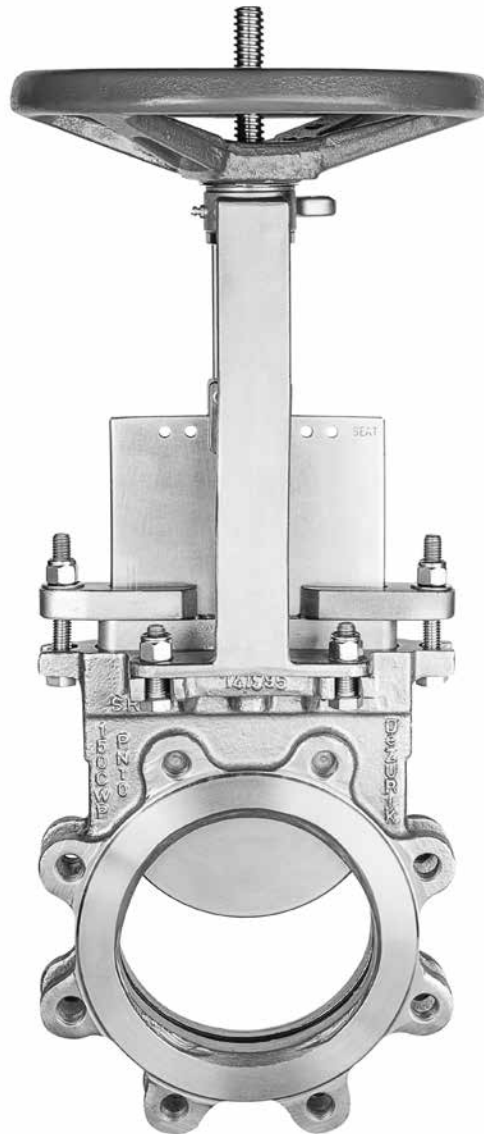


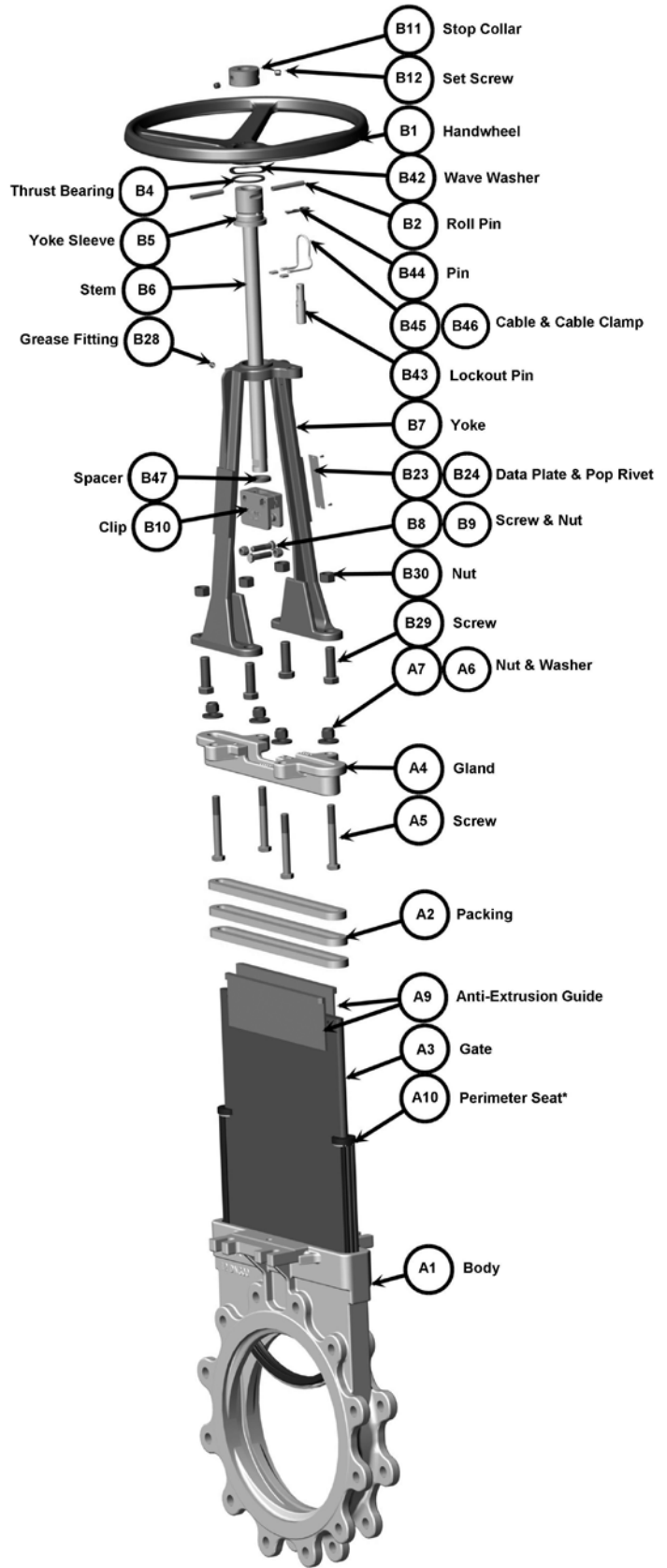


**DeZURIK KGC-BD  
BI-DIRECTIONAL CAST  
STAINLESS STEEL  
KNIFE GATE VALVES  
TECHNICAL SPECIFICATIONS**



# 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 A890 CD3MN
		Hastelloy C 276, ASTM A494 CW12MW
A2	Packing	SMP - PTFE Braided Packing to 500°F (260°C) (pH Range 0-14)
		ASP - Self-Adjusting PTFE Braided Packing with AFLAS® Fluoroelastomer Cord to 400°F (205°C) (pH Range 0-14)
A3	Gate	TDP - Dry Service, Dry PTFE Braided Packing with Solid PTFE Cord to 500°F (260°C) (pH Range: 0-14)
		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	Same as body material
A5	Screw	304 Stainless Steel
A6	Washer	304 Stainless Steel
A7	Nut	304 Stainless Steel
A9	Anti-Extrusion Guide	Glass Filled PTFE
A10	Perimeter Seat*	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)
		CRW - Chloroprene, Off White to 140°F (60°C)
B1	Handwheel	Painted, Cast Iron, ASTM A126 Class B
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	Carbon Steel, ASTM A216 Type WCB
		304 Stainless Steel, ASTM A351 CF8
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
B11	Stop Collar	304 Stainless Steel
B12	Set Screw	Zinc Plated Steel or 18-8 Stainless Steel
B23	Data Plate	316 Stainless Steel
B24	Pop Rivet	18-8 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
B44	Pin	18-8 Stainless Steel
B45	Cable	316 Stainless Steel
B46	Cable Clamp	316 Stainless Steel
B47	Spacer	304 Stainless Steel



\*Seat ring is molded with fully encapsulated 316 Stainless Steel reinforcement insert.  
AFLAS® is a registered trademark of the Asahi Glass Co., Ltd.

\*Patent Pending seat design

# Valve Selection

## Shut-Off Capabilities

All Resilient Seats	Bubble Tight to Full Valve Rating
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## Pressure Ratings

2-28" (50-600mm)	150 psi C.W.P. (1030 kPa)
30-36" (750-900mm)	100 psi C.W.P. (690 kPa)

Note: Valves with Chloroprene Off-White seats (CRW) are limited to 50 psi (350 kPa). Contact DeZURIK with service conditions.

## Applicable Standards

DeZURIK KGC-BD Knife Gate Valves are designed and/or tested to meet the following standards:	
ASME B16.5 2-24" (50-600mm)	Flanges and Flanged Fittings, ASME 150 Conforms to related drilling dimensions
ASME 16.47 30-36" (750-900mm)	Large diameter Steel Flanges. Series A. Conforms to related dimensions
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
MSS SP-81	Recommendations for Stainless Steel, Bonnetless, Flanged, Wafer Knife Gate Valves.
ASME B16.20 2-36" (50-900mm)	Metallic Gaskets for Pipe Flanges. Conforms to spiral-wound gasket dimensions.
