

Features

- All valve materials comply with FDA and USDA requirements
- Tri-Clamp ends for hygienic connections
- Dyneon® TF-1641 (PTFE) FDA approved ball seats and cavity fillers
- Triple PTFE/Viton® high cycle live loaded stem seal packing
- Highly polished internals and end caps with 8-12 Ra finish
- Full Port direct mount ISO5211 valve
- Spring Return or Double Acting Actuators
- Actuators designed for minimum 1 million cycles
- Quarter turn rack and pinion design
- Highly visible valve position indicator
- Actuator factory lubricated for normal lifetime

Applications

Sanitary ball valves are typically used for food, beverage, pharmaceutical, personal care, and pet care applications where sanitary construction is required, as well as for utility and process applications where quick clamp connections are beneficial.

Operation

Double acting rack & pinion actuators use air pressure to open and air pressure to close the ball valve (4-way pilot). Spring return rack & pinion actuators use air pressure to open and springs to close the ball valve (3-way pilot). Actuator will work with filtered dry or lubricated compressed air. Air supply pilot pressure should be between 80 and 120 PSI. Easy to read visual valve position indicator located on top of actuator.

Construction

Valve Body	ASTM 316 Stainless Steel
Ball/Stem	ASTM 316 stainless steel
Ball Seats/ Cavity Filler	Dyneon® PTFE
Stem Seals	PTFE/ Viton®
Actuator Seals	NBR (Buna-N)
Actuator Body	Anodized aluminium, epoxy-polyester coated end covers
Position Indicator	Glass filled Polyamide
Fasteners	ASTM 304 Stainless Steel



Description

Heavy duty quarter turn rack & pinion actuators designed for long life and tested for a minimum 1 million operations. Investment cast 3-piece full port stainless steel body and end caps for unrestricted flow and minimum pressure loss. Valve seals are cavity filled Dyneon® PTFE. Self adjusting live loaded stem seal packing helps compensate for wear, pressure or temperature fluctuations, extending the cycle life of the valve. Blow-out proof stem. Cavity fillers avoid media entrapment and quick clamp end connections allow for easy cleaning. Standard Namur mounting pads for optional accessory confirmation switches, pilot valves and valve positioners.

