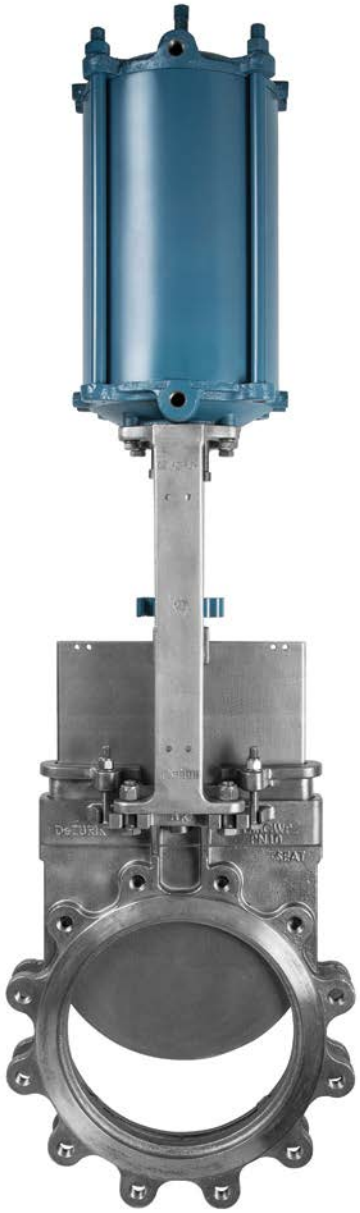
BULLETIN
JULY 2023
35.00-1C

DeZURIK KGC-ES EXTENDED SERVICE LIFE CAST STAINLESS STEEL KNIFE GATE VALVES



DeZURIK KGC-ES Extended Service Life Cast Stainless Steel Knife Gate Valves



Applications

DeZURIK KGC-ES Cast Stainless Steel Knife Gate Valves are designed for the toughest corrosive, abrasive liquid, slurry or dry material applications including Pulp and Paper, Mining, Wastewater, Chemical, Petrochemical, Power, Steel, Food Processing, and more.

Design and Construction

The heart of the KGC-ES is the DeZURIK ***Exclusive Premium Packing System.*** This system features a tight tolerance machined packing chamber, rounded gate edge, anti-extrusion ring, and many packing options to meet the demands of your specific application. All of these features together will improve sealing, extend packing life, and reduce maintenance.

Depending on what your application requires, the cast body and packing gland are available in 304, 316, 317, 254-SMO, 2205 Duplex Stainless Steel or Hastelloy C. Other body and gate materials are available upon request.

KGC-ES Knife Gate Valves are available in sizes 2-48" (50-1200mm) with metal, resilient or soft seated versions.

The actuator superstructure is heavy duty cast carbon steel or cast stainless steel to minimize corrosion. A variety of actuator options are available including handwheels, chainwheels, bevel gears, levers, pneumatic cylinders, hydraulic cylinders, and electric motors. A full complement of accessories is also offered.

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DeZURIK Exclusive Rounded Stainless Steel Gate

Gates are available in 304, 316, 317, 17-4, 254-SMO, 410, 2205 Duplex Stainless Steel or Hastelloy C for corrosion resistance. The gate has a precision ground finish on both sides to prevent packing and seat damage. The beveled knife-like gate edge with a machined tooth on each side pushes away or cuts through solids in the flow stream.

- Provides superior sealing
- Improves packing life
- Requires less compression and thus reduces friction
- Eliminates sharp corners where leakage first occurs

Deflection Cones

To prolong valve life in particularly demanding services, deflection cones are available in 316 stainless steel or abrasion resistant cast iron per ASTM A532 with Brinell Hardness of at least 500 BHN or urethane.

Cast Gate Guides and Jams

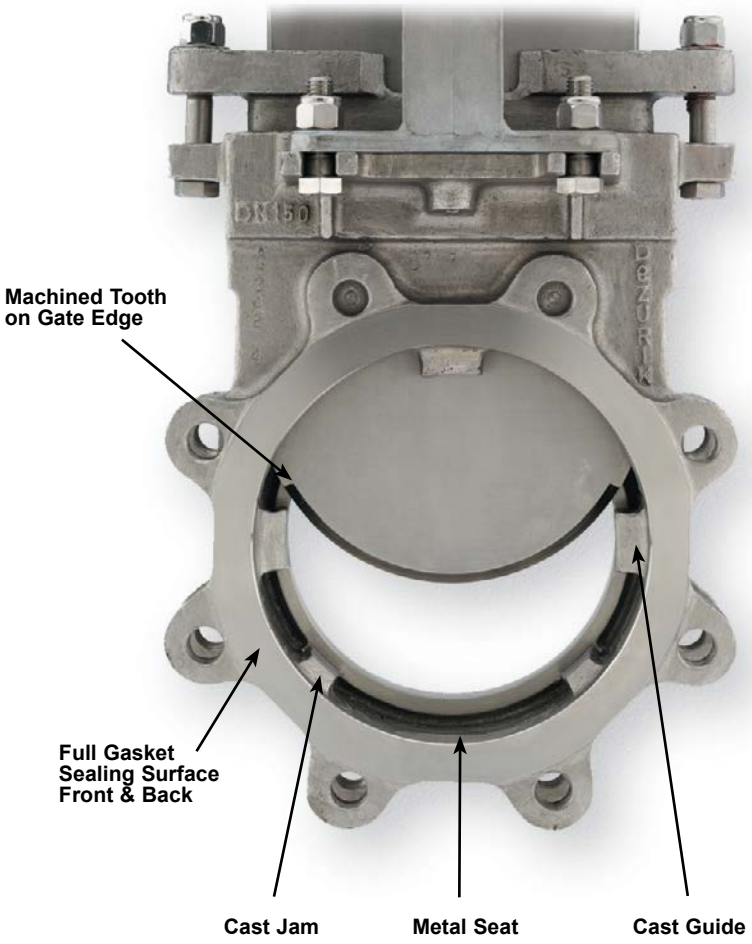
The cast gate guides provide support for the moving gate and will not break off like welded guides. Cast gate jams at the bottom of the body hold the gate securely against the seat to assure positive shutoff. All KGC-ES valves can handle full reverse pressure without damage. The body has raised face end connections with drilled and tapped lugs.

High Flow Capacity

The 100% round port design allows high flow capacity and minimum pressure drop. DeZURIK's KGC-ES valve seat I.D. is equal to the inside diameter of standard pipe (ASME B36.10).

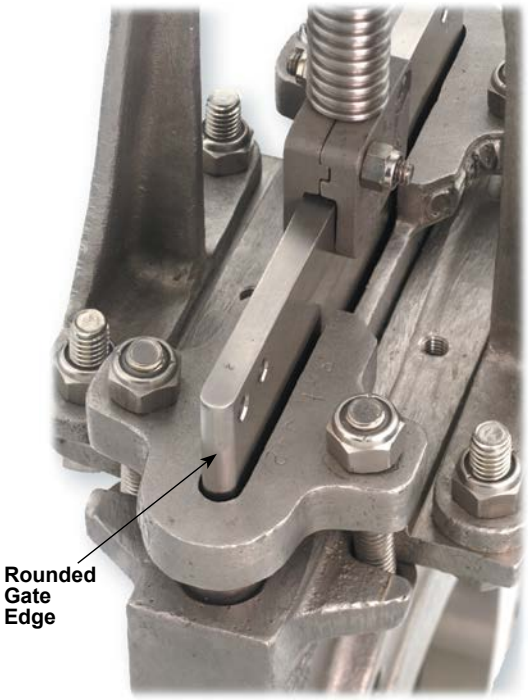
Full Gasket Sealing Front and Back

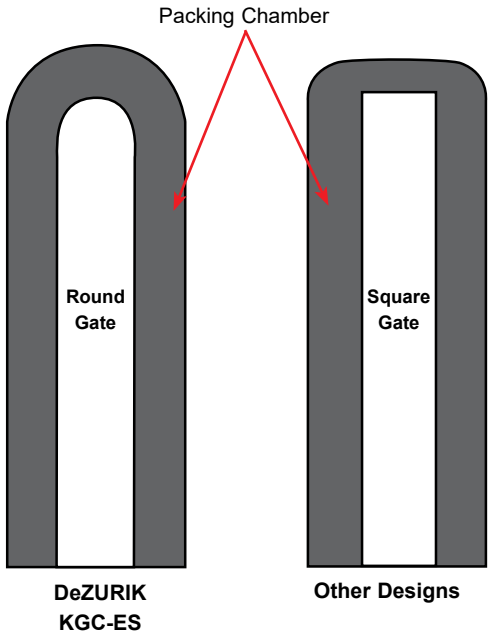
For maximum gasket sealing the KGC-ES end connections conform to ASME B16.20 dimensions for spiral-wound gaskets.

