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DeZURIK

VALVE SELECTION GUIDE

Plug Valves

Eccentric Plug Valves (PEC)

Design Features: Eccentric action and resilient plug facings assure lasting dead-tight shutoff. An inherent linear flow characteristic is ideal for throttling applications. Heavy-duty stainless steel bearings, choice of resilient plug facings, welded-in corrosion resistant nickel seat, adjustable packing and a variety of end styles are available. Capable of handling clean and dirty liquids and gases, sludges and slurries.

Size Range: .5–72" (15–1800mm)

Temperature Range: to 300°F (150°C)

Pressure Rating: 125–450 psi (860–3100 kPa) CWP

Shutoff Class: Resilient plug face — drip tight rating to 175 psi (1200 kPa) options to 450 psi (3100 kPa) Bi-Directional

End Connections: Flanged, mechanical joint, grooved, threaded

Actuator Type: Lever, handwheel, chainwheel, square nut, G-Series cylinder, electric motor

Body Materials: Cast iron, aluminum, carbon steel, 316 stainless steel, Alloy 20, Monel and ductile iron, acid resistant bronze

100% Port Eccentric Plug Valves (PEF)

Design Features: Port is 100% of standard pipe area, including straight through body design with flushing port to maximize flow capacity and reduce headloss. Rectangular port design provides wide tolerance seating geometry for lasting superior shutoff. Standard features include corrosion resistant bearings, welded nickel seat, grit excluders, adjustable packing and a choice of resilient plug facings.

Size Range: 3–36" (80–900mm)

Temperature Range: to 250°F (121°C)

Pressure Rating 3–12" 175 psi (1200 kPa) 14–36" 150 psi (1030 kPa)

Shutoff Class: Resilient plug face — drip tight rating to 175 psi (1200 kPa) Bi-Directional

End Connections: Flanged, mechanical joint

Actuator Type: Lever, handwheel, chainwheel, square nut, G-Series cylinder, electric motor

Materials: Cast iron body with ductile iron plug

3-Way and 4-Way Plug Valves (PTW/PFW)

Design Features: 3-Way and 4-Way Plug Valves are designed for throttling and diverting of clean, dirty, viscous and corrosive liquids; sludge; abrasive and fibrous slurries; clean and dirty corrosive gases. Single and double plug styles can be arranged into a variety of flow combinations. Features include heavy-duty stainless steel bearings, long-life stem seal, resilient plug facings for dead-tight shutoff, and metal plugs for high temperature applications.

Size Range: 3–16" (80–400mm)

Temperature Range: to 400°F (200°C)

Pressure Rating: 125 psi (860 kPa) CWP

Body Materials: Cast iron, aluminum, carbon steel, 316 stainless steel

End Connections: Flanged

Actuator Type: Lever, handwheel, chainwheel, cylinder, electric motor

Pump Check Valves

Specially designed for precise flow regulation on pumping installations.

Balancing Valves

Specially designed for adjusting and reading flow in condensers, and hot/chilled water systems of heating and air conditioning systems.

Soft Rubber Lined Eccentric Valves

Ideal for on-off corrosive and abrasive slurry service.

Butterfly Valves

AWWA Butterfly Valves (BAW)

Design Features: DeZURIK AWWA Butterfly Valves meet the requirements of AWWA C504 standards. They are used for shutoff on clean and dirty water and gases. Offset disc design, corrosion resistant shaft, stainless steel disc edge, and self-compensating shaft seals are features on all DeZURIK AWWA valves. Molded-in body seat with disc locators provides positive sealing and longer seat life on sizes 3–20" (80–500mm). Large valves, 24–120" (600–3000mm), feature adjustable, replaceable seat, non-hollow disc structure, and rubber seat retained within a dovetail groove in the valve body and locked in place by an epoxy wedge.

Size Range: 3–120" (80–3000mm)

Temperature Range: to 290°F (143°C)

AWWA Class: 75B, 150B, 250B

Pressure Rating: 75 psi (520 kPa),
150 psi (1030 kPa), 250 psi (1700 kPa)
CWP Shutoff - Bubble tight to full rated pressure.

Body Materials: Cast iron, ductile iron

End Connections: Flanged, mechanical joint

Actuator Type: Lever, handwheel, chainwheel, square nut, cylinder, electric motor

Special Construction: Square and Rectangular AWWA Butterfly Valves are designed in a variety of sizes for square/rectangular configurations. Specially designed packages for pump check control applications are also available.

High Performance Butterfly Valves (BHP)

Design Features: High Performance Butterfly Valves are designed for shutoff and throttling control of liquids and gases. The dynamic PTFE seat provides bubble-tight shutoff in both directions. The Fyre Block® seat, designed for fire safe applications, meets API607 fire test standards. Stem seal options for fugitive emissions control are available. The single offset disc design provides lower torque and longer cycle life. NACE trim available. Pressurized neck extensions to accommodate additional insulation or cold box dimensions are available as an option.

