DeZURIK
KGC-BD BI-DIRECTIONAL KNIFE GATE VALVES

Instruction D11061
October 2019
DeZURIK
KGC-BD BI-DIRECTIONAL KNIFE GATE VALVES

Instructions
These instructions are intended for personnel who are responsible for the installation, operation and maintenance of your Bi-Directional Knife Gate Valve model KGC-BD in sizes 2-36”.

Safety Messages
All safety messages in the instructions are flagged with the word Caution, Warning or Danger. These messages must be followed exactly to avoid equipment damage, personal injury or death.

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

---

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

---

Inspection
Your KGC-BD knife gate valve has been packaged to provide protection during shipment. Carefully inspect the unit for damage upon arrival and file a claim with the carrier if damage is apparent.

Parts
Recommended spare parts are listed on the assembly drawing. These parts should be stocked to minimize downtime.

Order parts from your DeZURIK sales representative, or directly from DeZURIK. When ordering parts, please include the serial number or 7-digit part number and 4-digit revision number (example: 9999999R000) located on the data plate 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.

DeZURIK Service
DeZURIK Service personnel are available to install, maintain and repair all DeZURIK products. DeZURIK also offers customized training programs and consultation services. For more information, contact your local DeZURIK representative or visit our website at www.dezurik.com.
# Table of Contents

<table>
<thead>
<tr>
<th>Description</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling</td>
<td>4</td>
</tr>
<tr>
<td>Installation</td>
<td>6</td>
</tr>
<tr>
<td>Operation</td>
<td>7</td>
</tr>
<tr>
<td>Lubrication</td>
<td>7</td>
</tr>
<tr>
<td>Packing</td>
<td>7</td>
</tr>
<tr>
<td>Adjustment</td>
<td>7</td>
</tr>
<tr>
<td>Drawings</td>
<td>8</td>
</tr>
<tr>
<td>Packing Replacement</td>
<td>9</td>
</tr>
<tr>
<td><em>Removing the Old Packing</em></td>
<td>9</td>
</tr>
<tr>
<td><em>Installing the New Packing</em></td>
<td>10</td>
</tr>
<tr>
<td><em>Reassembling the Valve</em></td>
<td>10</td>
</tr>
<tr>
<td>Replacing the Seat</td>
<td>11</td>
</tr>
<tr>
<td><em>Description</em></td>
<td>11</td>
</tr>
<tr>
<td><em>Definitions</em></td>
<td>11</td>
</tr>
<tr>
<td>Seat Removal</td>
<td>12</td>
</tr>
<tr>
<td>Seat Installation</td>
<td>14</td>
</tr>
<tr>
<td>Replacing the Gate</td>
<td>16</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>17</td>
</tr>
</tbody>
</table>
DeZURIK
KGC-BD BI-DIRECTIONAL KNIFE GATE VALVES

Description
KGC-BD knife gate valves have a stainless steel body, gate and a resilient perimeter seat. The KGC-BD knife gate valve is available in 2-36” (50-900mm) sizes. A choice of several actuators and accessories is available.

Handling

WARNING!
A potential hazard exists with handling valves. Failure to handle valves properly may cause a valve to shift, slip or fall causing serious injury or death and/or equipment damage.

The points below are for reference purposes only. Use safe and proper lifting and support techniques. DO NOT lift valves with any adjoining pipe or other equipment attached. Lift with properly rated lifting equipment. Follow jurisdictional safety requirements.

Suggested lifting points are as shown below to lift valve assemblies that are in a horizontal orientation. Eye bolts in flange through holes can be used to lift the valve body or, for 2-12” valves, a sling can be strapped around the top of the valve body.

For valves with bevel gear actuators, a sling or chain can be wrapped around the bevel gear actuator body, between the mounting plate and the input shaft housing. This would be in conjunction with lifting from the valve body as well. See Figure 1.

Figure 1— Knife Gate Valve with Bevel Gear Actuator, Horizontal Lifting

For valves with pneumatic cylinder actuators, a sling can be wrapped around the cylinder, near the cylinder head (piston rod end). This would be in conjunction with lifting from the valve body. Utilize caution to not bump, dent or damage the cylinder tube. DO NOT utilize the cylinder tie-rod ends to lift. See Figure 2.

Figure 2, Knife Gate Valve with Pneumatic Cylinder Actuator, Horizontal Lifting
Handling continued

For valves with handwheel actuators, a sling or chain can be wrapped through the rim of the handwheel. For chainwheel actuators, a sling can be wrapped in the area between the yoke/legs and the chainwheel/guide assembly. This would be in conjunction with lifting from the valve body as well. See Figure 3.