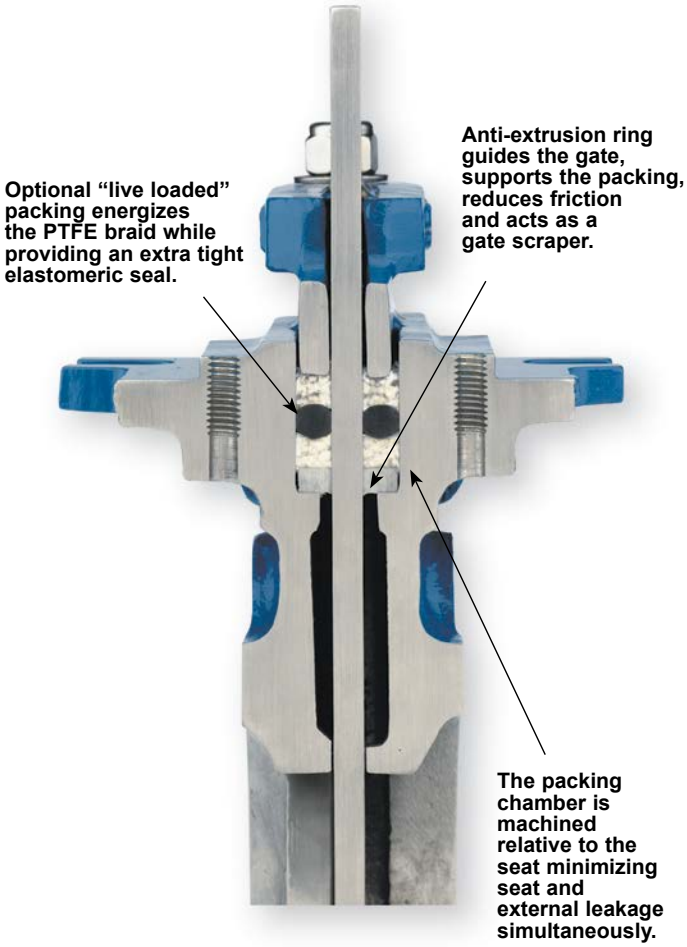


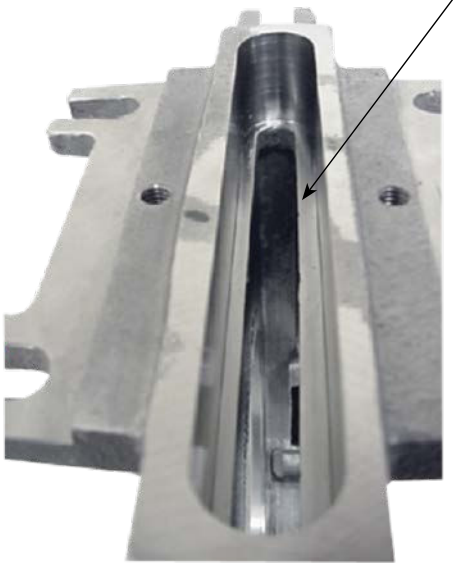
DeZURIK Exclusive Premium Packing System Ensures Long-Life by Sealing, Scraping and Supporting

DeZURIK KGC-ES Valves have a unique packing system that ensures a long-life tight seal with minimal packing gland pressure. The Premium Packing System is available for general, moderate, severe, and high temperature applications. The machined packing chamber, rounded gate edge, and anti-extrusion ring form the base. The system is completed by careful selection of the packing material. Temperature, pH, and media properties will determine the most suitable packing option. KGC-ES valves can be re-packed without being removed from the pipeline.









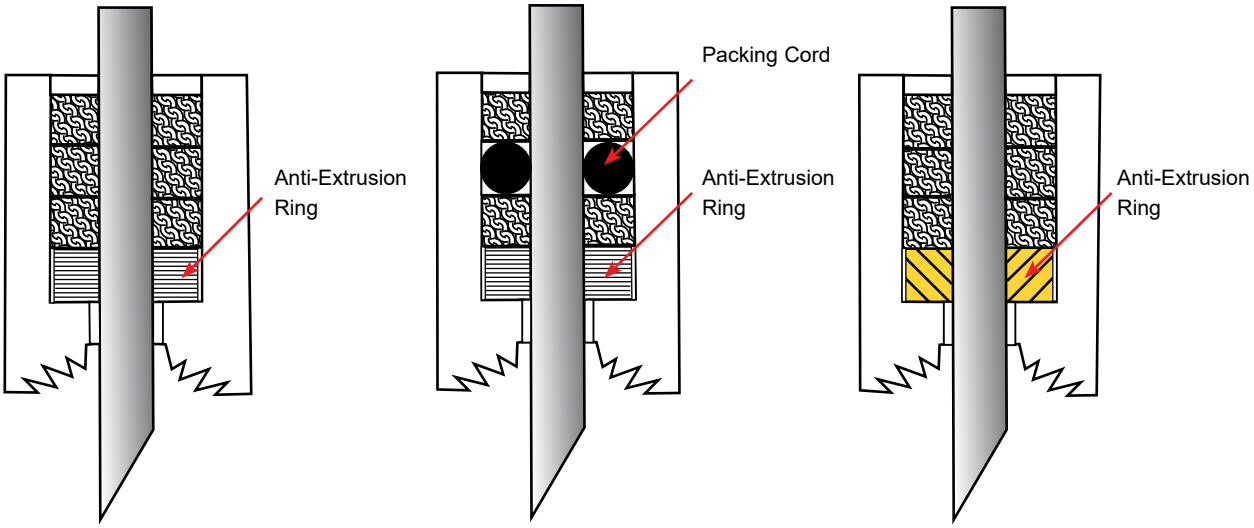
Test data proves the Premium Packing System requires fewer packing adjustments and provides extended service life.

Putting The Premium Packing System To Work

The KGC-ES packing system includes a number of features that:

- Extend service life
- Reduce external leakage
- Minimize friction and actuator thrust required
- Require fewer packing adjustments
- Ensure alignment of the gate
- Allow field replacement of packing

High Performance Packing Material Options



SMP

Lubricated PTFE Braided Packing with Anti-Extrusion Ring

FGP

Lubricated Food Grade Service with Anti-Extrusion Ring

ASP

Lubricated Self-Adjusting PTFE Braided Packing with Copolymer of Tetrafluoroethylene/propylene Fluoroelastomer Cord and Anti-Extrusion Ring

TDP

Dry Service, Dry PTFE Braided Packing with Solid PTFE Cord and Anti-Extrusion Ring

HTP

High Temperature Braided Packing with Carbon Fabric Reinforced Graphite Anti-Extrusion Ring

HMP

High Temperature Braided Packing with Metal Scraper Anti-Extrusion Ring

Application Factors That Affect Your Packing Selection For Optimal Sealing

- Compatibility with process media
  - Wet or dry application
  - Food grade or non-food grade
  - Life cycle stroke frequency
  - Temperature
  - pH Acid-Base level
  - Scaling or crystallization on gate
- Sealing
  - ASP packing with energized resilient cord will keep pressure on the packing material to maximize seal
  - Adjustable Packing Gland will renew and compress the packing to seal the valve
- Scraping
  - Anti-Extrusion Ring functions as a gate scraper, preventing process media from entering packing chamber.
- Supporting
  - Anti-Extrusion Ring supports packing, keeps packing from extruding between body and gate, and maintains gate alignment to maximize sealing performance

Seat Options

Metal, resilient or soft seated valves are offered in a 100%, round port design. The integral metal seated or the replaceable 17-4 PH Stainless Steel H900 Heat Treated version is available with shutoff capability exceeding current MSS-SP81 standards.

Resilient Seated Valves

Resilient seated valves are available for applications where drip-tight shutoff is required. Unlike valves which use an O-ring seal, DeZURIK KGC-ES Valves have a replaceable resilient seat designed especially for knife gate valve applications. The resilient seat material is molded on three sides of the stainless steel seat ring. When the valve is closed, the gate is pushed against the seat and held in place by the gate jams. When the valve is open, the gate moves away from the seat, allowing clearance, which prevents seat damage and reduces operating force.

A variety of seat materials are available:

CR - Chloroprene

NBR - Acrylonitrile-Butadiene

EPDM - Terplymer of Ethylene, Propylene and a Diene

FKM - Fluoro Rubber

CRW - Chloroprene, off white

Soft Seated Valves

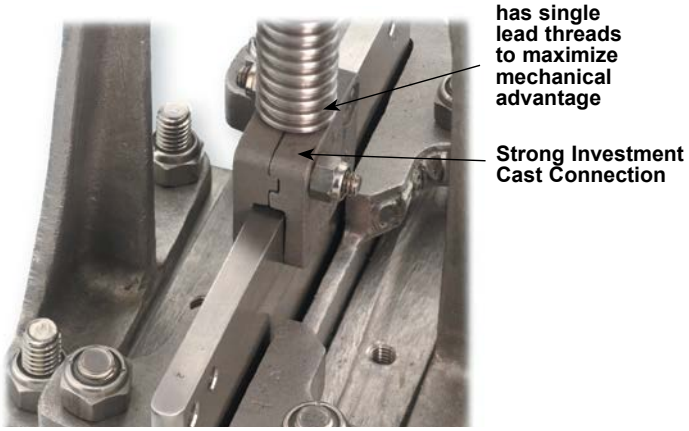
Soft seated valves are available for applications concerned with color contamination.

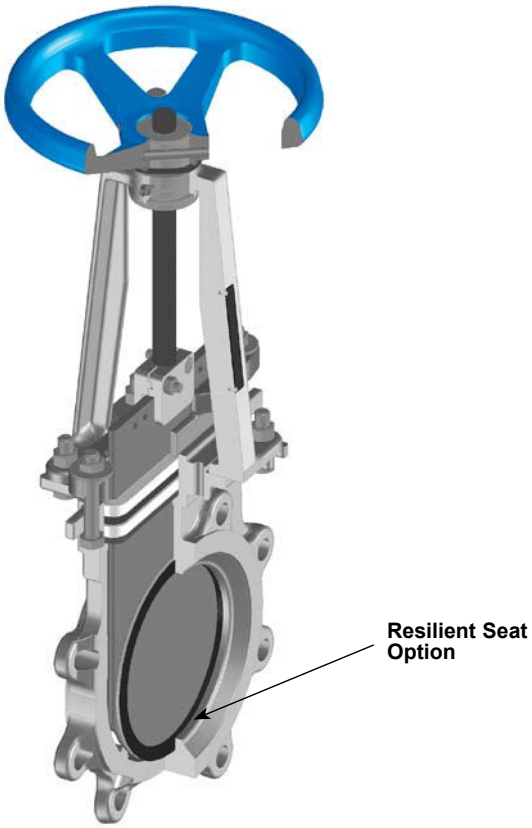
PTFE - Polytetrafluoroethylene, white

Reinforced PTFE - Polytetrafluoroethylene

Low Rim-Pull Force

A strong investment cast clip complements KGC-ES's robust construction. The single lead threads on the manual stem result in a lower required handwheel rim-pull force.





