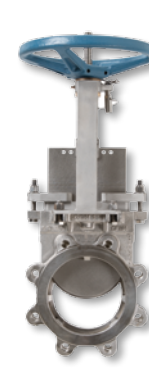
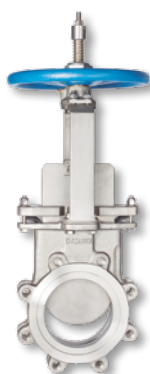










## KNIFE GATE VALVE SELECTION GUIDE



	General Service		Heavy Duty & Enhanced Performance			
						
MODEL	KGN-MSU	KGN-RSB	KGC-HD	KGC-ES	KGC-BD	KGC-MD
Valve Type	Metal Seat	Bi-Directional Resilient Seat	Heavy Duty Design Metal & Resilient Seat	Extended Service Design Metal & Resilient Seat	Premium Bi-Directional Resilient Seat	Maximum Duty Metal Seat & Dual Metal/Resilient Seat
Valve Design & Characteristics	Standard, Rugged & Economical	Perimeter Seat, Economical Direct & Reverse Shutoff	Expanded Materials, Options & Applications	DeZURIK Premium Packing System for Extended Seal Life		
				Premium KGC	Perimeter Seat Direct & Reverse Shutoff	Shearing Action with Hard Seats
GENERAL SPECIFICATIONS						
Size Range	2-36" (50-900mm)	2-24" (50-600mm)	2-48" (50-1200 mm)	2-48" (50-1200 mm)	2-36" (50-900mm)	3-24" (50-600mm)
Face-To-Face	MSS-SP81	MSS-SP81	MSS-SP81	MSS-SP81	MSS-SP81	MSS-SP81
Maximum Pressure Rating	100 or 150 psi CWP	150 psi CWP	150 psi CWP	150 psi CWP	100 or 150 psi CWP	150 psi CWP
Shutoff Class	MSS-SP81	Driptight	MSS-SP81 or Driptight*	MSS-SP81 or Driptight*	Driptight	MSS-SP81 or Driptight*
Temperature (Up To)	1000°F (537°C)	400°F (204°C)	1000°F (537°C)	1000°F (537°C)	400°F (204°C)	1000°F (537°C)
Throttling	Limited Application	Limited Application	May Be Used	May Be Used	Limited Application	Limited Application
COMMON MEDIA						
Raw & Treated Water	May Be Used	May Be Used	Typical Application	Typical Application	Maximum Performance	Typical Application
Clean Liquids	May Be Used	May Be Used	Typical Application	Typical Application	Maximum Performance	Typical Application
Dirty Liquids	May Be Used	May Be Used	Typical Application	Maximum Performance	Typical Application	Typical Application
Viscous Fluids	May Be Used	May Be Used	Typical Application	Maximum Performance	May Be Used	Typical Application
Water Conveyed Solids	May Be Used	May Be Used	Typical Application	Maximum Performance	Limited Application	Typical Application
Scaling	Not Used	Not Used	Limited Application	Limited Application	Not Used	Limited Application
Dry Material	May Be Used	Not Used	Typical Application	Typical Application	Not Used	Typical Application
Hot Gasses	May Be Used	Limited Application	May Be Used	May Be Used	Limited Application	May Be Used
PULP & PAPER						
Paper Stock To 3%	Typical Application	Typical Application	Typical Application	Maximum Performance	Typical Application	May Be Used
Paper Stock 3 To 6%	Typical Application	Limited Application	Typical Application	Maximum Performance	Typical Application	May Be Used
Paper Stock 6% Plus	May Be Used	Not Used	May Be Used	May Be Used	Not Used	May Be Used
Liquor Service	Limited Application	Limited Application	Typical Application	Maximum Performance	Maximum Performance	May Be Used
Recycle Trash	Limited Application	Limited Application	May Be Used	Typical Application	Limited Application	Maximum Performance
MINING, MINERALS PROCESSING						
Slurry: 0 To 15% Solids	May Be Used	May Be Used	Typical Application	Typical Application	May Be Used	Typical Application
Slurry: 15 To 30% Solids	Limited Application	Limited Application	May Be Used	May Be Used	Limited Application	May Be Used
Slurry: 30% Plus Solids	Limited Application	Not Used	Limited Application	Limited Application	Limited Application	Limited Application
Cyclones	Limited Application	Limited Application	May Be Used	May Be Used	Limited Application	May Be Used
CHEMICAL & PETROCHEMICAL						
Pellets, Dry Material	May Be Used	Limited Application	Typical Application	Maximum Performance	May Be Used	May Be Used
Process Fluids, Chemicals	May Be Used	May Be Used	Typical Application	Maximum Performance	Maximum Performance	Typical Application
Petroleum Products	May Be Used	May Be Used	Typical Application	Maximum Performance	Maximum Performance	Typical Application
MUNICIPAL & HYDRO						
Pump/Equipment Isolation	May Be Used	Typical Application	Typical Application	Typical Application	Typical Application	Limited Application
Dewatered Sludge	Typical Application	May Be Used	Typical Application	Typical Application	May Be Used	Limited Application
POWER**						
Fly Ash	Limited Application	Not Used	Typical Application	Typical Application	Not Used	Maximum Performance
Bottom Ash	Limited Application	Not Used	Typical Application	Typical Application	Not Used	Maximum Performance
FGD Scrubbers	May Be Used	Not Used	Typical Application	Typical Application	Not Used	May Be Used
Hydraulic Flow Control	May Be Used	May Be Used	May Be Used	May Be Used	May Be Used	May Be Used
Hydro Power & Dams	May Be Used	May Be Used	May Be Used	May Be Used	May Be Used	May Be Used
FOOD & BEVERAGE						
Raw Material Handling	May Be Used	Limited Application	Typical Application	Typical Application	May Be Used	Typical Application