AWWA C520	AWWA C520 Standard for Knife Gate Valves.

## Flow Parameters

Valve Size	Cv* Kv* 100% Open	K** (resistance)	Port Area (in <sup>2</sup> /cm <sup>2</sup> )
2"	330	0.16	3.8
50mm	287		25
3"	755	0.16	8.3
80mm	655		54
4"	1275	0.16	13.5
100mm	1100		87
5"	2020	0.16	21.1
125mm	1745		136
6"	2750	0.16	29.4
150mm	2380		190
8"	5055	0.16	52.7
200mm	4420		340
10"	7880	0.16	82.9
250mm	6830		535
12"	11180	0.16	117
300mm	9630		755
14"	13800	0.16	144
350mm	11920		930
16"	18300	0.16	192
400mm	15870		1239
18"	23450	0.16	246
450mm	20300		1585
20"	29000	0.16	304
500mm	25000		1959
22"	35400	0.16	370
550mm	30600		2387
24"	42180	0.16	442
600mm	36450		2854
26"	49660	0.16	520
650mm	42900		3355
28"	57550	0.16	603
700mm	49800		3890
30"	66010	0.16	693
750mm	57100		4472
32"	74900	0.16	787
800mm	64740		5077
36"	94980	0.16	997
900mm	82100		6430

\*Cv = Flow in GPM of water at 1 psi pressure drop.  
Kv = Flow in m<sup>3</sup>/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.

$L = \frac{K \times D}{f}$  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 and Actuator Weights

Valve Size	Basic Valve	With Handwheel	With Chainwheel	With Bevel Gear	With Cylinder		
					Size	lbs.	Kg.
2"	10	20	32	—	4"	29	13
50mm	5	9	15				
3"	17	28	40	89	4"	38	17
80mm	8	13	18	40			
4"	24	36	48	96	4"	45	20
100mm	11	16	22	44			
5"	33	52	67	109	4"	59	27
125mm	15	24	30	49			
6"	39	58	76	114	4"	64	29
150mm	18	26	34	52			
8"	65	86	101	144	6"	112	51
200mm	29	39	46	65			
10"	106	144	182	194	6"	124	56
250mm	48	65	83	88			
12"	151	190	230	244	8"	177	80
300mm	68	86	104	111			
14"	195	261	280	299	8"	223	101
350mm	88	118	127	136			
16"	281	350	367	387	8"	228	103
400mm	127	159	166	176			
18"	382	454	470	494	8"	273	124
450mm	173	206	213	224			
20"	511	586	647	630	8"	312	142
500mm	232	266	293	286			
22"	620	N/A	N/A	758	10"	336	152
550mm	281			344			
24"	730	N/A	N/A	877	10"	376	171
600mm	331			398			
26"	913	N/A	N/A	1099	10"	418	190
650mm	414			498			
28"	1106	N/A	N/A	1320	10"	458	208
700mm	502			599			
30"	1348	N/A	N/A	1496	10"	504	229
750mm	611			679			
32"	1602	N/A	N/A	1727	10"	572	259
800mm	727			783			
36"	2265	N/A	N/A	2427	12"	622	282
900mm	1027			1101			
					12"	719	326
					12"	767	348
					12"	828	376
					12"	879	399
					12"	1099	498
					12"	1246	565
					12"	1519	689
					12"	1573	714
					12"	1412	640
					12"	1462	663
					12"	1643	745
					12"	1825	828
					12"	1670	757
					12"	1887	856
					12"	2107	956
					12"	1803	818
					12"	1853	841
					12"	2023	918
					12"	2202	999
					12"	2612	1185
					12"	2816	1277
					12"	3048	1383
					12"	3211	1456

Note: Weights are approximate and do not include crating.