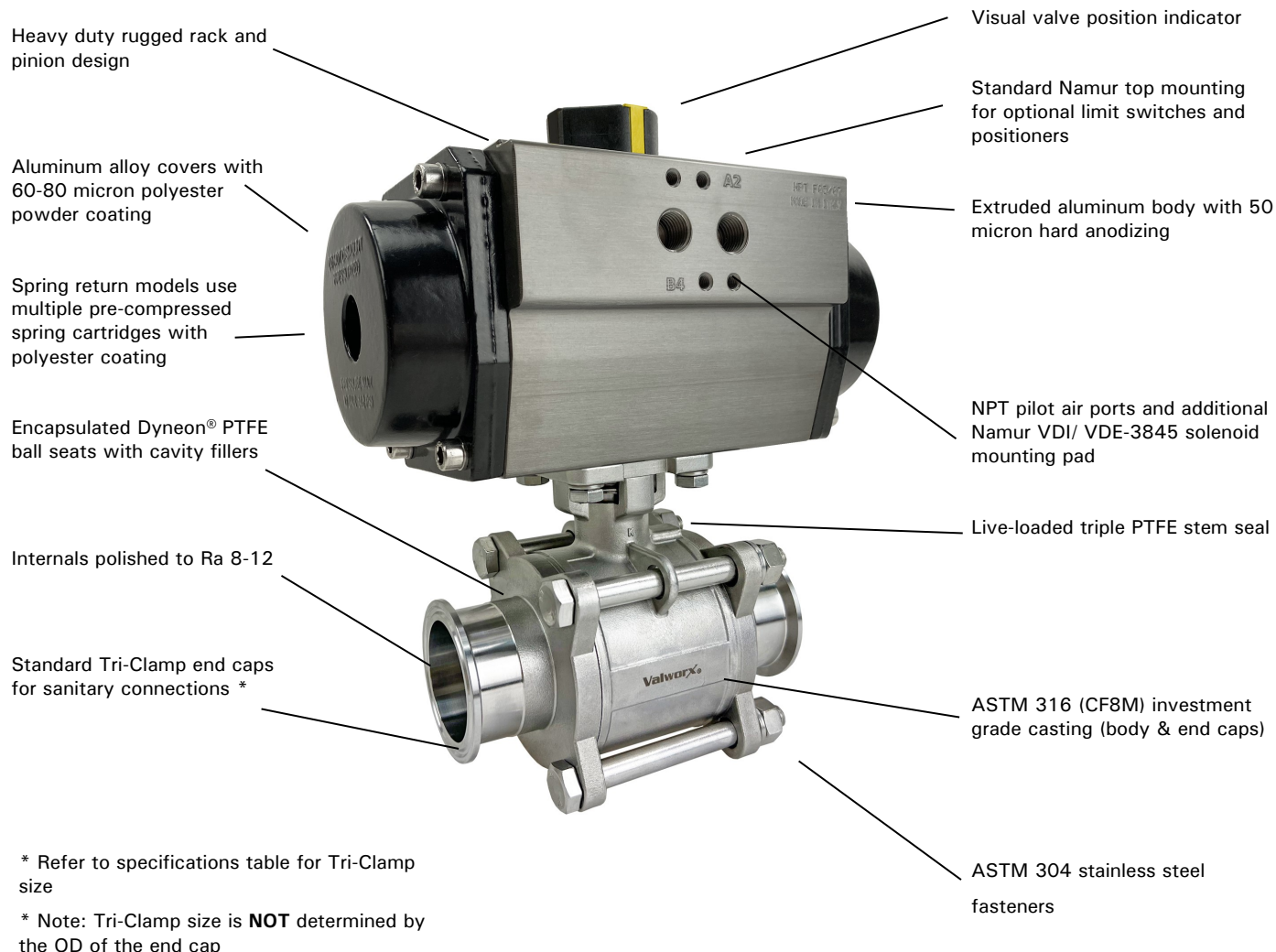
Approvals– Actuators

- CE Declaration of conformity
- ISO5211/ DIN3337 valve mounting
- Namur VDI/VDE 3845 accessory mounting
- ATEX-94-9-CEE standard for explosive environment II 2GD c Tmax = 95 °C

Standards– Valves

- Construction:
 - ANSI B16/B2/B18
 - FDA 21 CFR 177.1550
 - ANSI B16.34
- Pressure Testing:
 - API 598
- Marking
 - MSS-SP-25

Features



Pressure Rating

Shell Pressure Rating (Max)*: 1000 PSI @ 120°F (1/2" to 2"),
800 PSI (2 1/2" to 4")

Air Pilot Pressure Required: 80-120 PSI (5.5-8.3 Bar)

*See P/T Chart

Temperature Rating

Temperature Rating: -4° to 356° F (-20 to 180° C)

*See P/T Chart

Actuator Temperature Rating: -4 to 176° F (-20 to 80° C)

*See P/T chart

Optional Accessories

DMS: Direct Mount Solenoid
- pilot to electrically operate the ball valve
VPS: Valve Position Switches
- limit switches to confirm valve position
PVP: Pneumatic Valve Positioner
- position the ball with 4-20mA or 0-10v
HTB: High Temperature Bracket
- increases media working temperature

Specifications (English units)