![Figure 3, Knife Gate Valve with Handwheel or Chainwheel Actuator, Horizontal Lifting](image)

Suggested lifting options are as shown below to lift valve assemblies that are in a vertical orientation. For valves with bevel gear actuators, wrap slings or chains around the top of each leg. Use caution not to put any side load on the bevel gear input shaft or on the valve’s threaded stem. See Figure 4.

For valves with pneumatic cylinder actuators, wrap slings around the top of each leg. Use caution to not bump, dent or damage the cylinder tube and avoid any side load on the cylinder piston rod. DO NOT utilize the cylinder tie-rod ends to lift. See Figure 5.

For valves with handwheel or chainwheel actuators, wrap slings or chains around the top of the each leg or yoke side. Use caution to not put any side load on the valve’s threaded stem. See Figure 6.

![Figure 4- Knife Gate Valve with Bevel Gear Actuator, Vertical Lifting](image)

![Figure 5- Knife Gate Valve with Pneumatic Cylinder Actuator, Vertical Lifting](image)

![Figure 6- Knife Gate Valve with Handwheel or Chainwheel Actuator, Vertical Lifting](image)
Installation

Install the valve between ASME Class 125 or Class 150 pipeline flanges, or other flanges that match valve end connection. Flange gaskets are required. Before installation, remove foreign material such as weld spatter, oil, grease, and dirt from the valve and pipeline.

Normal Installations

The bi-directional KGC-BD knife gate valve can be oriented either way in the pipeline. The perimeter seat in the valve will seal the valve in the closed position in both directions.

The bi-directional KGC-BD knife gate valves are not intended for gravity (dry) service applications.

General Guidelines

Observe the following points to prevent distortion of the valve body and gate when the flange bolts are tightened:

- Align the mating pipeline flanges.
- Select the length of the flange bolts so that the bolts used in the blind holes near the chest area of the valve do not bottom out when tightened. We recommend using studs with nuts in the blind holes.
- Tighten the flange bolts evenly, in a crisscross pattern. Refer to Table A for recommended flange bolt/stud torques.

Note: Torque ranges are based on ASME Pressure Vessel Code Calculations and lab test data. These torques are only for the listed gasket types. For other gasket types listed in ASME, consult DeZURIK.

After installing the valve, pressurize pipeline and ensure the packing is not leaking. If the packing leaks, adjust the packing as described on the next page.

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>ASME Gasket Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; (50mm)</td>
<td>Rubber with Soft Fabric Filler, &amp; 1/8&quot; Thick Hard</td>
</tr>
<tr>
<td>3&quot; (80mm)</td>
<td>37 - 41</td>
</tr>
<tr>
<td>4&quot; (100mm)</td>
<td>26 - 29</td>
</tr>
<tr>
<td>5&quot; (125mm)</td>
<td>36 - 40</td>
</tr>
<tr>
<td>6&quot; (150mm)</td>
<td>41 - 45</td>
</tr>
<tr>
<td>8&quot; (200mm)</td>
<td>55 - 61</td>
</tr>
<tr>
<td>10&quot; (250mm)</td>
<td>56 - 62</td>
</tr>
<tr>
<td>12&quot; (300mm)</td>
<td>80 - 88</td>
</tr>
<tr>
<td>14&quot; (350mm)</td>
<td>107 - 118</td>
</tr>
<tr>
<td>16&quot; (400mm)</td>
<td>103 - 114</td>
</tr>
<tr>
<td>18&quot; (450mm)</td>
<td>128 - 141</td>
</tr>
<tr>
<td>20&quot; (500mm)</td>
<td>123 - 136</td>
</tr>
<tr>
<td>24&quot; (600mm)</td>
<td>188 - 207</td>
</tr>
<tr>
<td>30&quot; (750mm)</td>
<td>198 - 218</td>
</tr>
<tr>
<td>36&quot; (900mm)</td>
<td>289 - 318</td>
</tr>
</tbody>
</table>
Operation

The gate in the valve is positioned by the valve actuator. The actuator moves the gate over the valve port in the closed position, and withdraws the gate from the port in the open position. Refer to the Actuator Instructions for adjustment and maintenance requirements for the actuator.

Lubrication

The valve does not require lubrication. If applicable, ensure that valve threaded stems are maintained with proper lubrication. Refer to the Actuator Instructions for lubrication requirements for the actuator.

