



APCO | WILLAMETTE

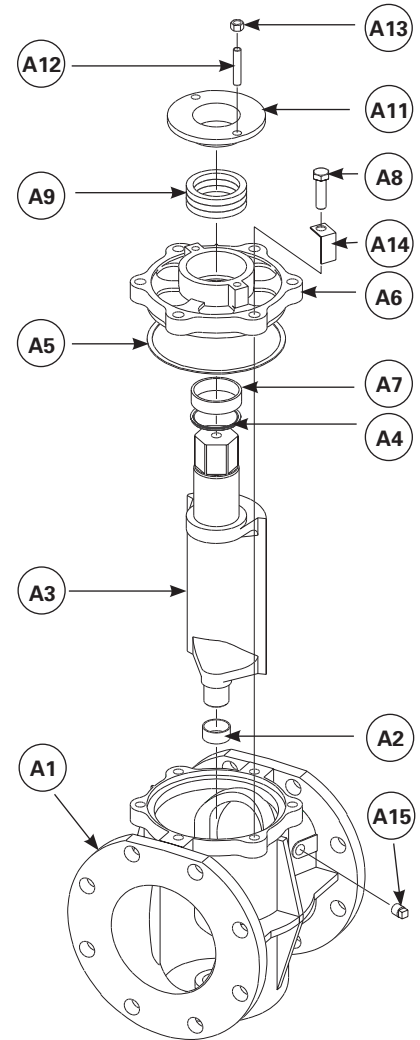
DeZURIK 4" (100mm) & LARGER PEC ECCENTRIC PLUG VALVES TECHNICAL SPECIFICATIONS



Materials of Construction

Item	Description	Material
A1	Body	Cast Iron, ASTM A126, Class B
		Ductile Iron, ASTM A536, Grade 65-45-12
		Acid Resistant Bronze, ASTM B427 Alloy C90700
		Carbon Steel, ASTM A216, Grade WCB
		316 Stainless Steel, ASTM A743, Grade CF-8M
		Alloy 20
		Hastelloy C
		Monel
		Aluminum, ASTM B26, Alloy 7130, Temper T5
		Cast Iron Hard Rubber Lined (flanged with NRH or NRCR plug facing only)
A2	Body Bearing	Cast Iron Soft Rubber Lined (flanged with CR plug facing only)
		316L Stainless Steel, Sintered Stainless Steel 4"-18" (100-450mm) only
A3	Plug * Indicates transfer molded process	316 Stainless Steel, ASTM A743, Grade CF-8M 20"-36" (500-900mm) only
		Aluminum Bronze, ASTM B30, Alloy C95400 with 316 Stainless Steel, ASTM A240 Sleeve Bearings press-fit on each plug journal 42" (1100mm) & larger
		Metal (same metal as valve body except cast iron which has 316 stainless steel plug)
		CR Chloroprene (RS16* and RS17)
		NBR Acrylonitrile-Butadiene (RS24* and RS25)
		NRH Hard Natural Rubber (RS53) (CIH Body Material only)
		CIIR Chloro-Isobutene Isoprene (RS55* and RS56)
		NRCR Hard Rubber with Chloroprene Overlay (CIH Body Material only)
		CSM Chloro-Sulfonyl Polyethylene (RS46 and RS47*)
		FKM Fluoro Rubber (RS48* and RS58)
A4	Thrust Bearing	NBRD Acrylonitrile-Butadiene (RS26)
		EPDM Ethylene Propylene Diene Terpolymer
A4	Gasket	PTFE
A5	Gasket	Non-asbestos filler in Styrene-Butadiene Rubber binder
A6	Bonnet	Same material as body
A7	Bonnet Bearing	316L Stainless Steel, Sintered Stainless Steel 4-18" (100-450mm) only
		316 Stainless Steel, ASTM A743, Grade CF-8M 20-36" (500-900mm) only
		Aluminum Bronze, ASTM B30, Alloy C95400 with 316 Stainless Steel, ASTM A240 Sleeve Bearings press-fit on each plug journal 42" (1100mm) & larger
A8	Bonnet Screws	Carbon Steel, Grade 2, Zinc Plated (CI, ABZ, NR Body Materials)
		Carbon Steel, Grade 5, Zinc Plated (CS Body Material)
		18-8 Stainless Steel (S2, AA, HC, ML Body Materials)
A9	Packing	NBR Acrylonitrile-Butadiene, V-Type
		PTFE
A11	Gland	Cast Iron on all except Stainless Steel
A12	Gland Stud	Zinc Plated on all except Stainless Steel
A13	Nut	Stainless Steel
		Carbon Steel, Zinc Plated
A14	Caution Tag	Stainless Steel
A15	Pipe Plug (optional)	Galvanized Carbon Steel

Flanged Construction 4" (100mm) and Larger



Applicable Standards

DeZURIK PEC Eccentric Plug Valves are designed and/or tested to meet the following standards:

ANSI flange drilling conforms to ANSI B16.1, Class 125 and ANSI B16.5, Class 150.
 ANSI/AWWA C517 Eccentric Plug Valves
 Mechanical-joint end connections conform to ANSI/AWWA C111/A21.11.
 Grooved joint end connections conform to ANSI/AWWA C606.
 MSS-SP91 guidelines for manual operation of valves.
 Metric 10 bar flange drilling conforms to the NP 10 requirements of International Standard ISO 2084, to the 10 bar requirements of British Standard 4504, and to the NP 10 requirements of German Standard DIN 2532.
 Metric 16 bar flange drilling conforms to the NP 16 requirements of International Standard ISO 2084, to the 16 bar requirements of British Standard 4504, and to the NP 16 requirements of German Standard DIN 2533.
 British Table D flange drilling and Table E flange drilling conform to British Standard BS 10.
 Japanese 10 bar flange drilling conforms to Japanese Industrial Standard JIS B 0203.

Valve Selection

Cv/Kv Values¹

Valve Size	Cv* Kv*
4" 100mm	560 484
5 & 6" 125 & 150mm	1180 1020
8" 200mm	2030 1760
10" 250mm	3130 2710
12" 300mm	4140 3580
14" 350mm	5500 4760
16" 400mm	7300 6320
18" 450mm	9600 8300
20" 500mm	13000 11200
24" 600mm	17500 15100
30" 750mm	28000 24200
36" 900mm	40000 34600
42" 1100mm	58000 50200
48" 1200mm	100000 86500
54" 1400mm	100000 86500
66" 1700mm	150000 130000
72" 1800mm	150000 130000

*Cv = Flow in GPM of water at 1 psi pressure drop.
*Kv = Flow in m³/hr. of water at 100 kPa pressure drop.

Valve Weights

Valve Size	Body Materials lb/kg				
	Cast Iron, Ductile Iron Flanged	Bronze, Acid Bronze Flanged	Aluminum Flanged	Carbon Steel Flanged	Stainless Steel Flanged
4" 100mm	65 30	69 31	24 11	87 39	78 35
5 & 6" 125 & 150mm	110 50	120 54	38 17	141 64	133 60
8" 200mm	171 78	190 86	61 28	225 102	205 93
10" 250mm	250 113	265 120	95 43	350 159	270 122
12" 300mm	390 177	420 191	142 64	505 229	410 186
14" 350mm	555 252	580 263	197 89	720 327	625 284
16" 400mm	720 327	755 342	255 116	890 404	795 361
18" 450mm	1000 454	1025 465	315 143	1255 569	995 451
20" 500mm	1300 590	1360 617	470 213	1690 767	1565 710
24" 600mm	2790 1266	-	-	3015 1368	-
30" 750mm	5250 2381	-	-	-	-
36" 900mm	6550 2971	-	-	-	-
42" 1100mm	11500 5216	-	-	-	-
48" 1200mm	23000 10433	-	-	-	-
54" 1400mm	24000 10886	-	-	-	-
66" 1700mm	39000 17690	-	-	-	-
72" 1800mm	44000 19958	-	-	-	-

Note: Weights for 4-8" (100-200mm) include NT nut.

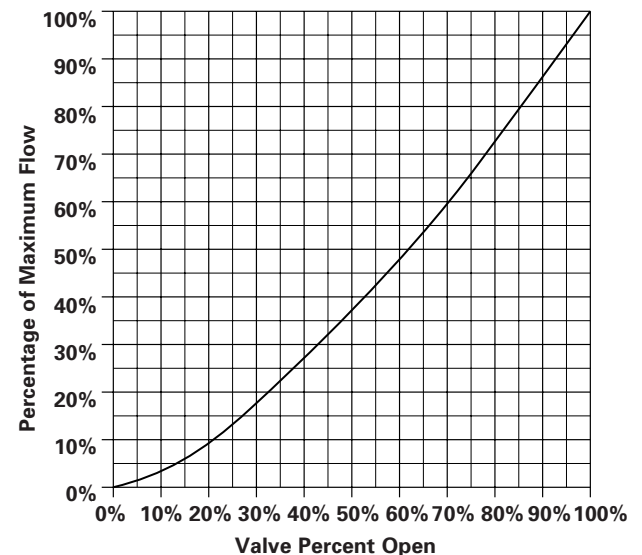
Pressure Ratings

C.W.P. Non-Shock Working Pressure Ratings

Material	Valve Size		
	4-12" (100- 300mm)	14-36" (350- 900mm)	42-72" (1100- 1800mm)
Cast Iron (ASTM A126-Grade B)	175 psi 1210 kPa	150 psi 1035 kPa	150 psi 1035 kPa
Ductile Iron (ASTM A536, Grade 65-45-12)	285 psi 1965 kPa	250 psi 1724 kPa	250 psi 1724 kPa
Acid Resisting Bronze	200 psi 1380 kPa	150 psi 1035 kPa	-
Aluminum	150 psi 1035 kPa	125 psi 860 kPa	-
Carbon Steel**	285 Psi 1965 kPa	285 psi 1965 kPa	-
Stainless Steel** and other Alloys	275 psi 1896 kPa	275 psi 1896 kPa	-
Hard and Soft Rubber Lined Cast Iron* Body	175 psi 1210 kPa	150 psi 1035 kPa	-

* Cast Iron conforms to ANSI B16.1 Class 125 Hydrostatic Test.
** Carbon Steel and 316 Stainless Steel conforms to ANSI B16.5 Class 150.

Flow Characteristic



¹ NOTE: Cv/Kv values will be slightly higher for valves with threaded ends and for metal-to-metal seated valves. Sizing data is based on discharge into conduit rather than atmosphere.

Installation Instructions

The type of materials carried in the pipeline and the location of the valve determine the correct installation procedure:

Liquids without Suspended Solids and Clean Gases

1. Before installation, remove foreign material such as weld spatter, oil, grease, and dirt from the valve and pipeline.
2. Install the valve as shown in Figure 1.
3. Ensure the valve and flanges are concentric to ensure proper flange sealing.
4. Tighten the flange bolts or studs in a criss-cross pattern.