Pounds  
Kilograms

# Ordering

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

<b>Valve Style</b> <b>Give valve style code as follows:</b> KGC = Cast Stainless Steel Knife Gate Valve
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<b>Valve Size</b> <b>Give valve size code as follows:</b>	
2 = 2" (50mm)	18 = 18" (450mm)
3 = 3" (80mm)	20 = 20" (500mm)
4 = 4" (100mm)	22 = 22" (550mm)
5 = 5" (125mm)	24 = 24" (600mm)
6 = 6" (150mm)	26 = 26" (650mm)
8 = 8" (200mm)	28 = 28" (700mm)
10 = 10" (250mm)	30 = 30" (750mm)
12 = 12" (300mm)	32 = 32" (800mm)
14 = 14" (350mm)	36 = 36" (900mm)
16 = 16" (400mm)	

<b>Body Style</b> <b>Give body style code as follows:</b> BD = Bi-Directional with DeZURIK Exclusive Premium Packing System
---

<b>End Connection</b> <b>Give end connection code as follows:</b>
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 <sup>(1)</sup> = ASME 150 UN-8 Tapping for Threads
F1S10 = SANS 1123-1000
F1S16 = SANS 1123-1600
F1T = ASME 150 Through Bolting
F1J1 = JIS 10 Drilling
<b>On Application</b> Other end connections available on application.

<b>Body Material</b> <b>Give body material code as follows:</b>
S1 = 304 Stainless Steel
S2 = 316 Stainless Steel
S3 = 317 Stainless Steel
<b>On Application</b>
HC = Hastelloy C
S6 = 254 Stainless Steel
S10 = 2205 Duplex Stainless Steel

<b>Packing Material</b> <b>Give packing material code as follows:</b>
SMP = PTFE Braided Packing to 500°F (260°C) (pH Range 0-14)
ASP = Self-Adjusting PTFE Braided Packing with AFLAS® Fluoroelastomer Cord to 400°F (205°C) (pH Range 0-14)
TDP = Dry PTFE Braided Packing with Solid PTFE Cord to 500°F (260°C) (pH Range: 0-14)

<b>Gate Material (3)</b> <b>Give gate material code as follows:</b>
S1 = 304 Stainless Steel (Standard for S1 body material)
S2 = 316 Stainless Steel (Standard for S2 body material)
S3 = 317 Stainless Steel (Standard for S3 body material)

<b>On Application</b>
S5 = 17-4 Stainless Steel H900 Heat Treated (Used with S1, S2, & S3 body materials)
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)

<b>Seat Material (2)</b> <b>Give seat material code as follows:</b>
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)
CRW = Chloroprene, Off White to 140°F (60°C)

<b>Standard Options</b> <b>Give option code as follows:</b>
CMC = Certificate of Material Conformance
CRT = Certified Physical and Chemical Test Reports
— = Optional Coating

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

**Ordering Example:**  
KGC,6,BD,F1,S2,ASP,S2-CR\*Actuator

# Manual Actuators

## Handwheel and Chainwheel Actuators

All 2-20" (50-500mm) valves can be furnished with handwheel actuators or 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 paper stocks, slurries or when pressure exceeds limits shown. Order chain for chainwheel actuators as a separate item.

### Handwheel Actuator

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	
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*	100 690
16" 400mm	MN-HD20-CS*	MN-HD20-S1*	75 515
18" 450mm	MN-HD20-CS*	MN-HD20-S1*	50 340
20" 500mm	MN-HD20-CS*	MN-HD20-S1*	25 170

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

#### Ordering Example:

KGC,6,BD,F1,S2,SMP,S2-CR\*MN-HD12-CS

### Chainwheel Actuator

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	
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*	100 690
16" 400mm	MN-CW20-CS*	MN-CW20-S1*	75 515
18" 450mm	MN-CW20-CS*	MN-CW20-S1*	50 340
20" 500mm	MN-CW30-CS*	MN-CW30-S1*	75 515

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

#### Ordering Example:

KGC,4,BD,F1,S2,SMP,S2-CR\*MN-CW8-S1

## 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	Order Code	Maximum Pressure Differential psi/kPa
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	
3-18" 80-450mm	MNB-HD12-CS	MNB-HD12-S1	150 1030
20-24" 500-600mm	MNB-HD16-CS	MNB-HD16-S1	150 1030
26-28" 650-700mm	MNB-HD30-CS	MNB-HD30-S1	150 1030
30-36" 750-900mm	MNB-HD30-CS	MNB-HD30-S1	100 690

#### Ordering Example:

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

### Bevel Gear Chainwheel Actuators

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	
3-18" 80-450mm	MNB-CW12-CS	MNB-CW12-S1	150 1030
20-24" 500-600mm	MNB-CW20-CS	MNB-CW20-S1	150 1030
26-28" 650-700mm	MNB-CW30-CS	MNB-CW30-S1	150 1030
30-36" 750-900mm	MNB-CW30-CS	MNB-CW30-S1	100 690

#### Ordering Example:

KGC,14,BD,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.

# Manual Actuator Accessories

## Chain for Chainwheel Actuators

Order as a separate item by giving the correct code and specify required length of chain as second line information. 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 12 feet long (366cm)

## Extension for Handwheel

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 top of handwheel.