Packing

The gate packing (A2) is contained and compressed by the packing gland (A4). See Figure 1 for component identification.

*Note:* The packing gland (A4) is slightly loosened prior to shipping. This is done to increase the life of the packing during extended storage.

Adjustment

If packing leaks, tighten the adjustment nuts (A7) on top of the packing gland. Tighten the nuts evenly and gently just enough to stop the leak. Over tightening will cause excessive operating forces, and will decrease the life of the packing.
Figure 1—Component Identification
Packing Replacement

Removing the Old Packing

WARNING!
Pipeline pressure can cause personal injury or equipment damage. Relieve pipeline pressure before removing gate stem and packing gland nuts.

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

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

2. If the actuator is powered, disconnect and lock out power to prevent accidental operation of the actuator.

3. Remove the two screws and nuts near the top of the gate and disengage the stem from the gate by stroking the actuator (not the valve) to the open position.

4. Remove the gland nuts (A7), bolts (A5), washer (A6) and packing gland (A4).

5. Remove the used packing (A2) and packing cord (A8), if supplied. Inspect and replace anti-extrusion guides (A9) if damaged.
Installing the New Packing

Packing (A2) strip length and quantity are shown in Table B. DeZURIK provides extra packing in the packing kits, but do not try to put more packing into a layer than shown in Table B.

Do not compress the packing any more than needed to stop leaks.

1. Ensure the gate (A3) is well within and centered in the body before packing.

2. Place the anti-extrusion guides (A9) in the bottom of the packing chamber (machined slots).

3. Assemble and pack the rings one at a time, with the ends together, but not overlapped

**Note:** Stagger the joints, on the long side of the packing chamber. Use a square-ended wood or plastic tool, driven by a hammer or mallet, to pack the rings. Do not use a sharp tool to pack the rings.

Ensure the inside and outside edges of each ring are packed against the gate and packing chamber, so that each strip is compressed flat and evenly.

4. For packing systems with packing cord (A8), assemble and pack one row of packing (A2) and then insert the packing cord (A8). Assemble and pack the last row of packing. See detail below:

### Table B: Packing Ring and Packing Cord Length & Quantity

<table>
<thead>
<tr>
<th>Valve Size</th>
<th>Square Size</th>
<th>Length, inches</th>
<th>Quantity (A2)</th>
<th>Qty Cord (A8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” (50mm)</td>
<td>3/8”</td>
<td>7.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3” (80mm)</td>
<td>3/8”</td>
<td>9.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4” (100mm)</td>
<td>1/2”</td>
<td>11.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5” (125mm)</td>
<td>1/2”</td>
<td>13.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6” (150mm)</td>
<td>3/4”</td>
<td>15.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8” (200mm)</td>
<td>3/4”</td>
<td>20.00</td>
<td>3 w/o cord</td>
<td></td>
</tr>
<tr>
<td>10” (250mm)</td>
<td>1”</td>
<td>25.00</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>12” (300mm)</td>
<td>1”</td>
<td>29.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14” (350mm)</td>
<td>1”</td>
<td>32.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16” (400mm)</td>
<td>1”</td>
<td>36.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18” (450mm)</td>
<td>5/8”</td>
<td>41.25</td>
<td>2 with cord</td>
<td></td>
</tr>
<tr>
<td>20” (500mm)</td>
<td>5/8”</td>
<td>45.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24” (600mm)</td>
<td>5/8”</td>
<td>53.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30” (750mm)</td>
<td>3/4”</td>
<td>66.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36” (900mm)</td>
<td>3/4”</td>
<td>79.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reassembling Valve

1. Replace the packing gland (A4), bolts (A5), washer (A6) and nuts (A7). Tighten the nuts evenly and finger tight, plus 1/2 turn.
2. Reconnect the stem to the gate with the two screws and nuts.
3. If the actuator is a powered actuator, reconnect power to the actuator.
4. Pressurize the pipeline and inspect packing for leakage.
5. If packing leaks, tighten the adjustment nuts (A7) on top of the packing gland (A4). Tighten the nuts (A7) evenly and gently - just enough to stop the leak. Over tightening will cause excessive operating forces, and will decrease the life of the packing.

Replacing the Seat

Description

The perimeter seat in KGC-BD style valves is a U-shaped seat with round pucks at each end which fit into a groove with pocketed ends within the valve body. Replacement of the perimeter seat can be accomplished with access to the top of the valve body, such as if the valve body was still mounted to the mating pipe flanges. If there are any difficulties encountered while following these instructions, please contact DeZURIK for assistance.