Size Range: 2–60" (50–1500mm)

Temperature Range: to 700°F (370°C). On application -320°F (-196°C) to 1000°F (540°C)

ANSI Class Rating: 150, 300

Pressure Rating: 275–740 psi (1890–5100 kPa)

ANSI B16.104 Shutoff Class: PTFE and Fyre-Block® Seat, Class VI; or metal seat, Class IV or V

Body Materials: Carbon steel, 316 or 317 stainless steel

Valve Style: High performance butterfly valve, wafer or lugged

Actuator Type: Lever, handwheel, chainwheel, square nut, PowerRac® double-acting and spring-return, diaphragm, Compak® double-acting and spring-return

BOS-US Resilient-Seated Butterfly Valves

Design Features: BOS Resilient-Seated Butterfly Valves are designed to handle a wide variety of liquids and gases. BOS-US Valves are available in Ductile Iron-Lugged or wafer bodies with Ductile Iron/Nickel Plated or 316 Stainless Steel discs.

BOS-US Valves feature an uninterrupted seat design; one-piece body; solid, one-piece shaft and high-performance resilient seat bonded to the body.

Size Range: 2–20" (50 - 500mm)

Temperature Range: to 350°F (176°C)

Pressure Rating: 250 psi (1724 kpa)
2–20" (51-508 mm) with DI disc (316 Stainless Steel 200 psi)

Dead-end - full rating, lugged valves only

24" Hg vacuum

Body Material: Ductile Iron

BOS-CL Resilient-Seated Butterfly Valves

Design Features: BOS Resilient-Seated Butterfly Valves are designed to handle a wide variety of liquids and gases. BOS-CL valves are available in Lugged or wafer bodies with Ductile Iron/Nickel Plated or 316 Stainless Steel discs.

BOS-CL valves feature an on-center disc; one-piece body; solid, one-piece shaft and a high-performance resilient seat bonded to a solid backing ring.

Size Range: 1½–24" (40 - 600mm)

Temperature Range: to 350°F (176°C)

Pressure Ratings:

1½–4" (40mm-100mm) 200 psi with DI disc and 316 Stainless Steel disc

5-12" (125-300mm) 200 psi with DI disc (316 Stainless Steel 75 psi)

14-18" (350-450mm) 150 psi with DI disc (316 Stainless Steel 75 psi)

20-24" (500-600mm) 150 psi with DI disc (316 Stainless Steel 50 psi)

Dead-end - full rating, lugged valves only

Body Material: Cast Iron

Rotary Control Valves

VPB V-Port Ball

Design Features: The V-Port Ball Valve is a quarter-turn v-orifice ball valve for accurate throttling control of fibrous suspension applications plus clean, dirty, viscous and corrosive liquids and gases. It is designed to meet the highest industry standards for dynamic performance. Flanged or flangeless designs meet ANSI or ISA face-to-face dimensions. Design features include blow-out proof shaft protection, high flow capacity, splined ball-to-shaft connection for ease of maintenance and zero backlash. Seat options include flexible metal, rigid metal and PTFE seats.

Size Range: 1–20" (25–500mm)

Temperature Range: to 575°F (300°C)

ANSI Class Rating: 150, 300

Pressure Rating: to 285–740 psi (1965–5100 kPa)

ANSI B16.104 Shutoff Class: Flexible Metal, ANSI Class IV* Reinforced PTFE, ANSI Class VI Rigid Metal, ANSI Class IV *Shutoff is up to 500 times better than ANSI Class IV

Body Materials: Carbon steel, 316 and 317 stainless steel, Hastelloy C

Valve Style: V-port ball, flanged or flangeless

Actuator Types: PowerRac® double-acting and spring-return actuators, spring & diaphragm actuator, lever, handwheel, chainwheel

RCV Rotary Control Valve

Design Features: The RCV Rotary Control Valve is an eccentric rotary control valve for throttling liquids, gases and slurries. It combines precise throttling accuracy and control over a full 90° of rotation. Tungsten carbide coated trim components and design features provide superior erosion resistance. The RCV valve is designed for bi-directional flow capability and includes four trim options for flexibility. It is designed for ease of maintenance with no internal threaded components and self-aligning seat and plug. Flanged or flangeless designs meet ANSI or ISA face-to-face dimensions.