Order Code	Description
ENHD	Extension for Handwheel

### Ordering Example:

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

## Lockout Device

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

### Ordering Example:

KGC,14,BD,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. This dimension must be at least twice the dimension from center line to handwheel.

### Ordering Example:

KGC,14,BD,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 service. Supply pressure is 60 or 80 psi (410 or 550 kPa). To order, add the proper code from the table to the valve order code. Specify hydraulic media if other than oil.

## Actuator Sizing

### 60 psi (410 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa	
			On/Off	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Slurries, Paper Stock	Liquids & Gases
2 & 3" 50 & 80mm	CY-PC4-CS	CY-PC4-S1	150 1030	150 1030
	CY-PC6-CS	CY-PC6-S1	100 690	150 1030
4" 100mm	CY-PC4-CS	CY-PC4-S1	150 1030	N/R
	CY-PC6-CS	CY-PC6-S1	150 1030	N/R
5 & 6" 125 & 150mm	CY-PC4-CS	CY-PC4-S1	N/A	50 340
	CY-PC6-CS	CY-PC6-S1	125 860	150 1030
	CY-PC8-CS	CY-PC8-S1	150 1030	N/R

# Cylinder Actuators

## Actuator Sizing (Continued)

60 psi (410 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa	
			On/Off	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Slurries, Paper Stock	Liquids & Gases
8" 200mm	CY-PC6-CS	CY-PC6-S1	75 515	125 860
	CY-PC8-CS	CY-PC8-S1	150 1030	150 1030
10" 250mm	CY-PC8-CS	CY-PC8-S1	100 690	150 1030
	CY-PC10-CS	CY-PC10-S1	150 1030	N/R
12" 300mm	CY-PC8-CS	CY-PC8-S1	75 515	125 860
	CY-PC10-CS	CY-PC10-S1	125 860	150 1030
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R
14" 350mm	CY-PC10-CS	CY-PC10-S1	100 690	150 1030
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R
16" 400mm	CY-PC10-CS	CY-PC10-S1	75 515	125 860
	CY-PC12-CS	CY-PC12-S1	125 860	150 1030
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R
18" 450mm	CY-PC12-CS	CY-PC12-S1	100 690	150 1030
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R
20" 500mm	CY-PC12-CS	CY-PC12-S1	50 340	125 860
	CY-PC14-CS	CY-PC14-S1	125 860	150 1030
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R
22" 550mm	CY-PC12-CS	CY-PC12-S1	50 340	100 690
	CY-PC14-CS	CY-PC14-S1	100 690	150 1034
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R
24" 600mm	CY-PC12-CS	CY-PC12-S1	25 170	75 515
	CY-PC14-CS	CY-PC14-S1	75 515	150 1030
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R
26" 650mm	CY-PC14-CS	CY-PC14-S1	50 340	125 860
	CY-PC16-CS	CY-PC16-S1	125 860	150 1030
	CY-PC18-CS	CY-PC18-S1	150 1030	N/R
28" 700mm	CY-PC14-CS	CY-PC14-S1	50 340	100 690
	CY-PC16-CS	CY-PC16-S1	75 515	150 1030
	CY-PC18-CS	CY-PC18-S1	150 1030	N/R

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

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa	
			On/Off	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Slurries, Paper Stock	Liquids & Gases
30" 750mm	CY-PC14-CS	CY-PC14-S1	25 170	75 515
	CY-PC16-CS	CY-PC16-S1	75 515	100 690
	CY-PC18-CS	CY-PC18-S1	100 690	N/R
32" 800mm	CY-PC14-CS	CY-PC14-S1	25 172	75 517
	CY-PC16-CS	CY-PC16-S1	50 340	100 690
	CY-PC18-CS	CY-PC18-S1	100 690	N/R
36" 900mm	CY-PC14-CS	CY-PC14-S1	N/A	50 340
	CY-PC16-CS	CY-PC16-S1	25 170	75 515
	CY-PC18-CS	CY-PC18-S1	75 515	100 690
	CY-PC20-CS	CY-PC20-S1	100 690	N/R

# Cylinder Actuators

## Actuator Sizing

80 psi (550 kPa) Air Supply

Valve Size	Order Code	Order Code	Maximum Pressure Differential psi/kPa	
			On/Off	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke	Slurries, Paper Stock	Liquids & Gases
2 & 3" 50 & 80mm	CY-PC4-CS	CY-PC4-S1	150 1030	150 1030
4" 100mm	CY-PC4-CS	CY-PC4-S1	150 1030	150 1030
5 & 6" 125 & 150mm	CY-PC4-CS	CY-PC4-S1	50 340	75 515
	CY-PC6-CS	CY-PC6-S1	150 1030	150 1030
8" 200mm	CY-PC6-CS	CY-PC6-S1	100 690	150 1030
	CY-PC8-CS	CY-PC8-S1	150 1030	N/R
10" 250mm	CY-PC8-CS	CY-PC8-S1	150 1030	150 1030
12" 300mm	CY-PC8-CS	CY-PC8-S1	100 690	150 1030
	CY-PC10-CS	CY-PC10-S1	150 1030	N/R
14" 350mm	CY-PC10-CS	CY-PC10-S1	125 860	150 1030
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R
16" 400mm	CY-PC10-CS	CY-PC10-S1	100 690	150 1030
	CY-PC12-CS	CY-PC12-S1	150 1030	N/R
18" 450mm	CY-PC12-CS	CY-PC12-S1	150 1030	150 1030
20" 500mm	CY-PC12-CS	CY-PC12-S1	125 860	150 1030
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R
22" 550mm	CY-PC12-CS	CY-PC12-S1	100 690	150 1030
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R
24" 600mm	CY-PC12-CS	CY-PC12-S1	75 515	150 1030
	CY-PC14-CS	CY-PC14-S1	150 1030	N/R
26" 650mm	CY-PC14-CS	CY-PC14-S1	125 860	150 1034
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R
28" 700mm	CY-PC14-CS	CY-PC14-S1	100 690	150 1030
	CY-PC16-CS	CY-PC16-S1	150 1030	N/R
30" 750mm	CY-PC14-CS	CY-PC14-S1	75 515	100 690
	CY-PC16-CS	CY-PC16-S1	100 690	N/R
32" 800mm	CY-PC14-CS	CY-PC14-S1	50 340	100 690
	CY-PC16-CS	CY-PC16-S1	100 690	N/R
36" 900mm	CY-PC14-CS	CY-PC14-S1	25 170	75 515
	CY-PC16-CS	CY-PC16-S1	75 515	100 690
	CY-PC18-CS	CY-PC18-S1	100 690	N/R

