

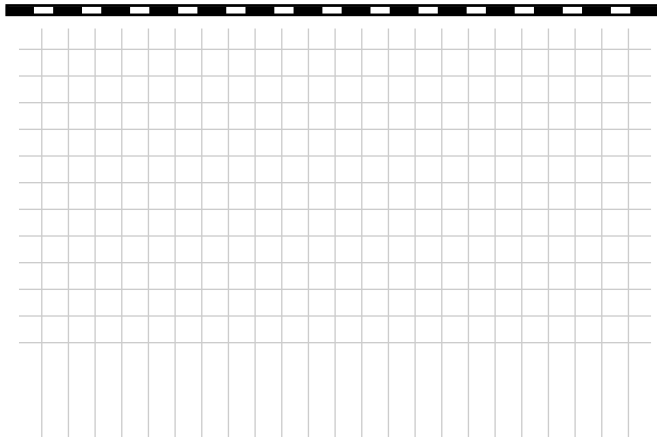
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Z-Tech

Severe Chemical Service Valves

We Put Control Where You Need It.

SIMTECH



Z-Tech Series Valves

TABLE OF CONTENTS

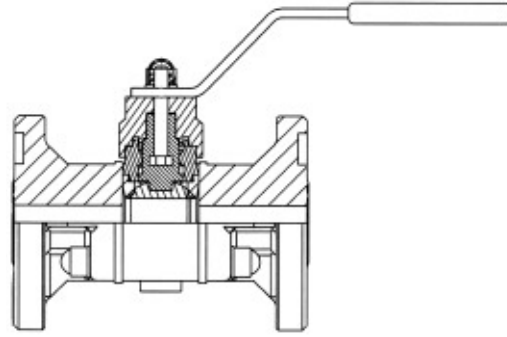
Ball Valves

ZT 430 Series: Three Piece Flanged Ball Valve	2-3
Pneumatic Actuators and Accessories	4-5
ZT 432-1 Series: One Piece Flanged Body Design.....	6-7
ZT 432-2 Series: One Piece Flanged Body Design.....	8-9
Pneumatic Actuators and Accessories	10-11
Electric Actuators and Accessories	12-13
ZT 442 Series: One Piece Body Design	14-15

Z-Tech 430 Series

Three Piece Flanged Ball Valve

Material: PPG, Kynar™ PVDF
Size: 1/2" - 2"
Pressure Rating: 232psi
Seats: PTFE
Seals: PTFE
Connections: Flanged



ISO 9002 CERTIFIED

Engineering Guide Specification

Materials of Construction:

PP: Class PP 110B76383 per ASTM D4101
Kynar™ PVDF: Type 1 per ASTM D3222

Special Features

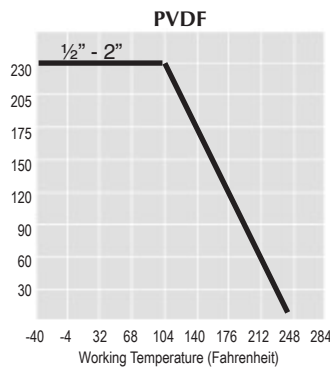
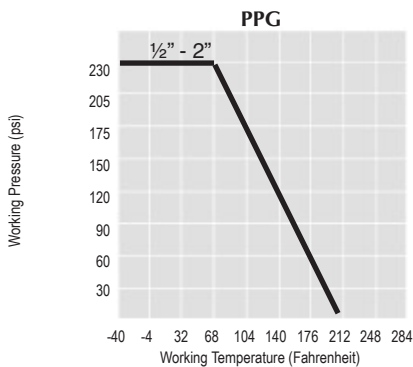
- PTFE chevron packing
- Full port design
- Available with out internal elastomers
- Low maintenance and extended operational life
- Rugged industrial design
- Cost effective alternative to stainless steel, exotic alloy or PTFE lined valves
- Light weight design
- No external corrosion

Flow Rate in Gallons Per Minute

ND	1/2	3/4	1	1 1/4	1 1/2	2
Bore Size	.512	.709	.910	1.18	1.50	1.89
Cv	12.5	28	50.9	81	150	230

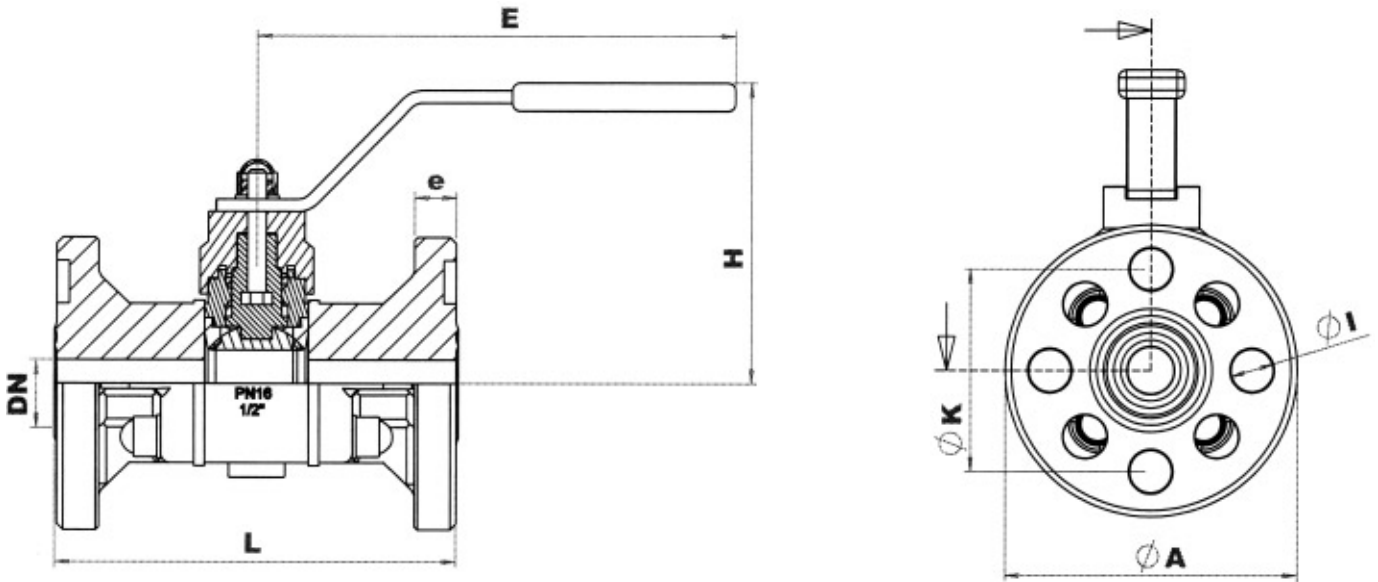
Cv is the number of gallons per minute of water at a temperature of 68°F that will flow through a valve with a 1 psi pressure differential at a specified travel.