Size Range: 1–12" (25–300mm)

Temperature Range: to 1000°F (540°C)

ANSI Class Rating: 150, 300

Pressure Rating: 285–740 psi (1965–5100 kPa)

ANSI B16.104 Shutoff Class: Up to 20 times better than ANSI Class IV standard

Body Materials: 316 and 317 stainless steel, carbon steel, Hastelloy C, Titanium

Trim Sizes: High, Full, .5 Reduced, .2 Reduced

Actuator Types: PowerRac® double-acting and spring-return actuators, spring & diaphragm actuator, handwheel, chainwheel

Knife Gate Valves

PPE Precision Electric Control Valve

Design Features: The DeZURIK Precision Electric Control Valve is recognized industrywide as the most accurate and reliable basis weight control valve available. This high-resolution control valve is specifically designed for critical paper stock control, and is used for basis weight and headbox level control applications. It provides unmatched control accuracy, positioning and repeatability with up to 16,000 repeatable positions. Accepts digital or analog signals. It features total electric operation with backlash that is essentially zero. Flange drilling is per ANSI standards.

Size Range: 4–20" (100–500mm)

Temperature Range: to 32–450°F (0–232°C)

Pressure Rating: 275 psi (1890 kPa) CWP

Body Material: 316 stainless steel

Valve Style: V-port concentric or straight concentric plug, flanged

Actuator Type: AC synchronous motor or DC stepping motor

Feedback Mechanisms: Potentiometer, resolver and optical encoder

KGC Cast Stainless Steel Knife Gate

Design Features: Cast Stainless Steel Knife Gate Valves are designed for on-off and isolation services handling corrosive, abrasive and viscous liquids; abrasive slurries, pulp stock, and dry materials. The solid cast-bodied full port knife gate valve features a corrosion-resistant stainless steel body, gate, stem and packing gland. Improved packing chamber design. Cast-in guides and jams ensure long-lasting operation. Resilient seats provide bubble-tight shutoff; metal seats meet TAPPI Leakage Rate standards. Special v-orifice design available for throttling applications.

Size Range: 2–36" (50–900mm)

Temperature Range: to 1000°F (540°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Body Materials: 304, 316 and 317 stainless steel

Valve Style: Knife gate, lugged

Actuator Type: Lever, handwheel, chainwheel, bevel gear, cylinder, electric motor

GKU Unidirectional Knife Gate Valves

Design Features: Unidirectional Knife Gate Valves (GKU) feature a cast stainless steel body, stainless steel gate and stem. GKU features a full lug single piece cast stainless steel body. This model can be used with the same functionality of flanged valves, including end-of-line applications. The superstructure also allows interchangeability between pneumatic and manual actuators.

Size Range: 3–60" (50–1500mm)

Temperature Range: 1000°F (540°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Body Materials: 304 & 316 Stainless Steel as standard — other material on request.

Seat Materials: Metal and Resilient

End Connection: Lugged

Actuator Type: Handwheels, chainwheels, bevel gears, pneumatic cylinders, hydraulic cylinders, electric motors

KGN Cast Stainless Steel Knife Gate

Design Features: Cast stainless steel one piece body with metal seat to meet the shut-off requirements of TAPPI.

The body and gate are available in 304 and 316 stainless steel material. The packing gland is the same material as the body and supports a variety of packing types for temperature up to 1000 Degrees F. Valves can be mounted with a variety of accessories including lever operators, cylinders with limit switches and solenoids.

Size Range: 2-24" (50-600mm)

Temperature Range: to 1000°F (540°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Body Materials: 304 and 316 stainless steel

Valve Style: Knife gate, lugged

Actuator Types: Handwheel, chainwheel, bevel gear, cylinder. Electric motor.

KCS Cast Stainless Steel Knife Gate

Design Features: DeZURIK Cast Knife Gate Valves (KCS) are designed for on-off and throttling applications. They feature a cast body in 304 or 316 stainless steel. The gate material is 304 or 316 stainless steel. The packing gland is stainless steel for corrosion protection. The stem and yoke are 304 stainless steel for corrosive service.

Size Range: 2 - 48" (50 - 1200mm)

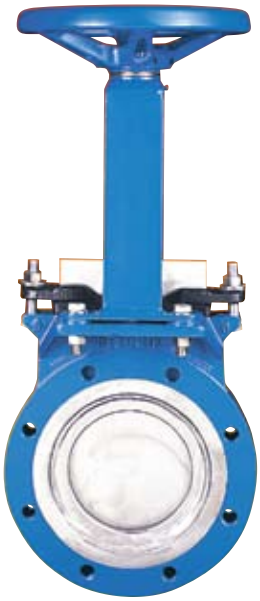
Pressure Rating:

2-24" (50-600mm) -150 psi C.W.P. (1030 kPa)

30 & 36" (750 & 900mm) - 75 psi C.W.P. (520 kPa)

42 & 48" (1100 & 1200mm) - 50 psi C.W.P. (345 kPa)

Actuator Type: Handwheels, Chainwheels, Bevel Gears, Levers, Pneumatic and Hydraulic Cylinders and electric motors.