Definitions

For the purpose of the seat replacement, the following valve features are defined:

- Packing Chamber – this is the area at the top of the valve body which contains the layers of packing that seal between the gate and the body.
- Perimeter Seat Groove – this is the U-shape groove within the valve body in which the perimeter seat will nest into.
- Perimeter Seat Puck Pockets – located at the bottom ends of the body packing chamber, these pockets locate the perimeter seat puck ends.
- Perimeter Seat – the KGC-BD style perimeter seat is a U-shaped rubber seal that fits within the body's perimeter seat groove.
- Perimeter Seat Puck Ends – these are the ends of the U-shape KGC-BD style perimeter seat which are to be located within the pockets under the packing chamber of the body.
- Anti-Extrusion Guides – these are at the bottom of the packing chamber, between the perimeter seat puck ends, one on each side of the gate, and also located in appropriate pockets within the body.
Replacing the Seat *continued*

**Seat Removal**

**WARNING!**
Pipeline pressure can cause personal injury or equipment damage. Relieve pipeline pressure before removing gate stem and packing gland nuts.

For removal of the actuator top works, gland and old packing.

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

2. If the actuator is powered, disconnect and lock out power to prevent accidental operation of the actuator.

3. Remove the two screws and nuts near the top of the gate and disengage the stem from the gate by stroking the actuator (not the valve) to the open position.

4. Remove the gland nuts (A7), bolts (A5), washers (A6) and packing gland (A4).

5. Remove the used packing (A2) and packing cord (A8), if supplied. Inspect and replace anti-extrusion guides (A9) if damaged.

With the packing removed, the following steps illustrate recommended techniques for the removal of the valve’s anti-extrusion guide and perimeter seat.
Replacing the Seat  continued

After the gate has been removed, use a bearing pick or similar tool to carefully remove the guides, with attention to preventing the guides from falling into the port area.

Once the guides have been removed, use a flat end screwdriver to pry the puck ends of the perimeter seat inward. This allows a better grasp of the puck for the next step.

Using channel lock pliers, grasp as much of the puck as possible. With the use of a screwdriver, pry bar or other appropriate tool for leverage, pry up the pliers and puck gradually. Concurrently, observe that the plier jaws maintain a firm grip of the puck. Repeat this on the other side.

Once the pucks are high enough to grasp – pull the seat straight up to remove.
Replacing the Seat *continued*

**Seat Installation**

Prior to installation of new perimeter seat and anti-extrusion guides, check the gate for any significant wear which could be detrimental to the function of the seat and packing.

| The seat is the U-shape similar to the port or the gate. Prior to installation, inspect the condition of the new seat, ensuring the rubber has no tears and that the shape does not have any kinks. |
| Apply a liberal amount of lubricant to the outer surfaces of the seat. A silicone based lubricant is recommended, such as Dow Corning Molykote 111 or 44. Slide the seat into the top of packing area, pushing down evenly on both pucks as far as possible by hand. Excessive force should be avoided. |
Replacing the Seat *continued*

If the perimeter seat is still evenly protruding well out of the body, grasp directly below the puck with one hand and use a soft faced mallet to tap the seat down into the body – do this evenly a few inches at a time to both sides.

It is important to grasp the perimeter seat under the puck to keep the seat free from buckling.

Once the seat puck ends are close to or within the top of the valve body, use a piece of flat or round bar to finish seating the puck. Alternate back and forth until the puck is seated.

As the pucks get close to their pockets, be sure to hold the pucks back as they go down so that they align with the pockets.

It is allowable for the puck to be sitting slightly proud of the top surface of the pocket.

At this point, check that at the bottom of the body port, the seat is still within its groove. If it is slightly raised at the bottom of the port, the installation of the gate should finish locating the perimeter seat within the groove.
Replacing the Seat *continued*

Apply a small amount of the lubricant to the inner profile of the seat as shown (both sides). A silicone based lubricant is recommended, such as Dow Corning Molykote 111 or 44.

Apply a small amount of lubricant to the back and front of the anti-extrusion guides and install them carefully. The grease on the back side will allow it to stick to the inner chest wall of the body.

Before proceeding further with valve assembly, clean the gate and remove any burrs that may have formed from usage. Install new packing and reassemble valve as per the *Installing the New Packing and Reassembling Valve* sections.

Replacing the Gate

See Figure 1 for component identification.

**WARNING!**
Pipeline pressure can cause personal injury or equipment damage. Relieve pipeline pressure before removing gate stem and packing gland nuts.