Figure 1

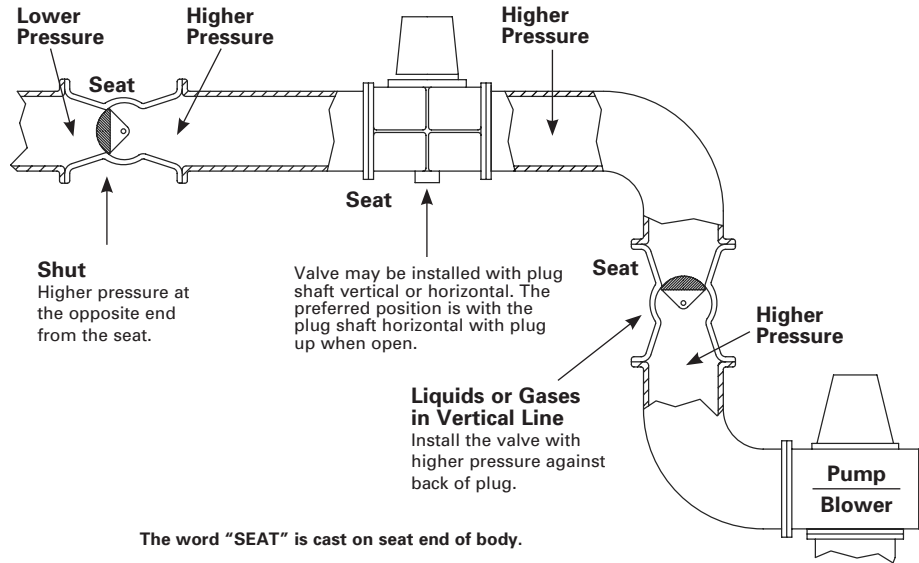
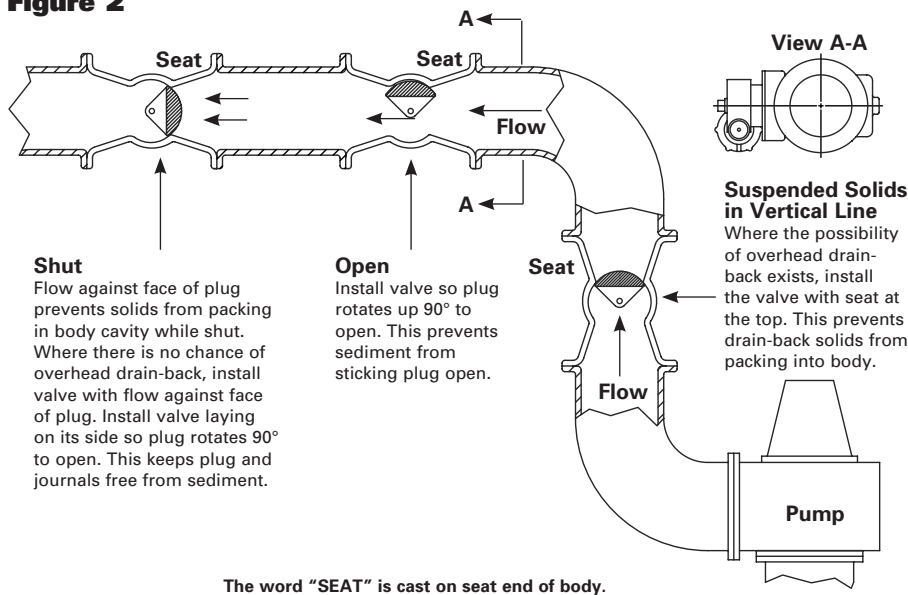


Figure 2



Suspended Solids and Dirty Gases

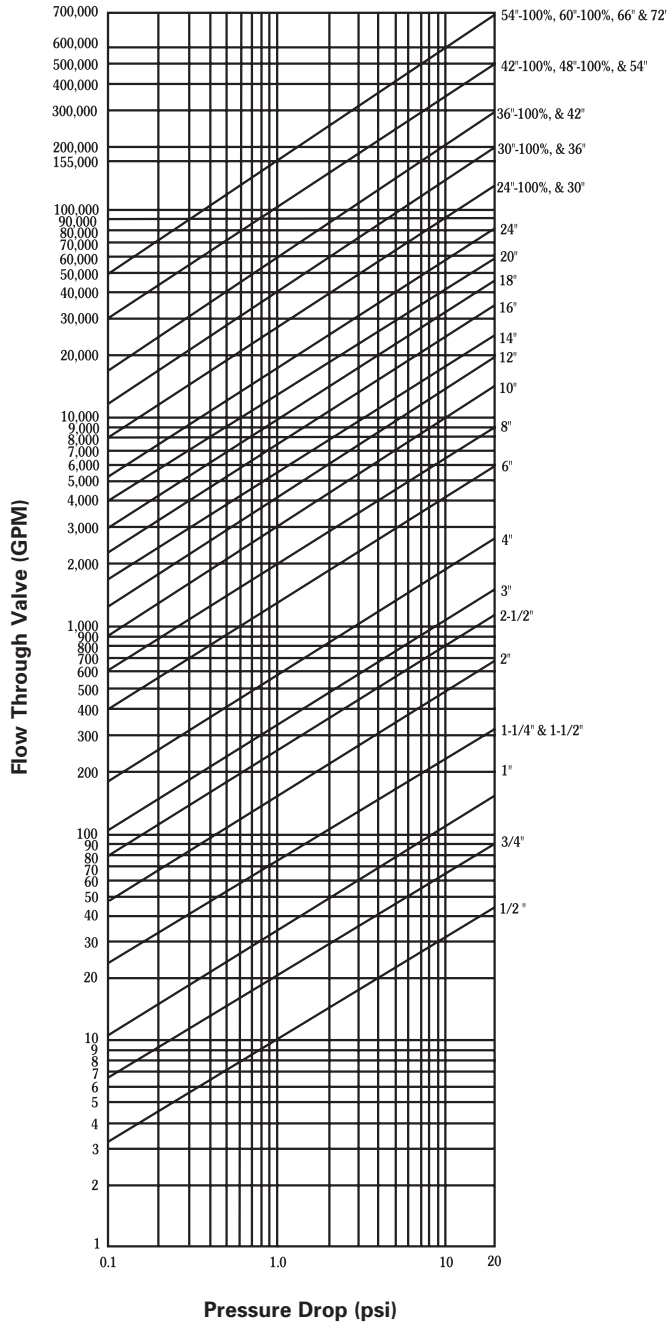
If the pipeline carries suspended solids such as paper stock of 2% or higher consistency, mining slurry, or raw sewage:

1. Before installation, remove foreign material such as weld spatter, oil, grease, and dirt from the valve and pipeline.
2. Install the valve as shown in Figure 2.
 - A. In horizontal pipelines install valve so plug is horizontal and rotates upward as valve opens.
 - B. For vertical pipelines, install valve with the end marked "Seat" at top of valve.
3. Tighten the flange bolts or studs in a criss-cross pattern.
4. Ensure the valve and flanges are concentric to ensure proper flange sealing.

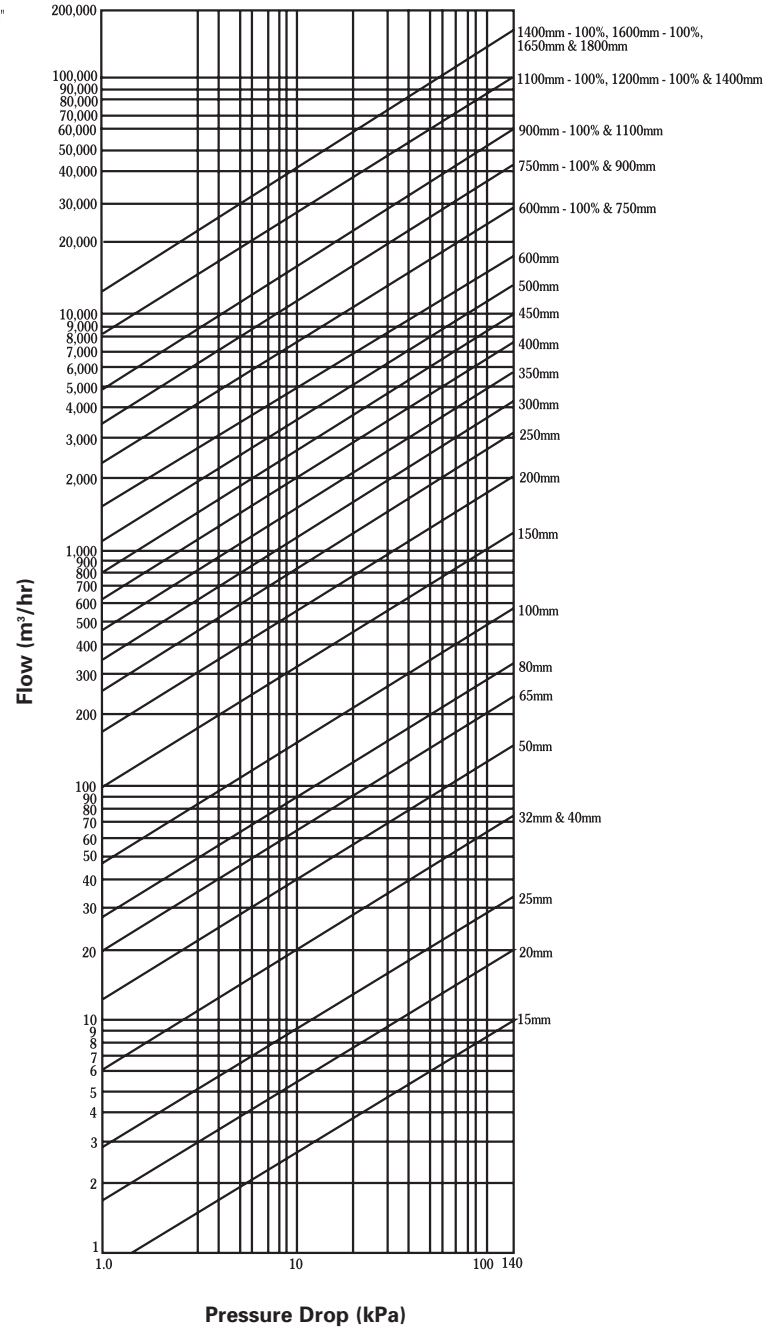
FOR PUMP ISOLATION SERVICE INSTALL THE DISCHARGE VALVE WITH THE SEAT DOWNSTREAM FROM THE PUMP AND WITH THE PLUG ROTATING TO THE TOP OF THE PIPELINE IN THE OPEN POSITION.

Valve Sizing Flow Charts

Valve Fully Open



Valve Fully Open - Metric



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:

PEC = Eccentric Plug

Valve Size

Give valve size code as follows:

4 = 4" (100mm)	24 = 24" (600mm)
5 = 5" (125mm)	30 = 30" (750mm)
6 = 6" (150mm)	36 = 36" (900mm)
8 = 8" (200mm)	42 = 42" (1100mm)
10 = 10" (250mm)	48.5 = 48.5" (1250mm)
12 = 12" (300mm)	54 = 54" (1400mm)
14 = 14" (350mm)	60.5 = 60.5" (1550mm)
16 = 16" (400mm)	66 = 66" (1675mm)
18 = 18" (450mm)	72 = 72" (1800mm)
20 = 20" (500mm)	

End Connection

Give end connection code as follows:

T1 = Threaded 4" CI Valves Only
 F1 = Flanged, ANSI Class 125/150
 F110 = Flanged, Class 150 DIN 10 or BS4504/10
 F116 = Flanged, Class 150 DIN 16 or BS4504/16
 F1D = Flanged, Class 150 BS Table D Drilling
 F1E = Flanged, Class 150 BS Table E Drilling
 F1J1 = Flanged, Class 150 JIS 10 Drilling
 MJ = Mechanical Joint
 V7 = Grooved Ends Style 77 4-20" (100-500mm) per AWWA C606, Table 4
 VF = Flexible Grooved Ends Style 31 4" & 6-20" (100mm & 150-500mm) per AWWA C606, Table 2
 VR = Rigid Grooved Ends Style 31 4" & 6-20" (100mm & 150-500mm) per AWWA C606, Table 3

Body Material

Give body material code as follows:

CI = Cast Iron (Nickel Seat, 4-72" [100-1800mm])
 DI = Ductile Iron (Nickel Seat, 4-72" [100-1800mm])
 CIS = Cast Iron, Soft Rubber Lined (Flanged Only with CR plug facing)
 DIS = Ductile Iron, Soft Rubber Lined (Flanged Only with CR plug facing)
 ABZ = Acid Bronze
 AL = Aluminum
 CS = Carbon Steel (Nickel Seat, 4-36" [100-900mm])
 S2 = 316 Stainless Steel
 AA = Alloy 20
 HC = Hastelloy C
 ML = Monel
 CIH = Cast Iron, Hard Rubber Lined (Flanged Only with NRH or NRCR plug facing)

Packing

Give packing code as follows:

NBR = Acrylonitrile-Butadiene V-Type -20-250°F (-29-121°C)
 NBRL = Acrylonitrile-Butadiene V-Type low friction 4-8" (100-200mm) NT actuators only -20-250°F (-29-121°C)
 T = Solid PTFE to -20-450°F (-29-232°C)