V-Orifice Design for Reliable Throttling and Modulation Control

An integral metal-seated V-port design is also available for reliable throttling control of thick slurries including paper stock. The constant V-orifice is maintained from open valve position to closed to prevent bridging or plugging and to ensure maximum control accuracy. Other orifice shapes available upon request.



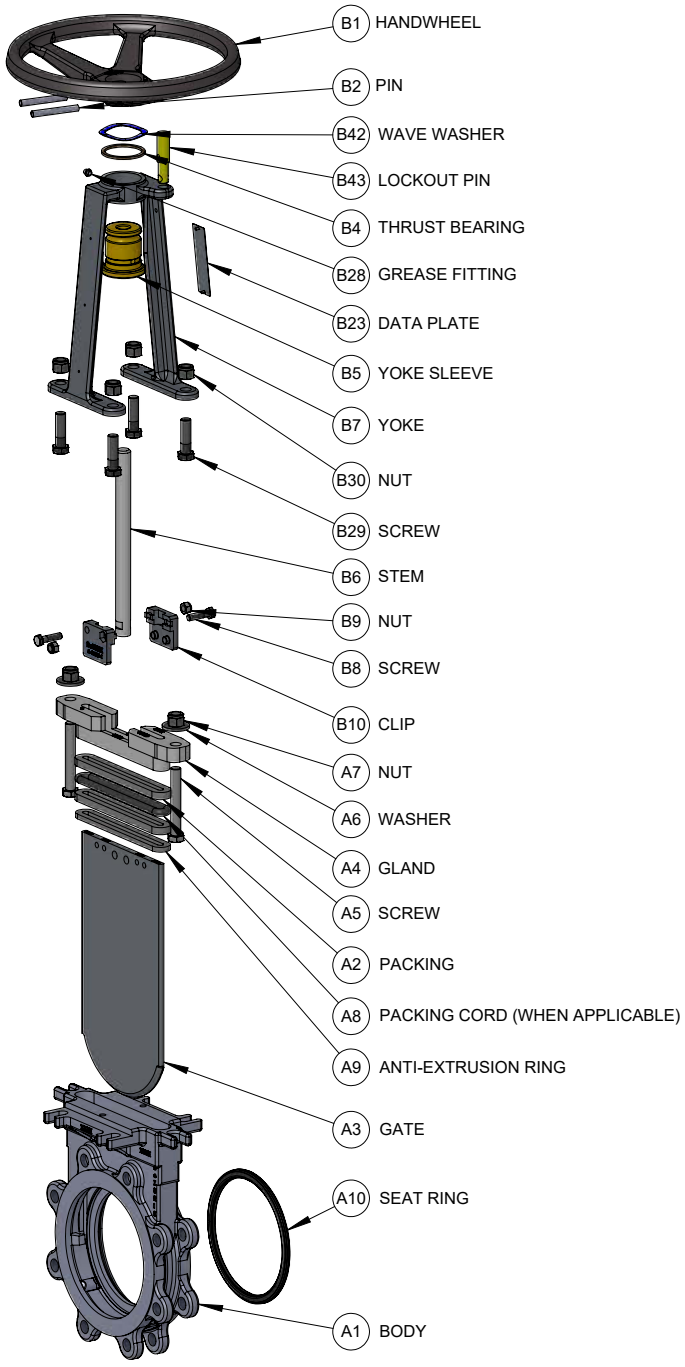
Options

DeZURIK KGC-ES Knife Gate Valves may be ordered with the following options to meet your application requirements:

- Purge port connections
- Corrosion resistant cylinder actuator materials
- Hardened/removable seats
- Hardened gates
- Bonnets

Materials of Construction

Item	Description	Material
A1	Body	304 Stainless Steel, ASTM A351 CF8
		316 Stainless Steel, ASTM A351 CF8M
		317 Stainless Steel, ASTM A351 CG8M
		254-SMO Stainless Steel, ASTM A351 CK3MCuN
		2205 Duplex Stainless Steel, ASTM A995 CD3MN
		Hastelloy C ASTM A494 CW2M / CX2MW
A2	Packing	ASP - Self-Adjusting PTFE Braided Packing to 400ºF (205ºC) (pH Range 0-14)
		SMP - PTFE Braided Packing to 500°F (260°C) (pH Range 0-14)
		TDP - Dry Service, Dry PTFE Braided Packing to 500°F (260°C) (pH Range: 0-14)
		HTP - High Temperature Braided Packing to 650°F (343°C) (pH Range: 1-12)
		HMP - High Temperature Braided Packing with Metal Scraper Ring to 1000°F (540°C) (pH Range: 3-11)
		FGP - Food Grade Service to 450°F (232°C) (pH Range: 3-11)
A3	Gate	304 Stainless Steel, ASTM A240
		316 Stainless Steel, ASTM A240
		317 Stainless Steel, ASTM A240
		17-4 Stainless Steel H900 Heat Treated, ASTM A564
		254 - SMO Stainless Steel, ASTM A240
		2205 Duplex Stainless Steel, ASTM A276
		Hastelloy C 276, ASTM B574
		410 Stainless Steel, ASTM A240
A4	Gland	Matches Body Material
A5	Screw	304 Stainless Steel
A6	Washer	304 Stainless Steel
A7	Nut	304 Stainless Steel
A8	Packing Cord	Copolymer of Tetrafluoroethylene/Propylene Fluoroelastomer to 400ºF (205ºC) (pH Range 0-14). Used with ASP packing
		Solid PTFE to 500°F (260°C) (pH Range: 0-14). Used with TDP packing
A9	Anti-Extrusion Ring	PTFE, Glass Filled to 500ºF (260ºC) (pH Range 0-14). Used with SMP, TDP, ASP and FGP packing.
		Square Braid with weave of fully-annealed copper wire scrapers to 1000ºF (540ºC) (pH Range 3-10). Used with HMP packing
		Carbon Fabric Reinforced Graphite to 800ºF (427ºC) (pH Range 1-12). Used with HTP packing.
A10	Seat Ring*	CR - Chloroprene to 180°F (83°C)
		NBR - Acrylonitrile-Butadiene to 180°F (83°C)
		EPDM - Terpolymer of Ethylene, Propylene and a Diene to 250°F (122°C)
		FKM - Fluoro Rubber to 400°F (204°C)
		17-4 PH Stainless Steel H900 Heat Treated
		CRW - Chloroprene, Off White to 140°F (60°C)
		PTFE - Polytetrafluoroethylene, white to 450°F (230°C)
		Reinforced PTFE - Polytetrafluoroethylene, to 500°F (260°C)
B1	Handwheel	Painted, Cast Iron
B2	Roll Pin	Carbon Steel or 420 Stainless Steel
B4	Thrust Bearing	Oil Impregnated Bronze
B5	Yoke Sleeve	Aluminum Bronze
B6	Stem	304 Stainless Steel
B7	Yoke	Cast Steel or 304 Stainless Steel
B8	Screw	Zinc Plated Steel or 18-8 Stainless Steel
B9	Nut	Zinc Plated Steel or 18-8 Stainless Steel
B10	Clip	304 Stainless Steel
B23	Data Plate	316 Stainless Steel
B28	Grease Fitting	Zinc Plated Steel
B29	Screw	Zinc Plated Steel or 18-8 Stainless Steel
B30	Nut	Zinc Plated Steel or 18-8 Stainless Steel
B42	Wave Washer	304 Stainless Steel
B43	Lockout Pin	304 Stainless Steel



*The replaceable Seat Ring is standard on resilient-seated valves and optional on metal-seated valves.The standard integral metal seat matches the body material.

Valve Selection

Shut-Off Capabilities

Resilient Seats	Leak tight/drip tight
Soft Seats	5 cc/in/min
Metal Seats	Meet MSS SP-81

Pressure Ratings

2-52" (50-1300mm)	150 psi C.W.P. (1030 kPa)
Optional 30 & 36" (750 & 900mm)	100 psi C.W.P (690 kPa)

Notes:
Valve can handle Full Reverse Pressure without damage.

Valves with Chloroprene, off white seats are limited to 50 psi (350 kPa). Contact DeZURIK with service conditions.

DeZURIK resilient seated and soft seated knife gate valves are tested at minimum of 40 psi per MSS SP81 standards. Contact DeZURIK for special low pressure tests if operating line pressure is below 40 psi.

Applicable Standards

DeZURIK KGC-ES Knife Gate Valves are designed and/or tested to meet the following standards:	
MSS SP-81	Metal Seated Valves, Stainless Steel, Bonnetless, Flanged Knife Gate Valves
MSS SP-151	Pressure testing of knife gate valves
ASME B16.5 2-24" (50-600mm)	Flanges and Flanged Fittings, ASME 150 Conforms to related drilling dimensions
ASME 16.47 26-52" (650-1300mm)	Large diameter Steel Flanges. Series A. Conforms to related dimensions
AWWA C520	Valves conform to AWWA Standard ANSI/AWWA C-520 for sizes 2-96" (50-2400mm) Knife Gate Valves
International Standards	Conforms to flanged bolt guides — JIS 10; DIN 10 and DIN 16; ISO 7005-1/PN10 and 7005-2/PN16; BS 4504/PN10 and BS 4504/PN16; and AS 2129 Tables D and E; SANS 1123-1000 and SANS 1123-1600

