



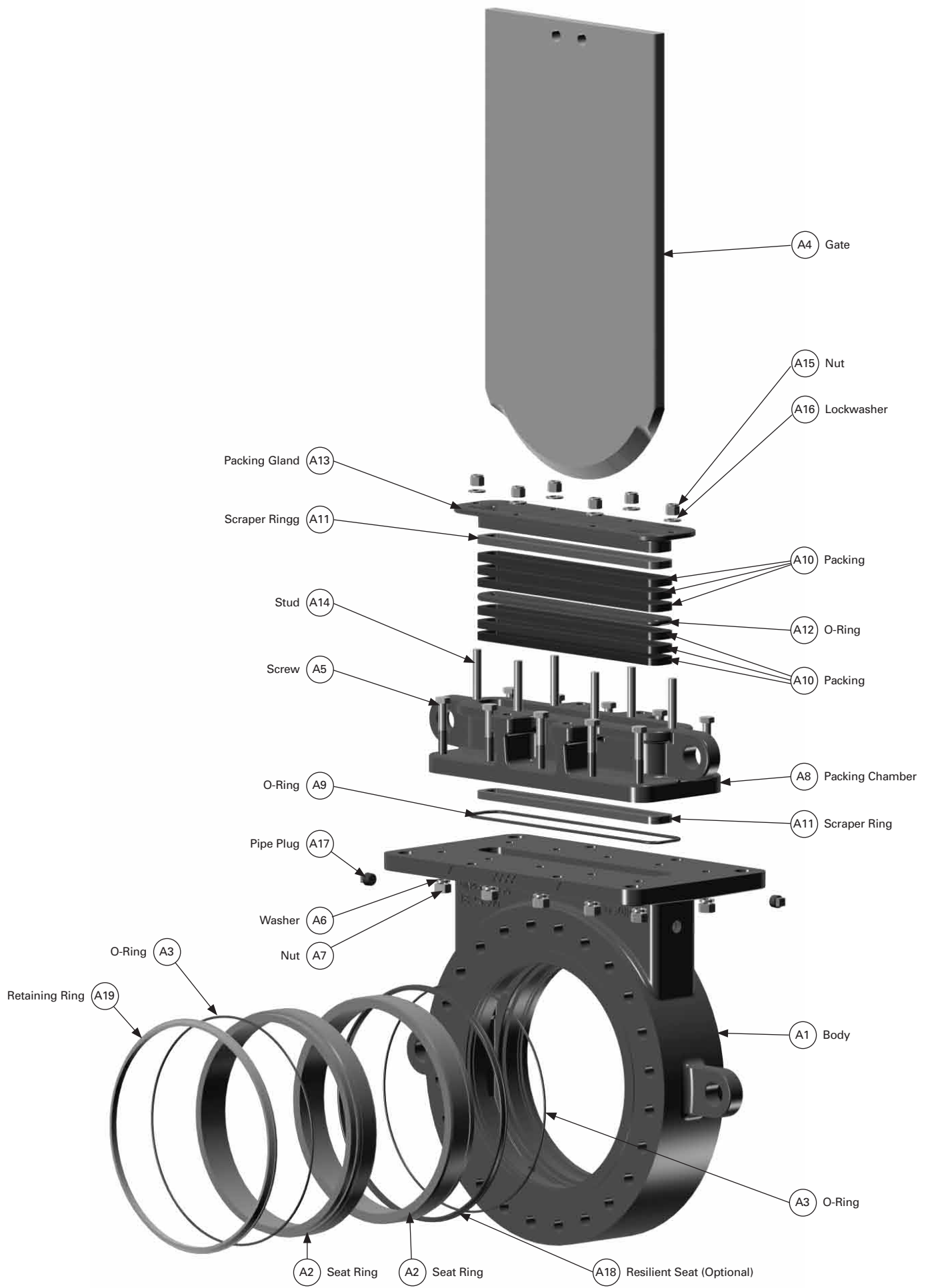
# DeZURIK KSV SEVERE SERVICE KNIFE GATE VALVES TECHNICAL SPECIFICATIONS



# Materials of Construction

## Class 150/300 Bonnetless

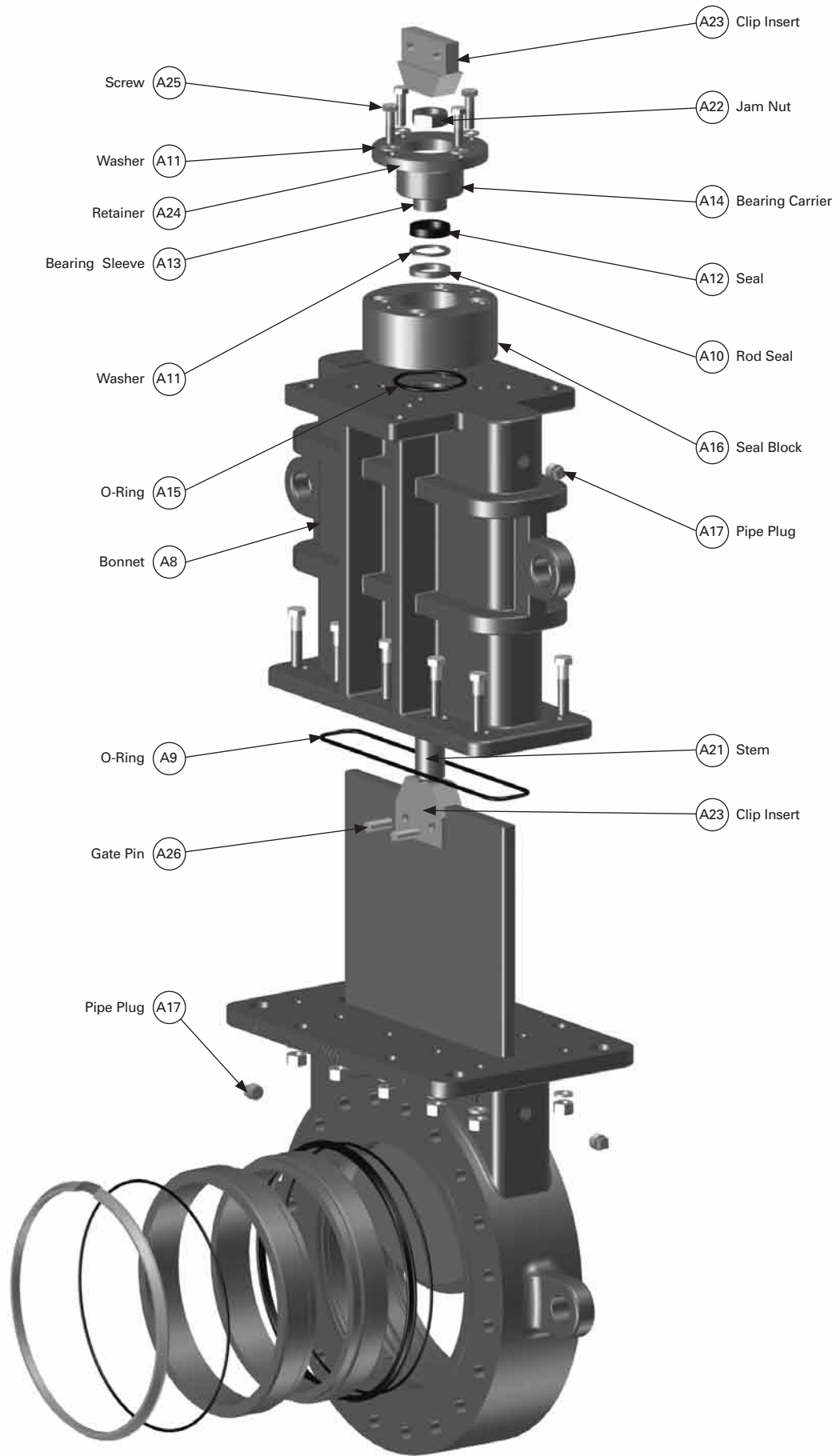
Item	Description	Material
A1	Body	Carbon Steel, ASTM A216 WCB
		2205 Duplex Stainless Steel, ASTM A890 CD3MN
		316 Stainless Steel, ASTM A351 CF8M
A2	Seat Ring (Base Material)	Carbon Steel
		316 Stainless Steel
		Hardened 17-4 PH Stainless Steel RC43
		White Iron Solid, ASTM A532, Class I-A
	Seat Ring (Coating Material)	Abrasion Resistant Cast Iron per ASTM A532, Class II-B
		No Coating
		Cobalt Chromium Alloy
A3, A9, A12	O-Ring	Chrome Carbide
		Tungsten Carbide
		NBR - Acrylonitrile-Butadiene to 180°F (83°C)
		CR - Chloroprene to 180°F (83°C)
		HNBR - Hydrogenated Nitrile to 302°F (150°C)
		FKM - Fluoro Rubber to 400°F (204°C)
		EPDM - Terpolymer of Ethylene Propylene and a Diene to 250°F (122°C)
VGF - Fluorinated Hydro Carbon Fluoro Rubber to 400°F (204°C)		
A4	Gate	2205 Duplex Stainless Steel, CD7MCUN
		Hardened 400 Series Stainless Steel RC43
		Hardened 17-4 Stainless Steel H900
		Hardened 17-4 Stainless Steel H900 with a hardened nickel-based, nonstick coating
		Hardened 17-4 Stainless Steel H900 Tungsten Bevel
		Hardened 17-4 Stainless Steel H900 Tungsten Bevel, with a hardened nickel-based, nonstick coating
		Carbon Steel Hardened RC43, with a hardened nickel-based, nonstick coating
Abrasion Resistant, with a hardened nickel-based, nonstick coating		
A5	Screw	Carbon Steel Zinc Plated
		316 Stainless Steel
A6	Lockwasher	Carbon Steel Zinc Plated
		316 Stainless Steel
A7	Nut	Carbon Steel Zinc Plated
		316 Stainless Steel
A8	Packing Chamber	Same as body material
A10	Packing	Expanded PTFE Fiber with Graphite to 450°F (232°C)
		PTFE to 450°F (232°C)
A11	Scraper Ring	Braided Copper
		Nickel-Chromium alloy
A13	Packing Gland	Same as body material
A14	Stud	Carbon Steel Zinc Plated
		304 Stainless Steel
A15	Nut	Carbon Steel Zinc Plated
		304 Stainless Steel
A16	Lockwasher	Carbon Steel Zinc Plated
		304 Stainless Steel
A17	Pipe Plug	Carbon Steel Zinc Plated
		304 Stainless Steel
A18	Resilient Seat	NBR - Acrylonitrile - Butadiene to 180°F (83°C)
		CR - Chloroprene to 180°F (83°C)
		HNBR - Hydrogenated Nitrile to 302°F (150°C)
		FKM - Fluoro Rubber to 400°F (204°C)
		EPDM - Terpolymer of Ethylene Propylene and a Diene to 250°F (122°C)