Pressure/Temperature Graph: Working PSI/Fahrenheit



Z-Tech 430 Series

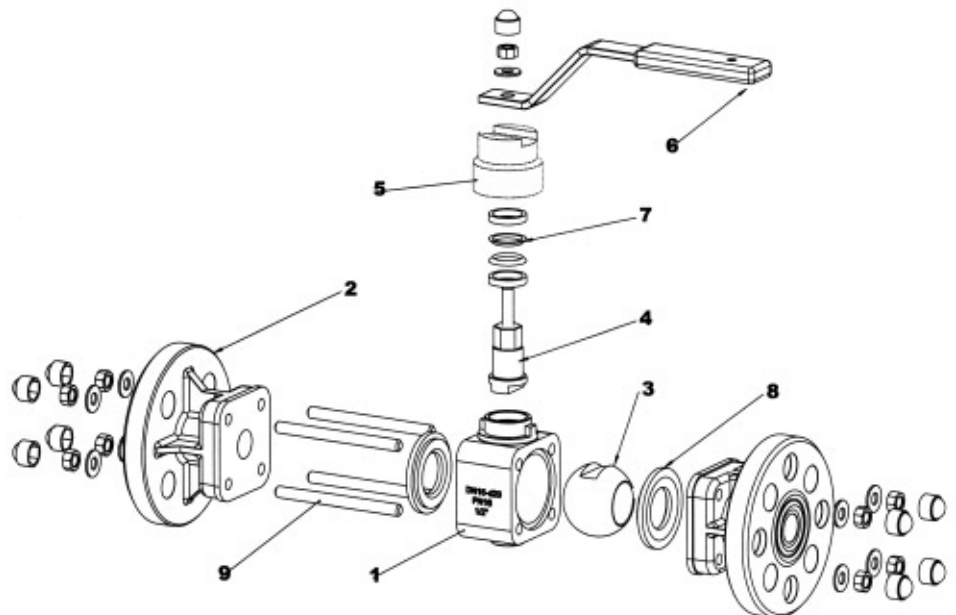
Dimensional Data



d Inches	d MM	A	H	E	L	e	K	I	Body Bolts	Flange Bolts
1/2	20	3.74	3.94	6.06	5.12	0.59	2.56	14 x 4	M6	4 x M12
3/4	25	4.13	3.94	6.06	5.91	0.63	2.95	14 x 4	M6	4 x M12
1	32	4.61	3.94	6.06	6.30	0.63	3.35	14 x 4	M6	4 x M12
1 1/4	40	5.51	4.84	7.17	7.09	0.71	3.94	18 x 4	M6	4 x M16
1 1/2	50	5.91	4.84	7.17	7.87	0.79	4.33	18 x 4	M6	4 x M16
2	63	6.50	4.84	7.17	9.06	0.79	4.92	18 x 4	M6	4 x M16

Parts Listing

1. Body
2. Block Flange
3. Ball
4. Stem
5. Drive Socket
6. Handel
7. Stem Seats
8. Body Seats
9. Tie & Bolts



Z-Tech 430 Series

Pneumatic Actuators and Accessories

Features & Benefits

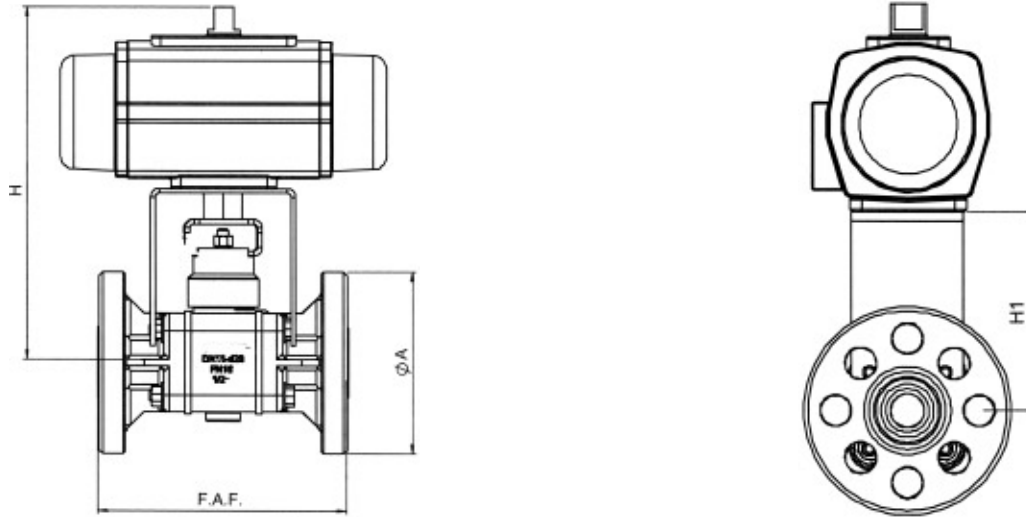
- The SIMTECH rack & pinion pneumatic actuator produces linear torque output in a compact design utilizing the same body and end caps for double acting and spring return units.
- NAMUR VDI/VDE 3845 and ISO 5211 dimension on all sizes. No special blocks are required to mount solenoid valves, limit switches or positioners.
- The standard angle of rotation is 90°. Additional travel rotations of 120°, 135°, 150° and 180° are available. Actuators feature a travel stop with $\pm 10^\circ$ adjustment in both open and close directions.
- The bottom plate design secures a captive pinion (anti-blowout system) and permits flexibility in mounting by retaining AISI 304 nuts (standard) or AISI 304 bolts (optional) in either dual ISO patterns.
- All pinions are supplied with anti-blowout retention in both directions.
- The female pinion drive is standard with a double square output drive.
- Shaft bearings isolate the pinion gear from the housing and support the shaft for high cycle applications.
- The pinion teeth are engaged for the full length and stroke of the piston. The pinion height allows manual override without disturbing the position indication.
- Extruded aluminum body is internally machined and lapped to exact specifications. All internal and external surfaces are anodized for corrosion resistance.
- External open/closed indicator is standard, available for all rotations.
- Pistons incorporate double wear pads to separate the rack from the actuator wall and serve as both guide and wear bearings.
- Epoxy coated special steel springs are pre-loaded with nonmetallic materials. The stainless steel end cap fasteners are extra long to allow for spring relaxation. All parts are corrosion resistant.
- Air pressure operation from 40 to 150 PSI. Water, nitrogen and compatible hydraulic fluids may also be used to power the actuator.
- All external fasteners are corrosion resistant stainless steel.
- All units are permanently lubricated at the factory with non-silicone grease.
- All units are factory pressure and leak tested, and externally stamped with a progressive traceable serial number.