Stock Number	Pipe Size (inch)	Tri-Clamp Size (inch)	Cv Flow Factor	Shell Pressure Max.(PSI)*	Cycle Time /90° (seconds)	Pilot Air Port (NPT)	Air volume (standard cubic
VALVE WITH SPRING RETURN ACTUATOR							
570300A	1/2	3/4	13.0	1000	1	1/4	79.3
570301A	3/4	3/4	18.0	1000	1	1/4	79.3
570302A	1	1-1/2	48.0	1000	1	1/4	79.3
570303A	1-1/2	1-1/2	165.0	1000	1	1/4	164.8
570304A	2	2	207.0	1000	1	1/4	305.1
570305A	2-1/2	2-1/2	450.0	800	1	1/4	476.0
570306A	3	3	780.0	800	1	1/4	836.0
570307A	4	4	1050.0	800	1	1/4	836.0
VALVE WITH DOUBLE ACTING ACTUATOR							
570200A	1/2	3/4	13.0	1000	1	1/4	97.6
570201A	3/4	3/4	18.0	1000	1	1/4	97.6
570202A	1	1-1/2	48.0	1000	1	1/4	97.6
570203A	1-1/2	1-1/2	165.0	1000	1	1/4	262.4
570204A	2	2	207.0	1000	1	1/4	262.4
570205A	2-1/2	2-1/2	450.0	800	1	1/4	768.9
570206A	3	3	780.0	800	1	1/4	768.9
570207A	4	4	1050.0	800	1	1/4	1196.1

Cv= The GPM of water at 60° F that will pass through the valve with 1 PSI pressure drop

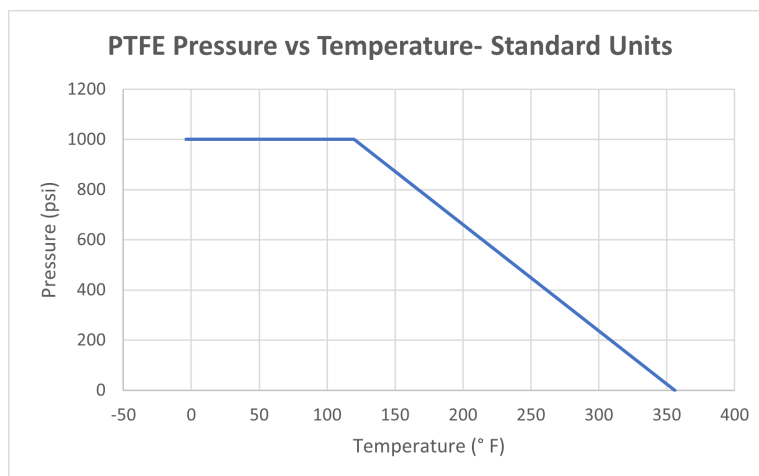
* Pressure @ -4° to 356° F (reduced pressure at higher temperatures—see P/T chart)

• Torque at 1000 PSI and 72°F

Pressure/Temperature Chart (PSI/°F)

Standard Units

Temp °F	-4	120	356
Pressure	1000	1000	0



Specifications (Metric units)