VGF - Fluorinated Hydro Carbon Fluoro Rubber to 400°F (204°C)		
A19	Retaining Ring	Carbon Steel



# Materials of Construction

## Class 150/300 Bonneted

Item	Description	Material
A8	Bonnet	Same as body material
A9	O-Ring	NBR - Acrylonitrile - Butadiene to 180°F (83°C)
		CR - Chloroprene to 180°F (83°C)
		HNBR - Hydrogenated Nitrile to 302°F (150°C)
		FKM - Fluoro Rubber to 400°F (204°C)
		EPDM - Terpolymer of Ethylene Propylene and a Diene to 250°F (122°C)
		VGF - Fluorinated Hydro Carbon to 400°F (204°C)
A10	Rod Seal	Braided Copper Nickel Chromium Alloy
A11	Washer	304 Stainless Steel
A12	Seal	Urethane/Acrylonitrile-Butadiene to 180°F (83°C)
A13	Bearing Sleeve	Bronze
A14	Bearing Carrier	Carbon Steel
A15	O-Ring	NBR - Acrylonitrile - Butadiene to 180°F (83°C)
		CR - Chloroprene to 180°F (83°C)
		HNBR - Hydrogenated Nitrile to 302°F (150°C)
		FKM - Fluoro Rubber to 400°F (204°C)
		EPDM - Terpolymer of Ethylene Propylene and a Diene to 250°F (122°C)
		VGF - Fluorinated Hydro Carbon Fluoro Rubber to 400°F (204°C)
A16	Seal Block	Carbon Steel
		2205 Duplex Stainless Steel
		316 Stainless Steel
A17	Pipe Plug	Carbon Steel Zinc Plated
		304 Stainless Steel
A21	Stem	203EZ Stainless Steel
		2205 Duplex Stainless Steel
A22	Jam Nut	Carbon Steel Zinc Plated
		316 Stainless Steel
A23	Clip Insert	203EZ Stainless Steel
		2205 Duplex Stainless Steel
A24	Retainer	Carbon Steel
		2205 Duplex Stainless Steel
		316 Stainless Steel
A25	Screw	Carbon Steel Zinc Plated
		316 Stainless Steel
A26	Gate Pin	304 Stainless Steel



# Valve Selection

## Applicable Standards

DeZURIK KSV Knife Gate Valves are designed and/or tested to meet the following standards:	
ANSI B16.34	Valves-Flanged, Threaded and Welding End. All KSV Knife Gate Valves comply with requirements of this standard.
MSS SP-135	High Pressure Knife Gate Valves. Metal Seated Valves.
ANSI B16.5 2-24" (50-600mm)	Carbon Steel Flanges and Flanged Fittings, ANSI 150. Conforms to Related Dimensions.
ANSI 16.47 26-60" (650-1525mm)	Large diameter Steel Flanges. Series A. Conforms to related dimensions.
API 598	Valves Meet the Leak Rate Requirement of this Standard.
International Standards	Conforms to flanged bolt guides- 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.
ASME B36.10	Welded Seamless Wrought Steel Pipe. Port diameters match pipe diameters.