Accessories & Options

- Electroless Nickel Plating available for improved exterior corrosion resistance.
- Limit Switches with corrosion resistant technopolymer enclosure available in NEMA 4 (Standard) & NEMA 7.
- Solenoid valves with standard NAMUR mount available in 110 VAC (standard), 12 VDC, 24VDC, 24 VAC, 48 VAC, & 220 VAC.
- Positioners for modulating service controlled with a 3-15psi signal or 4-20mA signal.

Z-Tech 430 Series Pneumatic Actuators and Accessories

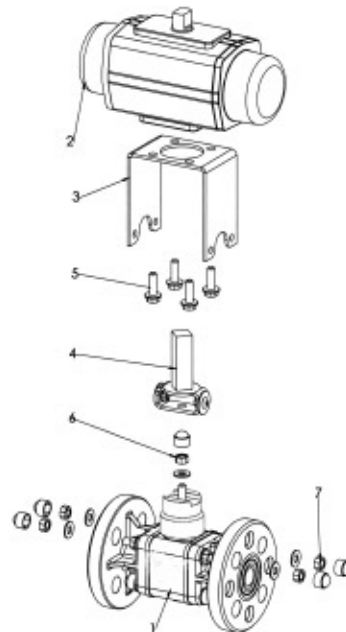
Dimensional Data



D Inches	D MM	A	H1	F.A.F	Body Bolts	Flange Bolts
1/2	20	3.74	6.06	5.12	M6	4 x M12
3/4	25	4.13	6.06	5.91	M6	4 x M12
1	32	4.61	6.06	6.30	M6	4 x M12
1 1/4	40	5.51	7.17	7.09	M6	4 x M16
1 1/2	50	5.91	7.17	7.87	M6	4 x M16
2	63	6.50	7.17	9.06	M6	4 x M16

Parts Listing

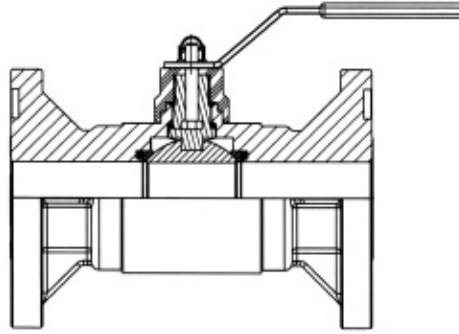
1. Sandwich Ball Valve
2. Pneumatic Actuator
3. Mounting Kit
4. Driving Sleeve
5. Actuator's Screws & Bolts
6. Sleeve's Screws & Bolts
7. Valve's Screws & Bolts



Z-Tech 432-1 Series

One Piece Flanged Body Design

Material: PPH, PEHD, PVDF
Size: 1/2" - 2"
Pressure Rating: 232psi
Seats: PTFE
Seals: EPDM or FKM (Viton), FEP, PTFE
Connections: Flanged



ISO 9002 CERTIFIED

Engineering Guide Specification

Materials of Construction:

PP: Class PP 110B76383 per ASTM D4101

Kynar™ PVDF: Type 1 per ASTM D3222

Special Features

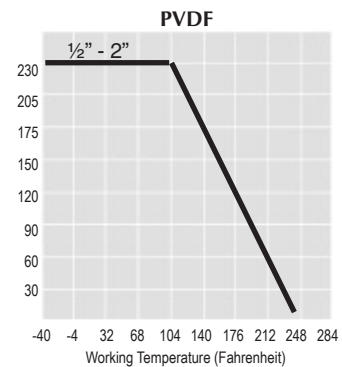
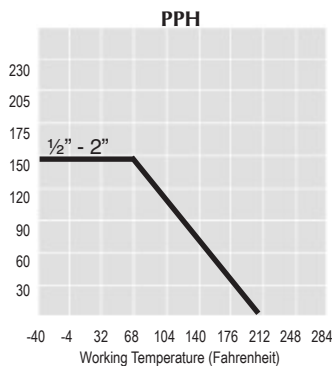
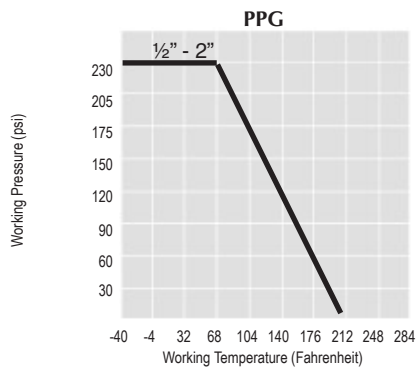
- Uni-body design eliminates fugitive emissions
- Ideal for highly corrosive fluids
- Light weight design
- PTFE chevron packing
- Full port design
- Available with out internal elastomers
- Low maintenance and extended operational life
- Rugged industrial design
- Cost effective alternative to stainless steel, exotic alloy or PTFE lined valves

Flow Rate in Gallons Per Minute

ND	1/2	3/4	1	1 1/4	1 1/2	2
Bore Size	.512	.709	.910	1.18	1.50	1.89
Cv	12.5	28	50.9	81	150	230

Cv is the number of gallons per minute of water at a temperature of 68°F that will flow through a valve with a 1 psi pressure differential at a specified travel.