Plug Facing

Give plug facing code as follows:

M = Metal (same metal as valve body except cast iron which has a stainless steel plug)
 CR = Chloroprene (RS 16/17) -20 to 180°F (-29 to 83°C)
 NBR = Acrylonitrile-Butadiene (RS24/25) -20 to 180°F (-29 to 83°C)
 NBRD = Acrylonitrile-Butadiene (RS26), 4-6" (100-150mm) only -20 to 180°F (-29 to 83°C)
 NRH = Hard Natural Rubber (RS53) CIH Bodies only -20 to 180°F (-29 to 83°C)
 CIIR = Chloro-Isobutene Isoprene (RS55/56) -20 to 250°F (-29 to 121°C)
 NRCR = Hard Rubber with Chloroprene Overlay, use on CIH Body only -20 to 180°F (-29 to 83°C)
 CSM = Chloro-Sulfonyl Polyethylene (RS46/47) -20 to 200°F (-29 to 94°C)
 FKM = Fluoro Rubber (RS48/58) -20 to 450°F (-29 to 232°C)
 EPDM = Terpolymer of Ethylene Propylene & A Diene (R113) -20 to 250°F (-29 to 121°C)

Options

Give options codes as follows:

ARRA = Conforms to: American Recovery and Reinvestment Act of 2009, Buy American, Section 1605, Use of American Iron, Steel and Manufactured Goods.
 BV1 = Upstream and downstream 1/8" NPT taps with air valve fittings and sealing caps.
 BV2 = Upstream and downstream 1/8" NPT taps with petcocks and quick disconnect couplings.
 DST = Dry seat test
 PD = 1/4" Pipe tap downstream
 PU = 1/4" Pipe tap upstream
 PDU = 1/4" Pipe tap upstream and downstream
 GE = Grit excluders
 GR = Grease fittings in body and bonnet.
 DI = Ductile Iron Plug (Resilient plugs only)
 S2 = Stainless Steel Plug (Resilient Plugs Only)

Ordering Example:

PEC,4,F1,CI,NBR,CR,PD*GS-6-PC4

Note:

The limiting factor in valve selection is the lowest temperature limit of the packing or seat.

Manual Actuators

Pressure Ratings

Direct shutoff pressure differentials for nut or lever actuated valves must not exceed the limits shown below. Reverse shutoff differentials must not exceed 25 psi (170 kPa). If valves must seal higher reverse pressure, use handwheel actuators. Handwheel or powered actuators are recommended on 6" (150mm) and larger valves as well as on applications where pipeline velocities are high and where sudden valve closure may cause water hammer.

Maximum Shutoff Pressure Differentials

Valve Size	Nitrile-Butadiene (Buna V) NBR Packing	Low Friction Nitrile-Butadiene (Buna V) NBRL Packing
4" 100mm	125 psi 860 kPa	40 psi 275 kPa
6-8" 150-200mm	100 psi 690 kPa	25 psi 170 kPa

Nut (NT)

Furnished as standard on 4-8" (100-200mm) valves. Must be ordered to use VB, ENLV, EF, LV, CH, LVF, and WRT. To order, add code NT to basic valve code.

Ordering Example:

PEC,4,F1,CI,NBR,CR*NT

Adjustable Memory Stop

All 4-8" (100-200mm) lever actuated valves are furnished with an adjustable, open position memory stop as standard. Adjustment of the stop to the desired open position allows the valve to be closed and reopened to the same throttling position.

Lever (LV)

For use with NT actuators on 4-8" (100-200mm) valves. Lever must be ordered separately.

Order Code	Size
ACC*LV-4	4" (100mm)
ACC*LV-6	6" (150mm)
ACC*LV-8	8" (200mm)

Ordering Example:

ACC*LV-4

Folding Lever (LVF)

For use with NT nut. Folding levers must be ordered separately.

Order Code	Size
ACC*LVF-4	4" (100mm)
ACC*LVF-6	6" (150mm)
ACC*LVF-8	8" (200mm)

Ordering Example:

ACC*LVF-6



Chain Handle (CH)

For use on 4-8" (100-200mm) valves with NT Nut. Chain Handle must be ordered separately by giving code ACC*CH followed by a dash and valve size.

Order Code	Size
ACC*CH-4	4" (100mm)
ACC*CH-6	6" (150mm)
ACC*CH-8	8" (200mm)

Ordering Example:

ACC*CH-4

Chain for Chain Handle (CN)

Order as a separate item by giving code per chart. Specify number of feet required and number of pieces.

Order Code	Description	Size
ACC*CN102	Standard 3/16	4" (100mm)
ACC*CN103	Galvanized 3/16	6" (150mm)
ACC*CN104	304 Stainless Steel	8" (200mm)

Ordering Example:

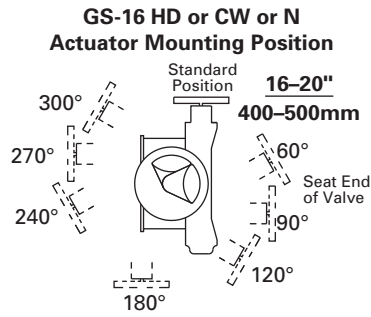
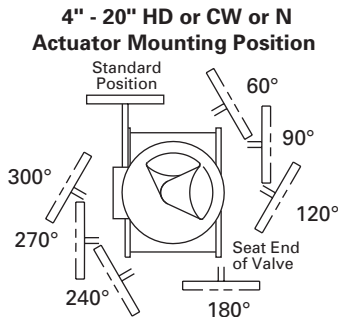
ACC*CN102

Chain 1 piece 10 feet long.

Manual Actuators

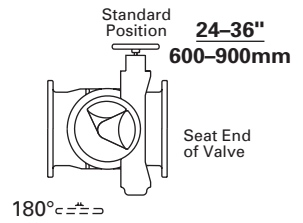
The G-Series manual actuator construction is totally enclosed and sealed, protecting moving parts from damage or corrosion. Continual lubrication is not required for operational ease. Heavy duty, corrosion-resistant actuator bearings provide lasting, easy valve operation and overall reliability. Rugged actuator castings, gears and shafts also add to reliability by assuring permanent alignment of moving parts for smooth operation.

Actuators for 4" - 20" (100 - 500mm) valves can be mounted at 30° increments clockwise from standard.



Actuators for 24" - 36" (600 - 900mm) valves can be mounted 180° clockwise from standard. Specify mounting position other than standard after the actuator.

24" - 36" GS-16 HD or CW Actuator Mounting Position

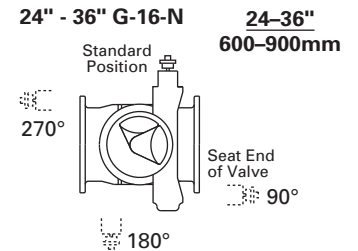


Ordering Example:
GS-12-HD12-180

To order, add the appropriate actuator code from the sizing tables to the valve order code. For buried service valves, substitute "GS" with "GB".

2" (50mm) Nut on GB & GS Actuators

The nut replaces the handwheel normally supplied on GB & GS actuators. A 2" (50mm) nut is required for use with valve box (VB) or floor box (FB). To order replace the handwheel code with "N".



Ordering Example:
PEC,6,F1, CI,NBR,CR*GB-6-N-180

Direct Pressure, Resilient Plug, Metal Seat

Valve Size	Handwheel Order Code	Chainwheel Order Code	Max. Shutoff Pressure Differential psi/kPa
4" 100mm	GS-6-HD8	GS-6-CW8	285 / 1960
5 & 6" 125 & 150mm	GS-6-HD8	GS-6-CW8	175 / 1210
	GS-6-HD12	GS-6-CW12	285 / 1960
8" 200mm	GS-6-HD8	GS-6-CW8	100 / 690
	GS-6-HD12	GS-6-CW12	285 / 1960
10" 250mm	GS-6-HD8	GS-6-CW8	50 / 340
	GS-6-HD12	GS-6-CW12	125 / 860
	GS-12-HD12	GS-12-CW12	175 / 1210
	GS-12-HD16	GS-12-CW20	285 / 1960
12" 300mm	GS-6-HD8	GS-6-CW8	25 / 170
	GS-6-HD12	GS-6-CW12	75 / 520
	GS-12-HD12	GS-12-CW12	100 / 690
	GS-12-HD16	GS-12-CW20	150 / 1035
	GS-12-HD20*	GS-12-CW20*	200 / 1380
14" 350mm	GS-12-HD12	GS-12-CW12	50 / 340
	GS-12-HD16	GS-12-CW20	75 / 515
	GS-12-HD20**	GS-12-CW20**	125 / 860
	GS-12-HD24*	GS-12-CW30*	150 / 1035
16" 400mm	GS-12-HD12	GS-12-CW12	50 / 340
	GS-12-HD16	GS-12-CW20	100 / 690
	GS-12-HD20	GS-12-CW20	150 / 1030
	GS-12-HD24*	GS-12-CW30*	175 / 1210
	GS-16-HD16	GS-16-CW20	285 / 1960
18" 450mm	GS-12-HD12	GS-12-CW12	50 / 340
	GS-12-HD16	GS-12-CW16	75 / 520

Valve Size	Handwheel Order Code	Chainwheel Order Code	Max. Shutoff Pressure Differential psi/kPa
18" 450mm	GS-12-HD20	GS-12-CW20	100 / 690
	GS-12-HD24*	GS-12-CW30*	125 / 860
	GS-16-HD16	GS-16-CW20	200 / 1380
	GS-16-HD20	GS-16-CW20	225 / 1550
	GS-16-HD24	GS-16-CW30*	285 / 1960
20" 500mm	GS-12-HD12	GS-12-CW12	25 / 170
	GS-12-HD16	GS-12-CW20	50 / 340
	GS-12-HD20	GS-12-CW20	75 / 520
	GS-12-HD24*	GS-12-CW30*	100 / 690
	GS-16-HD16	GS-16-CW20	150 / 1030
	GS-16-HD20	GS-16-CW20	200 / 1380
	GS-16-HD24	GS-16-CW30*	225 / 1550
24" 600mm	GS-16-HD12	GS-16-CW12	75 / 520
	GS-16-HD16	GS-16-CW20*	100 / 690
	GS-16-HD20*	GS-16-CW20*	150 / 1030
	GS-16-HD24*	GS-16-CW30*	175 / 1210
30" 750mm	GS-16-HD20*	GS-16-CW30*	200 / 380
	GS-16-HD12	GS-16-CW12	50 / 340
	GS-16-HD16	GS-16-CW20*	75 / 520
36" 900mm	GS-16-HD20*	GS-16-CW20*	125 / 860
	GS-16-HD24*	GS-16-CW30*	25 / 170
	GS-16-HD30*	GS-16-CW30*	50 / 340

* Mounting positions 90, 120, 270 and 300° not available.
** Mounting positions 120 and 300° not available.