N/R = Not required. Use next smaller actuator.

N/A = Not available. Use larger actuator or contact DeZURIK.



# Cylinder Actuator Accessories

## Air Filter Regulator

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

## 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.

## 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.

## High-Strength Actuator Legs

For unsupported horizontal mounting of 3-12" (80-300mm) valve sizes, High-Strength Actuator Legs are available as part of a complete valve and actuator assembly. To order, add the SAL code after the actuator code.

### Ordering Example (complete valve):

KGC,6,BD,F1,S1,SMPS1-CR\*CY-PC6-S1,SAL

## Stem Cover Bellows

To protect valve stem from environmental debris, the Stem Cover Bellows may be ordered as part of a complete valve and actuator assembly. To order, add the SCB code to the valve and actuator code.

### Ordering Example (complete valve):

KGC,6,BD,F1,S1,SMP,S1-CR\*CY-PC6-S1,SCB

## Lockout Device

Available on all sizes of cylinder actuated valves. To order, add a comma and the order code "LK" after the actuator code.

### Ordering Example:

KGC,14,BD,F1,S2,SMP,S2-CR\*CY-PC12-CS,LK

# Electric Motor Actuators

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

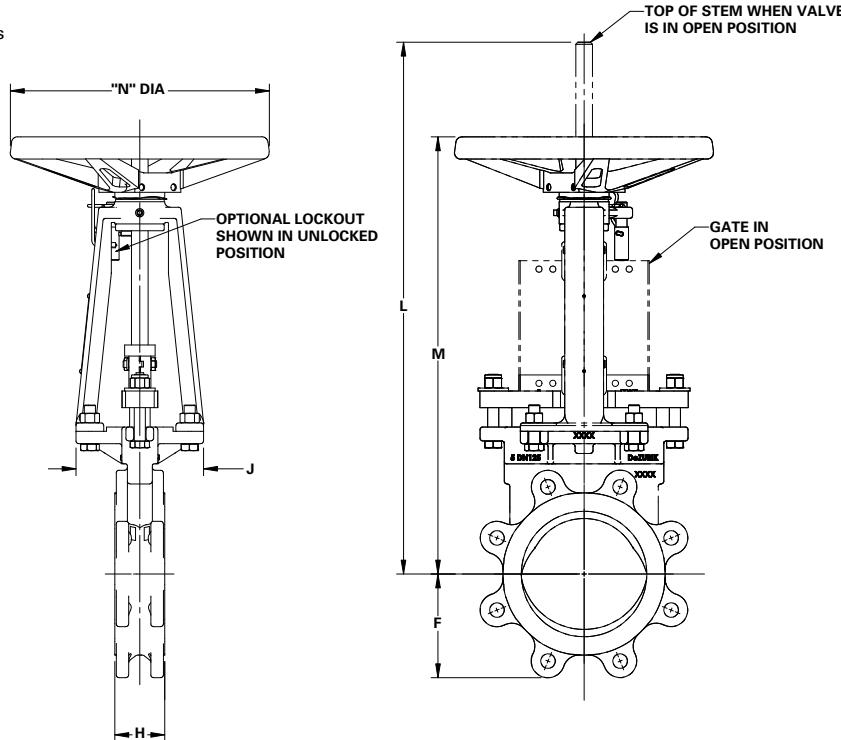
When ordering electric motor actuators, specify valve order code, shutoff pressure, service conditions (flowing media and installation direction); type of application (on/off); speed of operation; NEMA rating (4, 7, submersible, etc.); electrical characteristics (voltage and phase); actuator accessories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