KGL Stainless Steel Knife Gate

Design Features: Cast/Fabricate Stainless Steel Knife Gate Valves are designed for on-off and isolation services handling corrosive, abrasive and viscous liquids; abrasive slurries, pulp stock, and dry materials. The solid cast-bodied knife gate valve features a corrosion-resistant stainless steel body, gate, stem and packing gland. Welded-in guides and jams ensure long-lasting operation. Resilient seats provide bubble-tight shutoff. Special v-orifice design available for throttling applications.

Size Range: 2–72" (50–1800mm)

Temperature Range: to 1000°F (540°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Body Materials: 304 and 316 stainless steel

Valve Style: Knife gate, lugged

Actuator Type: Lever, handwheel, chainwheel, bevel gear, cylinder, electric motor

KCB Bi-directional Knife Gate

Design Features: A perimeter seat provides dead-tight shutoff in either direction and on dead end service. Seat design eliminates pockets that trap process media. Provides maximum flow capacity. Resilient seats are locked into the valve body and provide guiding for the gate.

Size Range: 2 - 36“ (50 - 900mm)

Temperature Range: 350°F (177°C)

Pressure Rating: 2 - 24" (50 - 600mm) 150 psi (1030 kPa) CWP

30" and 36" (750 & 900mm) 75 psi (520 kPa) CWP

Body Material: 304 and 316 stainless steel

Valve Style: Bi-directional knife gate, lugged

Actuator Type: Handwheel, chainwheel, bevel gear, cylinder, electric motor

KGU Urethane Knife Gate

Design Features: One-piece cast-in-place urethane liner designed especially for handling abrasive slurries and dry materials in the mining industry. Provides drip-tight shutoff. Rugged stainless steel gate, long-life packing, stainless steel stem, corrosion resistant yoke sleeve, and heavy-duty superstructure.

Size Range: 4–24" (100–600mm)

Temperature Range: -40–180°F (82°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Body Materials: Cast iron with gates of 304, 316 stainless steel

Valve Style: Urethane lined knife gate valve, wafer

Actuator Type: Lever, handwheel, chainwheel, cylinder, electric motor

KHP ANSI Class Knife Gate

DeZURIK ANSI Class Knife Gate Valves withstand high pressures and abrasive slurries found in mining (including oil sands processing), steel, power, chemical, and paper industries. Ideal for isolation in high-pressure, high-density slurry lines, the valves are pressure rated to ANSI Class 150 and 300.

Available in sizes from 6 - 36 inches (150 – 900mm), these High Performance Knife Gate Valves feature cast carbon steel construction to meet demanding performance requirements. Valves feature purge-ports to allow flushing of media from the valve interior. ANSI Class 150 valves match standard pipe IDs, and ANSI Class 300 valves match extra-strong pipe IDs. The seat/wear ring matches the pipeline ID to reduce turbulence and pressure loss across the valve. A wide variety of hardened trim options is available on the gate, seat and the wear ring.

An integral bonnet is standard on ANSI Class 300 valves. To reduce maintenance costs, a pressure-energized rod seal and heavy-duty braided scraper ring are replaceable without removing the bonnet or rod.

KLS Level Sensor Isolation Valve

Design Features: Specially designed to mount between the stock chest and the level sensor. Allows removal of sensor without draining stock chest. Rachet or socket drive actuator allows close mounting of valve to tank.

Size Range: 3" (80mm)

Temperature Range: to 450°C (233°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Body Materials: 316 and 317 stainless steel, Hastelloy C, 254 SMO stainless steel

Valve Style: Level sensor knife gate valve, lugged

Actuator Type: Rachet handle or square drive with non-rising stem

KCI Coal Burner Isolation Knife Gate

Design Features: Specially designed to isolate pulverized coal burner lines on coal-fired boilers during periodic maintenance shutdowns. Features include rugged body construction, removable and rotatable seat ring, stainless steel rising or non-rising stem, and internal explosion pressure rating to 50 psi (340 kPa) per NFPA standards. A variety of hard faced seats for extended service life are available. ANSI 125/150, NFPA and Babcock & Wilcox end connections available.

Size Range: 6–24" (150–600mm)

Pressure Rating: 150 psi (1030 kPa) CWP

Temperature Range: On application

Body Materials: 304, 316 stainless steel

Valve Style: Coal burner isolation knife gate valve

Actuator Type: Handwheel, chainwheel, nut, cylinder

Special Service Gate Valves

Mixing and Diverting Knife Gate Valves

Available with either an integral body or a replaceable body. Valves with the replaceable body design are bolted to a Y-pattern pipe, allowing easy replacement of a single valve rather than the entire assembly.