Ordering Example:
PEC,6,F1,CI,NBR,CR*GS-6-HD8

Reverse Pressure, All Plugs, Metal Seat

Valve Size	Handwheel Order Code	Chainwheel Order Code	Max. Shutoff Pressure Differential psi/kPa
4" 100mm	GS-6-HD8	GS-6-CW8	285 1960
5 & 6" 125 & 150mm	GS-6-HD8	GS-6-CW8	150 1035
	GS-6-HD12	GS-6-CW12	285 1960
8" 200mm	GS-6-HD8	GS-6-CW8	50 340
	GS-6-HD12	GS-6-CW12	150 1035
	GS-12-HD12	GS-12-CW12	285 1960
10" 250mm	GS-6-HD12	GS-6-CW12	50 340
	GS-12-HD12	GS-12-CW12	125 860
	GS-12-HD16	GS-12-CW20	175 1210
	GS-12-HD20	GS-12-CW20	225 1550
	GS-12-HD24*	GS-12-CW30*	285 1960
12" 300mm	GS-12-HD12	GS-12-CW12	50 340
	GS-12-HD16	GS-12-CW20	100 690
	GS-12-HD20*	GS-12-CW20*	150 1035
	GS-12-HD24*	GS-12-CW30*	175 1210
	GS-16-HD16	GS-16-CW20	285 1960
14" 350mm	GS-12-HD12	GS-12-CW12	25 170
	GS-12-HD16	GS-12-CW20	50 340
	GS-12-HD20**	GS-12-CW20**	75 520
	GS-12-HD24*	GS-12-CW30*	100 690
	GS-16-HD16	GS-16-CW20	200 1380
	GS-16-HD20	GS-16-CW20	285 1960
16" 400mm	GS-12-HD16	GS-12-CW20	25 170
	GS-12-HD24*	GS-12-CW30*	50 340
	GS-16-HD16	GS-16-CW20	150 1035
	GS-16-HD20	GS-16-CW20	200 1380
	GS-16-HD24	GS-16-CW30*	225 1550
	GS-16-HD30*	GS-16-CW30*	285 1960
18" 450mm	GS-12-HD24*	GS-12-CW30*	25 170
	GS-16-HD16	GS-16-CW20	75 515
	GS-16-HD20	GS-16-CW20	100 690
	GS-16-HD24	GS-16-CW30*	150 1035
	GS-16-HD30*	GS-16-CW30*	200 1380
20" 500mm	GS-16-HD16	GS-16-CW20	50 340
	GS-16-HD20	GS-16-CW20	75 515

Valve Size	Handwheel Order Code	Chainwheel Order Code	Max. Shutoff Pressure Differential psi/kPa
20" 500mm	GS-16-HD24	GS-16-CW30*	100 690
	GS-16-HD30*	GS-16-CW30*	125 860
24" 600mm	GS-16-HD16	GS-16-CW20*	25 170
	GS-16-HD20*	GS-16-CW20*	50 340
	GS-16-HD30*	GS-16-CW30*	100 690
30" 750mm	GS-16-HD24*	GS-16-CW30*	25 170

* Mounting positions 90, 120, 270 and 300° not available.
** Mounting positions 120 and 300° not available.

Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-CW12

Reverse Pressure, Resilient Plug and Resilient Seal

Valve Size	Handwheel Order Code	Chainwheel Order Code	Max. Shutoff Pressure Differential psi/kPa
4" 100mm	GS-6-HD8	GS-6-CW8	285 1960
5 & 6" 125 & 150mm	GS-6-HD8	GS-6-CW8	150 1035
	GS-6-HD12	GS-6-CW12	285 1720
	GS-12-HD12	GS-12-CW12	285 1960
8" 200mm	GS-6-HD12	GS-6-CW12	125 860
	GS-12-HD12	GS-12-CW12	225 1550
	GS-12-HD20*	GS-12-CW20*	285 1960
10" 250mm	GS-12-HD12	GS-12-CW12	100 690
	GS-16-HD12	GS-16-CW12	285 1960
12" 300mm	GS-12-HD12	GS-12-CW12	75 520
	GS-16-HD12	GS-16-CW12	200 1380
14" 350mm	GS-16-HD12	GS-16-CW12	100 690

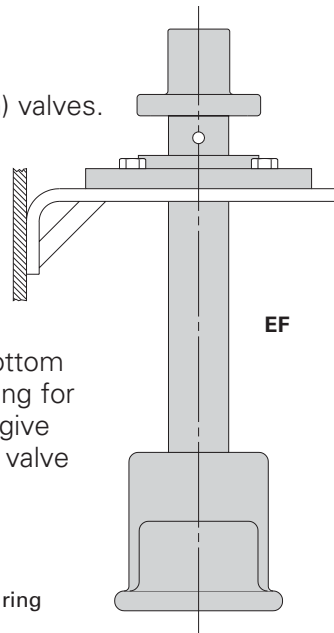
Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-HD8

Accessories-Manual Actuators

EF Extension for Nut Actuated Valves

For use on 4–8" (100–200mm) valves. Includes extension pipe, bearing plate and couplings. Valves for use with EF extensions must be ordered with NT actuators. Order Extension Assembly as a separate item. Specify length from centerline of valve to bottom of bearing plate. When ordering for use with FS101 Floor Stand, give dimension from centerline of valve to base of floor stand.



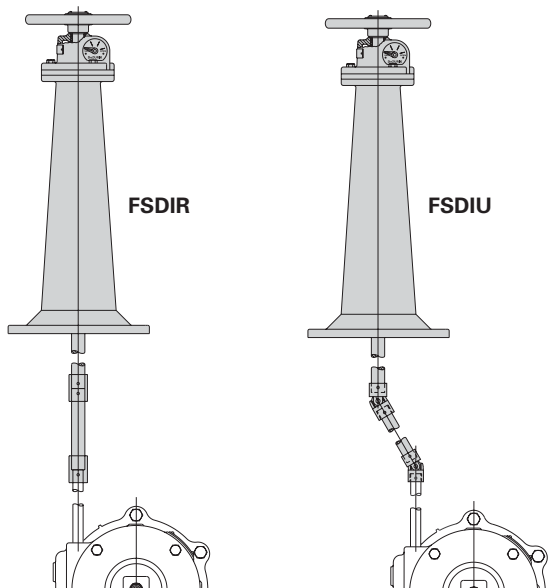
Ordering Example:

ACC*EF-4

Centerline of valve to bottom of bearing plate 110" (2795mm).

FSDIR or FSDIU Floor Stand for Gear Actuated Valves

For use on 4–36" (100–900mm) handwheel actuated valves. Includes floor stand, couplings, extension rod, and handwheel mounted on floor stand, with dial position indicator. Order floor stand by adding FSDIR or FSDIU to the valve actuator code.



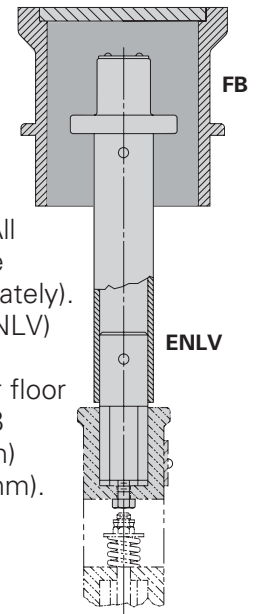
Ordering Example:

PEC,6,F1,C1,NBR,CR*GS-6-HD12,FSDIR

Centerline of valve to base of floor stand 96" (2400mm).

FB Floor Box for Nut Actuated Valves

Includes floor box and cover only. Can be used with valves having operating nut mounted on the valve or extended with top of nut 2" (50mm) from top of floor box. All valves for use with floor boxes are Tee Wrench actuated (order separately). Order extended operating nuts (ENLV) separately. Floor box requires NT actuators (order separately). Order floor boxes separately. Specify ACC*FB and depth of floor box in 1" (25mm) increments from 6–18" (150–455mm). Standard depth is 6" (150mm).



Ordering Example:

ACC*FB6

ENLV Extended Nut for Nut Actuated Valves

For use on 4–8" (100–200mm) nut actuated valves. Includes operating nut, couplings and pipe. Valves for use with ENLV Extended Nut must be ordered with NT actuators. All valves for use with ENLV are Tee Wrench actuated (order separately). Order as a separate item by giving ACC*ENLV followed by a dash and valve size. Give required length from centerline of valve to top of nut. Note dimensions in table.

Valve Size	Minimum Dimension C/L of Valve to Top of Nut
4" 100mm	16.50" 420mm
5–6" 125–150mm	20.75" 525mm
8" 200mm	22.38" 570mm

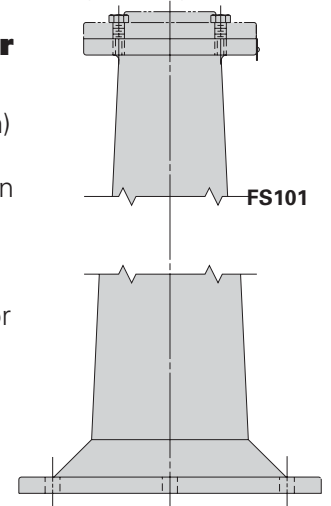
Ordering Example:

ACC*ENLV-8

Centerline of valve to top of valve nut 126" (3200mm).

FS101 Floor Stand for Nut Actuated Valves

For use on 4–8" (100–200mm) nut actuated valves. Includes floor stand only. For extension pipe and fittings, order EF Extension Assembly. Lever actuated valves for use with EF Extension and FS101 Floor Stand must be ordered NT actuators. Order floor stands as a separate item.

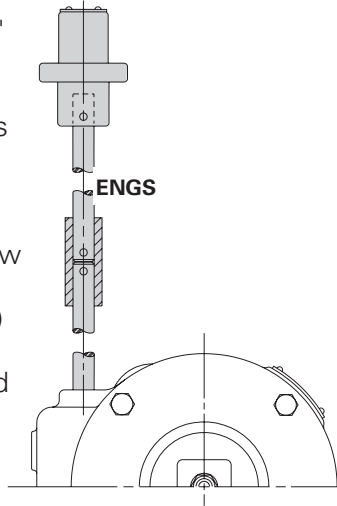


Ordering Example:

ACC*FS101

ENGS Extended 2" (50mm) Nut for Gear Actuated Valves

The ENGS is for use on 4–36" (200–900mm) Eccentric Plug Valves with G-Series Handwheel Actuator. Includes couplings, extension rod and 2" (50mm) square nut. If used with valve box, top of nut must be 6" (150mm) below grade. If used with floor box, top of nut must be 2" (50mm) below floor surface. Handwheels are not furnished on actuators ordered with ENGS. Order by adding ENGS to the valve actuator code. Specify required length from centerline of valve to top of nut as second line information.

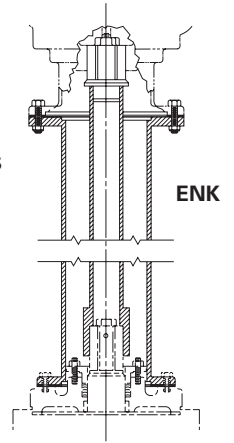


Ordering Example:

PEC,6,F1,CI,NBR,CR*GB-6-N,ENGS
Centerline of valve to top of nut 72" (1830mm).

ENK Neck Extension for G-Series Actuators

Valves for buried or submerged service can be furnished with handwheel or cylinder actuators extended above the ground. Furnish service information for recommendations.



2" (50mm) Nut on GB & GS Actuators

The nut replaces the handwheel normally supplied on GB & GS actuators. A 2" (50mm) nut is required for use with valve box (VB) or floor box (FB). To order replace the handwheel code with "N".

Ordering Example:

PEC,6,F1,CI,NBR,CR*GB-6-N

WRT Tee Wrench

For use on 4–8" (100–200mm) nut or gear actuated valves with 2" (50mm) nut. Valves for Tee Wrench operation must be ordered with NT actuator. To order Tee Wrenches, list order code per table below.

Wrench Length	Valve Size		
	10–36" 250–900mm	4–8"* 100–200mm	4–8"*** 100–200mm
4' 120cm	ACC*WRT530	ACC*WRT540	ACC*WRT545
5' 150cm	ACC*WRT531	ACC*WRT541	ACC*WRT546
6' 185cm	ACC*WRT532	ACC*WRT542	ACC*WRT547
7' 215cm	ACC*WRT533	ACC*WRT543	ACC*WRT548
8' 245cm	ACC*WRT534	ACC*WRT544	ACC*WRT549

Note: 4" (100mm) is standard.

* For G-Series actuators, order with 2" (50mm) Square Nut or Extended Nut (ENGS).

** For lever actuators, order standard with 2" (50mm) Square Nut (NT) or Extended Nut (ENLV).

Stainless Steel Bolting

Specify bolting requirement by giving code SB18 for 18-8 Stainless Steel or SB16 for 316 Stainless Steel after the actuator code.