Flow Parameters

Round Port

Valve Size	Cv* / Kv* 100% Open	K** (resistance)	Port Area (in^2/cm^2)
2" 50mm	300 260	0.16	3.1 20
3" 80mm	675 584	0.16	7.1 46
4" 100mm	1200 1040	0.16	12.6 81
5" 125mm	1900 1640	0.16	19.6 126
6" 150mm	2700 2340	0.16	28.3 183
8" 200mm	4800 4200	0.16	50.3 325
10" 250mm	7500 6500	0.16	78.5 506
12" 300mm	10800 9300	0.16	113 729
14" 350mm	13200 11400	0.16	138 890
16" 400mm	17400 15100	0.16	183 1180
18" 450mm	22300 19300	0.16	234 1510
20" 500mm	27800 24000	0.16	291 1880
22" 550mm	34000 29400	0.16	355 2290
24" 600mm	40500 35000	0.16	425 2740
26" 650mm	47800 41300	0.16	501 3230
28" 700mm	55600 48100	0.16	583 3760
30" 750mm	64000 55400	0.16	672 4340
32" 800mm	73000 63100	0.16	767 4950
36" 900mm	93000 80400	0.16	976 6300
42" 1050mm	126000 109000	0.16	1336 8620
48" 1200mm	165000 142700	0.16	1750 11290

V-Orifice 60 Degrees

Valve Size	Cv* / Kv* 100% Open	K** (resistance)	Port Area (in^2/cm^2)
2" 50mm	89 77	1.80	1.9 12
3" 80mm	210 584	1.63	4.3 28
4" 100mm	386 330	1.53	7.7 50
5" 125mm	665 580	1.27	11.5 74
6" 150mm	900 780	1.42	17.2 111
8" 200mm	1660 1400	1.32	30.6 197
10" 250mm	2320 2000	1.65	42.0 271
12" 300mm	3490 3000	1.52	61.9 399
14" 350mm	4650 4000	1.27	80.8 521
16" 400mm	6110 5300	1.29	106 680
18" 450mm	8000 6900	1.23	138 890
20" 500mm	10100 8700	1.20	170 1100
22" 550mm	11900 10300	1.28	213 1370
24" 600mm	15100 13100	1.14	250 1610
26" 650mm	16800 14500	1.28	300 1940
28" 700mm	19500 16900	1.29	350 2260
30" 750mm	23900 20700	1.14	389 2510
32" 800mm	25600 22100	1.30	460 2970
36" 900mm	35200 30400	1.11	568 3660
42" 1050mm	44100 38100	1.32	800 5160
48" 1200mm	57800 50000	1.33	1050 6770

*Cv = Flow in GPM of water at 1 psi pressure drop
*Kv = Flow in m3/hr. of water at 100 kPa pressure drop
** K = The resistance coefficient of the valve. The constant (K) can be used to determine the equivalent length of pipe

$L = \frac{KxD}{f}$ Where L = Equivalent length of pipe in feet
K = Resistance coefficient
D = Pipe diameter in feet
f = Friction factor, related to type of pipe

Valve Selection

Valve and Actuator Weights

Pounds
Kilograms

Valve Size	Basic Valve	With Lever	With Handwheel	With Chainwheel	With Bevel Gear Handwheel*	With Cylinder		
						Size	lbs.	Kg.
2" 50mm	10 4.5	20 9	20 9	32 14.5	—	4" (100mm)	29	13
3" 80mm	16 7	37 17	27 12	39 18	88 40	4" (100mm)	37	17
4" 100mm	24 11	48 22	36 16	48 22	96 43.5	4" (100mm)	45	20
						6" (150mm)	63	29
5" 125mm	32 14.5	60 27	51 23	66 30	108 49	4" (100mm)	58	26
						6" (150mm)	76	35
						8" (200mm)	88	40
6" 150mm	38 17	66 30	57 26	75 34	113 51	4" (100mm)	63	29
						6" (150mm)	81	37
						8" (200mm)	93	42
8" 200mm	65 30	98 44.5	86 39	101 46	144 65	6" (150mm)	112	51
						8" (200mm)	124	56
10" 250mm	103 47	157 71	141 85	179 81	191 87	8" (200mm)	174	79
						10" (250mm)	220	100
						12" (300mm)	257	117
12" 300mm	148 67	213 97	187 85	227 103	241 109	8" (200mm)	225	102
						10" (250mm)	270	122
						12" (300mm)	309	140
14" 350mm	199 90	N/A	265 120	284 129	303 137	10" (250mm)	332	151
						12" (300mm)	372	169
16" 400mm	272 123	N/A	341 155	358 162	380 172	10" (250mm)	409	186
						12" (300mm)	449	204
						14" (350mm)	495	225
18" 450mm	361 164	N/A	433 197	449 204	473 215	12" (300mm)	551	250
						14" (350mm)	602	273
						16" (400mm)	813	369
20" 500mm	518 235	N/A	593 269	653 296	637 289	12" (300mm)	712	323
						14" (350mm)	760	345
						16" (400mm)	982	445
22" 550mm	622 282	N/A	698 317	N/A	760 345	12" (300mm)	830	377
						14" (350mm)	881	400
						16" (400mm)	1101	500
						18" (450mm)	1144	519
24" 600mm	725 329	N/A	803 364	N/A	882 400	12" (300mm)	947	430
						14" (350mm)	1001	454
						16" (400mm)	1219	553
						18" (450mm)	1262	572
26" 650mm	918 417	N/A	N/A	N/A	1104 501	12" (300mm)	1200	544
						14" (350mm)	1251	568
						16" (400mm)	1524	692
						18" (450mm)	1578	716
						20" (500mm)	1711	777
28" 700mm	1111 503	N/A	N/A	N/A	1325 601	12" (300mm)	1417	643
						14" (350mm)	1467	666
						16" (400mm)	1648	748
						18" (450mm)	1830	830
						20" (500mm)	1963	891
30" 750mm	1446 656	N/A	N/A	N/A	1594 723	12" (300mm)	1718	780
						14" (350mm)	1768	802
						16" (400mm)	1985	900
						18" (450mm)	2205	1000
						20" (500mm)	2365	1073
32" 800mm	1700 772	N/A	N/A	N/A	1825 828	12" (300mm)	1901	862
						14" (350mm)	1951	886
						16" (400mm)	2121	963
						18" (450mm)	2300	1044
						20" (500mm)	2426	1101
36" 900mm	2204 1000	N/A	N/A	N/A	2366 1073	14" (350mm)	2541	1153
						16" (400mm)	2755	1250
						18" (450mm)	2987	1355
						20" (500mm)	3150	1428
42" 1050mm	3600 1634	N/A	N/A	N/A	3908 1774	On Application		
48" 1200mm	4997 2266	N/A	N/A	N/A	5450 2474	On Application		

Note: Weights are approximate and do not include crating

* For Bevel Gear with Chainwheel, add the following weight to the bevel gear with handwheel weight:
2-18" add 7 lbs. (3kg)
20-24" add 26 lbs. (12kg)
30" add 74 lbs. (34kg)
36" add 68 lbs. (31kg)

Ordering

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

Valve Style
Give valve style code as follows:

KGC = Cast Stainless Steel Knife Gate Valve

Valve Size
Give valve size code as follows:

2	=	2"	(50mm)	20	=	20"	(500mm)
3	=	3"	(80mm)	22	=	22"	(550mm)
4	=	4"	(100mm)	24	=	24"	(600mm)
5	=	5"	(125mm)	26	=	26"	(650mm)
6	=	6"	(150mm)	28	=	28"	(700mm)
8	=	8"	(200mm)	30	=	30"	(750mm)
10	=	10"	(250mm)	32	=	32"	(800mm)
12	=	12"	(300mm)	36	=	36"	(900mm)
14	=	14"	(350mm)	42	=	42"	(1050mm)
16	=	16"	(400mm)	48	=	48"	(1200mm)
18	=	18"	(450mm)				

Body Style
Give body style code as follows:

ES = Extended Service Life with DeZURIK Exclusive Premium Packing System

End Connection
Give end connection code as follows:

F1 = ASME 150 UNC Tapping for Threads
F110 = ISO 7005/PN10 Drilling
F116 = ISO 7005/PN16 Drilling
F1DA = AS2129 Table D Drilling
F1EA = AS2129 Table E Drilling
F1UN(1) = ASME 150 UN-8 Tapping for Threads
F1S10 = SANS 1123-1000
F1S16 = SANS 1123-1600

Optional End Connections

F1T = ASME 150 Through Bolting
F1J1 = JIS 10 Drilling

On Application

Other end connections available on application.

Body Material
Give body material code as follows:

Standard

S1 = 304 Stainless Steel (14" and larger)
S2 = 316 Stainless Steel
S3 = 317 Stainless Steel

On Application

HC = Hastelloy C
S6 = 254 Stainless Steel
S10 = 2205 Duplex Stainless Steel

Packing Material
Give packing material code as follows:

Standard Packing

SMP = PTFE Braided Packing to 500°F (260°C) (pH Range 0-14)

Optional Packing

ASP = Self-Adjusting PTFE Braided Packing with AFLAS Fluoroelastomer Cord to 400ºF (205ºC) (pH Range 0-14)
TDP = Dry Service, Dry PTFE Braided Packing with Solid PTFE Cord to 500°F (260°C) (pH Range: 0-14)
HTP = High Temperature Braided Packing to 650°F (343°C) (pH Range: 1-12)
HMP = High Temperature Braided Packing with Metal Scraper Ring to 1000°F (540°C) (pH Range: 3-10)
FGP = Food Grade Service to 450°F (232°C) (pH Range: 3-11)

Gate Material (2)
Give gate material code as follows:

Standard Gate Materials

S1 = 304 Stainless Steel (Standard for S1 body material) 14" and larger
S2 = 316 Stainless Steel (Standard for S2 body material)
S3 = 317 Stainless Steel (Standard for S3 body material)

Optional Gate Materials

S5 = 17-4 Stainless Steel H900 Heat Treated (Used with S1, S2, & S3 body materials)

On Application

S6 = 254-SMO Stainless Steel (Used with S6 body material)
S8 = 410 Stainless Steel (Used with S1, S2 & S3 body materials)
S10 = 2205 Duplex Stainless Steel (Used with S2, S3 OR S10 body materials)
HC = Hastelloy C (Used with HC body materials)

Seat Material (3)
Give seat material code as follows:

Standard Seat Materials

M = Metal
V = V-Orifice All Metal
CR = Chloroprene to 180°F (83°C)
NBR = Acrylonitrile-Butadiene to 180°F (83°C)
EPDM = Terpolymer of Ethylene, Propylene and a Diene to 250°F (122°C)

Optional Seat Materials

FKM = Fluoro Rubber to 400°F (204°C)
S5D = 17-4 PH Stainless Steel H900 Heat Treated

On Application

CRW = Chloroprene, Off White to 140°F (60°C)
PTFE or RTFE

Standard Options
Give option code as follows:

ARRA = ARRA Compliant
PSA = Purge Ports in Seat Area
PCA = Purge Ports in Chest Area
PSC = Purge Ports in Seat and Chest Area
CMC = Certificate of Material Conformance
CRT = Certified Physical and Chemical Test Reports
— = Optional Coating
— = DeZURIK Standard Test Certification
P100 = 30" and 36" (750 and 900mm) valves with 100 psi (690 kPa) pressure rating

Notes:
(1) Applies to valves 18" (450mm) and larger. Flange bolt hole threads are 8 threads per inch in accordance with ANSI, API and MSS standards.
(2) Gate material limitations by body style in parentheses.
(3) The limiting factor in valve selection is the lowest temperature of the packing or seat.