## Flow Parameters Class 150

Valve Size	Cv* Kv* 100% Open	K Factor** (resistance)	Port Area (in <sup>2</sup> /cm <sup>2</sup> )
3"	665	0.120	7
80mm	576		45
4"	1199	0.120	13
100mm	1038		84
6"	2697	0.120	28
150mm	2334		181
8"	4794	0.112	50
200mm	4149		323
10"	7491	0.112	79
250mm	6483		510
12"	10787	0.104	113
300mm	9338		729
14"	13152	0.104	138
350mm	11383		890
16"	17421	0.104	183
400mm	15078		1181
18"	22290	0.096	234
450mm	19292		1510
20"	27759	0.096	291
500mm	24025		1877
22"	33864	0.096	355
550mm	29314		2290
24"	40494	0.096	425
600mm	35053		2742
26"	45790	0.096	501
650mm	35047		3232
28"	53332	0.096	583
700mm	46166		3761
30"	64090	0.096	672
750mm	46158		4335
32"	70138	0.096	767
800mm	60704		4948
36"	93080	0.096	976
900mm	80560		6297
42"	125987	0.096	1320
1100mm	108973		8516
48"	129337	0.096	1735
1200mm	111960		11194
54"	Contact DeZURIK		
1400mm			
60"			
1500mm			

## Shut-Off Capabilities

Resilient Seats	Leak tight/drip tight Bidirectional
Metal Seats	Meet MSS SP-135 Bidirectional

## Pressure Ratings (100°F (38°C))

Duplex Stainless Steel and Carbon Steel, Class 150	285 psi (1960 kPa)
Duplex Stainless Steel and Carbon Steel, Class 300	740 psi (5100 kPa)
316 Stainless Steel, Class 150	275 psi (1890 kPa)
316 Stainless Steel, Class 300	720 psi (4960 kPa)

## Class 300

Valve Size	Cv* Kv* 100% Open	K Factor** (resistance)	Port Area (in <sup>2</sup> /cm <sup>2</sup> )
3"	627	0.120	6.6
80mm	543		43
4"	1015	0.120	11
100mm	879		71
6"	2504	0.120	26
150mm	2168		168
8"	3643	0.112	38
200mm	3154		245
10"	6069	0.112	64
250mm	5254		413
12"	9069	0.104	95
300mm	7851		613
14"	12675	0.104	133
350mm	10972		858
16"	16850	0.104	177
400mm	14586		1142
18"	21623	0.096	227
450mm	18718		1465
20"	27091	0.096	284
500mm	23451		1832
22"	33005	0.096	346
550mm	28571		2232
24"	39541	0.096	415
600mm	34228		2677
26"	44876	0.096	491
650mm	38846		3167
28"	52417	0.096	573
700mm	38847		3697
30"	63041	0.096	661
750mm	54571		4265
32"	69041	0.096	755
800mm	54571		4811
36"	92222	0.096	967
900mm	78831		6206
42"	Contact DeZURIK		
1100mm			
48"			
1200mm			
54"			
1400mm			
60"	Contact DeZURIK		
1500mm			

\*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 Selection

## Valve & Actuator Weights

### Class 150

Valve Size	Basic Valve	With Bevel Gear Handwheel
3" 80mm	105 48	280 127
4" 100mm	140 64	315 143
6" 150mm	111 50	212 96
8" 200mm	177 80	304 138
10" 250mm	240 109	375 170
12" 300mm	343 156	490 223
14" 350mm	436 198	594 270
16" 400mm	429 240	728 331
18" 450mm	687 312	900 409
20" 500mm	1000 454	1250 568
22" 550mm	Contact DeZURIK	
24" 600mm	1398 634	1782 810
26" 650mm	1799 816	2252 1024
28" 700mm	2108 956	2580 1173
30" 750mm	2381 1080	2865 1302
32" 800mm	2905 1318	3402 1546
36" 900mm	3850 1746	4447 2021
42" 1100mm	6153 2791	7282 3310
48" 1200mm	8278 3755	9606 4366
54" 1400mm	Contact DeZURIK	
60" 1500mm	Contact DeZURIK	

Pounds  
Kilograms

### Class 300

Valve Size	Basic Valve	With Bevel Gear Handwheel
3" 80mm	105 48	280 127
4" 100mm	140 64	315 143
6" 150mm	178 81	285 130
8" 200mm	277 126	415 189
10" 250mm	422 191	580 264
12" 300mm	571 259	744 338
14" 350mm	797 362	1157 526
16" 400mm	950 431	1305 593
18" 450mm	1312 595	1700 773
20" 500mm	1582 718	2190 995
22" 550mm	Contact DeZURIK	
24" 600mm	2420 1098	3190 1450
26" 650mm	2755 1250	3493 1588
28" 700mm	3555 1613	4433 2015
30" 750mm	4011 1819	4675 2125
32" 800mm	Contact DeZURIK	
36" 900mm	Contact DeZURIK	
42" 1100mm	Contact DeZURIK	
48" 1200mm	Contact DeZURIK	
54" 1400mm	Contact DeZURIK	
60" 1500mm	Contact DeZURIK	

Pounds  
Kilograms

### Class 300 Bonneted

Valve Size	Basic Valve	With Bevel Gear Handwheel
3" 80mm	122 55	307 140
4" 100mm	151 68	336 153
6" 150mm	234 106	425 193
8" 200mm	338 153	515 234
10" 250mm	489 222	696 316
12" 300mm	622 282	816 371
14" 350mm	848 394	1293 588
16" 400mm	1046 474	1484 675
18" 450mm	1300 590	1758 799
20" 500mm	1548 702	2009 913
22" 550mm	Contact DeZURIK	
24" 600mm	2741 1243	3210 1459
26" 650mm	3103 1407	3885 1766
28" 700mm	3910 1774	4638 2108
30" 750mm	4990 2263	5793 2633
32" 800mm	Contact DeZURIK	
36" 900mm	6776 3074	7626 3466
42" 1100mm	Contact DeZURIK	
48" 1200mm	Contact DeZURIK	
54" 1400mm	Contact DeZURIK	
60" 1500mm	Contact DeZURIK	

Pounds  
Kilograms

# 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:

KSV = Severe Service Knife Gate Valve

## Valve Size

Give valve size code as follows:

3 = 3" (80mm)	24 = 24" (600mm)
4 = 4" (100mm)	26 = 24" (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" (1100mm)
16 = 16" (400mm)	48 = 48" (1200mm)
18 = 18" (450mm)	54 = 54" (1400mm)
20 = 20" (500mm)	60 = 60" (1500mm)
22 = 22" (550mm)	

## End Connection

Give end connection code as follows:

F1 = Flanged, ANSI 150  
F2 = Flanged, ANSI 300

Other end connections available on application.

## Body Material

Give body material code as follows:

CS = Carbon Steel  
S2 = 316 Stainless Steel  
S10 = 2205 Duplex Stainless Steel

## Packing Material

Give packing material code as follows:

GLCW = Expanded PTFE Fiber with Graphite live loading with copper wiper, 450°F (232°C)  
TLCW = PTFE live loading with copper wiper, 450°F (232°C)  
GLIW = Expanded PTFE Fiber with Graphite live loading with Nickel-Chromium alloy wiper, 450°F (232°C)  
TLIW = PTFE live loading with Nickel-Chromium alloy wipers, 450°F (232°C)

## On Application

RSCW = Rod Seal with copper wiper, bonneted valves only, 180°F (82°C)  
RSIW = Rod Seal with a Nickel-Chromium wiper, bonneted valves only, 180°F (82°C)

**Note:** The limiting factor in valve selection is the lowest temperature of the packing or seat.

## Ordering Example

KSV,6,F1,CS,GLCW,CSHC-CS-TW13,CR\*MNB-HD12-CS

## Gate Material

Give gate material code as follows:

S10 = 2205 Duplex Stainless Steel  
S8 = Hardened 400 Series Stainless Steel RC43  
S5 = Hardened 17-4 PH Stainless Steel H900 with a hardened nickel-based, non-stick coating  
S5C = Hardened 17-4 PH Stainless Steel H900 with a hardened nickel-based, non-stick coating  
S5T = Hardened 17-4 PH Stainless Steel H900 Tungsten Bevel  
S5TC = Hardened 17-4 PH Stainless Steel H900 Tungsten Bevel, with a hardened nickel-based, non-stick coating  
CSHC = Carbon Steel Hardened RC43 with a hardened nickel-based, non-stick coating  
ARC = Abrasion Resistant with a hardened nickel-based, non-stick coating

