PRICE FOR THE GOODS AND/OR SERVICES FOR WHICH LIABILITY IS CLAIMED. ANY ACTION FOR BREACH OF CONTRACT BY YOU, OTHER THAN RIGHTS RESPECTING OUR LIMITED WARRANTY DESCRIBED ABOVE, MUST BE COMMENCED WITHIN 12 MONTHS AFTER THE DATE OF SALE.

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:

Web site: www.dezurik.com E-Mail: info@dezurik.com



250 Riverside Ave. N., Sartell, MN 56377 • Phone: 320-259-2000 • Fax: 320-259-2227

DeZURIK, Inc. reserves the right to incorporate our latest design and material changes without notice or obligation.

Design features, materials of construction and dimensional data, as described in this manual, are provided for your information only and should not be relied upon unless confirmed in writing by DeZURIK, Inc. Certified drawings are available upon request.