\*Resilient seated valves only


\*\*For Coal Burner Isolation applications, refer to KCI

CWP = Cold Working Pressure

NA = Not Applicable

Abrasion Resistant		Severe Service		Ported Slide Gates	
					
<b>KUL</b>	<b>KSL-LA</b>	<b>KSV</b>	<b>DBB</b>	<b>KGO</b>	<b>PGV</b>
Urethane Lined Body Bi-Directional	Slurry Valve, Resilient Sleeve Lined, Bi-Directional	ASME Class 150 & 300 for Severe, Abrasive Services, Bi-Directional	Double Block & Bleed Design Bi-Directional	Metal Seat O-Port for Recycle Paper	Resilient Seat for Abrasive Service
Economical, General Abrasion Resistance	Broad Range Abrasion & Corrosion Resistance	High Pressure, High Abrasive Shutoff & Direct & Reverse Shutoff	Dual KSV Bodies with Isolating Chamber Direct & Reverse Shutoff	Recycle Trash, Hi-Density Stock, Pellets, Wood Chips	Bi-Directional, Abrasive, Corrosive & Dry Solids
2-48" (50-1200 mm)	2-24" (50-600mm)	3-60" (80-1500mm)	3-60" (80-1500mm)	2-72" (50-1800mm)	2-24" (50-600mm)
MSS-SP81	NA	MSS-SP135	NA	MSS SP-81	MSS SP-81
150 or 250 psi CWP	100 psi CWP	285 or 740 psi ASME	285 or 740 psi ASME	150 psi CWP or 150 psi ASME	150 psi CWP
Driptight	Driptight	MSS-SP135 or Driptight*	MSS-SP135 or Driptight*	MSS SP-81	Driptight
265°F (129°C)	300°F (149°C)	450°F (232°C)	450°F (232°C)	1000°F (537°C)	350°F (177°C)
Limited Application	Not Used	Limited Application	Limited Application	May Be Used	Not Used
Typical Application	May Be Used	May Be Used	May Be Used	Typical Application	Typical Application
Typical Application	May Be Used	May Be Used	May Be Used	Typical Application	Typical Application
Maximum Performance	May Be Used	May Be Used	May Be Used	Typical Application	Typical Application
Maximum Performance	Typical Application	May Be Used	May Be Used	Typical Application	Typical Application
Maximum Performance	Typical Application	May Be Used	May Be Used	Typical Application	Typical Application
May Be Used	Typical Application	May Be Used	May Be Used	Typical Application	Typical Application
Maximum Performance	Limited Application	Limited Application	Limited Application	Typical Application	Not Used
Limited Application	May Be Used	May Be Used	May Be Used	Limited Application	Limited Application
May Be Used	May Be Used	May Be Used	May Be Used	Typical Application	Typical Application
May Be Used	May Be Used	May Be Used	May Be Used	Typical Application	Typical Application
Limited Application	May Be Used	May Be Used	May Be Used	Maximum Performance	Not Used
Limited Application	Limited Application	May Be Used	May Be Used	Limited Application	Limited Application
Limited Application	Limited Application	May Be Used	May Be Used	Typical Application	Limited Application
Maximum Performance	Typical Application	Maximum Performance	Maximum Performance	Typical Application	Typical Application
Typical Application	Maximum Performance	Maximum Performance	Maximum Performance	Maximum Performance	Maximum Performance
May Be Used	Maximum Performance	Maximum Performance	Maximum Performance	Maximum Performance	Maximum Performance
May Be Used	Typical Application	Maximum Performance	Not Used	Limited Application	May Be Used
May Be Used	May Be Used	Limited Application	Limited Application	Limited Application	Limited Application
Typical Application	May Be Used	Typical Application	Typical Application	Not Used	Typical Application
Typical Application	May Be Used	Typical Application	Typical Application	Limited Application	Typical Application
May Be Used	Limited Application	Limited Application	Not Used	Limited Application	Limited Application
May Be Used	Not Used	Limited Application	Not Used	Limited Application	Limited Application
May Be Used	Limited Application	May Be Used	May Be Used	Typical Application	Typical Application
Maximum Performance	Limited Application	May Be Used	May Be Used	Typical Application	Typical Application
Typical Application	Maximum Performance	May Be Used	May Be Used	Limited Application	Typical Application
May Be Used	May Be Used	May Be Used	May Be Used	Limited Application	Limited Application
May Be Used	May Be Used	May Be Used	May Be Used	Not Used	Not Used
Maximum Performance	Limited Application	May Be Used	May Be Used	Limited Application	Typical Application