## Seat Material

Give seat material code as follows:

CS = Carbon Steel  
S2 = 316 Stainless Steel  
S5 = Hardened 17-4 PH Stainless Steel RC43 (NR seat facing only)  
WIS = White Iron Solid (NR seat facing only)  
NHS = Abrasion Resistant Cast Iron, per ASTM A532 (NR seat facing only)

## Seat Facing Overlay

Give seat facing code as follows:

NR = No coating  
ST = Cobalt Chromium Alloy  
TW13 = Tungsten Carbide (Welded) (13mm coating thickness)  
TW6 = Tungsten Carbide (Welded) (6mm coating thickness)  
CC13 = Chrome Carbide, (13mm coating thickness)  
CC6 = Chrome Carbide, (6mm coating thickness)

## Seat Seals

Give option code as follows:

M = Metal  
NBR = Acrylonitrile-Butadiene to 180°F (82°C)  
CR = Chloroprene to 180°F (82°C)  
HNBR = Hydrogenated Nitrile to 302°F (150°C)  
FKM = Fluoro Rubber to 400°F (204°C)  
EPDM = Terpolymer of Ethylene, Propylene and a Diene to 250°F (122°C)  
VGF = Fluorinated Hydro Carbon Fluoro Rubber to 400°F (204°C)

**Note:** The limiting factor in valve selection is the lowest temperature of the packing or seat.

## Options

Give options code as follows:

CRT = Certified Physical and Chemical Test Report  
CMC = Certificate of Material Conformance  
L37 = Custom Specification  
CRN = Canadian Registration Number Certification

## On Application

B = Bonnet

# Bevel Gear Actuators

Bevel gear actuators provide vertical mounting of the handwheel. A mechanical advantage makes large valve operation easier and faster. Handwheels are sized for 80lb.(36Kg) rim pull maximum. All actuators are sized to the full pressure rating of the valve. See Pressure Ratings on Valve Selection page.

## Bevel Gear Handwheel Actuators

### Class 150

Valve Size	Order Code	Order Code	Number of Turns	Handwheel Diameter
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke		
3" 80mm	MNB-HD12-CS	MNB-HD12-S1	45	12
4" 100mm	MNB-HD12-CS	MNB-HD12-S1	60	12
6" 150mm	MNB-HD12-CS	MNB-HD12-S1	90	12
8" 200mm	MNB-HD12-CS	MNB-HD12-S1	120	12
10" 250mm	MNB-HD12-CS	MNB-HD12-S1	150	12
12" 300mm	MNB-HD12-CS	MNB-HD12-S1	144	12
14" 350mm	MNB-HD16-CS	MNB-HD16-S1	168	16
16" 400mm	MNB-HD16-CS	MNB-HD16-S1	192	16
18" 450mm	MNB-HD24-CS	MNB-HD24-S1	216	24
20" 500mm	MNB-HD24-CS	MNB-HD24-S1	240	24
22" 550mm	MNB-HD24-CS	MNB-HD24-S1	176	24
24" 600mm	MNB-HD24-CS	MNB-HD24-S1	192	24
26" 650mm	MNB-HD24-CS	MNB-HD24-S1	416	24
28" 700mm	MNB-HD24-CS	MNB-HD24-S1	448	24
30" 750mm	MNB-HD24-CS	MNB-HD24-S1	480	24
32" 800mm	MNB-HD24-CS	MNB-HD24-S1	512	24
36" 900mm	MNB-HD24-CS	MNB-HD24-S1	432	24
42" 1100mm	MNB-HD24-CS	MNB-HD24-S1	2016	24
48" 1200mm	MNB-HD24-CS	MNB-HD24-S1	5184	24

### Class 300

Valve Size	Order Code	Order Code	Number of Turns	Handwheel Diameter
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke		
3" 80mm	MNB-HD12-CS	MNB-HD12-S1	45	12
4" 100mm	MNB-HD12-CS	MNB-HD12-S1	60	12
6" 150mm	MNB-HD12-CS	MNB-HD12-S1	72	12
8" 200mm	MNB-HD12-CS	MNB-HD12-S1	96	12
10" 250mm	MNB-HD24-CS	MNB-HD24-S1	120	24
12" 300mm	MNB-HD24-CS	MNB-HD24-S1	144	24
14" 350mm	MNB-HD24-CS	MNB-HD24-S1	224	24
16" 400mm	MNB-HD24-CS	MNB-HD24-S1	256	24
18" 450mm	MNB-HD24-CS	MNB-HD24-S1	288	24
20" 500mm	MNB-HD24-CS	MNB-HD24-S1	320	24
22" 550mm	MNB-HD24-CS	MNB-HD24-S1	343	24
24" 600mm	MNB-HD24-CS	MNB-HD24-S1	374	24
26" 650mm	MNB-HD24-CS	MNB-HD24-S1	832	24
28" 700mm	MNB-HD24-CS	MNB-HD24-S1	896	24
30" 750mm	MNB-HD24-CS	MNB-HD24-S1	720	24
32" 800mm	MNB-HD24-CS	MNB-HD24-S1	768	24
36" 900mm	MNB-HD24-CS	MNB-HD24-S1	864	24
42" 1100mm	MNB-HD24-CS	MNB-HD24-S1	O/A	O/A
48" 1200mm	MNB-HD24-CS	MNB-HD24-S1	O/A	O/A

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.

## Lockout Device

Available on 3-36" (80-900mm) sizes of bevel gear handwheel and 2-36" (50-900mm) cylinder actuated valves. To order, add a comma and the order code "LK8" after the actuator code.

### Ordering Example:

KSV,6,F1,CS,GLCW,CSHC-CS-TW13,CR\*MNB-HD12-CS,LK8

# Cylinder Actuators

Double-acting hydraulic cylinders for on/off services are sized for 1500 psig (10350 kPa) with a 2:1 safety factor capable of maximum non-shock pressure. All actuators are sized to the full pressure rating of the valve. See Pressure Ratings on Valve Selection page.

## Class 150

Valve Size	Order Code		Hydraulic Cylinder Diameter	Area		Swept Volume		In <sup>3</sup> cm <sup>3</sup>	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke		Open	Closed	Open	Closed	Open	Closed
3" 80mm	CY-HC2-CS	CY-HC2-S1	2" 50mm	2.36 15.23	3.14 20.26	9 147	13 213		
4" 100mm	CY-HC2-CS	CY-HC2-S1	2" 50mm	2.36 15.23	3.14 20.26	12 197	16 262		
6" 150mm	CY-HC2-CS	CY-HC2-S1	2" 50mm	2.36 15.23	3.14 20.26	16 262	22 361		
8" 200mm	CY-HC2.5-CS	CY-HC2.5-S1	2.5" 65mm	4.12 26.58	4.91 31.68	37 606	44 721		
10" 250mm	CY-HC2.5-CS	CY-HC2.5-S1	2.5" 65mm	4.12 26.58	4.91 31.68	45 737	54 885		
12" 300mm	CY-HC3.25-CS	CY-HC3.25-S1	3.25" 65mm	6.81 43.94	8.30 53.55	89 1458	108 1770		
14" 350mm	CY-HC3.25-CS	CY-HC3.25-S1	3.25" 65mm	6.81 43.94	8.30 53.55	102 1671	124 2032		
16" 400mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	173 2835	214 3507		
18" 450mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	193 3163	239 3916		
20" 500mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	213 3490	264 4326		
22" 550mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	233 3818	289 4736		
24" 600mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	254 4162	314 5146		
26" 650mm	CY-HC5-CS	CY-HC5-S1	5" 125mm	16.49 106.39	19.63 126.64	445 7292	530 8685		
28" 700mm	CY-HC5-CS	CY-HC5-S1	5" 125mm	16.49 106.39	19.63 126.64	478 7833	569 9324		
30" 750mm	CY-HC5-CS	CY-HC5-S1	5" 125mm	16.49 106.39	19.63 126.64	511 8374	609 9980		
32" 800mm	CY-HC5-CS	CY-HC5-S1	5" 125mm	16.49 106.39	19.63 126.64	544 8915	648 10619		
36" 900mm	CY-HC6-CS	CY-HC6-S1	6" 150mm	23.37 150.77	28.27 182.39	865 14175	1046 17141		
42" 1100mm	CY-HC10-CS	CY-HC10-S1	10" 250mm	62.64 404.13	78.54 506.71	4693 76904	3377 55339		
48" 1200mm	CY-HC10-CS	CY-HC10-S1	10" 250mm	62.64 404.13	78.65 507.42	3069 50292	3848 63057		
54" 1400mm	Contact DeZURIK								
60" 1500mm									