They can be mounted in Y-pattern or Y-lateral configurations for either direct or reverse flow operation. Diverter valves with one inlet and two, three or four outlets are available in Y-pattern arrangements, with 60 or 90 degree angled valves. Mixing valves are available with one outlet and two, three or four inlets.

Dust Collector Valves

Specially designed cylinder actuated knife gate valve with double packing and overlapping gates to overcome the difficulties in handling steel mill blast furnace dust.

Sledge Hammer Gate Valves

Specifically designed to provide shutoff on a standing column of dry material.

Thru-Port Knife Gate Valves

Manually actuated goggle plate valve designed specially to overcome the difficulties in handling steel mill blast furnace dust.

Square/Rectangular Knife Gate Valves

Specially designed to fit special piping configurations.

Bonneted Knife Gate Valves

Special designs to prevent media from entering the atmosphere. Pressurized bonnet is bolted above packing area.

Consistency Transmitters

SDP Rotating Consistency Transmitter

Design Features: Consistency range from 0.75% to 10% at velocities from 0.1 to 10 feet (.03 to 3 meters) per second. Motor-driven sensor located in pulp stock flow is highly sensitive to consistency changes and insensitive to flow changes. Capable of measuring consistency changes as small as ± .0025%.

Chamber Size: 12–36" (300–900mm)

Chamber Pressure Rating: 125 psi (860 kPa)

Chamber Material: 304, 316 or 317L stainless steel

Shaft, Sensor Material: 316 or 317L stainless steel

Chamber Style: Horizontal, vertical, open, pan

Output: Pneumatic, electronic

SBC Accutrax Consistency Transmitter

Design Features: Designed to operate over a wide range of velocities from 1.5 feet (.5 meter) to 16 feet (5 meters) per second and consistencies from 1.5% to 16%. Unique sensor design allows transmitter to accurately measure consistency over changing production rates and varying pressures, sensing changes as small as ± .0075%. The pipeline module can be easily and quickly installed and withdrawn without process shutdown.

Mounting Module Materials: 316 stainless steel, Hastelloy C

Temperature Rating: to 212°F (100°C)

Pressure Rating: 200 psi (1380 kPa)

Ported Gate Valves

PGV Ported Gate Valve

Design Features: Innovative, pressure-assisted sealing system utilizes elastomer sleeves with radial and gate thrust support rings. Design features include streamlined flow passage, bi-directional shutoff, adjustable packing and rounded gate edges. Stem protection and actuator lockout device is standard.

Size Range: 2–24" (50–600mm)

Temperature Range: to 400°F (204°C)

Pressure Rating: 150 psi (1030 kPa) CWP

Valve Style: Ported gate valve, wafer

Body Materials: Ductile iron, 316 stainless steel

Actuator Type: Handwheel, chainwheel, pneumatic and hydraulic cylinder, electric motor

KGO 0-Port Knife Gate

Design Features: Specially designed to handle high-density paper stock, wood chips, plastic pellets, cleaners, trash dump, and refiner bypass isolation applications. Adjustable chest guides provide positive gate-to-seat support and eliminate stock build-up and gate jamming. Flush ports allow prevention of stock dewatering in the valve body. Full standard port diameter minimizes turbulence and pressure loss. PTFE or hardened metal seat available for extra protection.

Size Range: 3–36" (80–900mm)

Temperature Rating: to 1000°F (540°C)

Pressure Rating: 100–740 psi (690–5100 kPa) CWP

Body Materials: 316 and 317 stainless steel and carbon steel

Valve Style: 0-port knife gate valve, flanged ANSI 150 or 300

Actuator Type: Handwheel, chainwheel, bevel gear, cylinder and electric motor

Globe Valves

Cage Guided Globe Control Valves

Design Features: DeZURIK Cage Guided Valves are a versatile line of globe valves designed for control and throttling service of high pressure steam, gases and clean liquids. Models include single seated, double-seated and balanced construction. Low noise and anti-cavitation trim options available. Low leakage balanced construction cage valves feature a unique, patented "seal-less" trim that provides tight shutoff in metal-to-metal seated valves.

Size Range: 1–16" (25–400mm)

Temperature Range: -150–1200°F (-101–649°C)

Body Materials: 316 stainless steel, cast iron, and carbon steel

ANSI Class Rating: 125–1500

Valve Style: Cage guided globe with balanced or unbalanced plug

Trim Characteristics: Linear and equal percentage

Actuator Type: Direct or reverse acting spring & diaphragm, electric motor or manual handwheel

3-Way Globe Control Valves

Design Features: 3-Way Globe Control Valves are designed for mixing two fluid lines or diverting a line to two outlets. Designed to handle clean, dirty, viscous and corrosive liquids; high and low pressure steam; and clean, dirty and corrosive gases.