Ordering Example:

KGC,6,ES,F1,S2,SMP,S2-CR*Actuator

Manual Actuators

Lever Actuators

Lever actuators can be furnished on 2-12" (50-300mm) valves for applications where rapid valve operation is required or where space prevents use of a standard handwheel or bevel gear actuator. Maximum pressure differential required for valves with lever actuators should not exceed the limits listed. Maximums are based on the operating force for each valve size. Lever actuators are carbon steel only. SMP packing recommended with MN-LV.

To order, add the lever actuator code to the basic valve order code.

Lever Actuator

Valve Size	Order Code Carbon Steel (CS) Yoke	Maximum Pressure Differential psi/kPa
2-4" 50-100mm	MN-LV-CS	75 520
5-6" 125-150mm	MN-LV-CS	45 310
8" 200mm	MN-LV-CS	25 170
10" 250mm	MN-LV-CS	20 140
12" 300mm	MN-LV-CS	14 100

Ordering Example:
KGC,6,ES,F1,S2,SMP,S2-M*MN-LV-CS

Handwheel and Chainwheel Actuators

All 2-24" (50-600mm) valves can be furnished with handwheel actuators, and 2-20" (50-500mm) with chainwheel actuators. To order handwheel or chainwheel actuators, add the appropriate order code to the basic valve order code. Refer to information on bevel gear actuators for use on dry solids, paper stock, slurries or when pressure exceeds limits shown. Order chain for chainwheel actuators as a separate item.

Handwheel Actuator

Valve Size	Order Code Carbon Steel (CS) Yoke	Order Code 304 SST (S1) Yoke	Maximum Pressure Differential psi/kPa
2-4" 50-100mm	MN-HD8-CS	MN-HD8-S1	150 1030
5-8" 125-200mm	MN-HD12-CS	MN-HD12-S1	150 1030
10-12" 250-300mm	MN-HD16-CS	MN-HD16-S1	150 1030
14" 350mm	MN-HD20-CS*	MN-HD20-S1*	125 860
16" 400mm	MN-HD20-CS*	MN-HD20-S1*	100 680
18" 450mm	MN-HD20-CS*	MN-HD20-S1*	75 515
20" 500mm	MN-HD20-CS*	MN-HD20-S1*	50 340
22" 550mm	MN-HD20-CS*	MN-HD20-S1*	25 170
24" 600mm	MN-HD20-CS*	MN-HD20-S1*	25 170

*Bevel gear actuators recommended for dry solids, paper stocks, slurries, or when pressure exceeds limits shown.

Ordering Example:
KGC,6,ES,F1,S2,SMP,S2-M*MN-HD12-CS

Chainwheel Actuator

Valve Size	Order Code Carbon Steel (CS) Yoke	Order Code 304 SST (S1) Yoke	Maximum Pressure Differential psi/kPa
2-4" 50-100mm	MN-CW8-CS	MN-CW8-S1	150 1030
5-8" 125-200mm	MN-CW12-CS	MN-CW12-S1	150 1030
10-12" 250-300mm	MN-CW20-CS	MN-CW20-S1	150 1030
14" 350mm	MN-CW20-CS*	MN-CW20-S1*	125 860
16" 400mm	MN-CW20-CS*	MN-CW20-S1*	100 680
18" 450mm	MN-CW20-CS*	MN-CW20-S1*	75 515
20" 500mm	MN-CW30-CS*	MN-CW30-S1*	50 340

*Bevel gear actuators recommended for dry solids, paper stocks, slurries, or when pressure exceeds limits shown.

Ordering Example:
KGC,4,ES,F1,S2,SMP,S2-CR*MN-CW8-S1

Manual Actuators

Bevel Gear Actuators

Bevel gear actuators are available on 3-36" (80-900mm) valves with handwheel or chainwheel actuators. Bevel gear actuators provide vertical mounting of the handwheel or chainwheel, or can be used where space limitations prohibit the use of a standard handwheel or chainwheel. A mechanical advantage makes large valve operation easier and faster.

Bevel Gear Handwheel Actuators

Valve Size	Order Code Carbon Steel (CS) Yoke	Order Code 304 SST (S1) Yoke	Maximum Pressure Differential psi/kPa
3-18" 80-450mm	MNB-HD12-CS	MNB-HD12-S1	150 1030
20-24" 500-600mm	MNB-HD16-CS	MNB-HD16-S1	150 1030
26-36" 750-900mm	MNB-HD30-CS	MNB-HD30-S1	150* 1030*

Ordering Example:

KGC,14,ES,F1,S2,SMP,S2-CR*MNB-HD12-CS

Bevel Gear Chainwheel Acutators

Valve Size	Order Code Carbon Steel (CS) Yoke	Order Code 304 SST (S1) Yoke	Maximum Pressure Differential psi/kPa
3-18" 80-450mm	MNB-CW12-CS	MNB-CW12-S1	150 1030
20-28" 500-700mm	MNB-CW20-CS	MNB-CW20-S1	150 1030
30-36" 750-900mm	MNB-CW30-CS	MNB-CW30-S1	150* 1030*

Ordering Example:

KCG,14,ES,F1,S2,SMP,S2-CR*MNB-CW12-CS-90

Actuator mounted at 90 degrees

Note:
For alternate mounting of bevel gear actuators, add -90, -180 or -270 after the actuator code and as 2nd line information on the order.
* Maximum pressure of 30" (750mm) and 36" (900mm) valves with P100 option is 100psi.

Manual Actuator Accessories

Chain for Chainwheel Actuators

Order as a separate item by giving the order code and specify required length of chain and number of pieces. One closing link is supplied with the Chainwheel Actuator.

Order Code	Description
ACC*CN102	Steel, Zinc Plated 3/16
ACC*CN103	Galvanized 3/16
ACC*CN106	316 Stainless Steel 3/16

Ordering Example:

ACC*CN102

Chain 1 piece, 12 feet long (366cm)

Extension for Handwheel or 2" Nut Extension

Provides extension of the handwheel or nut to allow remote operation – normally from above. The extension includes fittings and extension pipe with handwheel or nut mounted. To order, specify description and extension length from center line of valve to handwheel or nut.

Order Code	Description
ENHD	Extension for Handwheel
ENTS	Extension for Nut

Ordering Example:

Handwheel: KGC,14,ES,F1,S2,SMP,S2-CR*MN-HD20-CS,ENHD
Center line of valve to handwheel 72 inches (1829mm).

Lockout Device

Available on all sizes of handwheel, bevel gear handwheel and cylinder actuated valves. To order, add a comma and the order code “LK” after the actuator code.

Ordering Example:

KGC,14,ES,F1,S2,SMP,S2-CR*MNB-HD12-CS,LK



Floorstand

A floorstand for handwheel actuated valves allows operation from above. Includes floorstand with gate position indicator, handwheel, fittings and extension. To order, specify length from center line of valve to base of floorstand. For non-rising and rising stem configurations contact application engineering.

Ordering Example:

KGC,14,ES,F1,S2,SMP,S2-CR*MN-HD20-CS
Except with floorstand. Center line of valve to base of floorstand 72 inches (1829mm).

Cylinder Actuators

On-Off Cylinder Actuators

DeZURIK cylinder actuators are available with double-acting pneumatic or hydraulic cylinders for on/off or positioning services. Supply pressure is 60 or 80 psi (410 or 550 kPa). To order, add the proper code from the on/off column of the table to the valve order code. Specify hydraulic media if other than oil.

Positioning Cylinder Actuators

DeZURIK cylinder actuators are available with pneumatic or electronic positioners for throttling control. Positioners are enclosed and mounted on the superstructure.