# Cylinder Actuators

## Class 300

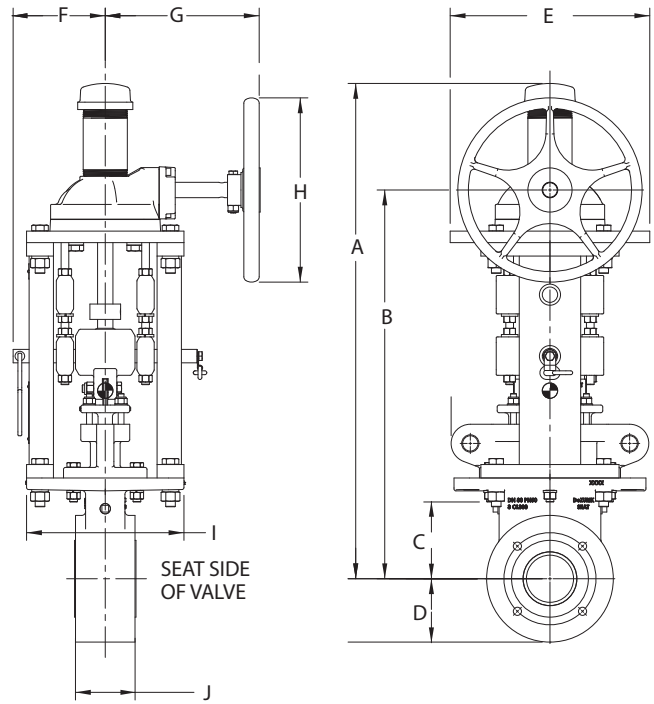
Valve Size	Order Code		Hydraulic Cylinder Diameter	Area		Swept Volume	
	Carbon Steel (CS) Yoke	304 SST (S1) Yoke		In <sup>2</sup> cm <sup>2</sup>	In <sup>2</sup> cm <sup>2</sup>	Open	Closed
3" 80mm	CY-HC2-CS	CY-HC2-S1	2" 50mm	2.36 15.23	3.14 20.26	9 147	13 213
4" 100mm	CY-HC2.5-CS	CY-HC2.5-S1	2.5" 65mm	4.12 26.58	4.91 31.68	21 344	25 410
6" 150mm	CY-HC2.5-CS	CY-HC2.5-S1	2.5" 65mm	4.12 26.58	4.91 31.68	29 475	34 557
8" 200mm	CY-HC3.25-CS	CY-HC3.25-S1	3.25" 65mm	6.81 43.94	8.30 53.55	48 787	58 950
10" 250mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	112 1835	138 2261
12" 300mm	CY-HC4-CS	CY-HC4-S1	4" 100mm	10.16 65.55	12.57 81.10	132 2163	163 2671
14" 350mm	CY-HC5-CS	CY-HC5-S1	5" 125mm	16.49 106.39	19.63 126.64	247 4048	295 4834
16" 400mm	CY-HC5-CS	CY-HC5-S1	5" 125mm	16.49 106.39	19.63 126.64	280 4588	334 5473
18" 450mm	CY-HC6-CS	CY-HC6-S1	6" 150mm	23.37 150.77	28.27 182.39	444 7276	537 8800
20" 500mm	CY-HC6-CS	CY-HC6-S1	6" 150mm	23.37 150.77	28.27 182.39	491 8046	594 9734
22" 550mm	CY-HC6-CS	CY-HC6-S1	6" 150mm	23.37 150.77	28.27 182.39	538 8816	651 10668
24" 600mm	CY-HC6-CS	CY-HC6-S1	6" 150mm	23.37 150.77	28.27 182.39	584 9586	707 11602
26" 650mm	CY-HC7-CS	CY-HC7-S1	7" 180mm	31.42 202.71	38.48 248.26	848 13896	1039 17026
28" 700mm	CY-HC7-CS	CY-HC7-S1	7" 180mm	31.42 202.71	38.48 248.26	911 14929	1116 18288
30" 750mm	CY-HC7-CS	CY-HC7-S1	7" 180mm	31.42 202.71	38.48 248.26	974 15961	1193 19550
32" 800mm	CY-HC8-CS	CY-HC8-S1	8" 200mm	43.20 278.71	50.27 324.32	1425 23351	1659 27186
36" 900mm	CY-HC8-CS	CY-HC8-S1	8" 200mm	40.64 262.19	50.27 324.32	1504 24646	1860 30480
42" 1100mm	CY-HC10-CS	CY-HC10-S1	10" 250mm	62.64 404.13	78.54 506.71	4693 76904	3377 55339
48" 1200mm	CY-HC10-CS	CY-HC10-S1	10" 250mm	62.64 404.13	78.65 507.42	3069 50292	3848 63057
54" 1400mm	Contact DeZURIK						
60" 1500mm							

# Dimensions

## Bevel Gear Actuators

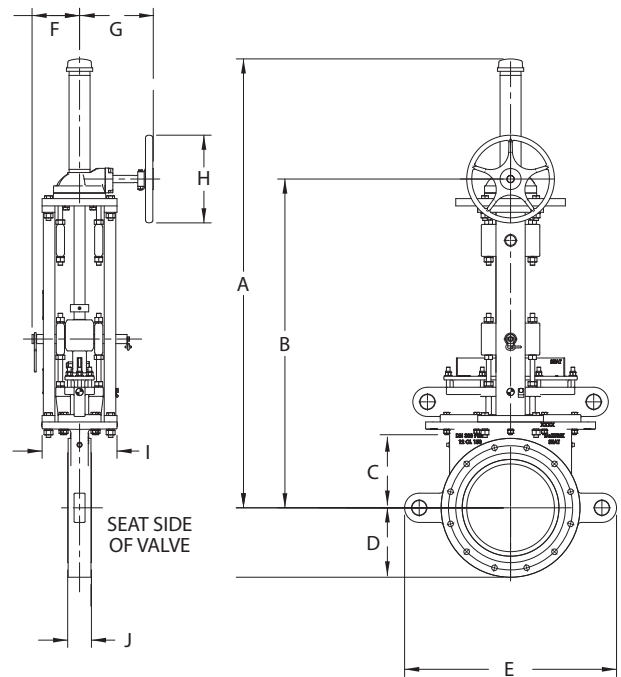
### Class 150, 3-10" (80-250mm) Valves

Valve Size	A	B	C	D	E	F	G	H	I	J
3" 80mm	32.26 819	25.32 643	5.00 127	4.13 105	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	4.00 102
4" 100mm	33.49 851	26.80 681	5.50 140	5.00 127	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	4.13 105
6" 150mm	38.31 973	29.49 749	5.94 151	5.50 140	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	2.50 64
8" 200mm	45.18 1148	32.74 832	7.00 178	6.75 171	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	2.88 73
10" 250mm	52.40 1331	37.96 964	8.31 211	8.00 203	13.00 330	6.50 165	10.03 255	12.00 305	10.25 260	3.13 80



