

# DEZURIK KGI IRON KNIFE GATE VALVES

- AIS COMPLIANT
- BI-DIRECTIONAL

## Design & Construction

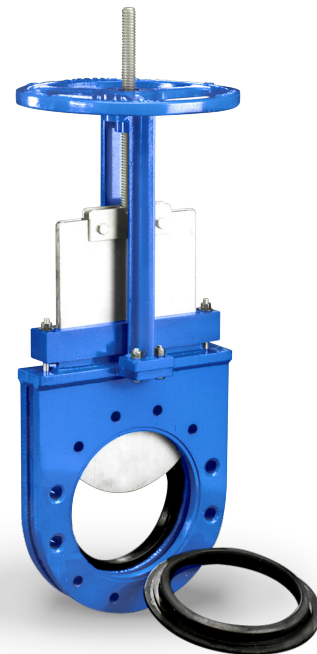
DeZURIK KGI Iron Knife Gate Valves are designed for on/off and isolation service. They feature a heavy-duty, stainless steel gate that passes through two cartridge-style reinforced elastomer seats. These special elastomer seats provide a compression interference fit, resulting in a drop-tight seal. When the valves are in the open position, the fullport eliminates flow obstructions, keeping abrasive wear to a minimum. The valve's positive shutoff and reliable performance makes it ideal for many operations such as pump isolation, grit and sludge. KGI Iron Knife Gate Valves are fully AIS-compliant.

## Size Range and Pressure Ratings

KGI Iron Knife Gate Valves are available in 3-24" (80-600mm) sizes. Valve sizes 3-10" (80-250mm) are rated to 150 psi CWP (1030 kPa), and sizes 12-24" (300-600mm) are rated to 100 psi (690 kPa). The cast iron body and top works have a two-part epoxy coating as standard.

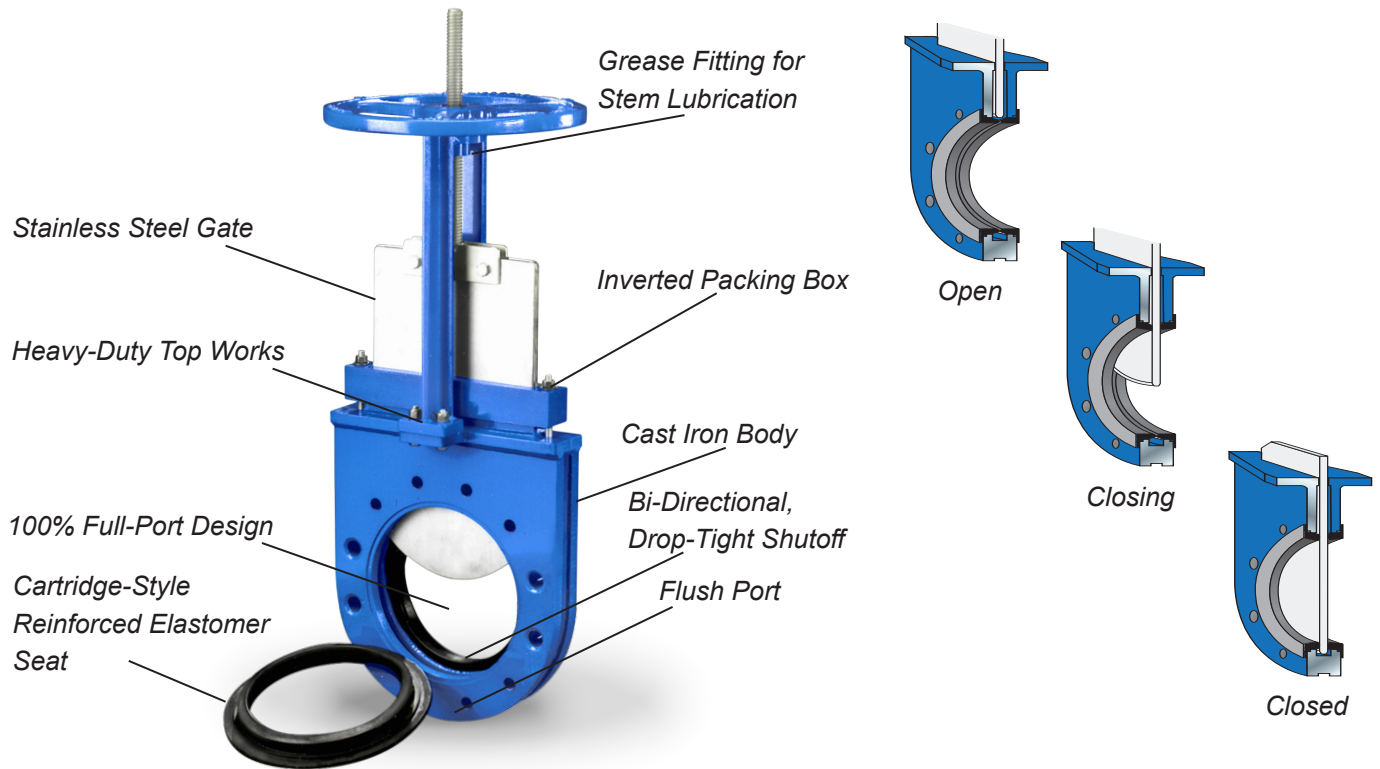
## Quality Knife Gate Valves for AIS Compliance