Pressure/Temperature Graph: Working PSI/Fahrenheit



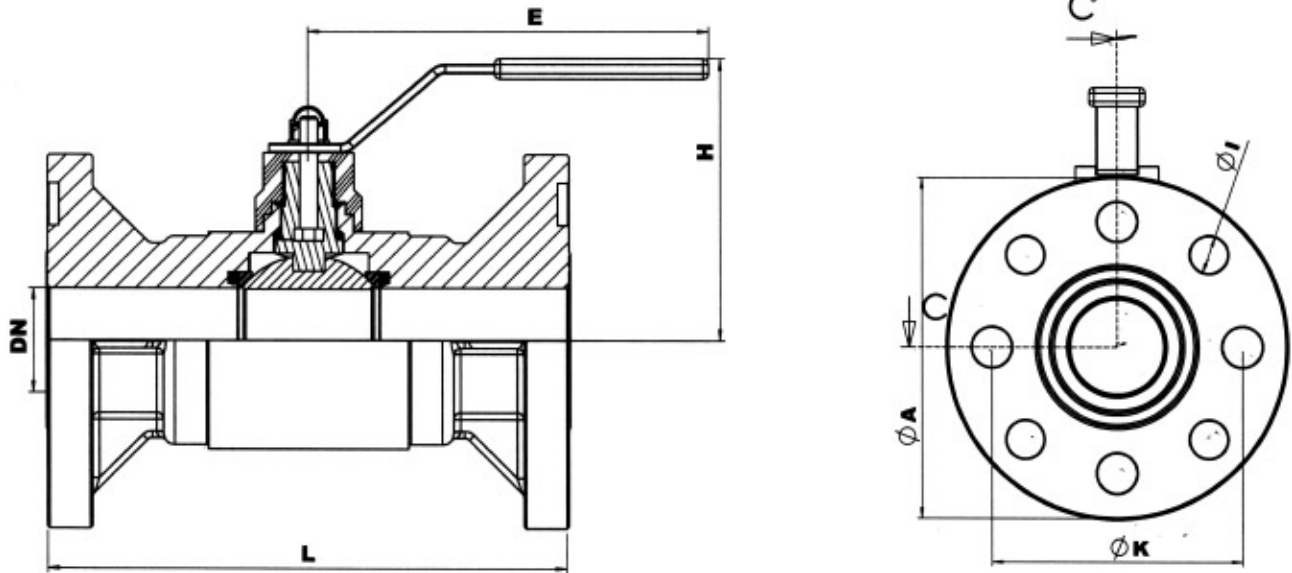
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Z-Tech 432-1 Series

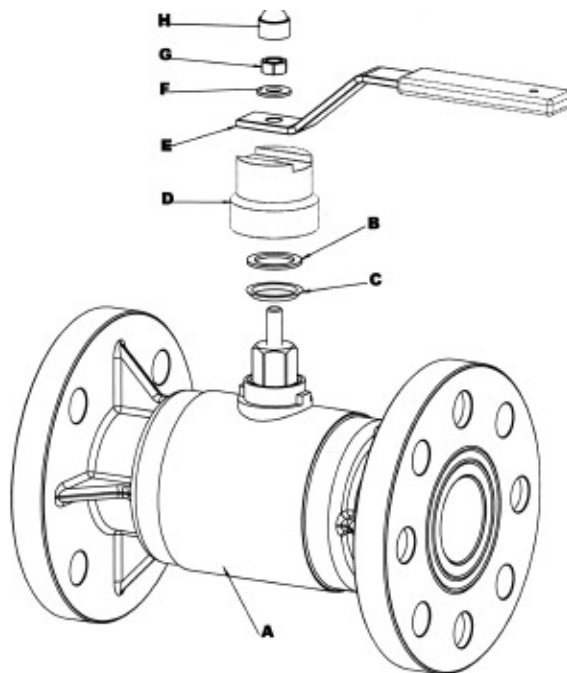
Dimensional Data



d Inches	d MM	A	H	E	L	e	K	I	Flange Bolts
1/2	20	3.74	1.99	2.87	5.12	0.47	2.56	14 x 4	4 x M12
3/4	25	4.13	3.94	6.06	5.91	0.47	2.95	14 x 4	4 x M12
1	32	4.61	3.94	6.06	6.30	0.63	3.35	14 x 4	4 x M12
1 1/4	40	5.51	4.84	7.17	7.09	0.63	3.94	18 x 4	4 x M16
1 1/2	50	5.91	4.84	7.17	7.87	0.71	4.33	18 x 4	4 x M16
2	63	6.50	4.84	7.17	9.06	0.71	4.92	18 x 4	4 x M16

Parts Listing

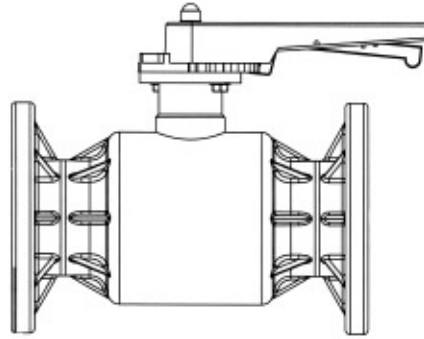
- A. Body
- B. Flat Stem Seat
- C. Conical Stem Seat
- D. Drive Socket
- E. Handel
- F. Washer
- G. Nut
- H. Cap



Z-Tech 432-2 Series

One Piece Flanged Body Design

Material:	PPH, PEHD, PVDF
Size:	2½" - 4"
Pressure Rating:	232psi
Seats:	PTFE
Seals:	EPDM or FKM (Viton), FEP, PTFE
Connections:	Flanged



ISO 9002 CERTIFIED

Engineering Guide Specification

Materials of Construction:

PP: Class PP 110B76383 per ASTM D4101

Kynar™ PVDF: Type 1 per ASTM D3222

Special Features

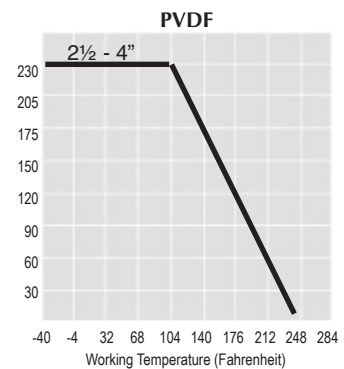
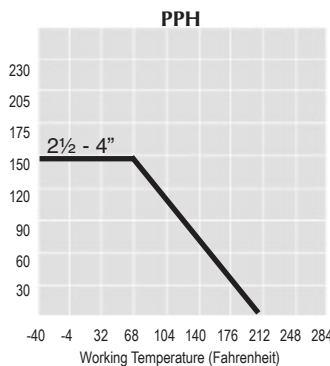
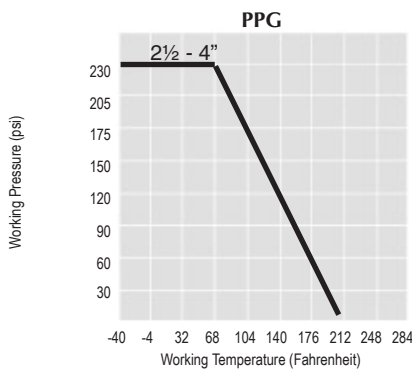
- Uni-body design eliminates fugitive emissions
- Ideal for highly corrosive fluids
- Light weight design
- PTFE chevron packing
- Full port design
- Available with out internal elastomers
- Low maintenance and extended operational life
- Rugged industrial design
- Cost effective alternative to stainless steel, exotic alloy or PTFE lined valves

Flow Rate in Gallons Per Minute

ND	2½	3	4
Bore Size	2.36	2.72	3.94
Cv	360	485	768

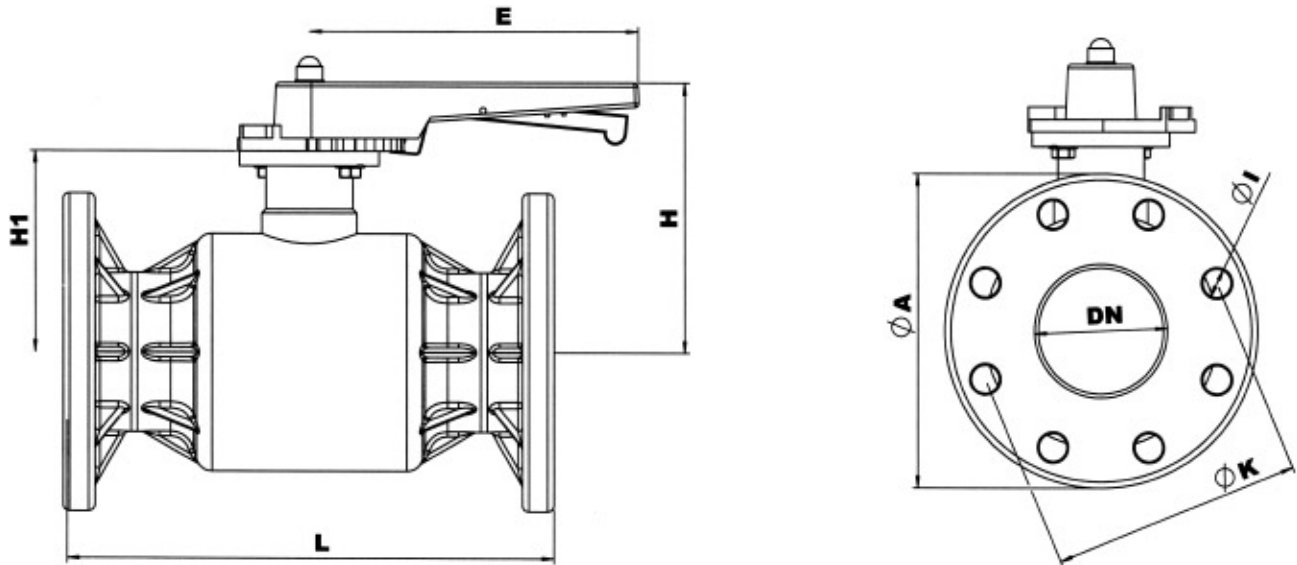
Cv is the number of gallons per minute of water at a temperature of 68°F that will flow through a valve with a 1 psi pressure differential at a specified travel.

Pressure/Temperature Graph: Working PSI/Fahrenheit



Z-Tech 432-2 Series

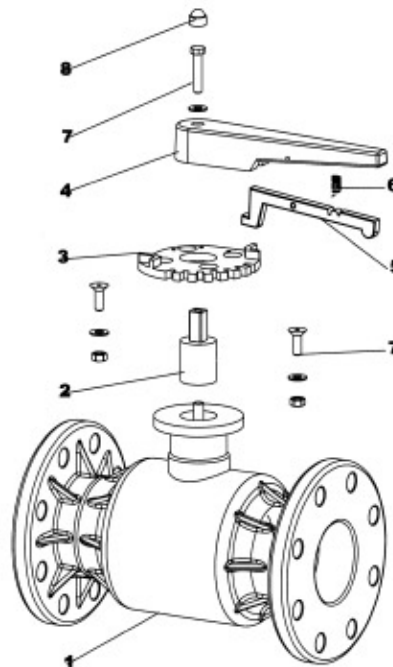
Dimensional Data



d Inches	d MM	A	H	E	L	e	K	I	Flange Bolts
2½	75	7.28	7.99	8.46	11.42	0.71	5.71	18 x 4	4 x M16
3	90	7.87	7.99	8.46	12.20	0.79	6.30	18 x 8	8 x M16
4	110	8.86	7.99	8.46	13.78	0.79	7.09	18 x 8	8 x M16