### Class 150, 12" & Larger (300mm & Larger) Valves

Valve Size	A	B	C	D	E	F	G	H	I	J
12" 300mm	60.43 1535	44.99 1143	10.00 254	9.50 241	29.00 737	6.50 165	10.09 256	12.00 305	10.25 260	3.25 83
14" 350mm	64.33 1634	48.30 1227	11.13 283	10.50 267	31.00 787	8.92 227	10.34 263	16.00 406	12.25 311	3.63 92
16" 400mm	73.49 1867	53.05 1347	12.88 327	11.75 298	33.50 851	8.97 228	10.34 263	16.00 406	13.75 349	3.75 95
18" 450mm	78.49 1994	58.05 1474	14.28 363	12.50 318	35.00 889	8.25 210	18.34 466	24.00 610	14.25 362	4.13 105
20" 500mm	84.12 2137	61.68 1567	16.50 419	13.75 349	37.50 953	8.00 203	18.34 466	24.00 610	14.25 362	4.50 114
22" 550mm	Contact DeZURIK									
24" 600mm	96.82 2459	71.60 1819	19.00 483	16.00 406	42.00 1067	8.86 225	20.98 533	24.00 610	14.63 372	5.00 127
26" 650mm	104.90 2664	77.18 1960	20.88 530	17.13 435	44.25 1124	9.38 238	21.16 537	24.00 610	16.50 419	6.75 171
28" 700mm	118.81 3018	81.87 2079	23.75 603	18.25 464	46.50 1181	10.55 268	21.16 537	24.00 610	17.00 432	7.13 181
30" 750mm	120.88 3070	83.93 2132	23.13 588	19.38 492	48.75 1238	9.94 252	21.16 537	24.00 610	19.00 483	7.38 187
32" 800mm	124.45 3161	87.49 2222	22.86 581	20.88 530	51.75 1314	10.00 254	21.16 537	24.00 610	18.00 457	8.13 207
36" 900mm	136.20 3459	98.18 2494	24.52 623	23.00 584	61.00 1549	10.00 254	21.16 537	24.00 610	18.00 457	8.88 226
42" 1100mm	160.74 4083	118.79 3017	34.25 870	26.75 679	68.50 1740	14.00 356	27.66 703	24.00 610	28.00 711	9.75 248
48" 1200mm	177.99 4521	130.04 3303	40.00 1016	30.00 762	75.00 1905	14.00 356	27.66 703	24.00 610	28.00 711	11.50 292

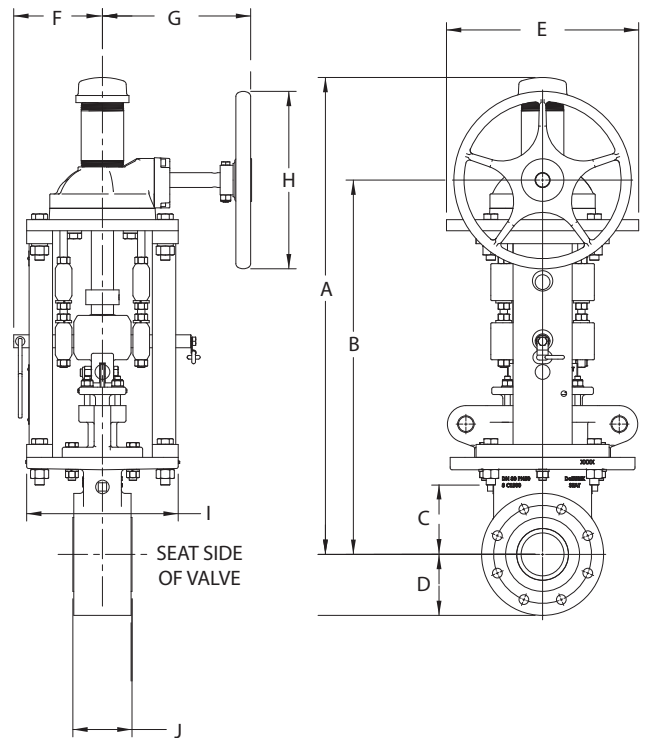


# Dimensions

## Bevel Gear Actuators

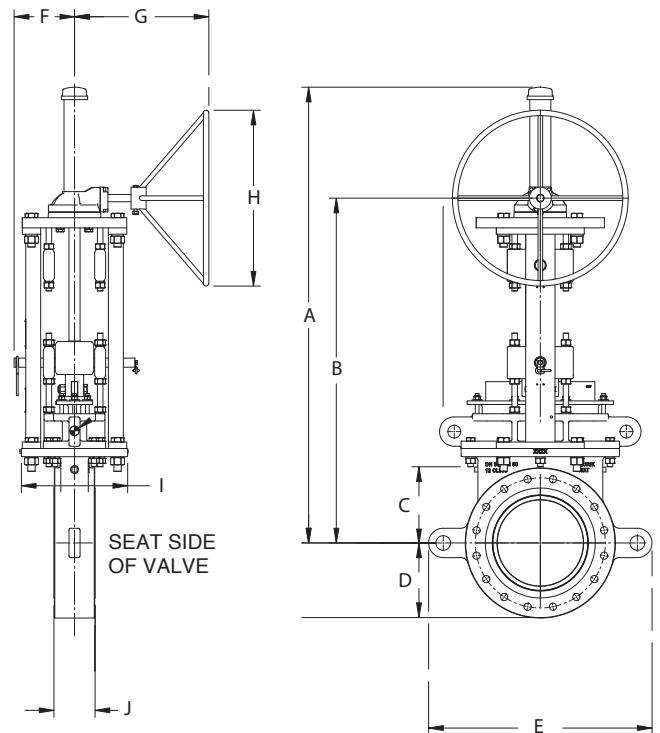
### Class 300, 3-6" (80-150mm) Valves

Valve Size	A	B	C	D	E	F	G	H	I	J
3" 80mm	32.26 819	25.32 643	4.69 119	4.13 105	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	4.00 102
4" 100mm	33.49 851	26.80 681	5.50 140	5.00 127	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	4.13 105
6" 150mm	39.09 993	30.28 769	7.00 178	6.25 159	13.00 330	6.00 152	10.03 255	12.00 305	10.25 260	4.13 105