DeZURIK, your trusted source for quality valves, is committed to delivering products that comply with all AIS provisions. DeZURIK valves can be specified to meet provisions of H.R. 3547, the Consolidated Appropriations Act, for projects involving Clean Water State Revolving Funds (CWSRF) or Drinking Water State Revolving Funds (DWSRF). This requirement applies to projects for the construction, alteration, maintenance, or repair of a public water system or treatment works. DeZURIK has close relationships with a network of US-based vendors throughout our supply chain that provide AIS compliant castings and components. DeZURIK's KGI Iron Knife Gate Valve is just one of the many valve products available to meet AIS provisions.



## Bi-Directional, Drop-Tight Shutoff

The KGI Iron Knife Gate Valve provides bi-directional, drop-tight shutoff. Removable rubber cartridge seats on each side of the gate provide a bi-directional seal with excellent wear resistance. The rubber seats are metal reinforced and are available in a variety of elastomers for abrasion resistance and chemical compatibility. A port at the base of the valve allows for flushing. KGI Iron Knife Gate Valves provide long-term abrasion resistance under high-cycle conditions. The valve self-cleans when it is cycled.



## Ease of Maintenance

The KGI Iron Knife Gate Valve requires very little maintenance. The only replacement parts are the packing and the cartridge seats. The unique design of the cartridge-style seats allows them to be replaced easily, with no valve disassembly required. The valve is simply unbolted from the line, the old seats are removed, and the new seats are inserted into the valve. The packing material is contained in a unique inverted packing box that simplifies replacement because it does not need to be removed from the body. The valve can remain in-line while the top works, gate and packing box are removed.



Cartridge seat replacement process.

# Ordering

To order, simply complete the valve order code from the information shown. An ordering example is shown for your reference.

The AIS designation is required in the option field of the order code. DeZURIK will provide a certification letter that meets EPA documentation requirements.

<b>Valve Style</b> Give valve style code as follows: KGI = DeZURIK KGI Iron Knife Gate Valves
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<b>Valve Size</b> Give valve size code as follows:	
3 = 3" (80mm)	14 = 14" (350mm)
4 = 4" (100mm)	16 = 16" (400mm)
6 = 6" (150mm)	18 = 18" (450mm)
8 = 8" (200mm)	20 = 20" (500mm)
10 = 10" (250mm)	24 = 24" (600mm)
12 = 12" (300mm)	

<b>End Connection</b> Give end connection code as follows: F1 = Flanged, ASME Class 150
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<b>Body Material</b> Give body material code as follows: CI = Cast Iron
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<b>Packing Material</b> Give packing material code as follows: T = Square Braided PTFE
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<b>Gate Material</b> Give gate material code as follows: S2 = 316 Stainless Steel
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<b>Seat Material</b> Give seat material code as follows: EPDM = Terpolymer of Ethylene Propylene & A Diene NBR = Acrylonitrile-Butadiene CR = Chloroprene FKM = Fluoro Rubber
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<b>Options</b> Give option code as follows: AIS = Meets American Iron & Steel Act (Required)
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**ORDERING EXAMPLE:**  
KGI,6,F1,CI,T,S2-EPDM,AIS\*actuator

## Variety of Actuators Available

A heavy-duty top works is standard, and a simple design eliminates expensive overhauls, unscheduled shutdowns and costly replacement parts. DeZURIK KGI Iron Knife Gate Valves are available with handwheels, chainwheels, bevel gears, pneumatic, electric or hydraulic actuators. Accessories include limit switches, solenoids and air filter regulators.