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

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

2. If the actuator is powered, disconnect and lock out power to prevent accidental operation of the actuator.
3. Remove the pipeline flange bolts, and remove the valve from the pipeline.
4. Remove the actuator, actuator yoke, packing gland (A4), and packing (A2) from the valve. Remove and inspect anti-extrusion guides (A9). Replace if damaged.
Replacing the Gate continued

5. Remove and inspect the gate (A3). If the gate appears to be scratched or galled due to too-long flange bolts in the chest area of the body, check for body damage in the tapped flange holes and within the chest cavity. Carefully check the body for damage. Repair or replace the body, as appropriate.

6. Inspect the seat components.

7. If seat replacement is required refer to section Replacing the Seat.

8. Place the new gate (A3) in the body, in the fully closed position.

9. Replace or reinstall the packing (A2) as described in “Installing the New Packing”.

10. Replace the yoke and actuator on the valve.

Note: Tighten the nuts evenly and slowly, just enough to stop the leakage. Over tightening will cause excessive operating forces, and will decrease the life of the packing.

Troubleshooting

<table>
<thead>
<tr>
<th>Condition</th>
<th>Possible Causes</th>
<th>Corrective Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing leaks, with no evidence of galling on gate</td>
<td>Packing is loose</td>
<td>Adjust packing gland</td>
</tr>
<tr>
<td></td>
<td>Packing is worn or torn</td>
<td>Replace packing</td>
</tr>
<tr>
<td>Packing leaks and gate is galled</td>
<td>Packing is worn or torn</td>
<td>Replace packing and gate, check seat for damage or wear</td>
</tr>
<tr>
<td>Valve leaks when fully closed, with no evidence of galling on gate</td>
<td>Seat is worn or torn</td>
<td>Replace Seat</td>
</tr>
<tr>
<td>Valve leaks when fully closed</td>
<td>Seat is worn or torn</td>
<td>Replace Seat, check gate condition</td>
</tr>
</tbody>
</table>
Guarantee

Products, auxiliaries and parts thereof of DeZURIK, Inc. manufacture are warranted to the original purchaser for a period of twenty-four (24) months from date of shipment from factory, against defective workmanship and material, but only if properly installed, operated and serviced in accordance with DeZURIK, Inc. recommendations. Repair or replacement, at our option, for items of DeZURIK, Inc. manufacture will be made free of charge, (FOB) our facility with removal, transportation and installation at your cost, if proved to be defective within such time, and this is your sole remedy with respect to such products. Equipment or parts manufactured by others but furnished by DeZURIK, Inc. will be repaired or replaced, but only to the extent provided in and honored by the original manufacturers warranty to DeZURIK, Inc., in each case subject to the limitations contained therein. No claim for transportation, labor or special or consequential damages or any other loss, cost or damage shall be allowed. You shall be solely responsible for determining suitability for use and in no event shall DeZURIK, Inc. be liable in this respect. DeZURIK, Inc. does not guarantee resistance to corrosion, erosion, abrasion or other sources of failure, nor does DeZURIK, Inc. guarantee 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 DeZURIK, Inc. 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 install and operate said products and parts according to instructions furnished by DeZURIK, Inc., or misuse, modification, abuse or alteration of such product, accident, fire, flood or other Act of God, or failure to pay entire contract price when due shall be a waiver by you of all rights under this warranty.

The foregoing guarantee 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 DeZURIK, Inc. Factory 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 DeZURIK, Inc., despite anything to the contrary contained in the purchase order or represented by any agent or employee of DeZURIK, Inc., in writing or otherwise, notwithstanding, including but not limited to implied warranties.

THE FOREGOING REPAIR AND REPLACEMENT OBLIGATIONS ARE IN LIEU OF ALL OTHER WARRANTIES, OBLIGATIONS AND LIABILITIES, INCLUDING ALL WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR OF MERCHANTABILITY OR OTHERWISE, EXPRESSED OR IMPLIED IN FACT OR BY LAW, AND STATE DEZURIK, INC.'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.

Limitation of liability

LIMITATION OF LIABILITY: IN NO EVENT SHALL DEZURIK, INC. BE LIABLE FOR ANY DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, AND DEZURIK, INC.'S LIABILITY, UNDER NO CIRCUMSTANCES, WILL EXCEED THE CONTRACT PRICE FOR THE GOODS AND/OR SERVICES FOR WHICH LIABILITY IS CLAIMED. ANY ACTION BY YOU FOR BREACH OF CONTRACT 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, Minnesota 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.