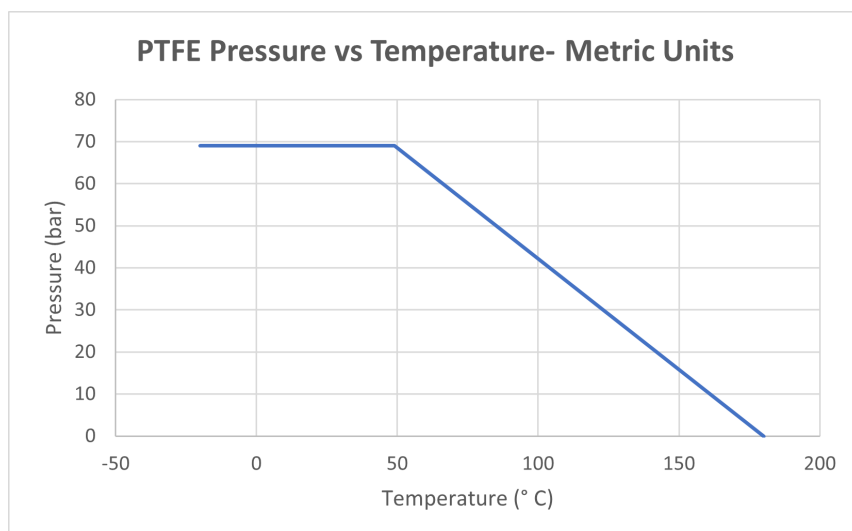
Stock Number	Pipe Size (mm)	Tri-Clamp Size (inch)	Kv Flow Factor	Shell Pressure Max.(Bar)*	Cycle Time/90° (seconds)	Pilot Air Port (NPT)	Air volume (standard liters)
VALVE WITH SPRING RETURN ACTUATOR							
570300A	12.7	3/4	11.2	69	1	1/4	1.3
570301A	19.1	3/4	15.6	69	1	1/4	1.3
570302A	25.4	1-1/2	41.5	69	1	1/4	1.3
570303A	38.1	1-1/2	142.7	69	1	1/4	2.7
570304A	50.8	2	179.1	69	1	1/4	5.0
570305A	63.5	2-1/2	389.3	55	1	1/4	7.8
570306A	76.2	3	674.7	55	1	1/4	13.7
570307A	101.6	4	908.3	55	1	1/4	13.7
VALVE WITH DOUBLE ACTING ACTUATOR							
570200A	12.7	3/4	11.2	69	1	1/4	1.6
570201A	19.1	3/4	15.6	69	1	1/4	1.6
570202A	25.4	1-1/2	41.5	69	1	1/4	1.6
570203A	38.1	1-1/2	142.7	69	1	1/4	4.3
570204A	50.8	2	179.1	69	1	1/4	4.3
570205A	63.5	2-1/2	389.3	55	1	1/4	12.6
570206A	76.2	3	674.7	55	1	1/4	12.6
570207A	101.6	4	908.3	55	1	1/4	19.6

* Pressure range @ -20° to 180° C (reduced pressure for higher temperatures—see P/T chart)

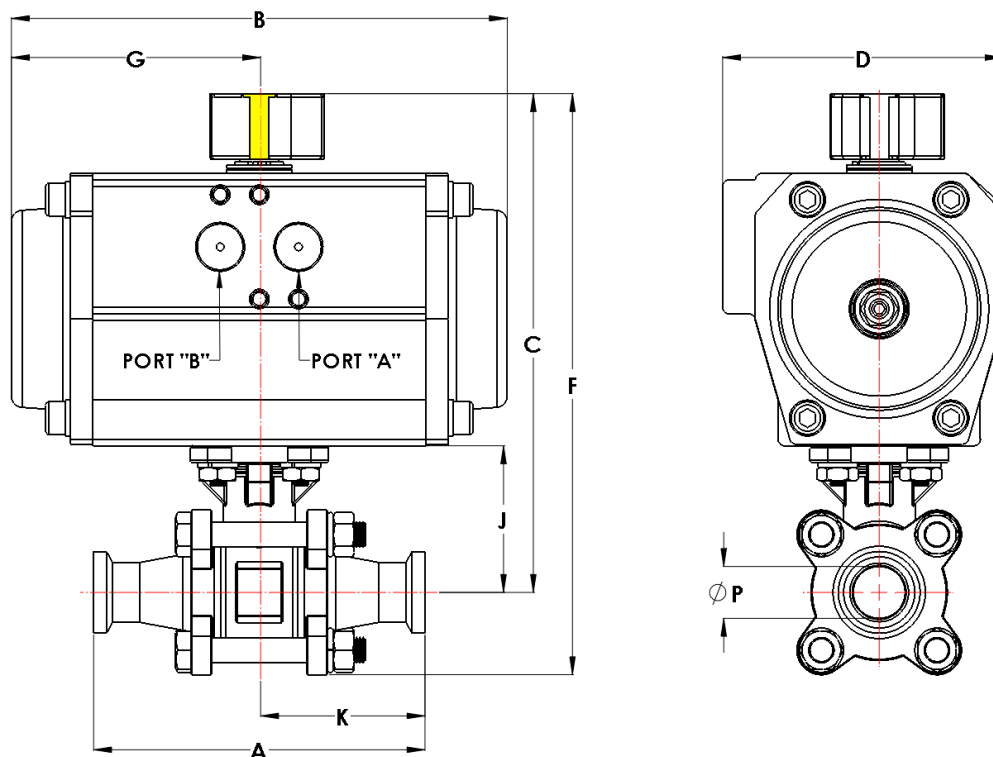
Pressure/Temperature Chart (Bar/°C)