# Dimensions

## Basic Valve with Handwheel Actuator

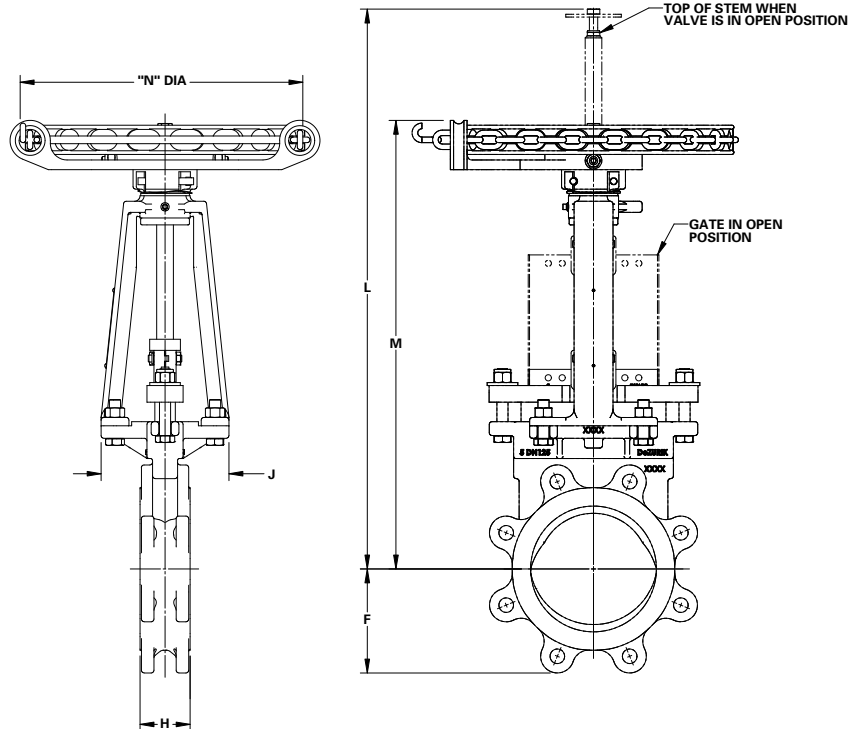
Valve Size	Dimensions					
	F	H	J	L	M	N
2"	3.00	1.88	4.00	14.73	12.90	8.00
50mm	76	48	102	374	328	203
3"	3.75	2.00	4.75	17.50	14.62	8.00
80mm	95	51	121	445	371	203
4"	4.50	2.00	5.00	22.77	16.90	8.00
100mm	114	51	127	578	429	203
5"	5.00	2.25	5.75	24.19	19.56	12.00
125mm	127	57	146	614	497	305
6"	5.50	2.25	5.75	27.10	21.07	12.00
150mm	140	57	146	688	535	305
8"	6.75	2.75	6.38	33.60	24.65	12.00
200mm	171	70	162	853	626	305
10"	8.00	2.75	8.25	41.06	30.00	16.00
250mm	203	70	210	1043	762	406
12"	9.50	3.00	8.25	46.59	33.63	16.00
300mm	241	76	210	1183	854	406
14"	10.50	3.00	8.25	54.57	40.82	20.00
350mm	267	76	210	1386	1037	508
16"	11.75	3.50	8.69	57.97	42.38	20.00
400mm	298	89	221	1472	1076	508
18"	12.50	3.50	9.06	67.37	49.69	20.00
450mm	318	89	230	1711	1262	508
20"	13.75	4.50	9.19	71.00	51.25	20.00
500mm	349	114	233	1803	1302	508

Inches  
Millimeters



## Basic Valve with Chainwheel Actuator

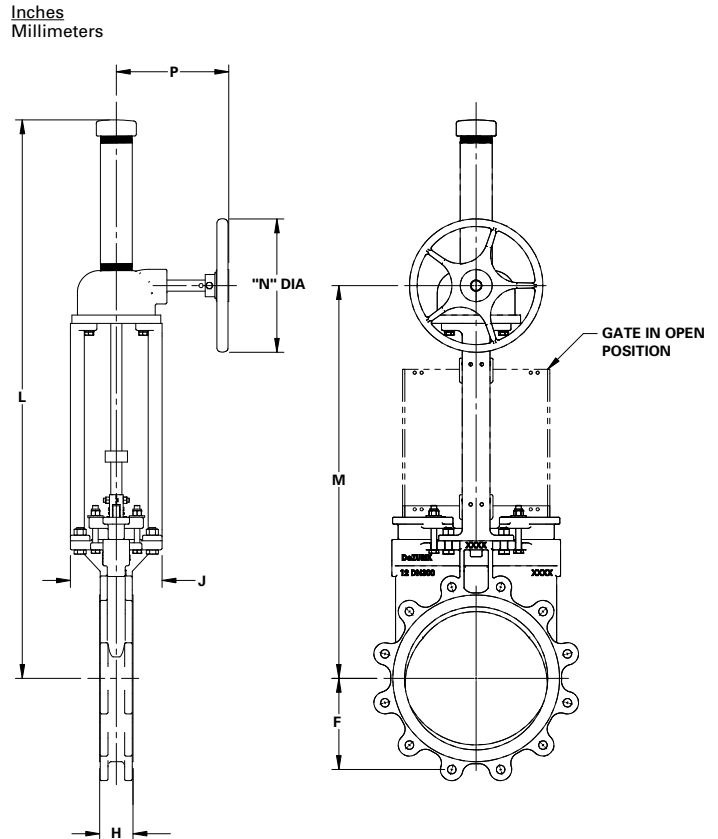
Valve Size	Dimensions					
	F	H	J	L	M	N
2"	3.00	1.88	4.00	15.81	13.62	9.19
50mm	76	48	102	402	346	233
3"	3.75	2.00	4.75	18.56	15.37	9.19
80mm	95	51	121	471	390	233
4"	4.50	2.00	5.00	22.74	17.62	9.19
100mm	114	51	127	578	448	233
5"	5.00	2.25	5.75	25.18	20.00	12.75
125mm	127	57	146	640	508	324
6"	5.50	2.25	5.75	26.83	21.57	12.75
150mm	140	57	146	681	548	324
8"	6.75	2.75	6.38	34.58	25.12	12.75
200mm	171	70	162	878	638	324
10"	8.00	2.75	8.25	41.56	30.76	20.00
250mm	203	70	210	1056	781	508
12"	9.50	3.00	8.25	47.29	34.35	20.00
300mm	241	76	210	1201	872	508
14"	10.50	3.00	8.25	54.57	40.82	20.00
350mm	267	76	210	1386	1037	508
16"	11.75	3.50	8.69	61.97	42.38	20.00
400mm	298	89	221	1574	1076	508
18"	12.50	3.50	9.06	67.37	49.69	20.00
450mm	318	89	230	1711	1262	508
20"	13.75	4.50	9.19	75.00	51.25	30.00
500mm	349	114	233	1905	1302	762