### Class 300, 8" & Larger (200mm & Larger) Valves

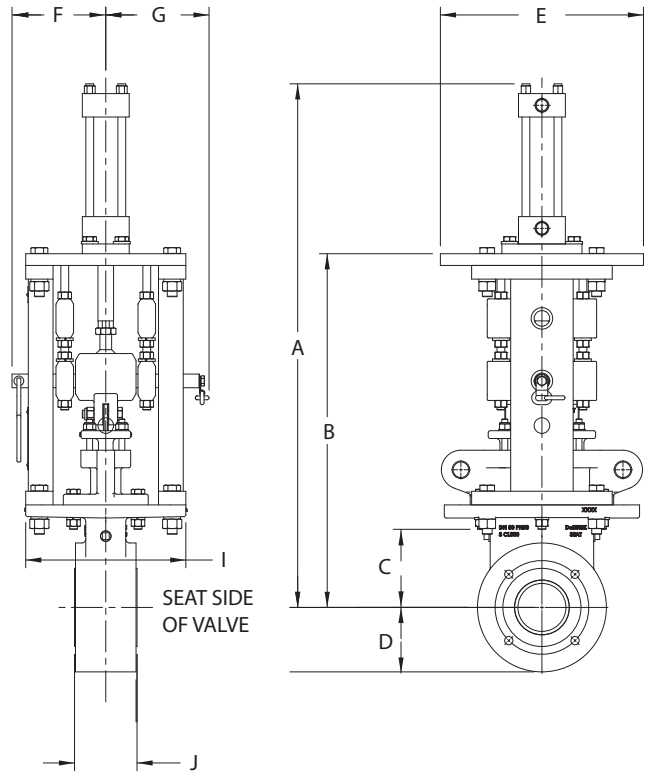
Valve Size	A	B	C	D	E	F	G	H	I	J
8" 200mm	51.70 1313	37.30 947	8.25 210	7.50 191	24.00 610	6.50 165	10.03 255	12.00 305	10.50 267	4.63 118
10" 250mm	54.49 1384	41.43 1052	9.25 235	8.75 222	27.50 699	6.50 165	18.34 466	24.00 610	11.75 298	5.38 137
12" 300mm	62.22 1580	47.08 1196	10.40 264	10.19 259	30.50 775	8.25 210	18.34 466	24.00 610	14.50 368	5.63 143
14" 350mm	66.51 1689	51.30 1303	11.81 300	11.50 292	33.00 838	9.00 229	21.16 537	24.00 610	16.38 416	6.25 159
16" 400mm	74.01 1880	54.56 1386	13.75 349	12.75 324	35.50 902	9.57 243	21.16 537	24.00 610	16.38 416	6.63 168
18" 450mm	80.95 2056	59.99 1524	14.63 372	14.00 356	38.00 965	9.00 229	21.16 537	24.00 610	16.13 410	7.00 178
20" 500mm	84.95 2158	63.99 1625	16.63 422	15.25 387	40.50 1029	9.00 229	21.16 537	24.00 610	16.13 410	7.44 189
22" 550mm	Contact DeZURIK									
24" 600mm	97.13 2467	72.18 1833	17.66 449	18.00 457	46.00 1168	9.00 229	21.16 537	24.00 610	16.13 410	8.50 216
26" 650mm	107.26 2724	82.41 2093	20.13 511	19.13 486	48.25 1226	10.50 267	25.55 649	24.00 610	19.00 483	8.50 216
28" 700mm	112.38 2854	85.53 2172	21.25 540	20.38 518	48.88 1242	10.50 267	25.55 649	24.00 610	19.00 483	10.00 254
30" 750mm	127.13 3229	89.66 2277	22.88 581	21.50 546	53.00 1346	10.50 267	25.55 649	24.00 610	19.00 483	10.50 267
32" 800mm	127.13 3229	94.78 2407	24.50 622	22.63 575	60.25 1530	12.61 320	25.55 649	24.00 610	22.50 572	11.50 292
36" 900mm	138.07 3507	102.66 2608	27.13 689	25.00 635	65.50 1664	12.61 320	25.55 649	24.00 610	22.50 572	12.00 305
42-48" 1100-1200mm	Contact DeZURIK									



# Dimensions

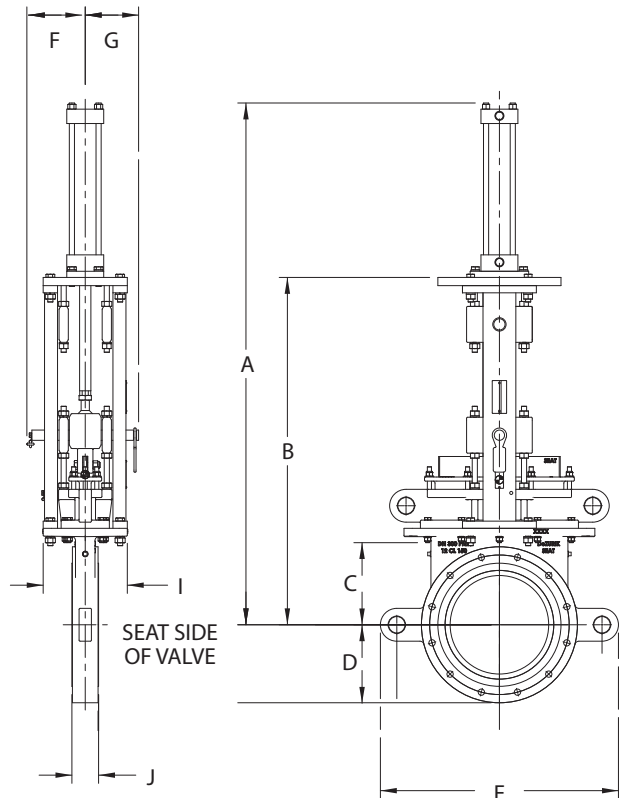
## Hydraulic Cylinder Actuators Class 150, 3-10" (80-250mm) Valves

Valve Size	A	B	C	D	E	F	G	I	J
3" 80mm	33.52 851	22.64 575	5.00 127	4.13 105	13.00 330	6.00 152	6.61 168	10.25 260	4.00 102
4" 100mm	36.00 914	24.13 613	5.50 140	5.00 127	13.00 330	6.00 152	6.57 167	10.25 260	4.13 105
6" 150mm	41.07 1043	26.81 681	5.94 151	5.50 140	13.00 330	6.00 152	6.57 167	10.25 260	2.50 64
8" 200mm	46.06 1170	30.06 764	7.00 178	6.75 171	13.00 330	6.00 152	6.57 167	10.25 260	2.88 73
10" 250mm	53.53 1360	35.28 896	8.31 211	8.00 203	13.00 330	6.50 165	7.07 180	10.25 260	3.13 80



## Class 150, 12" & Larger (300mm & Larger) Valves

Valve Size	A	B	C	D	E	F	G	I	J
12" 300mm	63.56 1614	42.31 1075	10.00 254	9.50 241	29.00 737	7.07 180	6.50 165	10.25 260	3.25 83
14" 350mm	68.13 1731	45.63 1159	11.50 292	10.50 267	31.00 787	7.97 202	8.25 210	12.25 311	3.63 92
16" 400mm	75.37 1914	50.38 1280	13.50 343	11.75 298	33.50 851	8.82 224	8.25 210	13.75 349	3.75 95
18" 450mm	82.25 2089	55.38 1407	14.88 378	12.50 318	35.00 889	8.01 203	8.56 217	14.25 362	4.13 105
20" 500mm	87.88 2232	59.00 1499	16.50 419	13.75 349	37.50 953	8.00 203	8.57 218	14.25 362	4.50 114
22" 550mm	Contact DeZURIK								
24" 600mm	100.88 2562	68.00 1727	19.38 492	16.00 406	42.00 1067	8.25 210	8.86 225	14.63 372	5.00 127
26" 650mm	109.19 2773	73.31 1862	20.88 530	17.13 435	44.25 1124	9.38 238	9.67 246	16.50 419	6.75 171
28" 700mm	115.75 2940	78.00 1981	23.75 603	18.25 464	46.50 1181	10.55 268	9.94 252	17.00 432	7.13 181
30" 750mm	119.82 3043	80.06 2034	23.13 588	19.38 492	48.75 1238	9.94 252	10.55 268	19.00 483	7.38 187
32" 800mm	125.25 3181	83.63 2124	24.65 626	20.88 530	51.75 1314	10.00 254	10.61 269	18.00 457	8.13 207
36" 900mm	141.56 3596	94.31 2395	28.63 727	23.00 584	61.00 1549	10.00 254	10.61 269	18.00 457	8.88 226
42" 1100mm	170.19 4323	111.38 2829	34.25 870	26.75 679	68.50 1740	14.00 356	14.00 356	28.00 711	9.75 248
48" 1200mm	187.44 4761	122.63 3115	40.00 1016	30.00 762	75.00 1905	14.00 356	14.00 356	28.00 711	11.50 292