Ordering Example:

PEC,6,F1,CI,NBR,CR*GB-6-N,SB16

Accessories - Manual Actuators

VB Valve Box for Nut Actuated Valves

Valve boxes for use on 4–8" (100–200mm) valves require a nut (NT) or extended nut (ENLV) type actuator. Valve boxes for use on 4–36" (100–900mm) valves with a gear actuator (GB) require a 2" (50mm) Nut (N) or extended 2" (50mm) Nut (ENGS) actuator. Extended nut must be 6" (150mm) from the top of the valve box. Order nut actuator and Tee Wrenches separately. Horizontal plug valve installations require the plug to rotate to the top as the valve opens. Specify standard actuator mounting. Valve boxes must be ordered separately. To order valve boxes, list order code and specify valve centerline to top of valve box (grade). If an extension is required, add a dash and extension order code. Contact Application Engineering for 36-54" (750-1400mm) valves when valve boxes are required.

4-8" (100-200mm) Valve Boxes with NT

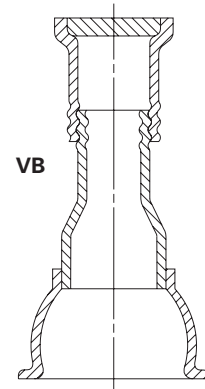
Valve Sizes			
4" 100mm	5 & 6" 125 & 150mm	8" 200mm	Valve Box Order Code
Valve Center Line To Top of Box (Grade)			
31–35" 785–890mm	32–36" 815–915mm	34–38" 865–965mm	ACC*VB635
38–47" 965–1195mm	39–48" 990–1220mm	41–50" 1040–1270mm	ACC*VB636
41–53" 1040–1345mm	42–54" 1065–1370mm	44–56" 1120–1420mm	ACC*VB637
50–59" 1270–1500mm	51–60" 1295–1525mm	53–62" 1345–1575mm	ACC*VB638
56–65" 1420–1650mm	57–66" 1450–1675mm	59–68" 1500–1725mm	ACC*VB639
50–71" 1270–1805mm	51–72" 1295–1830mm	53–74" 1345–1880mm	ACC*VB640
68–77" 1725–1955mm	69–78" 1750–1980mm	71–80" 1805–2032mm	ACC*VB641
68–89" 1725–2260mm	69–90" 1750–2285mm	71–92" 1805–2335mm	ACC*VB642
80–101" 2030–2565mm	81–102" 2055–2590mm	83–104" 2110–2640mm	ACC*VB643

4-36" (100-900mm) Valve Box Extensions

Extension Length (Grade)	Quantity	Extension Order Code
14" (350mm)	1	14A
	2	14B
	3	14C
	4	14D
18" (450mm)	1	18A
	2	18B
	3	18C
	4	18D
	5	18E

4-36" (100-900mm) Valve Boxes - GB Actuator

Valve and Actuator Size					
4-8" (100-200mm) G6	10 & 12" (250 & 300mm) G12	14 & 20" (350 & 500mm) G12	24 & 36" (600 & 900mm) G12	12 & 36" (300 & 900mm) G16	Valve Box Order Code
Valve Center Line To Top of Box (Grade)					
35–39" 890–990mm	35–39" 890–990mm	38.5–42.5" 980–1080mm	34.5–38.5" 875–980mm	49.63–53.63" 1260–1360mm	ACC*VB635
42–51" 1065–1295mm	42–51" 1065–1295mm	45.5–54.5" 1155–1385mm	41.5–50.5" 1055–1280mm	56.63–65.63" 1440–1665mm	ACC*VB636
45–57" 1145–1450mm	45–57" 1145–1450mm	48.5–60.5" 1230–1535mm	44.5–56.5" 1130–1435mm	59.63–71.63" 1515–1820mm	ACC*VB637
54–63" 1370–1600mm	54–63" 1370–1600mm	57.5–66.5" 1460–1690mm	53.5–62.5" 1360–1590mm	68.63–77.63" 1745–1970mm	ACC*VB638
60–69" 1525–1750mm	60–69" 1525–1750mm	63.5–72.5" 1615–1840mm	59.5–68.5" 1510–1740mm	74.63–83.63" 1895–2125mm	ACC*VB639
54–75" 1370–1905mm	54–75" 1370–1905mm	57.5–78.5" 1460–1995mm	53.5–74.5" 1360–1890mm	68.63–89.63" 1745–2275mm	ACC*VB640
60–81" 1525–2055mm	60–81" 1525–2055mm	63.5–84.5" 1615–2145mm	59.5–80.5" 1510–2045mm	74.63–95.63" 1895–2430mm	ACC*VB644
72–81" 1830–2055mm	72–81" 1830–2055mm	75.5–84.5" 1915–2145mm	71.5–80.5" 1815–2045mm	86.63–95.63" 2200–2430mm	ACC*VB641
72–93" 1893–2360mm	72–93" 1893–2360mm	75.5–96.5" 1915–2450mm	71.5–92.5" 1815–2350mm	86.63–107.63" 2200–2735mm	ACC*VB642
84–105" 2135–2665mm	84–105" 2135–2665mm	87.5–108.5" 2220–2755mm	83.5–104.5" 2120–2655mm	98.63–119.63" 2505–3040mm	ACC*VB643



Ordering Example (without extension):

ACC*VB637

Valve centerline to top of box - 66" (1675mm).

Ordering Example (with extension):

ACC*VB637-14A

Valve centerline to top of box - 80" (2030mm).

Cylinder Actuators

G-Series cylinder actuators feature a rack and pinion design for larger size rotary valves where constant torque capability throughout the stroke is required. It is engineered for high flow, high cycle applications. The G-Series line of actuators provides long service life and features a rugged, heavy cast gear sector. The cast iron actuator housing is sealed to prevent the entry of dirt, moisture and corrosive contaminants. The G-Series actuator also features adjustable position stops, rugged cylinder construction and corrosion-resistant bearings.

Double-Acting

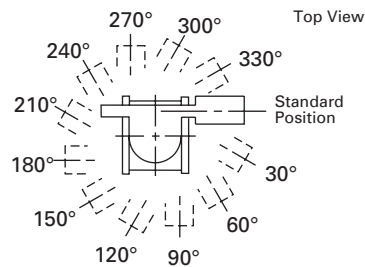
To order double-acting cylinder actuators for PEC Eccentric Plug Valves, add the order code from the proper table to the valve order code. Actuators for 4–20" (100–500mm) valves can be mounted at 30 degree increments clockwise from standard; actuators for 24–36" (600–900mm) valves can be mounted at 45 degree increments clockwise from standard. Specify mounting positions other than standard by adding the order code after the actuator. When using hydraulic supply media, specify type. Please note, valves for gas service must be furnished with gear or cylinder actuator.

Ordering Example:

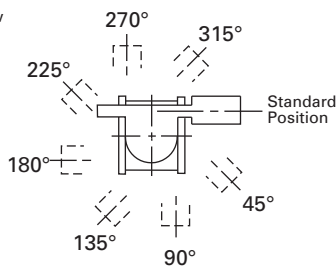
GS-12-PC10-90

GS-16-PC12-225

**4" - 20" (100 - 500mm)
Actuator Mounting Position**



**24" - 36" (600 - 900mm)
Actuator Mounting Position**



Direct Pressure, Resilient Plug, Metal Seat 50 psi (340 kPa) Air Supply

Valve Size	Actuator Code	Maximum Shutoff 50 psi 340 kPa
4" 100mm	GS-6-PC4	285 1960
	GS-6-PC4	25 170
5 & 6" 125 & 150mm	GS-6-PC6	175 1210
	GS-6-PC8	285 1960
	GS-6-PC6	75 520
8" 200mm	GS-6-PC8	100 690
	GS-12-PC6	200 1380
	GS-12-PC8	285 1960
	GS-6-PC6	25 170
10" 250mm	GS-6-PC8	50 340
	GS-12-PC6	75 520
	GS-12-PC8	200 1380
	GS-12-PC10	285 1960
	GS-6-PC8	25 170
12" 300mm	GS-12-PC8	100 690
	GS-12-PC10	225 1550
	GS-16-PC10	285 1960
	GS-12-PC6	25 170
14" 350mm	GS-12-PC8	50 340
	GS-12-PC10	125 860
	GS-16-PC10	150 1035
	GS-16-PC12	285 1960
	GS-12-PC8	50 340
	GS-12-PC10	75 520
16" 400mm	GS-16-PC10	100 690
	GS-16-PC12	175 1210
	GS-12-PC8	25 170
	GS-12-PC10	50 340
18" 450mm	GS-16-PC10	50 520
	GS-16-PC12	125 860
	GS-12-PC8	25 170
20" 500mm	GS-12-PC10	50 340
	GS-16-PC12	100 690
	GS-16-PC10	50 340
24" 600mm	GS-16-PC12	75 520
	GS-16-PC10	25 170
30" 750mm	GS-16-PC12	50 340

Cylinder Actuators

Double-Acting

**Direct Pressure, Resilient Plug, Metal Seat
80 psi (550 kPa) Air Supply**

Valve Size	Actuator Code	Maximum Shutoff 80 psi 550 kPa
4" 100mm	GS-6-PC4	285 1960
	GS-6-PC6	125 860
5 & 6" 125 & 150mm	GS-6-PC4	285 1960
	GS-6-PC6	25 170
8" 200mm	GS-6-PC4	100 690
	GS-6-PC6	285 1960
	GS-12-PC6	285 1960
10" 250mm	GS-6-PC6	50 340
	GS-12-PC6	175 1210
	GS-12-PC8	285 1960
12" 300mm	GS-6-PC6	25 170
	GS-12-PC6	100 690
	GS-12-PC8	285 1960
14" 350mm	GS-12-PC6	50 340
	GS-12-PC8	125 860
	GS-16-PC8	175 1210
	GS-16-PC10	285 1960
16" 400mm	GS-12-PC6	25 170
	GS-12-PC8	75 520
	GS-16-PC8	125 860
	GS-16-PC10	175 1210
	GS-16-PC12	285 1960
18" 450mm	GS-12-PC6	25 170
	GS-12-PC8	50 340
	GS-16-PC8	75 520
	GS-16-PC10	125 860
	GS-16-PC12	200 1380
20" 500mm	GS-12-PC8	50 340
	GS-16-PC8	75 520
	GS-16-PC10	100 690
	GS-16-PC12	150 1030
24" 600mm	GS-16-PC8	50 340
	GS-16-PC10	75 520
	GS-16-PC12	100 690
30" 750mm	GS-16-PC8	25 170
	GS-16-PC10	50 340
	GS-16-PC12	75 520

**Direct Pressure, Metal Plug, Metal Seat
or Soft Rubber Lined Valves
Reverse Pressure, Resilient Plug,
Metal Seat or Metal Plug, Metal Seat
50 psi (340 kPa) Air Supply**

Valve Size	Actuator Code	Maximum Shutoff 50 psi 340 kPa
4" 100mm	GS-6-PC4	150 1035
	GS-6-PC6	285 1960
5 & 6" 125 & 150mm	GS-6-PC4	25 170
	GS-6-PC6	125 860
	GS-6-PC8	285 1960
8" 200mm	GS-6-PC6	50 340
	GS-6-PC8	125 860
	GS-12-PC6	175 1210
10" 250mm	GS-6-PC8	50 340
	GS-12-PC6	75 520
	GS-12-PC8	150 1030
	GS-12-PC10	285 1960
12" 300mm	GS-12-PC6	25 170
	GS-12-PC8	75 520
	GS-12-PC10	175 1210
	GS-16-PC10	250 1720
14" 350mm	GS-16-PC12	285 1960
	GS-12-PC8	25 170
	GS-12-PC10	100 690
	GS-16-PC10	150 1035
16" 400mm	GS-16-PC12	225 1550
	GS-12-PC10	50 340
	GS-16-PC10	100 690
18" 450mm	GS-16-PC12	150 1035
	GS-12-PC10	25 170
	GS-16-PC10	50 340
20" 500mm	GS-16-PC12	100 690
	GS-12-PC10	25 170
	GS-16-PC10	50 340
24" 600mm	GS-16-PC12	25 170
	GS-16-PC10	50 340

Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-PC6

Double-Acting

**Direct Pressure, Metal Plug, Metal Seat or
Soft Rubber Lined Valves
Reverse Pressure, Resilient Plug,
Metal Seat or Metal Plug, Metal Seat
80 psi (550 kPa) Air Supply**

Valve Size	Actuator Code	Maximum Shutoff 80 psi 550 kPa
4" 100mm	GS-6-PC4	285 1960
	GS-6-PC6	285 1960
5 & 6" 125 & 150mm	GS-6-PC4	50 340
	GS-6-PC6	250 1720
8" 200mm	GS-6-PC6	125 860
	GS-12-PC6	285 1960
10" 250mm	GS-6-PC6	25 170
	GS-12-PC6	125 860
	GS-12-PC8	275 1890
	GS-16-PC8	285 1960
12" 300mm	GS-12-PC6	75 520
	GS-12-PC8	175 1210
	GS-16-PC8	285 1960
14" 350mm	GS-12-PC6	25 170
	GS-12-PC8	100 690
	GS-16-PC8	150 1030
	GS-16-PC10	275 1890
	GS-16-PC12	285 1960
16" 400mm	GS-12-PC8	50 340
	GS-16-PC8	100 690
	GS-16-PC10	175 1210
	GS-16-PC12	275 1890
18" 450mm	GS-12-PC8	25 170
	GS-16-PC8	50 340
	GS-16-PC10	100 690
	GS-12-PC12	175 1210
20" 500mm	GS-16-PC8	25 170
	GS-16-PC10	75 520
	GS-16-PC12	125 860
24" 600mm	GS-16-PC10	25 170
	GS-16-PC12	75 520
30" 750mm	GS-16-PC12	25 170

Cylinder Actuators

Double-Acting

Reverse Pressure, Soft Rubber
Lined Valves
50 psi (340 kPa) Air Supply

Valve Size	Actuator Code	Maximum Shutoff 50 psi 340 kPa
4" 100mm	GS-6-PC4	50 340
	GS-6-PC6	285 1960
5 & 6" 125 & 150mm	GS-6-PC6	75 520
	GS-6-PC8	175 1210
8" 200mm	GS-6-PC8	75 520
	GS-12-PC6	100 690
	GS-12-PC8	250 1720
10" 250mm	GS-12-PC6	25 170
	GS-12-PC8	100 690
	GS-12-PC10	175 1210
12" 300mm	GS-12-PC8	50 340
	GS-12-PC10	100 690
	GS-16-PC10	175 1210
	GS-16-PC12	275 1890
14" 350mm	GS-12-PC10	50 340
	GS-16-PC10	100 690
	GS-16-PC12	150 1035
16" 400mm	GS-12-PC10	25 170
	GS-16-PC10	50 340
	GS-16-PC12	100 690
18" 450mm	GS-16-PC10	25 170
	GS-16-PC12	50 340
20" 500mm	GS-16-PC12	25 170

Double-Acting

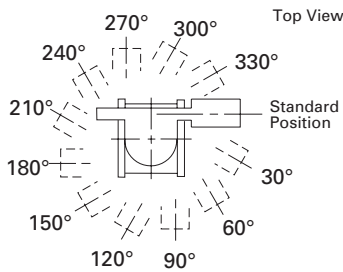
Reverse Pressure, Soft Rubber
Lined Valves
80 psi (550 kPa) Air Supply

Valve Size	Actuator Code	Maximum Shutoff 80 psi 550 kPa
4" 100mm	GS-6-PC4	175 1210
	GS-6-PC6	285 1960
5 & 6" 125 & 150mm	GS-6-PC4	25 170
	GS-6-PC6	150 1035
	GS-6-PC8	285 1960
8" 200mm	GS-6-PC6	50 340
	GS-6-PC8	150 1035
	GS-12-PC6	200 1380
10" 250mm	GS-12-PC8	285 1960
	GS-6-PC8	50 340
	GS-12-PC6	75 520
12" 300mm	GS-12-PC8	175 1210
	GS-6-PC8	25 170
	GS-12-PC6	50 340
14" 350mm	GS-12-PC8	100 690
	GS-16-PC8	175 1210
	GS-16-PC10	285 1960
16" 400mm	GS-12-PC8	50 340
	GS-16-PC8	100 690
	GS-16-PC10	175 1210
18" 450mm	GS-16-PC12	285 1960
	GS-12-PC8	25 170
	GS-16-PC8	50 340
20" 500mm	GS-16-PC10	125 860
	GS-16-PC12	200 1380
	GS-16-PC8	25 170
18" 450mm	GS-16-PC10	50 340
	GS-16-PC12	125 860
	GS-16-PC10	25 170
20" 500mm	GS-16-PC12	75 520

Spring-Return

To order spring-return cylinder actuators, add the order code from the proper chart to the basic valve order code. Actuators can be mounted at 30° increments clockwise from standard. Specify mounting positions other than standard by adding the order code after the actuator.

Actuator Mounting Position



Resilient Plug, Metal Seat, Direct Pressure or Reverse Pressure Less Than 25 psi (170 kPa)

Spring-To-Close (Air-To-Open)

Valve Size	Order Code	Maximum Shutoff Pressure Differential
		Air Supply 50 psi 340 kPa
4" 100mm	GS-6-SC6	50 340
	GS-6-SC8	200 1380
5 & 6" 125 & 150mm	GS-6-SC8	25 170
8" 200mm	GS-12-SC10	125 860

Spring-To-Open (Air-To-Close)

Valve Size	Order Code	Maximum Shutoff Pressure Differential
		Air Supply 50 psi 340 kPa
4" 100mm	GS-6-SC6-A	120 860
5 & 6" 125 & 150mm	GS-6-SC6-A	50 340
	GS-6-SC8-A	125 860
8" 200mm	GS-12-SC10-A	125 860
10" 250mm	GS-12-SC10-A	125 860
12" 300mm	GS-12-SC10-A	50 340

Note: Contact Application Engineering for actuator sizing for metal seated valves, hard or soft rubber lined valves, or when reverse pressures are greater than 25 psi (170 kPa). Furnish service conditions.

Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-SC8-A
GS-6-SC8-A-90

Accessories – Cylinder Actuators

Positioners

For use on all cylinder actuators. To order positioners, refer to bulletin 80.01-4.

3- & 4-Way Solenoid Valve (3V & 4V)

For use on cylinder actuators. To order solenoids, refer to bulletin 84.00-1.

4-Way Control Valve (CV)

For use on double-acting cylinder actuators. Order as a separate item by giving ACC* followed by appropriate 3-digit code from the table below. To order as part of a complete valve/actuator assembly, enter code from table below to the valve/actuator order code.

Pneumatic Actuators

Valve Size	NPT Size	Order Code
All Sizes	.25" 6.4mm	CV201

Hydraulic Actuators

Valve Size	NPT Size	Order Code
4-8" 100-200mm	.375" 9.5mm	CV202
10-36" 250-900mm	.5" 13mm	CV203

Ordering Example:

ACC*CV201 (separate item)

Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-PC6,CV201

4-Way Diaphragm Pilot Valve (4VD)

For use with double-acting pneumatic cylinders only. Order as separate item by giving ACC*4VD025. To order as part of a complete valve/actuator assembly, enter 4VD025 after valve/actuator code.

Ordering Example:

PEC,6,F1,CI,NBR,CR*GS-6-PC6,4VD025

On/Off Air Switch (SA)

Normally used with 4VD 4-Way Diaphragm Pilot Valve. Must be ordered as a separate item.

Ordering Example:

ACC*SA025

Position Indicating Switches (SEH)

For use on GS actuators. To order switches, refer to bulletin 83.00-1.

Manual Loading Station (CNP)

For use on all positioning actuators. Panel mounted, 3–15 psi (21–103 kPa) output. Includes signal output gauge and pressure reducing valve. Order as a separate item by entering ACC*CNP025.

Air Filter Regulator (AFR2)

For use on all pneumatic actuators. To order, refer to bulletin 83.00-2.

Filter/Strainer (FH/FP)

Filter for pneumatic actuators, strainer for hydraulic actuators. Order as a separate item per table below (not mounted).

Description	Order Code
Pneumatic Filter	ACC*PCFP
Hydraulic Strainer	ACC*PCFH

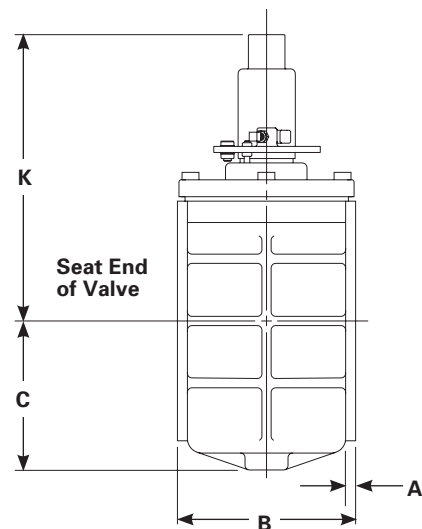
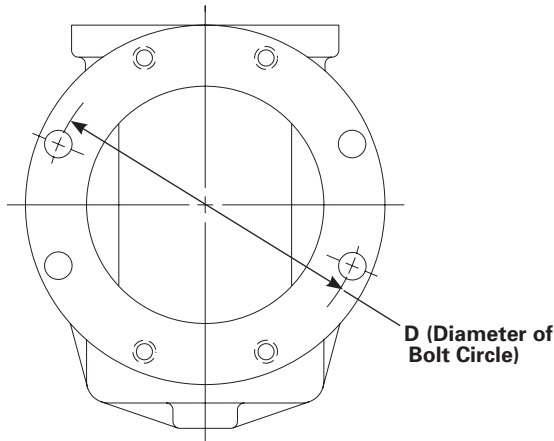
Ordering Example:

ACC*PCFP

Electric Motors

Dezurik offers a variety of electric motor actuators on Eccentric Plug valves. When ordering, please specify valve function, installation location, line fluid, maximum fluid temperature, pipe connection, line size, normal and maximum working pressure, normal and maximum wide open valve flow, and flow range desired if throttling or modulating control.

Dimensions



Basic Valve

CS=Carbon Steel, CI=Cast Iron, Ductile Iron, Bronze, Aluminum SST=Stainless Steel Alloys

Valve Size	A				B			C	D		
	Flanged			Mechanical Joint	Flanged	Mechanical Joint	Grooved				
	CS	CI*	SST						Flanged	Mechanical Joint	5" (125mm)
4" 100mm	1.00 25	0.69 17	0.75 19	2.50 63	9.00 228	14.75 362	10.40 264	5.38 36	7.50 190		
5 & 6" 125 & 150mm	1.06 26	0.75 19	0.88 22	2.50 63	10.50 266	15.75 400	5" (125mm)	6" (150mm)	6.50 165	5" (125mm)	6" (150mm)
							12.50 318	12.88 327		8.50 215	9.50 241
8" 200mm	1.19 30	0.81 20	1.00 25	2.50 63	11.50 292	17.38 441	14.00 356	8.25 209	11.75 98		
10" 250mm	1.25 31	0.88 22	1.06 27	2.50 63	13.00 330	19.38 492	16.50 419	10.28 261	14.25 362		
12" 300mm	1.31 33	0.94 23	1.12 28	2.50 63	14.00 355	20.75 527	17.50 445	11.69 296	17.00 432		
14" 350mm	1.44 36	1.00 25	1.25 31	3.50 89	17.00 431	24.50 622	22.06 560	12.94 329	18.75 476		
16" 400mm	1.50 38	1.06 27	1.31 33	3.50 89	17.75 450	27.25 692	23.56 598	14.31 363	21.25 540		
18" 450mm	1.62 41	1.12 28	1.44 36	3.50 89	21.50 546	29.25 743	27.50 699	15.69 399	22.75 578		
20" 500mm	1.75 44	1.19 30	1.75 44	3.50 89	23.50 596	31.00 787	31.00 787	17.19 437	25.00 635		
24" 600mm	1.88 47	1.88 47	-	3.50 89	42.00 1067	42.00 1067	-	18.31 465	29.50 749		
30" 750mm	-	2.12 54	-	4.00 101	51.00 1295	51.00 1524	-	21.88 556	36.00 914		
36" 900mm	-	2.38 60	-	4.00 101	60.00 1524	60.00 1524	-	24.81 630	42.75 1086		
42" 1065mm	-	2.62 67	-	4.00 101	72.00 1829	74.00 1879	-	31.25 794	Flanged	Mechanical Joint	
									49.50 1257	50.62 1286	
48" 1200mm	-	2.81 71	-	4.00 101	84.00 2134	84.00 2134	-	40.00 1016	56.00 1422	57.50 1461	
54" 1370mm	-	3.06 78	-	-	96.00 2438	-	-	40.00 1016	62.75 1594	-	
66" 1675mm	-	3.43 87	-	-	115.00 2921	-	-	49.50 1257	76.00 1930	-	
72" 1830mm	-	3.56 90	-	-	125.00 3175	-	-	49.50 1257	82.50 2096	-	

Inch
Millimeter

* Add .25/6.3 to A dimension for cast iron/rubber lined valves.