Actuator Sizing

60 psi (410 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa			
			On/Off		Positioning	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Dry Solids, Slurries, Paper Stock	Liquids & Gases	Dry Solids, Slurries, Paper Stock	Liquids & Gases
2 & 3" 50 & 80mm	CY-PC4-CS	CY-PC4-S1	150 1030	150 1030	150 1030	150 1030
4" 100mm	CY-PC4-CS	CY-PC4-S1	100 690	150 1030	75 515	75 515
	CY-PC6-CS	CY-PC6-S1	150 1030	N/R	150 1030	150 1030
5 & 6" 125 & 150mm	CY-PC4-CS	CY-PC4-S1	N/A	50 340	N/A	N/A
	CY-PC6-CS	CY-PC6-S1	125 860	150 1030	75 515	100 690
	CY-PC8-CS	CY-PC8-S1	150 1030	N/R	150 1030	150 1030
8" 200mm	CY-PC6-CS	CY-PC6-S1	75 515	125 860	50 340	50 340
	CY-PC8-CS	CY-PC8-S1	150 1030	150 1030	125 860	125 860
10" 250mm	CY-PC8-CS	CY-PC8-S1	100 690	150 1030	75 515	100 690
	CY-PC10-CS	CY-PC10-S1	150 1030	N/R	125 860	150 1030
	CY-PC12-CS	CY-PC12-S1	N/R	N/R	150 1030	N/R
12" 300mm	CY-PC8-CS	CY-PC8-S1	75 515	125 860	50 340	50 340
	CY-PC10-CS	CY-PC10-S1	125 860	150 1030	100 690	125 860
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R	150 1030	150 1030
14" 350mm	CY-PC8-CS	CY-PC8-S1	50 340	75 515	25 170	50 340
	CY-PC10-CS	CY-PC10-S1	100 690	150 1030	75 515	75 515
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R	100 690	125 860
16" 400mm	CY-PC10-CS	CY-PC10-S1	75 515	125 860	50 340	50 340
	CY-PC12-CS	CY-PC12-S1	125 860	150 1030	75 515	100 690
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R	125 860	150 1030
18" 450mm	CY-PC12-CS	CY-PC12-S1	100 690	150 1030	50 340	75 515
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R	100 690	125 860
	CY-PC16-CS	CY-PC16-S1	N/R	N/R	150 1030	150 1030
20" 500mm	CY-PC12-CS	CY-PC12-S1	50 340	125 860	25 170	50 340
	CY-PC14-CS	CY-PC14-S1	125 860	150 1030	75 515	100 690
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R	125 860	150 1030
22" 550mm	CY-PC12-CS	CY-PC12-S1	50 340	100 690	N/A	25 170
	CY-PC14-CS	CY-PC14-S1	100 690	150 1030	50 340	75 515
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R	100 690	125 860
	CY-PC18-CS	CY-PC18-S1	N/R	N/R	150 1030	150 1030

N/R = Not required. Use next smaller actuator
N/A = Not available. Use larger actuator or contact DeZURIK

Cylinder Actuators

Actuator Sizing

60 psi (410 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa			
			On/Off		Positioning	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Dry Solids, Slurries, Paper Stock	Liquids & Gases	Dry Solids, Slurries, Paper Stock	Liquids & Gases
24" 600mm	CY-PC12-CS	CY-PC12-S1	25 170	75 515	N/A	N/A
	CY-PC14-CS	CY-PC14-S1	75 515	150 1030	50 340	50 340
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R	75 515	100 690
	CY-PC18-CS	CY-PC18-S1	N/R	N/R	150 1030	150 1030
26" 650mm	CY-PC12-CS	CY-PC12-S1	N/A	75 515	N/A	N/R
	CY-PC14-CS	CY-PC14-S1	50 340	125 860	25 170	50 340
	CY-PC16-CS	CY-PC16-S1	125 860	150 1030	75 515	75 515
	CY-PC18-CS	CY-PC18-S1	150 1030	N/R	100 690	150 1030
	CY-PC20-CS	CY-PC20-S1	N/R	N/R	150 1030	N/R
28" 700mm	CY-PC12-CS	CY-PC12-S1	N/A	50 340	N/A	N/A
	CY-PC14-CS	CY-PC14-S1	50 340	100 690	N/A	25 170
	CY-PC16-CS	CY-PC16-S1	75 515	150 1030	50 340	75 515
	CY-PC18-CS	CY-PC18-S1	150 1030	N/R	75 515	125 860
	CY-PC20-CS	CY-PC20-S1	N/R	N/R	150 1030	150 1030
30" 750mm 100 CWP (P100)	CY-PC14-CS	CY-PC14-S1	25 170	75 515	N/A	N/A
	CY-PC16-CS	CY-PC16-S1	75 515	100 690	25 170	50 340
	CY-PC18-CS	CY-PC18-S1	100 690	N/R	75 515	75 515
	CY-PC20-CS	CY-PC20-S1	N/R	N/R	100 690	100 690
30" 750mm 150 CWP	CY-PC14-CS	CY-PC14-S1	25 170	75 515	N/A	N/A
	CY-PC16-CS	CY-PC16-S1	75 515	150 1030	25 170	50 340
	CY-PC18-CS	CY-PC18-S1	125 860	N/R	75 515	75 515
	CY-PC20-CS	CY-PC20-S1	150 1030	N/R	125 860	150 1030
32" 800mm	CY-PC14-CS	CY-PC14-S1	25 170	75 515	N/A	N/A
	CY-PC16-CS	CY-PC16-S1	50 340	125 860	25 170	25 170
	CY-PC18-CS	CY-PC18-S1	100 690	150 1030	50 340	75 515
	CY-PC20-CS	CY-PC20-S1	150 1030	N/R	75 515	125 860
36" 900mm 100 CWP (P100)	CY-PC14-CS	CY-PC14-S1	N/A	50 340	N/A	N/A
	CY-PC16-CS	CY-PC16-S1	25 170	75 515	N/A	N/A
	CY-PC18-CS	CY-PC18-S1	75 515	100 690	25 170	50 340
	CY-PC20-CS	CY-PC20-S1	100 690	N/R	50 340	75 515
36" 900mm 150 CWP	CY-PC14-CS	CY-PC14-S1	N/A	50 340	N/A	N/A
	CY-PC16-CS	CY-PC16-S1	25 170	75 515	N/A	N/A
	CY-PC18-CS	CY-PC18-S1	75 515	150 1030	25 170	50 340
	CY-PC20-CS	CY-PC20-S1	100 690	N/R	50 340	75 515
42-48" 1050 -1200mm	Contact DeZURIK for cylinder actuator sizing					

N/R = Not required. Use next smaller actuator
N/A = Not available. Use larger actuator or contact DeZURIK

Cylinder Actuators

Actuator Sizing

80 psi (550 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa			
			On/Off		Positioning	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Dry Solids, Slurries, Paper Stock	Liquids & Gases	Dry Solids, Slurries, Paper Stock	Liquids & Gases
2 & 3" 50 & 80mm	CY-PC4-CS	CY-PC4-S1	150 1030	150 1030	150 1030	150 1030
4" 100mm	CY-PC4-CS	CY-PC4-S1	150 1030	150 1030	100 690	150 1030
	CY-PC6-CS	CY-PC6-S1	N/R	N/R	150 1030	N/R
5 & 6" 125 & 150mm	CY-PC4-CS	CY-PC4-S1	50 340	75 515	25 170	25 170
	CY-PC6-CS	CY-PC6-S1	150 1030	150 1030	125 860	150 1030
	CY-PC8-CS	CY-PC8-S1	N/R	N/R	150 1030	N/R
8" 200mm	CY-PC6-CS	CY-PC6-S1	100 690	150 1030	75 515	75 515
	CY-PC8-CS	CY-PC8-S1	150 1030	N/R	150 1030	150 1030
10" 250mm	CY-PC8-CS	CY-PC8-S1	150 1030	150 1030	100 690	125 860
	CY-PC10-CS	CY-PC10-S1	N/R	N/R	150 1030	150 1030
12" 300mm	CY-PC8-CS	CY-PC8-S1	100 690	150 1030	75 515	100 690
	CY-PC10-CS	CY-PC10-S1	150 1030	N/R	150 1030	150 1030
14" 350mm	CY-PC10-CS	CY-PC10-S1	125 860	150 1030	100 690	125 860
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R	150 1030	150 1030
16" 400mm	CY-PC10-CS	CY-PC10-S1	100 690	150 1030	75 515	100 690
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R	125 860	150 1030
	CY-PC14-CS	CY-PC14-S1	N/R	N/R	150 1030	N/R
18" 450mm	CY-PC12-CS	CY-PC12-S1	150 1030	150 1030	100 690	125 860
	CY-PC14-CS	CY-PC14-S1	N/R	N/R	150 1030	150 1030
20" 500mm	CY-PC12-CS	CY-PC12-S1	125 860	150 1030	75 515	75 515
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R	125 860	150 1030
	CY-PC16-CS	CY-PC16-S1	N/R	N/R	150 1030	N/R
22" 550mm	CY-PC12-CS	CY-PC12-S1	100 690	150 1030	50 340	75 515
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R	100 690	125 860
	CY-PC16-CS	CY-PC16-S1	N/R	N/R	150 1030	150 1030
24" 600mm	CY-PC12-CS	CY-PC12-S1	75 515	150 1030	25 170	50 340
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R	100 690	125 860
	CY-PC16-CS	CY-PC16-S1	N/R	N/R	150 1030	150 1030
26" 650mm	CY-PC12-CS	CY-PC12-S1	50 340	125 860	25 170	25 170
	CY-PC14-CS	CY-PC14-S1	125 860	150 1030	75 515	75 515
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R	125 860	150 1030
	CY-PC18-CS	CY-PC18-S1	N/R	N/R	150 1030	N/R
28" 700mm	CY-PC12-CS	CY-PC12-S1	50 340	100 690	N/A	25 170
	CY-PC14-CS	CY-PC14-S1	100 690	150 1030	50 340	75 515
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R	100 690	125 860
	CY-PC18-CS	CY-PC18-S1	N/R	N/R	150 1030	150 1030

N/R = Not required. Use next smaller actuator
N/A = Not available. Use larger actuator or contact DeZURIK