Standard Sizes to 96"	Fabricated Custom Designs		Hilton Hydro Valves		
					
<b>HILTON H-200-B</b>	<b>HILTON H-200-R</b>	<b>HILTON H-1500</b>	<b>HYDRO GUARD H-300-B</b>	<b>THROTTLING H-340-B</b>	<b>JET FLOW H-2500</b>
Fabricated Standardized Design to 96" (2400mm)	Square & Rectangular Port Valves	Round or Diamond Thru-Port	Shutoff & Isolation Knife Gate Valves	Low Head Throttling Control	High Head Throttling Control
Pressurized or un-pressurized bonnets, Custom designs to 144" (3600mm)	Designed to Application & Dimensional	Heavy Duty Construction for Slurries & Dry Materials	Full Pressure Isolation of Flow Control	Economical High Capacity Throttling	Full Range Throttling on Critical
2-96" (50-2400mm)	2-72" (50-1800mm)	2-48" (50-1200mm)	2-144" (50-3600mm)	2-144" (50-3600mm)	2-78" (50-2000mm)
MSS-SP81	As Specified	As Specified	As Specified	As Specified	As Specified
50 or 150 psi CWP	300 psi CWP	400 psi CWP	400 psi CWP	100 psi CWP	400 psi CWP
MSS SP-81 or Driptight*	MSS SP-81 or Driptight*	MSS SP-81 or Driptight*	MSS SP-81 or Driptight*	MSS SP-81 or Driptight*	MSS SP-81 or Driptight*
400°F (204°C)	1200°F (650°C)	1200°F (650°C)	400°F (204°C)	400°F (204°C)	400°F (204°C)
Not Used	Not Used	Typical Application	Typical Application	Maximum Performance	Maximum Performance
Maximum Performance	May Be Used	Not Used	Typical Application	Maximum Performance	Not Used
Maximum Performance	May Be Used	Not Used	Typical Application	Maximum Performance	Not Used
Maximum Performance	May Be Used	Not Used	Typical Application	Maximum Performance	Not Used
Maximum Performance	May Be Used	Not Used	Typical Application	Maximum Performance	Not Used
Maximum Performance	May Be Used	Not Used	Typical Application	May Be Used	Not Used
May Be Used	Limited Application	Limited Application	Typical Application	May Be Used	Not Used
May Be Used	May Be Used	Maximum Performance	Typical Application	Not Used	Not Used
May Be Used	Not Used	Not Used	Typical Application	Not Used	Not Used
Typical Application	Typical Application	Maximum Performance	Not Used	Not Used	Not Used
Typical Application	Typical Application	Maximum Performance	Not Used	Not Used	Not Used
Typical Application	May Be Used	May Be Used	Not Used	Not Used	Not Used
Typical Application	Typical Application	Typical Application	Not Used	Not Used	Not Used
Typical Application	Typical Application	Typical Application	Not Used	Not Used	Not Used
Typical Application	Typical Application	Typical Application	Not Used	Not Used	Not Used
May Be Used	May Be Used	May Be Used	Not Used	Not Used	Not Used
May Be Used	May Be Used	May Be Used	Not Used	Not Used	Not Used
May Be Used	May Be Used	May Be Used	Not Used	Not Used	Not Used
Maximum Performance	May Be Used	Typical Application	Typical Application	Not Used	Not Used
May Be Used	Not Used	Not Used	Not Used	Typical Application	Not Used
May Be Used	Not Used	Not Used	Not Used	Typical Application	Not Used
Maximum Performance	May Be Used	Not Used	Maximum Performance	Maximum Performance	Not Used
Maximum Performance	May Be Used	Typical Application	Maximum Performance	Maximum Performance	Not Used
May Be Used	May Be Used	Typical Application	Not Used	Not Used	Not Used
May Be Used	May Be Used	Typical Application	Not Used	Not Used	Not Used
May Be Used	May Be Used	Typical Application	Not Used	Not Used	Not Used
Typical Application	Not Used	Not Used	Maximum Performance	Maximum Performance	Maximum Performance
Typical Application	Not Used	Not Used	Maximum Performance	Maximum Performance	Maximum Performance
May Be Used	Typical Application	Typical Application	Not Used	Not Used	Not Used