Nut Actuated Valves 4-8" (100-200mm)

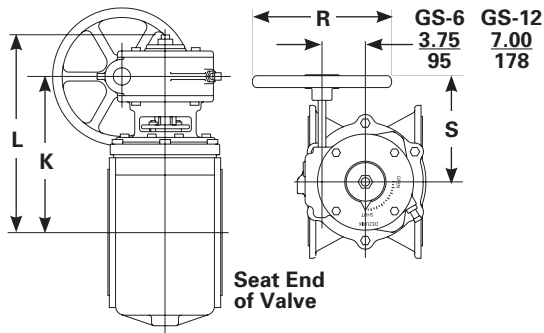
Valve Size	K
4" 100mm	10.19 258
5" 125mm	13.81 350
6" 150mm	13.81 350
8" 200mm	15.38 390

Inch
Millimeter

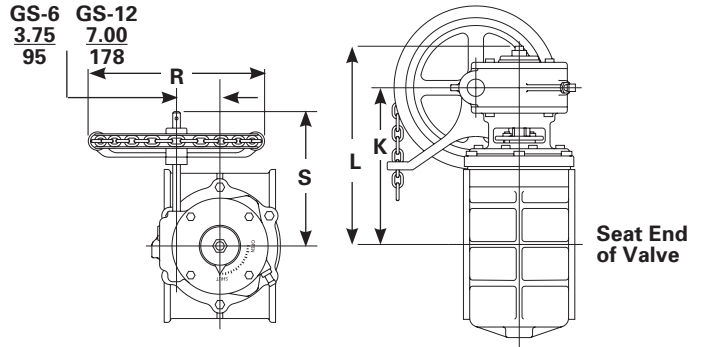
Dimensions

Handwheel/Chainwheel Actuated Valves

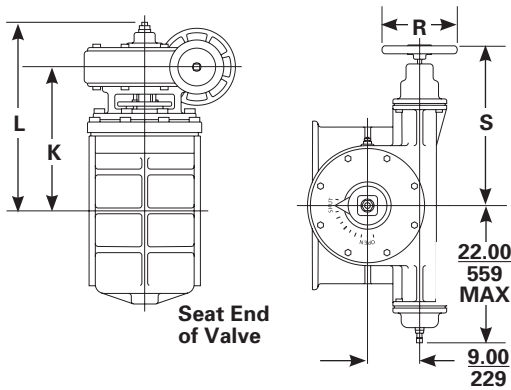
Handwheel 4-20" (100-500mm) GS-6-HD_ & GS-12-HD_



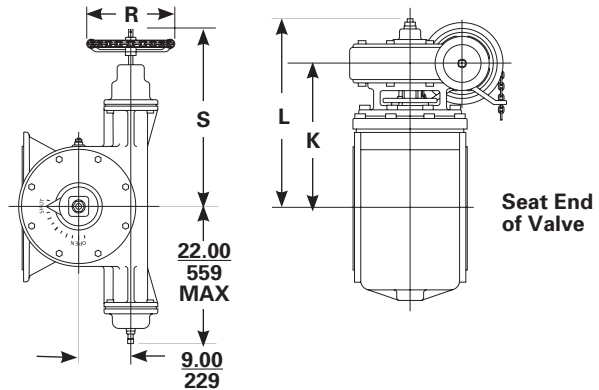
Chainwheel 4-20" (100-500mm) GS-6-CW_ & GS-12-CW_



Handwheel 16-36" (400-900mm) GS-16-HD_



Chainwheel 16-36" (400-900mm) GS-16-CW_



Handwheel/Chainwheel Actuated Valves

Valve Size	Actuator Code	K		L		R		S	
		HD	CW	HD	CW	HD	CW	HD	CW
4" 100mm	GS-6-HD-8	9.62		13.27		8.00	10.06	6.88	8.81
	GS-6-CW_	245		338		203	256	174	224
5 & 6" 125 & 150mm	GS-6-HD_	11.81		15.46		<u>8</u>	<u>12</u>	8.75	9.62
	GS-6-CW_	300		393		203	304	222	244
8" 200mm	GS-6-HD8	13.63		17.28		8.00	10.06	8.75	9.62
	GS-6-CW8	347		340		203	256	222	244
10" 250mm	GS-6-HD12	13.63		17.28		12.00	13.94	9.38	9.62
	GS-6-CW12	347		340		304	354	238	244
	GS-12-HD12	15.12		18.77		8.00	10.06	11.12	11.88
	GS-12-CW8	384		477		203	256	282	302
12" 300mm	GS-6-HD12	15.12		18.77		12.00	13.94	11.62	11.88
	GS-6-CW12	384		477		304	354	295	302
	GS-12-HD12	15.74		19.39		12.00	13.94	17.88	17.38
	GS-12-CW12	400		493		304	354	454	441
12" 300mm	GS-12-HD16	15.74		19.39		16.00	21.62	17.88	17.38
	GS-12-CW20	400		493		406	549	454	441
	GS-6-HD8	16.75		20.40		8.00	10.06	11.88	
	GS-6-CW8	426		519		203	256	301	
	GS-6-HD12	16.75		20.40		12.00	13.94	12.88	11.88
	GS-6-CW12	426		519		304	354	314	302
	GS-12-HD12	16.75		23.13		12.00	13.94	17.88	17.38
	GS-12-CW12	426		588		304	354	454	441
12" 300mm	GS-12-HD16	16.75		23.13		16.00	21.62	18.25	17.38
	GS-12-CW20	426		588		406	549	464	441
	GS-12-HD20	16.75		23.13		20.00	21.62	18.25	17.38
	GS-12-CW20	426		588		508	549	464	441
	GS-16-HD12	18.19		25.13		12.00		25.00	
	GS-16-CW20	462		638		305		635	
	GS-16-HD16	18.19		23.13		16.00	21.62	25.00	24.93
GS-16-CW20	462		588		406	549	635	633	

Handwheel/Chainwheel Actuated Valves (continued)

Valve Size	Actuator Code	K		L		R		S	
		HD	CW	HD	CW	HD	CW	HD	CW
14" 350mm	GS-12-HD12	18.74		25.12		12.00	13.94	17.88	17.38
	GS-12-CW12	476		638		305	354	454	441
	GS-12-HD16	18.74		25.12		16.00	21.62	18.25	17.38
	GS-12-CW20	476		638		406	549	464	441
	GS-12-HD20	18.74		25.12		20.00	21.62	18.25	17.38
	GS-12-CW20	476		638		508	549	464	441
	GS-12-HD24	18.74		25.12		24.00	31.46	22.25	17.38
	GS-12-CW30	476		638		610	799	565	441
16" 400mm	GS-16-HD12	19.06		26.00		12.00	13.94	25.00	24.93
	GS-16-CW12	484		660		305	354	635	633
	GS-16-HD16	19.06	-	26.00	-	16.00	-	25.00	-
		484		660		406		635	
	GS-16-HD20	19.06		26.00		20.00	21.62	25.00	24.93
	GS-16-CW20	484		660		508	549	635	633
	GS-16-HD24	19.06		26.00		24.00	31.46	29.38	24.93
	GS-16-CW30	484		660		610	799	746	633
18" 450mm	GS-12-HD12	20.24		26.62		12.00	13.94	17.88	17.38
	GS-12-CW12	514		676		305	354	454	441
	GS-12-HD16	20.24		26.62		16.00	21.62	18.25	17.38
	GS-12-CW20	514		676		406	549	464	441
	GS-12-HD20	20.24		26.62		20.00	21.62	18.25	17.38
	GS-12-CW20	514		676		508	549	464	441
	GS-12-HD24	20.24		26.62		24.00	31.46	22.25	17.38
	GS-12-CW30	514		676		610	790	565	441
20" 500mm	GS-16-HD12	20.56		27.50		12.00	13.94	25.00	24.93
	GS-16-CW12	522		699		305	354	635	633
	GS-16-HD16	20.56	-	27.50	-	16.00	-	25.00	-
		522		699		406		635	
	GS-16-HD20	20.56		27.50		20.00	21.62	25.00	24.93
	GS-16-CW20	522		699		508	549	635	633
	GS-16-HD24	20.56	-	27.50	-	24.00	-	29.38	-
		522		699		610		746	
18" 450mm	GS-16-HD30	20.56		27.50		30.00	31.46	30.88	24.93
	GS-16-CW30	522		699		762	790	784	633
	GS-12-HD12	21.12		27.50		12.00	13.94	17.88	17.38
	GS-12-CW12	536		699		305	354	454	441
	GS-12-HD16	21.12		27.50		16.00	21.62	18.25	17.38
	GS-12-CW20	536		699		406	549	464	441
	GS-12-HD20	21.12		27.50		20.00	21.62	18.25	17.38
	GS-12-CW20	536		699		508	549	464	441
20" 500mm	GS-12-HD24	21.12		27.50		24.00	31.46	22.25	17.38
	GS-12-CW30	536		699		610	799	565	441
	GS-16-HD12	21.44		28.38		12.00	13.94	25.00	24.93
	GS-16-CW12	544		720		305	354	635	633
	GS-16-HD16	21.44	-	28.38	-	16.00	-	25.00	-
		544		720		406		635	
	GS-16-HD20	21.44		28.38		20.00	21.62	25.00	24.93
	GS-16-CW20	544		720		508	549	635	633
20" 500mm	GS-16-HD24	21.44	-	28.38	-	24.00	-	29.38	-
		544		720		610		746	
	GS-16-HD30	21.44		28.38		30.00	31.46	30.88	24.93
	GS-16-CW30	544		720		762	799	784	633
	GS-12-HD12	23.12		29.50		12.00	13.94	17.88	17.38
	GS-12-CW12	587		749		305	354	454	441
	GS-12-HD16	23.12		29.50		16.00	21.62	18.25	17.38
	GS-12-CW20	587		749		406	549	464	441
20" 500mm	GS-12-HD20	23.12		29.50		20.00	21.62	18.25	17.38
	GS-12-CW20	587		749		508	549	464	441
	GS-12-HD24	23.12		29.50		24.00	31.46	22.25	17.38
	GS-12-CW30	587		749		610	799	565	441
	GS-16-HD12	23.32	23.44	30.26	29.82	12.00	13.94	25.00	24.93
	GS-16-CW12	592	595	754	757	305	354	635	633
	GS-16-HD16	23.32	-	30.26	-	16.00	-	25.00	-
		592		754		406		635	
GS-16-HD20	23.32	23.44	30.26	29.82	20.00	21.62	25.00	24.93	
GS-16-CW20	592	595	754	757	508	549	635	633	
GS-16-HD24	23.32	-	30.26	-	24.00	-	29.38	-	
	592		754		610		746		
GS-16-HD30	23.32	23.44	30.26	29.82	30.00	31.46	30.88	24.93	
GS-16-CW30	592	595	754	757	762	799	784	633	