Size Range: .5–16" (15–400mm)

Temperature Range: -150–750°F (-101–399°C)

Body Materials: 316 stainless steel, carbon steel, cast iron

ANSI Class Rating: 125–600

Valve Style: 3-Way skirt guided globe valve

Trim Characteristics: linear v-port

Actuator Type: Direct or reverse acting spring & diaphragm, springless diaphragm, electric motor or manual handwheel

Top Guided Globe Control Valves

Design Features: The Top Guided Globe Control Valve offers economical high-accuracy control. It is designed to handle clean, dirty, viscous and corrosive liquids; steam; and clean, dirty and corrosive gasses in low and medium-pressure services. A high-pressure design (straight through or angle) is available for pressures to 6000 psig (41340 kPa). Low Flow valve offers reduced trim sizes for low and ultra low flow applications.

Size Range: .5–2" (15–50mm)

Temperature Range: -150–1200°F (-101–649°C)

Body Materials: Stainless steel, carbon steel, chrome moly, carbon moly, other alloys on application

ANSI Class Rating: 125–1500, high-pressure design to 6000 psig (41340 kPa)

Valve Style: Top guided globe

Trim Characteristic: Equal percentage v-port, equal percentage contour and linear contour

Actuator Type: Direct or reverse acting spring & diaphragm, electric motor or manual handwheel

Skirt Guided Globe Control Valves

Design Features: The Skirt Guided Globe Valve is an economical general-purpose valve that offers rugged reliability or tighter shutoff in low and medium pressure applications.

Size Range: 1–2" (25–50mm)

Temperature Range: 0–353°F (-18–178°C)

Body Materials: Cast iron, bronze

ANSI Class Rating: 125

Valve Style: Double-seated or single-seated skirt guided globe control valve

Trim Characteristics: Modified linear v-port, equal percentage v-port

Actuator Type: Direct or reverse acting spring & diaphragm, electric motor or manual handwheel

Stem Guided Globe Control Valves

Design Features: Stem Guided Globe Control Valves are a low cost, dependable valve for low-pressure applications.

Size Range: .5–2" (15–50mm)

Temperature Range: 40–250°F (4–121°C)

Body Material: Bronze

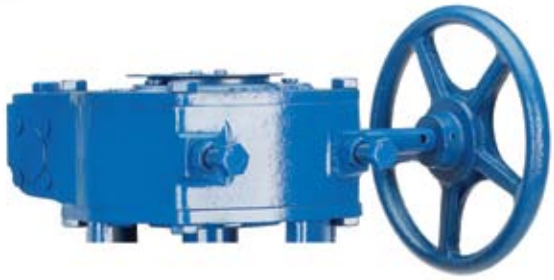
ANSI Class Rating: 125

Valve Style: Single-seated, stem guided globe control valve

Trim Characteristic: Equal percent contoured, modified linear

Actuator Type: Direct or reverse acting spring & diaphragm, electric motor or manual handwheel

Actuators

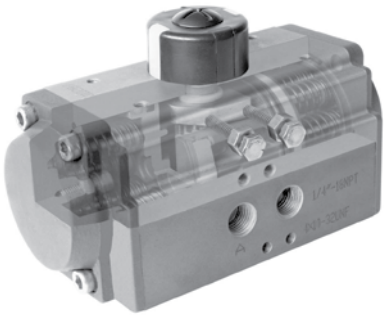


G-Series Manual Actuators

DeZURIK Water Controls manual actuators are constructed for dependable and lasting performance. Rugged worm gear design and heavy duty-corrosion resistant bearings provide easy valve operation and reliable long life. Both above ground and buried actuators are equipped with corrosion resistant stainless steel input shaft and bolting as standard. Housing is fully sealed and grease filled for maintenance-free service.

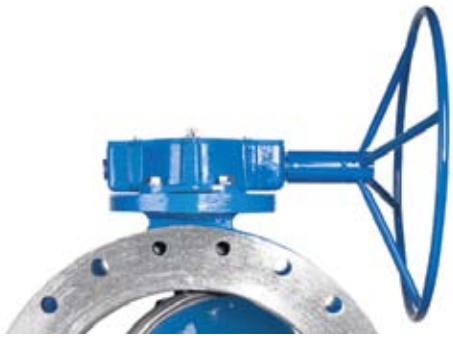
G-Series Cylinder Actuators

DeZURIK Water Controls cylinder actuators have demonstrated reliability and performance to match. These actuators utilize a rack and pinion design for smooth and efficient operation. The cylinder barrel is not only corrosion resistant but also highly impact resistant fiberglass resin composite. At the heart of the cylinder is a unique piston seal design that applies a triple teflon wiper with nitrile ruber backing for resiliency. This seal design has been used in our cylinders for generations with proven reliability and long life.