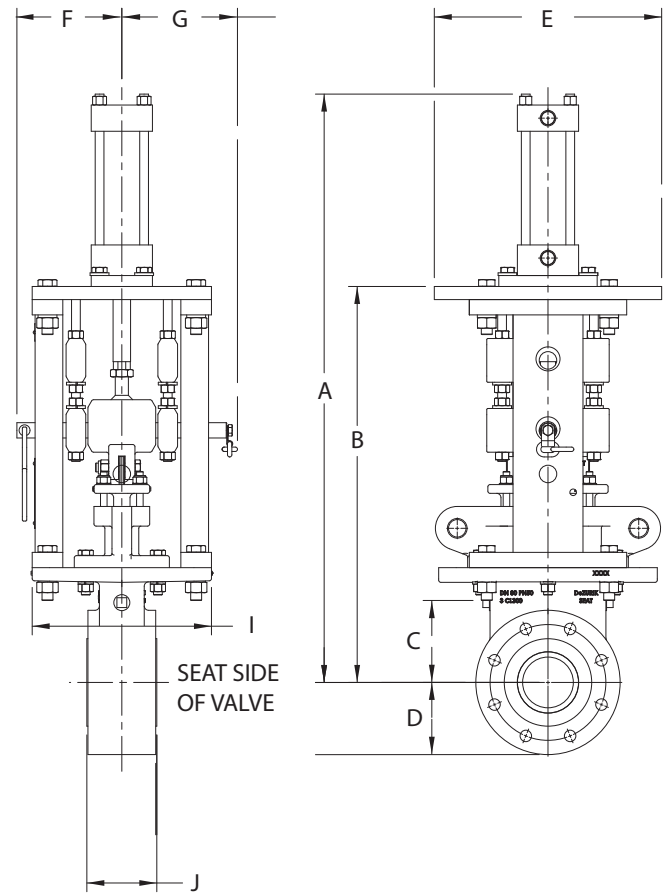


# Dimensions

## Hydraulic Cylinder Actuators

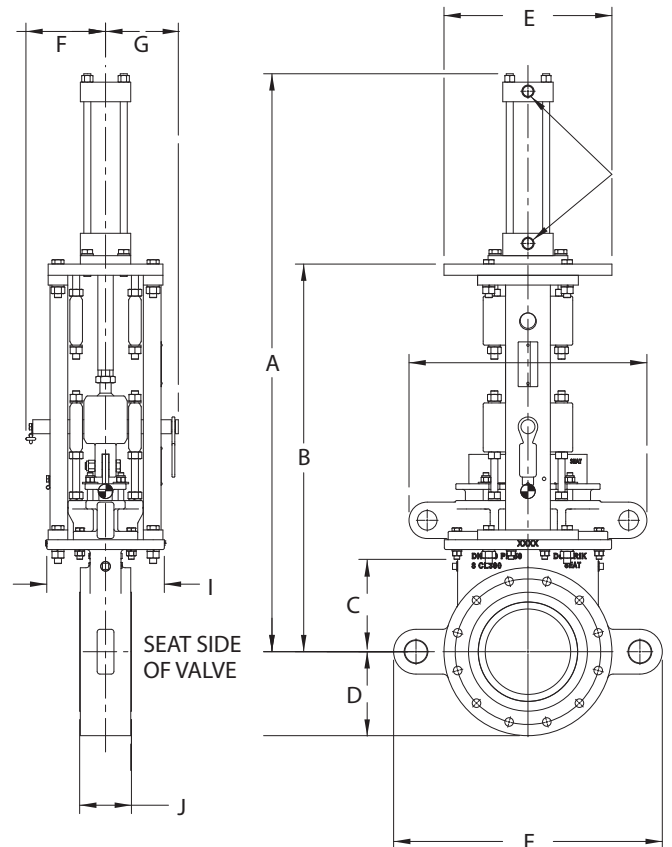
### Class 300, 3-6" (80-150mm) Valves

Valve Size	A	B	C	D	E	F	G	I	J
3" 80mm	33.64 854	22.64 575	4.69 119	4.13 105	13.00 330	6.00 152	6.61 168	10.25 260	4.00 102
4" 100mm	35.88 911	24.13 613	5.50 140	5.00 127	13.00 330	6.00 152	6.57 167	10.25 260	4.13 105
6" 150mm	41.35 1050	27.60 701	7.00 178	6.25 159	13.00 330	6.00 152	6.61 168	10.25 260	4.13 105



### Class 300, 8" & Larger (200mm & Larger) Valves

Valve Size	A	B	C	D	E	F	G	I	J
8" 200mm	51.63 1311	34.63 880	8.25 210	7.50 191	24.00 610	7.11 181	6.50 165	10.50 267	4.63 118
10" 250mm	58.13 1477	38.75 984	9.25 235	8.75 222	26.50 673	6.50 165	7.07 180	11.75 298	5.38 137
12" 300mm	65.78 1671	47.44 1205	10.40 264	10.25 260	30.50 775	8.72 221	8.38 213	14.50 368	5.63 143
14" 350mm	70.81 1799	47.44 1205	12.25 311	11.50 292	33.00 838	9.00 229	9.59 244	16.38 416	6.25 159
16" 400mm	76.20 1935	50.69 1288	13.75 349	12.75 324	35.50 902	9.00 229	9.57 243	16.38 416	6.63 168
18" 450mm	85.38 2169	56.13 1426	14.63 372	14.00 356	38.00 965	9.00 229	8.72 221	16.13 410	7.00 178
20" 500mm	90.88 2308	60.13 1527	16.63 422	15.25 387	40.50 1029	9.00 229	9.60 244	16.13 410	7.44 189
22" 550mm	Contact DeZURIK								
24" 600mm	103.06 2618	68.31 1735	19.00 483	18.00 457	46.00 1168	9.00 229	9.60 244	16.13 410	8.50 216
26" 650mm	113.94 2894	75.94 1929	20.13 511	19.13 486	48.25 1226	10.50 267	11.07 281	19.00 483	8.50 216
28" 700mm	119.06 3024	79.06 2008	21.25 540	20.38 518	50.75 1289	10.50 267	11.07 281	19.00 483	10.00 254
30" 750mm	125.19 3180	83.19 2113	22.58 574	21.50 546	53.00 1346	10.50 267	11.11 282	19.00 483	10.50 267
32" 800mm	134.06 3405	88.31 2243	24.50 622	22.63 575	60.25 1530	12.03 306	12.58 320	22.50 572	11.50 292
36" 900mm	145.94 3707	96.19 2443	27.13 689	25.00 635	65.50 1664	12.61 320	12.00 305	22.50 572	12.00 305
42-48" 1100-1200mm	Contact DeZURIK								



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