Inch
Millimeter

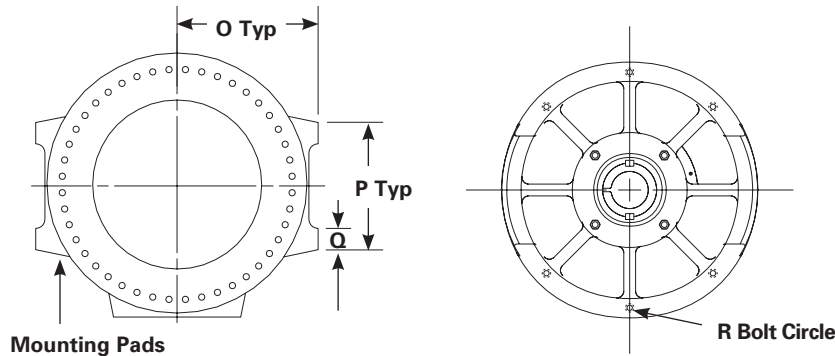
Dimensions

Handwheel/Chainwheel Actuated Valves (continued)

Valve Size	Actuator Code	K		L		R		S	
		HD	CW	HD	CW	HD	CW	HD	CW
24" 600mm	GS-16-HD12 GS-16-CW12	24.12 612		31.50 799		12.00 305	13.94 354	25.00 635	24.93 633
	GS-16-HD16	24.12 612	-	31.50 799	-	16.00 406	-	25.00 635	-
	GS-16-HD20 GS-16-CW20	24.12 612		31.50 799		20.00 508	21.62 549	25.00 635	24.93 633
	GS-16-HD24	24.12 612	-	31.50 799	-	24.00 610	-	29.38 746	-
	GS-16-HD30 GS-16-CW30	24.12 612		31.50 799		30.00 762	31.46 799	30.88 784	24.93 633
30" 750mm	GS-16-HD12 GS-16-CW12	28.19 716		35.57 903		12.00 305	13.94 354	25.00 635	24.93 633
	GS-16-HD16	28.19 716	-	35.57 903	-	16.00 406	-	25.00 635	-
	GS-16-HD20 GS-16-CW20	28.19 716		35.57 903		20.00 508	21.62 549	25.00 635	24.93 633
	GS-16-HD24 GS-16-CW30	28.19 716		35.57 903		24.00 610	31.46 799	29.38 746	24.93 633
36" 900mm	GS-16-HD12 GS-16-HD12	31.22 793		38.60 980		12.00 305	13.94 354	25.00 635	24.93 633
	GS-16-HD16	31.22 793	-	38.60 980	-	16.00 406	-	25.00 635	-
	GS-16-HD20 GS-16-CW20	31.22 793		38.60 980		20.00 508	21.62 549	25.00 635	24.93 633
	GS-16-HD24 GS-16-CW30	31.22 793	31.10 791	38.60 980	38.48 978	24.00 610	31.46 799	29.38 746	24.93 633
	GS-16-HD30 GS-16-CW30	31.22 793	31.10 791	38.60 980	38.48 978	30.00 762	31.46 799	30.88 784	24.93 633

Inch
Millimeter

Handwheel Actuated Valves 42-72" (1065-1830mm)



Handwheel 42-72" (1065-1830mm)

Valve Size	K	L	M	N	O	P	Q	R
42" 1065mm	34.81 884	10.50 267	34.50 876	6.50 165	27.25 692	28.00 711	4.00 102	32.00 813
48" 1200mm	44.94 1141	9.50 241	37.88 962	8.00 203	31.00 787	30.00 762	4.00 102	34.88 886
54" 1370mm	44.94 1141	9.50 241	37.88 962	8.00 203	34.37 873	32.00 813	4.00 102	34.88 886
66" 1675mm	52.81 1341	11.75 298	37.88 962	8.00 203	40.75 1035	36.00 914	6.00 152	34.88 886
72" 1830mm	52.81 1341	11.75 298	37.88 962	8.00 203	44.00 1118	38.00 965	6.00 152	34.88 886

Inch
Millimeter

For 4" (100mm) & larger 100% area valve information and 42" (1065mm) and larger chainwheel actuated valves, contact DeZURIK, Inc.

Cylinder Actuated Valves (see diagram on next page)

Valve Size	Actuator Code	K	L	M			N				
				SC	PC		SC	PC			
4" 100mm	GS-6-PC4	<u>9.44</u> 240	<u>14.32</u> 364	-	<u>18.88</u> 480		-	<u>2.19</u> 56			
	GS-6-SC6 GS-6-PC6	<u>9.62</u> 245	<u>14.50</u> 369	<u>30.00</u> 762	<u>19.12</u> 485		<u>5.12</u> 130	<u>3.19</u> 81			
	GS-6-SC8	<u>9.62</u> 245	<u>14.50</u> 369	<u>32.19</u> 818	-		<u>6.12</u> 155	-			
5 & 6" 125 & 150mm	GS-6-SC6 GS-6-PC6	<u>11.81</u> 300	<u>16.69</u> 424	<u>30.00</u> 762	<u>19.12</u> 485		<u>5.12</u> 130	<u>3.19</u> 81			
	GS-6-SC8 GS-6-PC8	<u>11.81</u> 300	<u>16.69</u> 424	<u>32.19</u> 818	<u>19.38</u> 482		<u>6.12</u> 155	<u>4.56</u> 115			
	GS-6-SC6 GS-6-PC6	<u>13.63</u> 347	<u>18.51</u> 471	<u>30.00</u> 762	<u>19.12</u> 485		<u>5.12</u> 130	<u>3.19</u> 81			
8" 200mm	GS-6-SC8 GS-6-PC8	<u>13.63</u> 347	<u>18.51</u> 471	<u>32.19</u> 818	<u>19.38</u> 482		<u>6.12</u> 155	<u>4.56</u> 115			
	GS-12-SC10 GS-12-PC_	<u>14.25</u> 362	<u>20.63</u> 524	<u>46.00</u> 1168	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	<u>7.43</u> 188	PC6 <u>3.26</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
	GS-16-PC_	Contact DeZURIK									
10" 250mm	GS-6-SC6 GS-6-PC6	<u>15.12</u> 384	<u>20.00</u> 508	<u>30.00</u> 762	<u>19.12</u> 485		<u>5.12</u> 130	<u>3.19</u> 81			
	GS-6-SC8 GS-6-PC8	<u>15.12</u> 384	<u>20.00</u> 508	<u>32.19</u> 818	<u>19.38</u> 482		<u>6.12</u> 155	<u>4.56</u> 115			
	GS-12-SC10 GS-12-PC_	<u>15.74</u> 400	<u>22.12</u> 562	<u>46.00</u> 1168	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	<u>7.43</u> 188	PC6 <u>3.26</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
12" 300mm	GS-16-PC_	Contact DeZURIK									
	GS-6-SC8 GS-6-PC8	<u>16.75</u> 426	<u>21.63</u> 550	<u>32.19</u> 818	<u>19.38</u> 482	<u>6.12</u> 155	<u>4.56</u> 115	-	<u>4.56</u> 115		
	GS-12-SC10 GS-12-PC10	<u>17.75</u> 451	<u>24.13</u> 613	<u>46.00</u> 1168	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	<u>7.43</u> 188	PC6 <u>3.26</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
14" 350mm	GS-12-PC_	<u>18.74</u> 476	<u>25.12</u> 638	-	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	-	PC6 <u>3.25</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
	GS-16-PC_	<u>19.06</u> 484	<u>26.06</u> 662	-	PC8 <u>42.62</u> 1082	PC10 <u>43.25</u> 1098	PC12 <u>44.62</u> 1133	-	PC8 <u>4.56</u> 115	PC10 <u>5.88</u> 149	PC12 <u>7.00</u> 177
	GS-12-PC_	<u>20.24</u> 514	<u>26.62</u> 676	-	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	-	PC6 <u>3.25</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
16" 400mm	GS-16-PC_	<u>20.56</u> 524	<u>27.56</u> 702	-	PC8 <u>42.62</u> 1082	PC10 <u>43.25</u> 1098	PC12 <u>44.62</u> 1133	-	PC8 <u>4.58</u> 115	PC10 <u>5.36</u> 148	PC12 <u>7.00</u> 177
	GS-12-PC_	<u>21.12</u> 536	<u>27.5</u> 698	-	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	-	PC6 <u>3.25</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
	GS-16-PC_	<u>21.44</u> 544	<u>28.44</u> 722	-	PC8 <u>42.62</u> 1082	PC10 <u>43.25</u> 1098	PC12 <u>44.62</u> 1133	-	PC8 <u>4.56</u> 115	PC10 <u>5.88</u> 148	PC12 <u>7.00</u> 177
20" 500mm	GS-12-PC_	<u>23.00</u> 584	<u>29.38</u> 746	-	PC6 <u>30.56</u> 776	PC8 <u>30.88</u> 784	PC10 <u>31.00</u> 787	-	PC6 <u>3.25</u> 82	PC8 <u>4.25</u> 108	PC10 <u>5.25</u> 133
	GS-16-PC_	<u>23.32</u> 592	<u>30.32</u> 770	-	PC8 <u>42.62</u> 1082	PC10 <u>43.25</u> 1098	PC12 <u>44.62</u> 1133	-	PC8 <u>8.00</u> 203	PC10 <u>10.00</u> 254	PC12 <u>12.00</u> 304
	GS-16-PC_	<u>24.12</u> 612	<u>31.5</u> 800	-	PC8 <u>42.62</u> 1082	PC10 <u>43.25</u> 1098	PC12 <u>44.62</u> 1133	-	PC8 <u>8.00</u> 203	PC10 <u>10.00</u> 254	PC12 <u>12.00</u> 304
30" 750mm	GS-16-PC_	<u>28.19</u> 716	<u>35.57</u> 904	-	PC8 <u>42.62</u> 1082	PC10 <u>43.25</u> 1098	PC12 <u>44.62</u> 1133	-	PC8 <u>8.00</u> 203	PC10 <u>10.00</u> 254	PC12 <u>12.00</u> 304

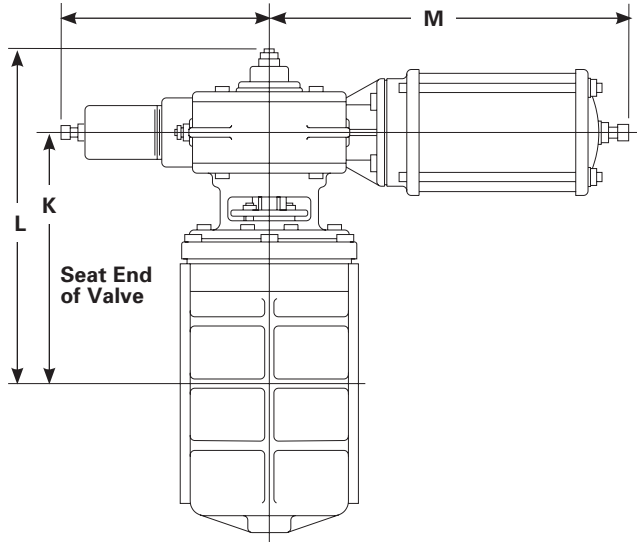
Inch
Millimeter

For 36" (900mm) and larger, 100% area valves, and booster cylinder actuated valves, contact factory.

Dimensions

Cylinder Actuated Valves

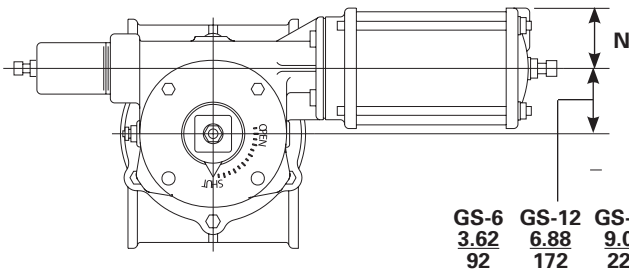
GS-6	GS-12	GS-16
11.00	17.50	24.25
279	445	610



PC4
1/4 N.P.T.

PC6 & PC8
1/2 N.P.T.

PC10 & PC12
3/4 N.P.T.



Sales and Service

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

Web Site: www.dezurik.com E-Mail: info@dezurik.com



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