# Dimensions

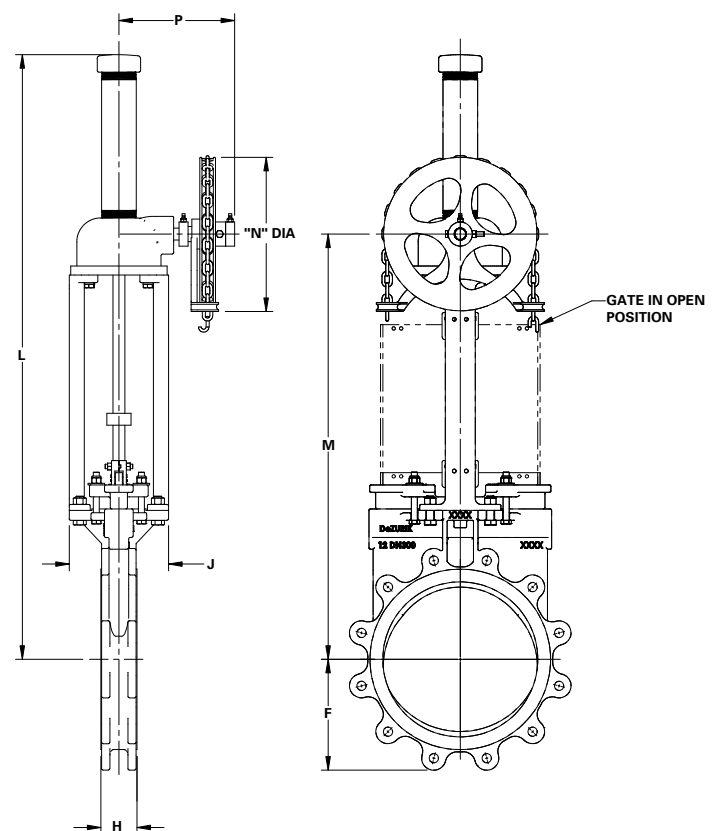
## Bevel Gear Handwheel Actuator

Valve Size	Dimensions						P	
	F	H	J	L	M	N	Standard & 180°	90° & 270°
3" 80mm	3.75 95	2.00 51	4.75 121	22.10 561	16.09 409	12.00 305	10.12 257	10.12 257
4" 100mm	4.50 114	2.00 51	5.00 127	26.38 670	18.37 467	12.00 305	10.12 257	10.12 257
5" 125mm	5.00 127	2.25 57	5.75 146	28.82 732	20.76 527	12.00 305	10.12 257	10.12 257
6" 150mm	5.50 140	2.25 57	5.75 146	32.38 822	22.29 566	12.00 305	10.12 257	10.12 257
8" 200mm	6.75 171	2.75 70	6.38 162	40.88 1038	25.84 656	12.00 305	10.12 257	10.12 257
10" 250mm	8.00 203	2.75 70	8.25 210	46.57 1183	31.54 801	12.00 305	10.12 257	10.12 257
12" 300mm	9.50 241	3.00 76	8.25 210	50.26 1277	35.16 893	12.00 305	10.12 257	10.12 257
14" 350mm	10.50 267	3.00 76	8.25 210	56.82 1443	37.78 960	12.00 305	10.12 257	24.13 613
16" 400mm	11.75 298	3.50 89	8.69 221	62.51 1588	41.47 1053	12.00 305	10.12 257	24.13 613
18" 450mm	12.50 318	3.50 89	9.06 230	69.95 1777	47.03 1195	12.00 305	10.12 257	24.13 613
20" 500mm	13.75 349	4.50 114	9.19 233	73.63 1870	50.59 1285	16.00 406	10.12 257	24.13 613
22" 550mm	15.00 381	4.50 114	9.19 233	77.63 1972	54.58 1386	16.00 406	10.12 257	24.13 613
24" 600mm	16.00 406	4.50 114	9.19 233	85.60 2174	58.57 1488	16.00 406	10.12 257	24.13 613
26" 650mm	17.13 435	4.63 118	9.50 241	101.00 2565	64.49 1638	30.00 762	10.12 257	24.13 613
28" 700mm	18.25 464	5.00 127	10.69 272	104.95 2666	68.37 1737	30.00 762	10.12 257	24.13 613
30" 750mm	19.38 492	4.63 118	11.25 286	109.48 2781	73.09 1856	30.00 762	10.43 265	24.05 24
32" 800mm	20.88 530	4.63 118	11.25 286	113.33 2879	76.74 1949	30.00 762	10.43 265	24.05 611
36" 900mm	23.00 584	4.63 118	11.25 286	123.58 3139	84.59 2149	30.00 762	10.43 265	124.05 265