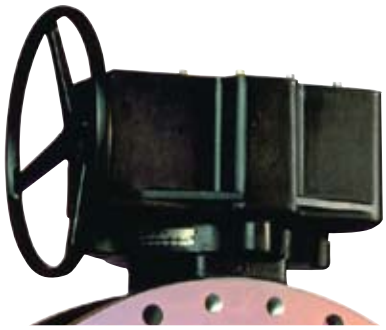
Compact Actuators

Compact actuators are a versatile rack and pinion design. The compact, modular design allows the actuator to be mounted for a low profile assembly.



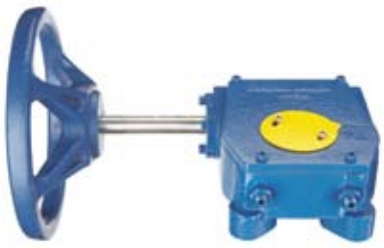
M-Series Actuators

M-Series Actuators are designed for use on smaller DeZURIK AWWA Butterfly Valves. The M-Series Actuator meets the requirements of AWWA C504 standards. The fully enclosed scotch yoke mechanism allows the M-Series Actuator to provide a torque curve that matches the torque requirements of the valve. The thread system of the traveling nut is self-locking, maintaining disc position under varying flow conditions.



LA-Series Actuators

LA-Series Actuators are designed for use on large DeZURIK AWWA Butterfly Valves. The LA-Series Actuator meets the requirements of AWWA C504 standards. The link-arm mechanism allows the LA-Series Actuator to provide characterized closure that slows valve travel and increases torque as the disc comes into the seat. The actuators feature high compressive strength yoke nut bearings that ensure reliable operation and increased cycle life. The actuator is self-locking, maintaining valve position under varying flow conditions.



MG-Series Actuators

Manual Gear Actuators feature a ductile iron gear with sintered bronze bearings on each end of the stainless steel input shaft for durability and performance.

PowerRac Cylinder

The rack and pinion design of PowerRac® Actuators provides high-operating torque for accurate control in modulating services, and high opening torque for on/off services. The unique square collet coupling rigidly clamps the drive pinion to the valve shaft, eliminating backlash in the drive connection. This rigid connection allows thrust from the cylinder to precisely position the valve. Positioners are solidly mounted on the actuator housing with a square nut, feeding exact valve position directly to the positioner. No lost motion assures accurate valve positioning. The modular design and compact size allow the actuator to be close coupled to the valve. Standard ISO bolt circle allows PowerRac® Actuators to be used on all DeZURIK quarter turn valves. Double-acting or fail-safe spring-return cylinder options available. PowerRac® Actuators are available with safety lockout devices.

Lifetime Warranty: DeZURIK has always been committed to the highest quality products and service, and our Lifetime Warranty on PowerRac® demonstrates our confidence in the quality and features of this actuator. Contact your local DeZURIK representative for details

Rotary Diaphragm

DeZURIK Diaphragm Actuators are designed specifically for use on quarter-turn valves. They feature all steel, cast iron and stainless steel construction for corrosion resistance in caustic environments. The actuators are designed for on/off or modulating service in either a fail-open or fail-closed mode. Action can be easily changed in the field with no additional parts required. The spring cartridge is cage retained at the factory for increased safety. The output shaft is supported at the top and bottom with bronze bearings that absorb side thrust and insure smooth, efficient, and accurate throttling control. Diaphragm Actuators are available with safety lockout devices.

Linear Diaphragm Actuators

Type 01 and 05 pneumatic actuators are specifically designed for DeZURIK linear control valves. These spring and diaphragm style actuators feature rugged cast iron/steel construction. Type 01 actuators are designed for heavy-duty globe valves and have stroke sizes up to 6" (150mm). The 05 actuator is a low cost actuator of aluminium construction with strokes up to 11/2" (40mm) for light, medium and smaller heavy-duty valve applications. The actuators come in various sizes, spring ranges, and diaphragm areas. Actuators can be specified as direct or reverse acting for failsafe valve positioning.

Valve Selection Chart

1 = Typical Application | 2 = May Be Used | 3 = Limited Application | 4 = Not Used