Metric Units

Temp °C	-20	49	180
Pressure	69	69	0

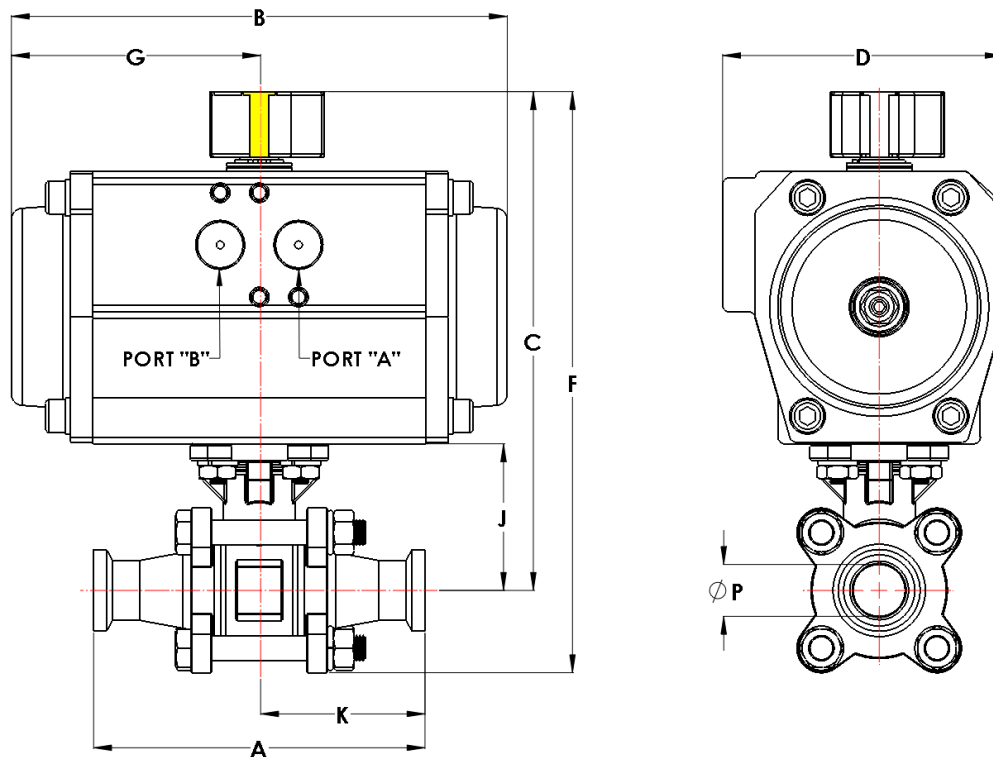


Dimensions: Spring Return



Stock Number	Pipe Size		A	B	C	D	F	G	J	K	P	A & B Ports (NPT)	Weight
570300A	1/2	inch	3.5	6.1	5.6	3.4	6.5	3.1	1.5	1.8	0.4	1/4	5.2 lb
		mm	88.9	155.5	142.2	86.0	165.1	78.7	37.0	44.5	10.2	-	2.4 kg
570301A	3/4	inch	4.0	6.1	5.9	3.4	6.9	3.1	1.8	2.0	0.6	1/4	5.5 lb
		mm	101.6	155.5	149.9	86.0	175.3	78.7	45.0	50.5	15.2	-	2.5 kg
570302A	1	inch	4.5	6.1	6.2	3.4	7.3	3.1	2.1	2.2	0.9	1/4	6.2 lb
		mm	114.3	155.5	157.5	86.0	185.4	78.7	53.5	57.0	22.9	-	2.8 kg
570303A	1-1/2	inch	5.5	9.1	8.0	4.1	9.5	4.6	2.9	2.8	1.4	1/4	15.1 lb
		mm	139.7	231.1	203.2	104.1	241.3	116.8	74.8	70.0	35.6	-	6.8 kg
570304A	2	inch	6.2	11.0	9.0	4.7	10.8	5.5	3.3	3.1	1.9	1/4	22.4 lb
		mm	157.5	280.0	228.6	120.0	274.3	139.7	83.5	78.0	48.3	-	10.2 kg
570305A	2-1/2	inch	7.0	12.2	11.1	5.3	13.3	6.1	4.3	3.9	2.4	1/4	38.4 lb
		mm	177.8	310.0	281.9	134.0	337.8	154.9	108.8	98.5	61.0	-	17.4 kg
570306A	3	inch	9.0	15.4	12.8	6.9	15.4	7.7	4.7	4.5	2.9	1/4	65.9 lb
		mm	228.6	390.0	325.1	163.0	391.2	195.6	118.3	114.5	73.7	-	29.9 kg
570307A	4	inch	9.5	15.4	14.2	6.9	18.1	7.7	6.1	4.8	3.8	1/4	88.5 lb