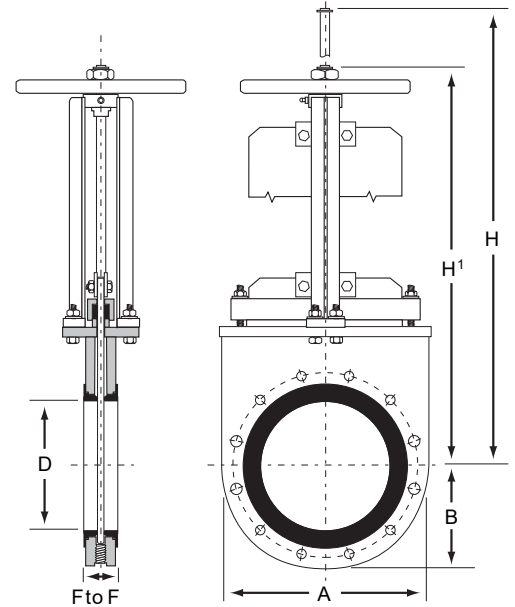
# Dimensions

## Handwheel Actuators

Valve Size D	F to F	A	B	CLOSED H <sup>1</sup>	OPEN H	GATE THICKNESS	MAX. WORKING PRESSURE psi/kPa
3" 80mm	2.25 57	8.00 203	3.88 99	17.13 435	20.38 518	0.25 6	150 1030
4" 100mm	2.25 57	9.25 235	4.75 121	18.25 464	22.63 575	0.25 6	150 1030
6" 150mm	2.38 60	11.50 292	5.88 149	21.06 535	27.19 691	0.50 13	150 1030
8" 200mm	2.88 73	14.00 356	7.00 178	26.56 675	34.56 878	0.50 13	150 1030
10" 250mm	3.13 80	16.75 425	8.38 213	32.44 824	43.63 1108	0.50 13	150 1030
12" 300mm	3.25 83	20.13 511	10.06 256	37.00 940	50.88 1292	0.50 13	100 690
14" 350mm	3.25 83	21.50 546	11.00 279	43.63 1108	57.63 1464	0.56 14	100 690
16" 400mm	3.75 95	24.00 610	12.50 318	47.50 1207	63.00 1600	0.68 17	100 690
18" 450mm	3.75 95	25.75 654	13.25 337	52.63 1337	70.00 1778	0.75 19	100 690
20" 500mm	4.63 118	27.50 699	13.75 349	57.94 1471	74.13 1883	0.88 22	100 690
24" 600mm	4.75 121	32.50 826	16.00 406	66.69 1694	86.94 2208	1.00 25	100 690

Inches  
Millimeters

18" and smaller - installed length is .12" less than minimum F to F  
20" and larger - installed length is .25" less than minimum F to F

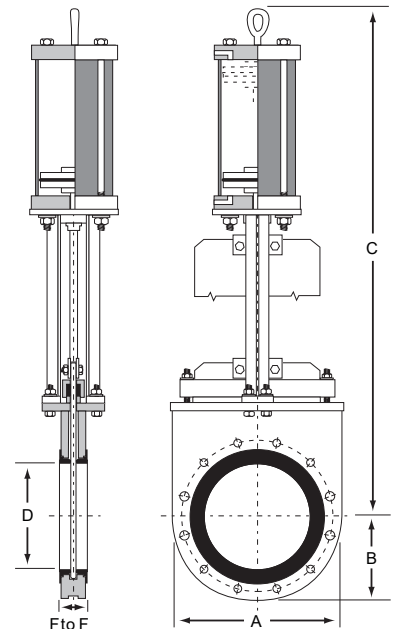


## Pneumatic Cylinder Actuators

Valve Size D	F to F	A	B	HEIGHT PNEUMATIC ACTUATED C	GATE THICKNESS	MAX. WORKING PRESSURE psi/kPa
3" 80mm	2.25 57	8.00 203	3.88 99	27.50 699	0.25 6	150 1030
4" 100mm	2.25 57	9.25 235	4.75 121	29.50 749	0.25 6	150 1030
6" 150mm	2.38 60	11.50 292	5.88 149	33.50 851	0.50 13	150 1030
8" 200mm	2.88 73	14.00 356	7.00 178	38.63 981	0.50 13	150 1030
10" 250mm	3.13 80	16.75 425	8.38 213	49.88 1267	0.50 13	150 1030
12" 300mm	3.25 83	20.13 511	10.06 256	55.00 1397	0.50 13	100 690
14" 350mm	3.25 83	21.50 546	11.00 279	59.00 1499	0.56 14	100 690
16" 400mm	3.75 95	24.00 610	12.50 318	63.00 1600	0.68 17	100 690
18" 450mm	3.75 95	25.75 654	13.25 337	83.75 2127	0.75 19	100 690
20" 500mm	4.63 118	27.50 699	13.75 349	Contact Factory	0.88 22	100 690
24" 600mm	4.75 121	32.50 826	16.00 406	Contact Factory	1.00 25	100 690

Inches  
Millimeters

18" and smaller - installed length is .12" less than minimum F to F  
20" and larger - installed length is .25" less than minimum F to F



Contact DeZURIK for drawings and dimensions for other actuators not listed here.

## **Sales and Service**

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

**Web Site:** [DeZURIK.com](http://DeZURIK.com)    **E-Mail:** [info@DeZURIK.com](mailto: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 bulletin, 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.*