Application Requirements	Butterfly Valves			Plug Valves			Gate Valves	
	AWWA/ BAW	BOS Resilient Seated	BHP	Standard Port Eccentric PEC	100% Port Eccentric PEF	3-Way (PTW) & 4-Way (PFW)	Knife Gate	Ported Gate
Function:								
On-Off	1	1	1	1	1	4	1	1
Throttling	1	1	1	1	1	1	3	4
Diversion	3	3	3	4	4	1	4	4
Media:								
Liquids (Clean)	1	1	1	1	1	1	1	3
Liquids (Dirty)	2	2	3	1	1	1	1	1
Liquids (Viscous)	2	1	2	1	1	1	1	1
Liquids (Corrosive)	4	2	1	1	1	1	2	1
Slurries (Sludge)	2	2	3	1	1	1	1	1
Liquids & Slurries (Scaling)	4	4	4	3	3	4	4	1
Slurries (Abrasive)	4	3	2	2	2	2	1	1
Slurries (Fibrous)	4	2	2	2	2	1	1	1
High Pressure Steam (+150lbs.)	4	4	1	4	4	4	4	4
Low Pressure Steam	4	4	1	3	4	3	4	3
Gasses (Clean)	1	1	1	1	1	1	2	2
Gasses (Dirty)	2	2	3	1	1	1	2	2
Gasses (Corrosive)	4	2	1	1	1	1	2	2
Dry Materials	4	2	4	2	2	4	1	1
Valve Characteristics:								
High Flow Capacity	1	1	1	2	1	1	1	1
Low Head Loss (Wide Open)	1	1	1	2	1	1	1	1
Low Torque/Thrust	2	2	1	2	2	1	2	2
High Temp., 800°F+ (425°C+)	4	4	3	3	4	4	1	4
Cryogenic	4	4	3	4	4	4	4	4
Erosion Resistance	4	3	2	1	1	3	1	1
Cavitation (Kc) @ 60% Open	.35	.35	.35	.59	.59	N/A	N/A	N/A
Recovery Factor F_L^2 @ 60% Open	.40	.40	.43	.70	.70	N/A	N/A	N/A
Shutoff Class	AWWA C504	ANSI VI or better	ANSI IV, VI or better	ANSI IV, VI or better	ANSI VI or better	N/A	TAPPI	Class VI or Better
Pressure Rating	AWWA 25, 75, 150 & 250	200/ 250 psi CWP	ANSI 150 & 300	125- 450 psi CWP	150- 175 psi CWP	125 psi CWP	125/ 150 psi CWP	100/150 psi CWP

Note: This valve selection chart is designed to provide you with a quick reference on valve style capabilities. The chart considers both cost and performance factors for a specific application when determining whether a valve style is rated Typical, May Be Used, or Limited Application. For more information, contact DeZURIK or your local representative with your specific application requirements.

Valve Selection Chart

1 = Typical Application | 2 = May Be Used | 3 = Limited Application | 4 = Not Used

Application Requirements	Linear Control Valves				Rotary Control Valves	
	Cage Guided	Top Guided	Skirt Guided	3-Way	Rotary Control Valves	V-Port Control Valve
Function:						
On-Off	1	1	1	4	1	2
Throttling	1	1	1	1	1	1
Diversion	4	4	4	1	4	4
Media:						
Liquids (Clean)	1	1	1	1	1	1
Liquids (Dirty)	4	1	2	2	1	1
Liquids (Viscous)	4	1	1	1	1	1
Liquids (Corrosive)	1	1	1	1	1	1
Slurries (Sludge)	4	1	3	3	1	1
Liquids & Slurries (Scaling)	4	3	4	4	2	3
Slurries (Abrasive)	4	3	4	4	1	3
Slurries (Fibrous)	4	4	4	4	4	1
High Pressure Steam (+150lbs.)	1	2	2	2	1	3
Low Pressure Steam	1	1	1	1	1	1
Gasses (Clean)	1	1	1	1	1	1
Gasses (Dirty)	3	1	1	1	1	1
Gasses (Corrosive)	1	1	1	1	1	1
Dry Materials	4	4	4	4	4	4
Valve Characteristics:						
High Flow Capacity	1	1	1	1	1	1
Low Head Loss (Wide Open)	N/A	N/A	N/A	N/A	N/A	1
Low Torque/Thrust	1	2	3	3	2	1
High Temp., 800°F+ (425°C+)	2	1	3	3	3	4
Cryogenic	3	1	3	3	2	4
Erosion Resistance	4	2	3	3	1	3
Cavitation (Kc) @ 60% Open	.61	.70	.80	.80	.60	.49
Recovery Factor F_L^2 @ 60% Open	.90	.94	.87	.87	.70	.61
Shutoff Class	ANSI II-VI	ANSI IV-VI	ANSI IV-VI	ANSI IV	ANSI IV-VI	ANSI II, IV, VI OR BETTER
Pressure Rating	ANSI 125-900/1500	ANSI 125-900/1500	ANSI 150-600	ANSI 125-600	ANSI 150-300	ANSI 150 & 300

Note: This valve selection chart is designed to provide you with a quick reference on valve style capabilities. The chart considers both cost and performance factors for a specific application when determining whether a valve style is rated Typical, May Be Used, or Limited Application. For more information, contact DeZURIK or your local representative with your specific application requirements.

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