# Specialty Designs & Applications

Combined DeZURIK & Hilton design capability offers a broad range of Specialty & Custom Knife Gate designs tailored to particular application needs.

## Lateral & Y Pattern Valve Assemblies - KGY

Standard & Custom Designs available in all Valve Types for Mixing and Diverting Service



### General Specifications

Design Layout, Sizes, Materials & Ratings to Application Requirements

Manual or Powered Actuators

## Level Sensor Isolation - KLS

Tank Mounted Valve to isolate and allow removal of Level Sensors without loss of tank media



### General Specifications

Size 3"

Pressure Rating 150 psi

Ratchet Handle or Square Manual Drive

Materials based on Application

## Coal Burner Isolation - KCI

Isolation Shutoff Valves on coal fired boilers



### General Specifications

Sizes 2 - 36"

Pressure Rating 50 psi

Design & Specifications on Application

## Material Handling , Standing Column

Ratings to Application Requirements

Hilton Application-Based models with displacement pocket for unrestricted closure on standing solids



### General Specifications

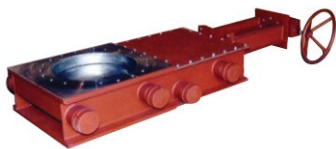
Design Layout, Sizes, Materials & Ratings to Application Requirements

## Slide Gate Valves

Slide Gate Valves feature displacement pocket and tapered body for column-cutting low pressure, material handling service.

Sizes to 48"

Ratings to Application Requirements



## Custom Fabricated Valves

Custom valves & actuators for specific application requirements.

- Discrete Models & Configurations
- Pressures to ANSI Class 900
- Temperatures to 2,000 F
- Special Materials & Facings
- Extreme Media & Flow Conditions
- Extended Body & Flanges
- Fabricated Wedge Gates



## Rating System:

**Not Used:** Valve style not recommended for listed service.

**Limited Application:** Use valve with considerable caution. In most instances it would be uncommon to use a valve with this rating in the specified service.

**May Be Used:** Thoroughly evaluate the application before selecting this valve. Though this valve may be the low initial cost, it would seldom provide the lowest total cost of ownership.

**Typical Application:** Based on experience, it is very common to install this valve in the stated application.

**Maximum Performance:** The valve listed as a Maximum Performance has been specifically designed for the stated application in most cases. Although the initial cost will be higher than other valves, the total cost of ownership is typically much lower.

This valve selection chart is designed to provide you with a quick reference on valve style capabilities. The chart considers both cost and performance factors for a specific application when determining whether a valve style is rated Maximum Performance, Typical, May Be Used, or Limited Application.

When evaluating a valve for any application, primary considerations are pressure rating, temperature limitations and fluid compatibility. Other considerations include importance of leak-free packing, seat leakage, and frequency of valve operation. Other factors include, but are not limited to fluid velocity, cycle frequency, speed of operation, dimensions and accessibility for installation or maintenance.

For more information, contact DeZURIK, Inc. or your local representative with your specific application requirements.

## Sales and Service

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

Web Site: [www.dezurik.com](http://www.dezurik.com) E-Mail: [info@dezurik.com](mailto:info@dezurik.com)



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