Cylinder Actuators

Actuator Sizing

80 psi (550 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa			
			On/Off		Positioning	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Dry Solids, Slurries, Paper Stock	Liquids & Gases	Dry Solids, Slurries, Paper Stock	Liquids & Gases
30" 750mm 100 CWP (P100)	CY-PC12-CS	CY-PC12-S1	25 170	75 515	N/A	N/A
	CY-PC14-CS	CY-PC14-S1	75 515	100 690	50 340	50 340
	CY-PC16-CS	CY-PC16-S1	100 690	N/R	75 515	100 690
	CY-PC18-CS	CY-PC18-S1	N/R	N/R	100 690	N/R
30" 750mm 150 CWP	CY-PC12-CS	CY-PC12-S1	25 170	75 515	N/A	N/A
	CY-PC14-CS	CY-PC14-S1	75 515	150 1030	50 340	50 340
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R	75 515	100 690
	CY-PC18-CS	CY-PC18-S1	N/R	N/R	125 860	150 1030
	CY-PC20-CS	CY-PC20-S1	N/R	N/R	150 1030	N/R
32" 800mm	CY-PC12-CS	CY-PC12-S1	25 170	50 340	N/A	N/A
	CY-PC14-CS	CY-PC14-S1	50 340	125 860	25 170	50 340
	CY-PC16-CS	CY-PC16-S1	100 690	150 1030	50 340	75 515
	CY-PC18-CS	CY-PC18-S1	150 1030	N/R	100 690	150 1030
	CY-PC20-CS	CY-PC20-S1	N/R	N/R	150 1030	N/R
36" 900mm 100 CWP (P100)	CY-PC14-CS	CY-PC14-S1	25 170	75 515	N/A	25 170
	CY-PC16-CS	CY-PC16-S1	75 515	100 690	50 340	50 340
	CY-PC18-CS	CY-PC18-S1	100 690	N/R	75 515	100 690
	CY-PC20-CS	CY-PC20-S1	N/R	N/R	100 690	N/R
36" 900mm 150 CWP	CY-PC14-CS	CY-PC14-S1	25 170	75 515	N/A	25 170
	CY-PC16-CS	CY-PC16-S1	75 515	150 1030	50 340	50 340
	CY-PC18-CS	CY-PC18-S1	125 860	N/R	75 515	100 690
	CY-PC20-CS	CY-PC20-S1	150 1030	N/R	125 860	150 1030
42-48" 1050 -1200mm	Contact DeZURIK for cylinder actuator sizing					

N/R = Not required. Use next smaller actuator
N/A = Not available. Use larger actuator or contact DeZURIK

Cylinder Actuator Accessories

Position Indicating Switches

Mechanical or proximity position indicating switches are available for use on double-acting cylinder actuators. One switch can be set to indicate open or closed position. Two switches will automatically be set to indicate full open and full closed positions.

Positioners

DeZURIK cylinder actuators are available with pneumatic, electro-pneumatic or digital positioners for throttling control.

Air Filter Regulator

The DeZURIK Air Filter Regulator is designed to provide clean, accurate air pressure to actuators and positioners.

Lockout Option

KGC-ES provides the latest in lockout design technology to protect both people and the environment. Unique designs for manual and automated models are available. The lockout collar for the automated models allows fine adjustment to ensure tight shutoff and maximum opening position. Lockouts are rated to withstand the maximum output of the actuators.



Four-Way Solenoid Valves

Solenoid valves may be ordered mounted and piped as part of a complete valve/actuator assembly or as a separate item.

Speed Control Valves

Speed Control Valves are available for controlling valve opening or closing speed with pneumatic actuators. The speed of operation is adjustable.

Electric Motor Actuators

DeZURIK KGC-ES Knife Gate Valves can be furnished with electric motor actuators including Limitorque, Auma, Rotork, E.I.M. and others.

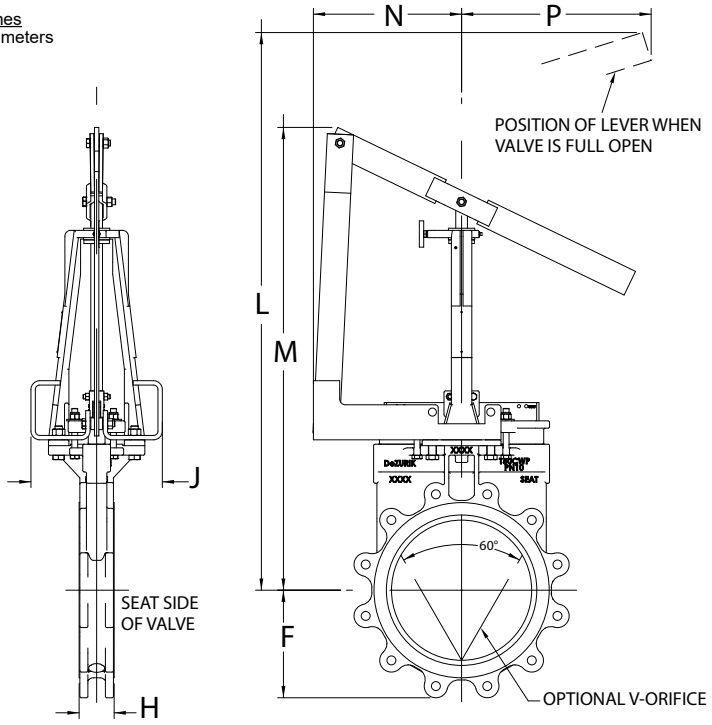
When ordering electric motor actuators, specify valve order code, shutoff pressure, service conditions (flowing media and installation direction); type of application (on/off or throttling); speed of operation; NEMA rating (4, 7, submersible, etc.); electrical characteristics (voltage and phase); actuator accessories and controls as per specification requirements.

Dimensions

Basic Valve with Lever Actuator

Valve Size	Dimensions						
	F	H	J	L	M	N	P
2" 50mm	3.0 76	1.88 48	5.75 146	15.96 405	14.78 375	4.38 111	8.00 203
3" 80mm	3.75 95	2.00 51	7.75 197	21.78 553	17.75 451	5.38 137	17.88 454
4" 100mm	4.50 114	2.00 51	7.88 200	29.40 747	19.87 505	6.12 155	24.12 613
5" 125mm	5.00 127	2.25 57	8.62 219	37.50 953	22.76 578	7.38 187	19.81 503
6" 150mm	5.50 140	2.25 57	8.62 219	42.00 1067	23.32 592	7.38 187	16.81 427
8" 200mm	6.75 171	2.75 70	9.38 238	58.12 1476	27.68 703	7.88 200	21.12 536
10" 250mm	8.00 203	2.75 70	11.25 286	68.19 1732	35.13 892	10.62 270	21.53 699
12" 300mm	9.50 241	3.00 76	11.25 286	76.03 1931	39.47 1003	12.69 322	33.44 849

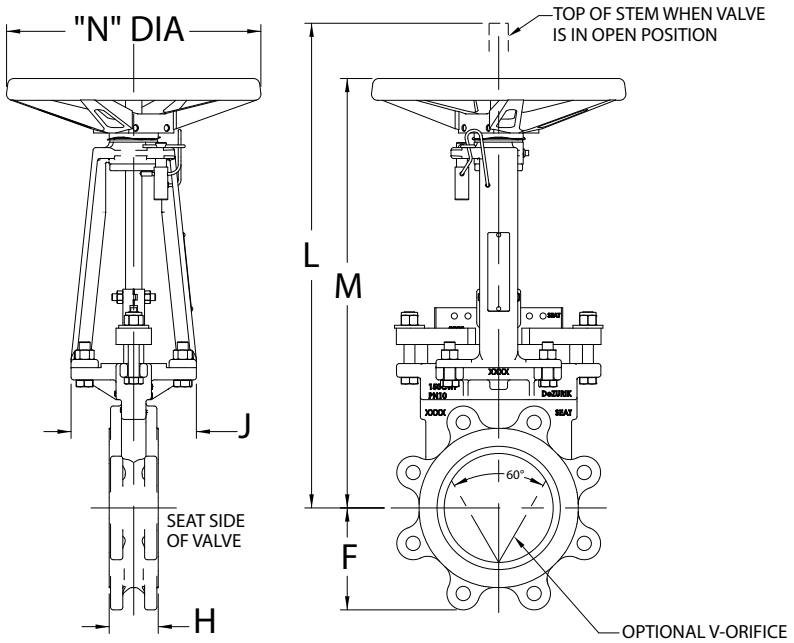
Inches
Millimeters



Basic Valve with Handwheel Actuator

Valve Size	Dimensions					
	F	H	J	L	M	N
2" 50mm	3.00 76	1.88 48	4.00 102	14.93 379	12.90 328	8.00 203
3" 80mm	3.75 95	2.00 51	4.75 121	16.65 423	14.62 371	8.00 203
4" 100mm	4.50 114	2.00 51	5.00 127	19.93 506	16.90 429	8.00 203
5" 125mm	5.00 127	2.25 57	5.75 146	24.30 618	19.56 497	12.00 305
6" 150mm	5.50 140	2.25 57	5.75 146	25.88 657	21.07 535	12.00 305
8" 200mm	6.75 171	2.75 70	6.38 162	31.43 798	24.65 626	12.00 305
10" 250mm	8.00 203	2.75 70	8.25 210	39.13 994	30.00 762	16.00 406
12" 300mm	9.50 241	3.00 76	8.25 210	44.75 1137	33.63 854	16.00 406
14" 350mm	10.50 267	3.00 76	8.25 210	54.75 1391	40.82 1037	20.00 508
16" 400mm	11.75 298	3.50 89	8.69 221	58.44 1484	42.38 1076	20.00 508
18" 450mm	12.50 318	3.50 89	9.06 230	67.75 1721	49.69 1262	20.00 508
20" 500mm	13.75 349	4.50 114	9.19 233	71.31 1811	51.25 1302	20.00 508
22" 550mm	15.5 394	4.50 114	9.19 233	77.22 1961	55.36 1406	20.00 508
24" 600mm	16.00 406	4.50 114	9.19 233	83.29 2116	59.22 1504	20.00 508