Parts Listing

1. Body
2. Drive Socket
3. Plate
4. Handel
5. Trigger
6. Spring
7. Screw & Bolts
8. Cap



Z-Tech 432 Series

Pneumatic Actuators and Accessories

Features & Benefits

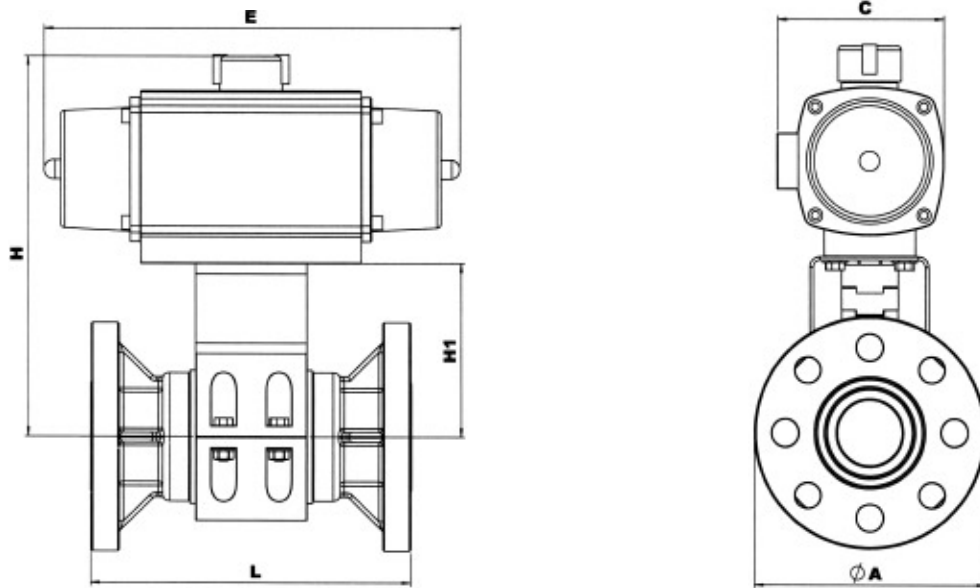
- The SIMTECH rack & pinion pneumatic actuator produces linear torque output in a compact design utilizing the same body and end caps for double acting and spring return units.
- NAMUR VDI/VDE 3845 and ISO 5211 dimension on all sizes. No special blocks are required to mount solenoid valves, limit switches or positioners.
- The standard angle of rotation is 90°. Additional travel rotations of 120°, 135°, 150° and 180° are available. Actuators feature a travel stop with $\pm 10^\circ$ adjustment in both open and close directions.
- The bottom plate design secures a captive pinion (anti-blowout system) and permits flexibility in mounting by retaining AISI 304 nuts (standard) or AISI 304 bolts (optional) in either dual ISO patterns.
- All pinions are supplied with anti-blowout retention in both directions.
- The female pinion drive is standard with a double square output drive.
- Shaft bearings isolate the pinion gear from the housing and support the shaft for high cycle applications.
- The pinion teeth are engaged for the full length and stroke of the piston. The pinion height allows manual override without disturbing the position indication.
- Extruded aluminum body is internally machined and lapped to exact specifications. All internal and external surfaces are anodized for corrosion resistance.
- External open/closed indicator is standard, available for all rotations.
- Pistons incorporate double wear pads to separate the rack from the actuator wall and serve as both guide and wear bearings.
- Epoxy coated special steel springs are pre-loaded with nonmetallic materials. The stainless steel end cap fasteners are extra long to allow for spring relaxation. All parts are corrosion resistant.
- Air pressure operation from 40 to 150 PSI. Water, nitrogen and compatible hydraulic fluids may also be used to power the actuator.
- All external fasteners are corrosion resistant stainless steel.
- All units are permanently lubricated at the factory with non-silicone grease.
- All units are factory pressure and leak tested, and externally stamped with a progressive traceable serial number.

Accessories & Options

- Electroless Nickel Plating available for improved exterior corrosion resistance.
- Limit Switches with corrosion resistant technopolymer enclosure available in NEMA 4 (Standard) & NEMA 7.
- Solenoid valves with standard NAMUR mount available in 110 VAC (standard), 12 VDC, 24VDC, 24 VAC, 48 VAC, & 220 VAC.
- Positioners for modulating service controlled with a 3-15psi signal or 4-20mA signal.

Z-Tech 432 Series Pneumatic Actuators and Accessories

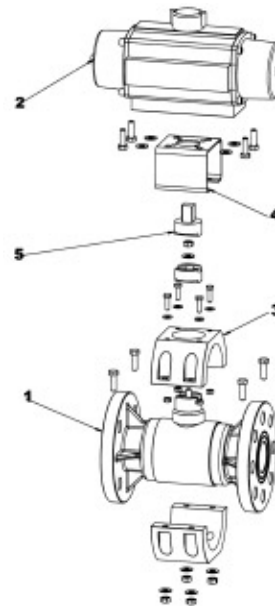
Dimensional Data



D Inches	D MM	A	H1	F.A.F	K	Body Bolts	Flange Bolts
1/2	20	3.74	5.71	5.12	2.95	M6	4 x M12
3/4	25	4.13	5.71	5.91	2.95	M6	4 x M12
1	32	4.61	5.71	6.30	3.35	M6	4 x M12
1 1/4	40	5.51	5.71	7.09	3.94	M6	4 x M16
1 1/2	50	5.91	5.71	7.87	4.33	M6	4 x M16
2	63	6.50	6.46	9.06	4.92	M6	4 x M16

Parts Listing

1. SIMTECH Ball Valve
2. Pneumatic Actuator
3. Valve Mounting Kit
4. Actuator Mounting Kit
5. Driving Sleeve



Z-Tech 432 Series

Electric Actuators and Accessories

Features & Benefits

- Heavy duty gears can reduce down time due to gear failure.
- Permanent lubrication requires little or no maintenance.
- NEMA IV enclosure - Provides protection against splashing, seepage, falling or hose-directed water and severe external applications.
- Open/Close limit switches - SPDT limit switches permit independent fine-tuning of open and close positions.
- Cam-adjusted limit switches assure fast and easy adjustments.
- Extensive selection ranging from 100 in/lb to 27300 in/lb torque.
- Actuators can be mounted and operated in any position.
- Actuators can be used on diverse valve types and in a wide range of applications.
- Thermally bonded polyester coating provides a high degree of corrosion resistance.
- Stainless steel fasteners provide maximum corrosion protection for severe applications.
- Terminal strip assures a fast and easy field installation.
- Thermal over-load protection should the actuator become stalled.
- Reversing Motor.