		mm	241.3	390.0	360.7	163.0	459.7	195.6	153.8	121.5	96.5	-	40.1 kg

Dimensions: Double Acting



Stock Number	Pipe Size		A	B	C	D	F	G	J	K	P	A & B Ports (NPT)	Weight
570200A	1/2	inch	3.5	5.5	4.9	3.0	5.8	2.8	1.5	1.8	0.4	1/8	5.2 lb
		mm	88.9	139.0	124.5	76.2	147.3	71.1	37.0	44.5	10.2	-	2.4 kg
570201A	3/4	inch	4.0	5.5	5.2	3.0	6.2	2.8	1.8	2.0	0.6	1/8	5.5 lb
		mm	101.6	139.0	132.1	76.2	157.5	71.1	45.0	50.5	15.2	-	2.5 kg
570202A	1	inch	4.5	5.5	5.5	3.0	6.6	2.8	2.1	2.2	0.9	1/8	6.2 lb
		mm	114.3	139.0	139.7	76.2	167.6	71.1	53.5	57.0	22.9	-	2.8 kg
570203A	1-1/2	inch	5.5	8.3	7.6	3.7	9.1	4.2	2.9	2.8	1.4	1/4	11.5 lb
		mm	139.7	210.8	193.0	94.0	231.1	106.7	74.8	70.0	35.6	-	5.2 kg
570204A	2	inch	6.2	8.3	8.0	3.7	9.8	4.2	3.3	3.1	1.9	1/4	14.5 lb
		mm	157.5	210.8	203.2	94.0	248.9	106.7	83.5	78.0	48.3	-	6.6 kg
570205A	2-1/2	inch	7.0	11.0	10.0	4.7	12.2	5.5	4.3	3.9	2.4	1/4	28.7 lb
		mm	177.8	279.4	254.0	119.4	330.2	139.7	108.8	98.5	61.0	-	13.0 kg
570206A	3	inch	9.0	11.0	10.4	4.7	13.0	5.5	4.7	4.5	2.9	1/4	37.1 lb
		mm	228.6	279.4	264.2	119.4	330.2	139.7	118.3	114.5	73.7	-	16.8 kg
570207A	4	inch	9.5	12.2	12.9	5.3	16.8	6.1	6.1	4.8	3.8	1/4	66.8 lb
		mm	241.3	309.9	327.7	134.6	426.7	155.0	153.8	121.5	96.5	-	30.3 kg