## Bevel Gear Chainwheel Actuator

Valve Size	Dimensions						P	
	F	H	J	L	M	N	Standard & 180°	90° & 270°
3" 80mm	3.75 95	2.00 51	4.75 121	22.10 561	16.09 409	12.00 305	9.62 244	10.12 257
4" 100mm	4.50 114	2.00 51	5.00 127	26.38 670	18.37 467	12.00 305	9.62 244	10.12 257
5" 125mm	5.00 127	2.25 57	5.75 146	28.82 732	20.76 527	12.00 305	9.62 244	10.12 257
6" 150mm	5.50 140	2.25 57	5.75 146	32.38 822	22.29 566	12.00 305	9.62 244	10.12 257
8" 200mm	6.75 171	2.75 70	6.38 162	40.88 1038	25.84 656	12.00 305	9.62 244	10.12 257
10" 250mm	8.00 203	2.75 70	8.25 210	46.57 1183	31.54 801	12.00 305	9.62 244	10.12 257
12" 300mm	9.50 241	3.00 76	8.25 210	50.26 1277	35.16 893	12.00 305	9.62 244	10.12 257
14" 350mm	10.50 267	3.00 76	8.25 210	56.82 1443	37.78 960	12.00 305	9.62 244	24.13 613
16" 400mm	11.75 298	3.50 89	8.69 221	62.51 1588	41.47 1053	12.00 305	9.62 244	24.13 613
18" 450mm	12.50 318	3.50 89	9.06 230	69.95 1777	47.03 1195	12.00 305	9.62 244	24.13 613
20" 500mm	13.75 349	4.50 114	9.19 233	73.63 1870	50.59 1285	20.00* 508	9.62 244	24.13 613
22" 550mm	15.00 381	4.50 114	9.19 233	77.63 1972	54.58 1386	20.00* 508	9.62 244	24.13 613
24" 600mm	16.00 406	4.50 114	9.19 233	85.60 2174	58.57 1488	20.00* 508	9.62 244	24.13 613
26" 650mm	17.13 435	4.63 118	9.50 241	101.00 2565	64.49 1638	30.00 762	9.59 244	24.09 612
28" 700mm	18.25 464	5.00 127	10.69 272	104.95 2666	68.37 1737	30.00 762	9.59 244	24.09 612
30" 750mm	19.38 492	4.63 118	11.25 286	109.48 2781	73.09 1856	30.00 762	9.59 244	24.09 612
32" 800mm	23.00 584	4.63 118	11.25 286	113.33 2879	84.59 2149	30.00 762	9.59 244	24.09 612
36" 900mm	23.00 584	4.63 118	12.00 305	123.58 3139	84.59 2149	30.00 762	9.59 244	24.09 612



\*Note: "N" dimension on 20" & 24" (500 & 600mm) valves is 16.00 when actuator is mounted at 90° or 270°  
406

# Dimensions

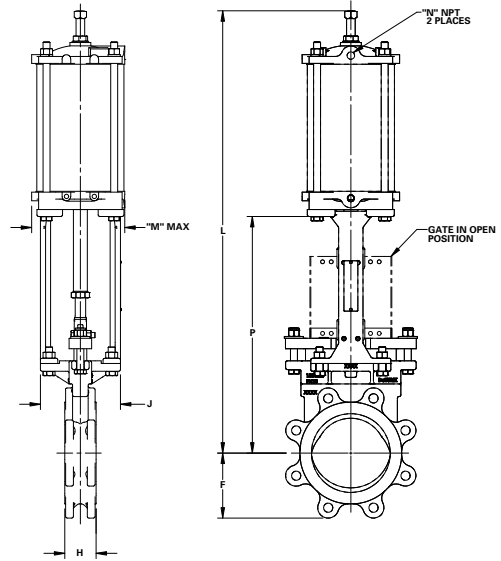
## Basic Valve with Cylinder Actuator

Valve Size	Dimensions			
	F	H	J	P
2"	3.00	1.88	4.00	10.56
50mm	76	48	102	268
3"	3.75	2.00	4.75	12.28
80mm	95	51	121	312
4"	4.50	2.00	5.00	14.56
100mm	114	51	127	370
5"	5.00	2.25	5.75	17.00
125mm	127	57	146	432
6"	5.50	2.25	5.75	18.56
150mm	140	57	146	471
8"	6.75	2.75	6.38	22.06
200mm	171	70	162	560
10"	8.00	2.75	8.25	27.50
250mm	203	70	210	699
12"	9.50	3.00	8.25	31.13
300mm	241	76	210	791
14"	10.50	3.00	8.25	33.75
350mm	267	76	210	857
16"	11.75	3.50	8.69	37.44
400mm	298	89	221	951
18"	12.50	3.50	9.06	43.00*
450mm	318	89	230	1092
20"	13.75	4.50	9.19	46.66*
500mm	349	114	233	1185
22"	15.00	4.50	9.19	50.75*
550mm	381	114	233	1289
24"	16.00	4.50	9.19	54.54*
600mm	406	114	233	1385
26"	17.13	4.63	9.50	60.25
650mm	435	118	241	1530
28"	18.25	5.00	10.69	64.31
700mm	464	127	272	1633
30"	19.38	4.63	11.25	69.69
750mm	492	118	286	1770
32"	20.88	4.63	11.25	72.69
800mm	530	118	286	1846
36"	23.00	4.63	12.00	81.19
900mm	584	118	305	2062

Inches  
Millimeters

\*Note: See chart below for 18", 20" and 24" valves with CY-PC16 Cylinder sizes.

Valve Size	Dimensions P
20"	47.31
500mm	1202
22"	50.75
550mm	1289
24"	55.28
600mm	1404



## 2-16" (50-400mm) Valves

Actuator Order Code	Dimensions										M	N
	L											
	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	—	—	—	—	7.88 200	1/4
CY-PC8	—	—	—	32.38 822	33.94 862	39.49 1003	49.57 1259	53.19 1351	—	—	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	—	—	—	—	—	—	—	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

## 18-36" (450-900mm) 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		
CY-PC12	73.94 1878	77.50 1968	85.52 2172	89.48 2273	—	—	—	—	—	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	113.82 2891	125.69 3193	17.00* 432	1/2
CY-PC16	—	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	—	—	—	—	95.75 2432	101.81 2586	108.56 2757	114.19 2900	126.06 3202	19.00 483	3/4
CY-PC20	—	—	—	—	—	—	—	—	126.31 3208	21.00 533	3/4

\* M dimension on 30" (750mm) is 14.75" (375mm)

## 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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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.