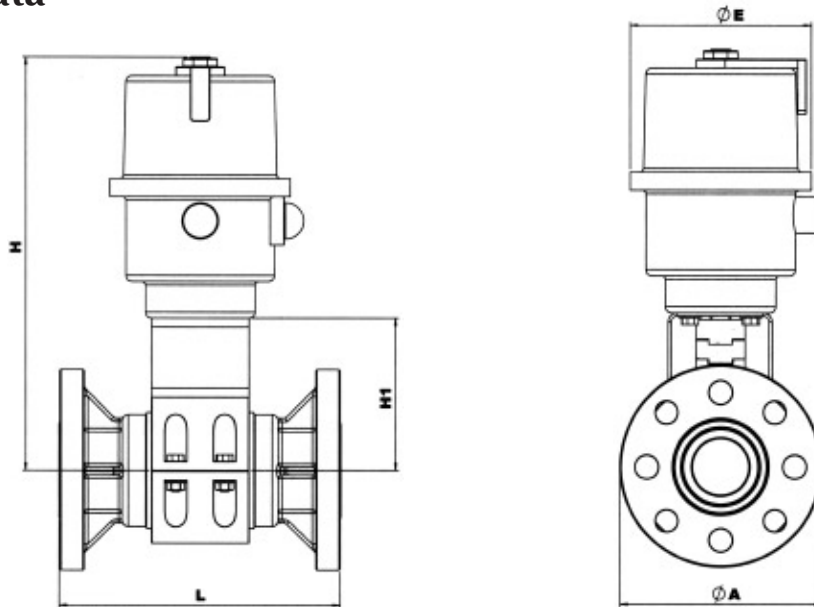
Accessories & Options

- Auxiliary Switches - Dry contact switches for position indication or control of peripheral equipment.
- Feedback potentiometer - Resistive position feedback and control applications.
- Control relays - Two wire control applications.
- Heater & thermostat - Low temperature or high humidity applications.
- Breather & drain - Humidity control.
- Proportional Positioner - Control applications using analog (4-20mA, 0-10vdc) signals.
- Feedback transmitter - Position feedback, 4-20mA.
- Brakes - Butterfly valve automation and applications requiring true holding power.
- Speed control - Applications requiring slower cycle times, i.e. water hammer.
- Timers - Repeat cycle applications, valve open and close at same time every day.
- Visual indicator - Fast visual valve position indication.
- Torque sensor - Shuts actuator off in stall condition.
- Controls - Simple on/off to process control for temperature, pressure, flow, etc.
- Mounting hardware - To adapt actuator to valve.

Z-Tech 432 Series

Electric Actuators and Accessories

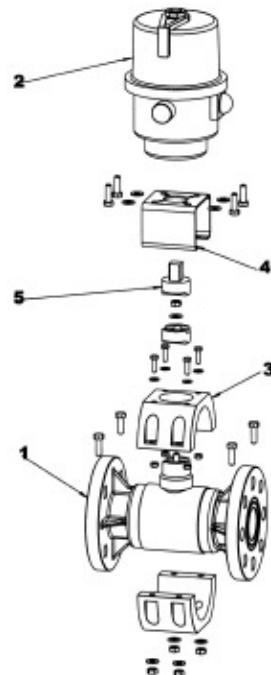
Dimensional Data



D Inches	D MM	A	H	H1	E	L	Flange Bolts
1/2	20	3.74	7.83	5.71	7.48	5.12	4 x M12
3/4	25	4.13	8.62	5.71	7.48	5.91	4 x M12
1	32	4.61	8.62	5.71	7.48	6.30	4 x M12
1 1/4	40	5.51	9.33	5.71	7.48	7.09	4 x M16
1 1/2	50	5.91	9.33	5.71	7.48	7.87	4 x M16
2	63	6.50	10.39	6.46	6.69	9.06	4 x M16

Parts Listing

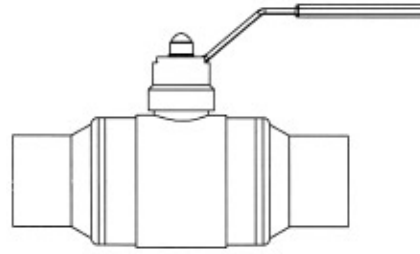
1. SIMTECH Ball Valve
2. Electric Actuator
3. Valve Mounting Kit
4. Actuator Mounting Kit
5. Driving Sleeve



Z-Tech 442 Series

One Piece Body Design

Material: PPH, HDPE, PVDF
Size: 1/2" - 2"
Pressure Rating: 150psi
Seats: PTFE
Seals: EPDM or Viton
Connections: Flanged,
 IPS Socket
 FNPT



ISO 9002 CERTIFIED

Engineering Guide Specification

Materials of Construction:

PP: Class PP 110B76383 per ASTM D4101

Kynar™ PVDF: Type 1 per ASTM D3222

Special Features

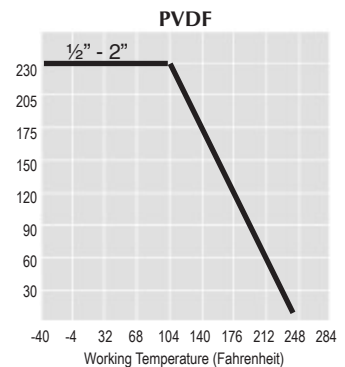
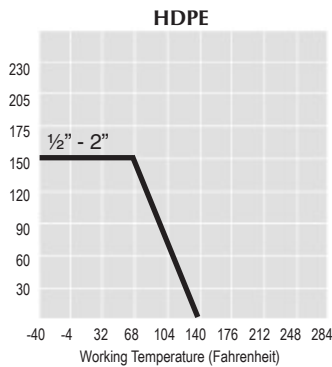
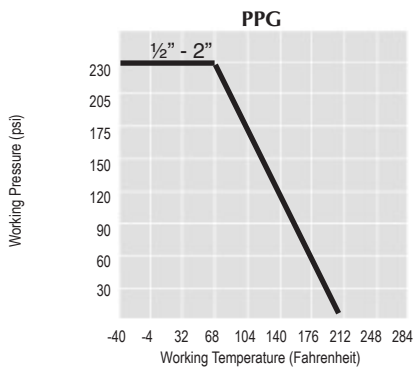
- Uni-body design eliminates fugitive emissions
- Ideal for highly corrosive fluids
- Light weight design
- PTFE chevron packing
- Full port design
- Available with out internal elastomers
- Low maintenance and extended operational life
- Rugged industrial design
- Cost effective alternative to stainless steel, exotic alloy or PTFE lined valves

Flow Rate in Gallons Per Minute

ND	1/2	3/4	1	1 1/4	1 1/2	2
Bore Size	.512	.709	.910	1.18	1.50	1.89
Cv	12.5	28	50.9	81	150	230

Cv is the number of gallons per minute of water at a temperature of 68°F that will flow through a valve with a 1 psi pressure differential at a specified travel.