Inches
Millimeters



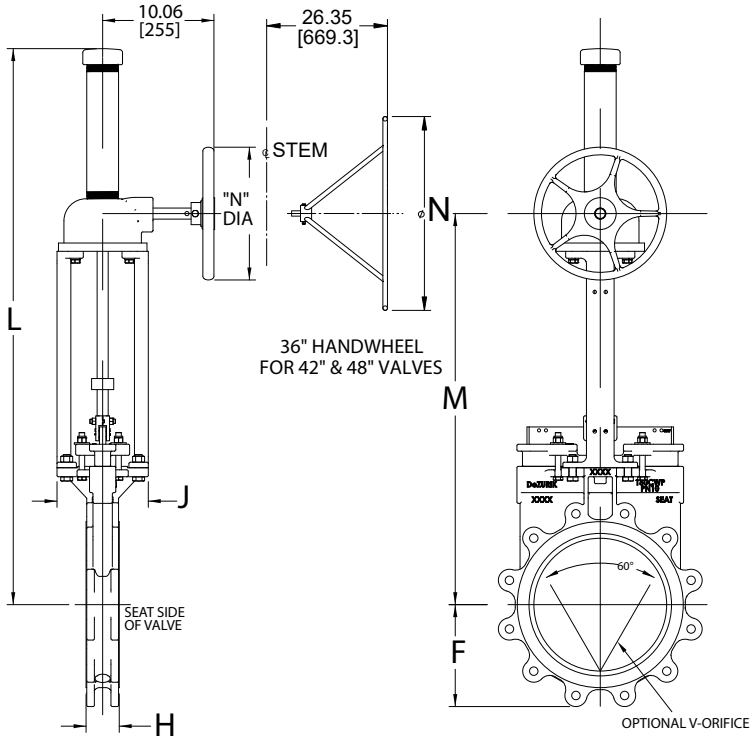
Dimensions

Bevel Gear Handwheel Actuator

Valve Size	Dimensions					
	F	H	J	L	M	N
3" 80mm	3.75 95	2.00 51	4.75 121	22.00 559	16.09 409	12.00 305
4" 100mm	4.50 114	2.00 51	5.00 127	24.30 617	18.37 467	12.00 305
5" 125mm	5.00 127	2.25 57	5.75 146	28.70 729	20.76 527	12.00 305
6" 150mm	5.50 140	2.25 57	5.75 146	30.30 769	22.29 566	12.00 305
8" 200mm	6.75 171	2.75 70	6.38 162	35.80 910	25.84 656	12.00 305
10" 250mm	8.00 203	2.75 70	8.25 210	46.50 1181	31.54 801	12.00 305
12" 300mm	9.50 241	3.00 76	8.25 210	50.20 1275	35.16 893	12.00 305
14" 350mm	10.50 267	3.00 76	8.25 210	56.70 1440	37.78 960	12.00 305
16" 400mm	11.75 298	3.50 89	8.69 221	60.40 1534	41.47 1053	12.00 305
18" 450mm	12.50 318	3.50 89	9.06 230	69.90 1775	47.08 1195	12.00 305
20" 500mm	13.75 349	4.50 114	9.19 233	73.50 1867	50.59 1285	16.00 406
24" 600mm	16.00 406	4.50 114	9.19 233	81.50 2070	58.57 1488	16.00 406
26" 650mm	17.13 435	4.63 117	9.50 241	100.95 2564	64.49 1638	30.00 762
28" 700mm	18.25 464	5.00 127	10.69 271	104.83 2663	68.37 1737	30.00 762
30"* 750mm	19.38 492	5.50 140	11.25 286	105.03 2668	73.09 1856	30.00 762
32" 800mm	20.88 530	6.00 152	11.25 286	113.20 2875	76.74 1949	30.00 762
36"* 900mm	23.00 584	6.00 152	11.25 286	122.53 3112	84.59 2149	30.00 762
42" 1050mm	26.50 673	6.50 165	13.50 343	146.28 3716	96.91 2462	36.00 914
48" 1200mm	29.75 756	7.00 178	18.50 470	194.87 4950	116.85 2968	36.00 914

* 100 psi, face-to-face (H dimension) on 30" and 36" (750 and 900mm) is 4.62" (117mm)

Inches
Millimeters



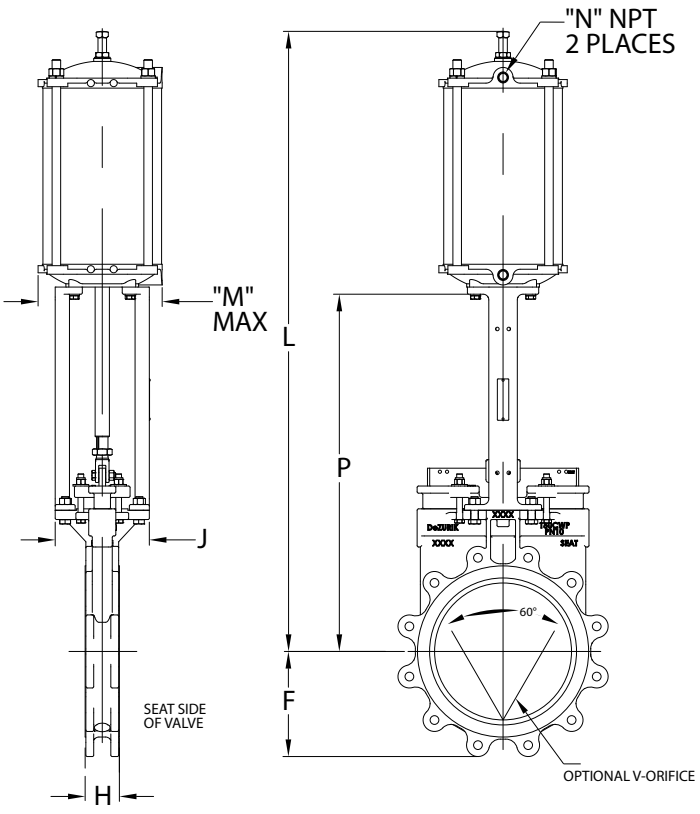
Dimensions

Basic Valve with Cylinder Actuator

Valve Size	Dimensions		
	F	H	J
2" 50mm	3.00 76	1.88 48	4.00 102
3" 80mm	3.75 95	2.00 51	4.75 121
4" 100mm	4.50 114	2.00 51	5.00 127
5" 125mm	5.00 127	2.25 57	5.75 146
6" 150mm	5.50 140	2.25 57	5.75 146
8" 200mm	6.75 171	2.75 70	6.38 162
10" 250mm	8.00 203	2.75 70	8.25 210
12" 300mm	9.50 241	3.00 76	8.25 210
14" 350mm	10.50 267	3.00 76	8.25 210
16" 400mm	11.75 298	3.50 89	8.69 221
18" 450mm	12.50 318	3.50 89	9.31 236
20" 500mm	13.75 349	4.50 114	9.42 239
22" 550mm	15.00 381	4.50 114	9.19 233
24" 600mm	16.00 406	4.50 114	9.42 239
26" 650mm	17.13 435	4.63 117	9.50 241
28" 700mm	18.25 464	5.00 127	10.69 271
30"* 750mm	19.38 492	5.50 140	11.25 286
32" 800mm	20.88 530	6.00 152	11.25 286
36"* 900mm	23.00 584	6.00 152	11.25 286
42" 1050mm	26.50 673	6.50 165	13.50 343
48" 1200mm	Contact DeZURIK		

Inches
Millimeters

* 100 psi, face-to-face (H dimension) on 30" and 36" (750 and 900mm) is 4.62" (117mm)



2-16" (50-400mm) Valves

Actuator Order Code	Dimensions											
	L										M	N
	2" 50mm	3" 80mm	4" 100mm	5" 125mm	6" 150mm	8" 200mm	10" 250mm	12" 300mm	14" 350mm	16" 400mm		
CY-PC4	22.26 565	23.98 609	26.26 667	30.64 778	32.18 817	—	—	—	—	—	5.38 137	1/4
CY-PC6	—	—	27.61 701	32.00 813	33.56 852	39.11 993	47.13 1197	None	—	—	7.88 200	1/4
CY-PC8	—	—	—	32.38 822	33.94 862	39.49 1003	49.57 1259	53.19 1351	59.06 1500	62.74 1594	10.50 267	1/2
CY-PC10	—	—	—	—	—	—	50.97 1295	54.59 1387	60.35 1533	64.03 1626	13.00 330	1/2
CY-PC12	—	—	—	—	—	—	50.94 1294	54.56 1386	60.70 1542	64.38 1635	15.00 381	1/2
CY-PC14	—	—	—	—	—	—	—	—	—	63.68 1617	17.00 432	1/2

Inches
Millimeters

18-48" (450-1200mm) Valves

Actuator Order Code	Dimensions											M	N
	L												
	18" 450mm	20" 500mm	22" 550mm	24" 600mm	26" 650mm	28" 700mm	30" 750mm	32" 800mm	36" 900mm	42" 1050mm	48" 1200mm		
CY-PC10	73.59 1869	77.16 1960	—	—	—	—	—	—	—	—	—	13.00 330	1/2
CY-PC12	73.935 1878	77.495 1968	85.52 2172	89.475 2273	—	—	—	—	—	—	Contact DeZURIK	15.00 381	1/2
CY-PC14	73.24 1860	76.81 1951	85.52 2172	88.78 2255	95.38 2423	101.44 2577	108.19 2748	—	—	—		17.00* 432	1/2
CY-PC16	70.25 1784	75.94 1929	82.00 2083	87.91 2233	95.50 2426	101.56 2580	108.31 2751	113.94 2894	125.81 3196	—		17.00 432	1/2
CY-PC18	—	—	—	88.16 2239	95.75 2432	101.81 2585	108.56 2757	114.19 2900	126.06 3202	143.19 3637		19.00 483	3/4
CY-PC20	—	—	—	—	—	102.06 2592	109.81 2789	115.44 2932	126.31 3208	143.44 3643		21.00 533	3/4

Inches
Millimeters

* M dimension on 26-30" (650-750mm) is 14.75" (375mm)

Sales and Service

For information about our worldwide locations, approvals, certifications and local representative:
Web Site: DeZURIK.com **E-Mail:** info@DeZURIK.com

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

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