Pressure/Temperature Graph: Working PSI/Fahrenheit

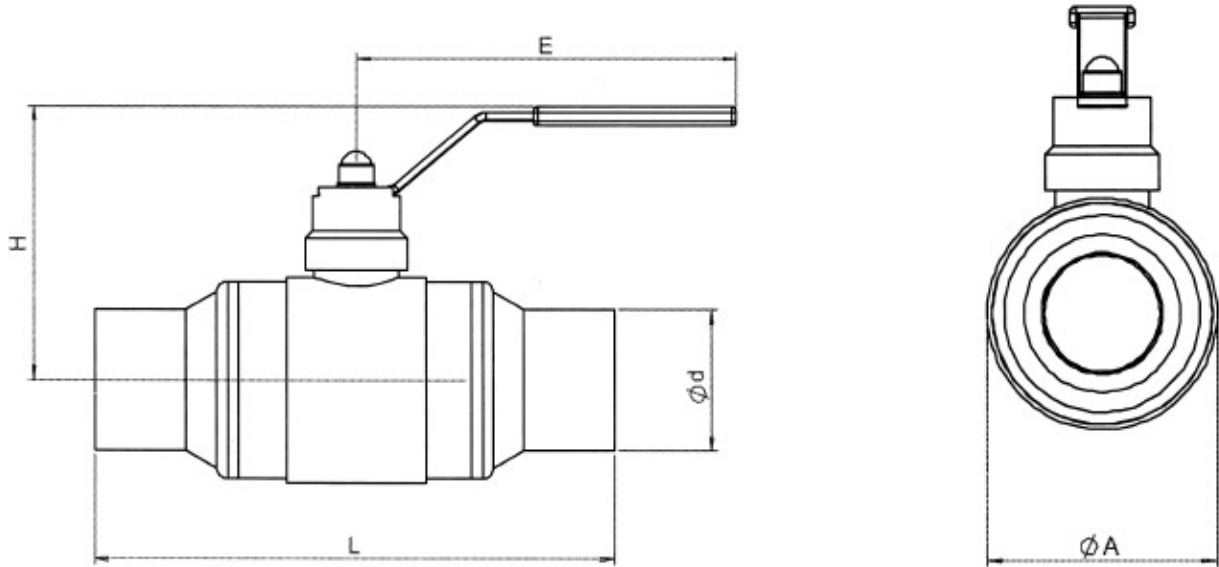


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Z-Tech 442 Series

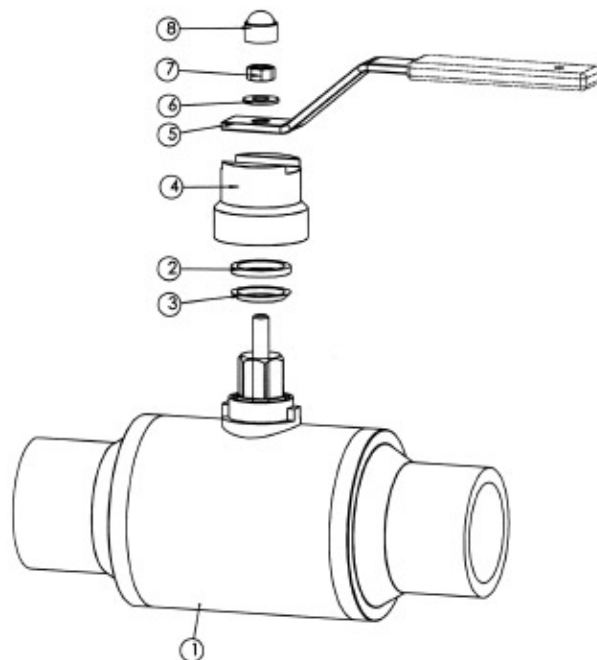
Dimensional Data



d Inches	d MM	A	H	E	L
1/2	20	1.69	1.99	2.87	5.12
3/4	25	2.20	3.94	6.06	5.91
1	32	2.20	3.94	6.06	6.30
1 1/4	40	3.07	4.84	7.17	7.09
1 1/2	50	3.07	4.84	7.17	7.87
2	63	3.86	5.24	7.17	9.06

Parts Listing

1. Body
2. Flat Stem Seat
3. Conical Stem Seat
4. Drive Socket
5. Handel
6. Washer
7. Nut
8. Cap



Simtech Industrial Products, Inc.
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Phone (215) 547-0444 Fax 215-547-9129
E-mail: info@simtechUSA.com
Web site: www.simtechUSA.com

WARRANTY

Simtech Industrial Products, Inc. products are warranted to be free from defects in materials and workmanship for one (1) year from date of shipment. No claim shall be permitted under this warranty unless Buyer gives Simtech Industrial Products, Inc. written notice of all respects in which Buyer claims the product to be defective. Notice must be received within ten (10) days from the date which the Buyer discovers, or should have discovered the defect. Buyer shall give Simtech Industrial Products, Inc. a reasonable opportunity to inspect the product after notice has been given. This warranty shall not apply to any products or components, which have been subjected to abnormal use, negligence or accident.

Seller's sole obligation under this warranty shall be limited solely on the repair or replacement, as elected by Simtech Industrial Products, Inc., of defective or non-conforming material. To the maximum extent permitted by law, Buyer irrevocably waives all claims for money damages relating to the condition, use and performance of the goods purchased. In no event shall Simtech Industrial Products, Inc. liability exceed the purchase price of the product sold by Simtech Industrial Products, Inc.

In no event, whether because of a breach of warranty or representation or any other cause, whether based upon contract, tort, warranty or otherwise, arising out of the performance or nonperformance by seller of its obligations under this agreement or with respect to the products sold pursuant here to; shall seller be liable for lost earnings, income or profits or indirect, incidental, liquidated or consequential damages.

The implied warranties of merchantability and fitness for a particular purpose except as set forth in this warranty, express or implied, are hereby disclaimed and excluded. Nothing shall be construed as an additional warranty unless specifically designated as such in writing and signed by Simtech Industrial Products, Inc.

Simtech Industrial Products, Inc. reserves the right, in its discretion, at any time and from time to time, to make changes to any specification, data or information contained herein.