

Features

- Functions as a diverter or selector valve
- All materials comply with FDA and USDA requirements
- 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

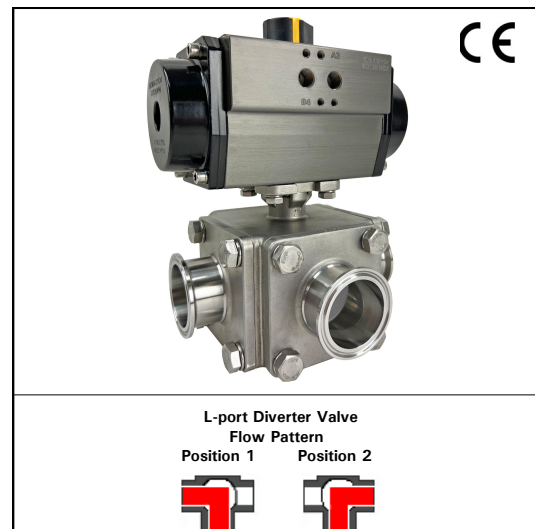
Sanitary 3-way ball valves are typically used for food, beverage, pharmaceutical, personal care, and pet care applications where sanitary construction is required, as well as for utility, process, and corrosive environment applications where quick clamp connections are beneficial. Often used as a diverter, selector, or mixing valve with a variety of flow path options through the valve.

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

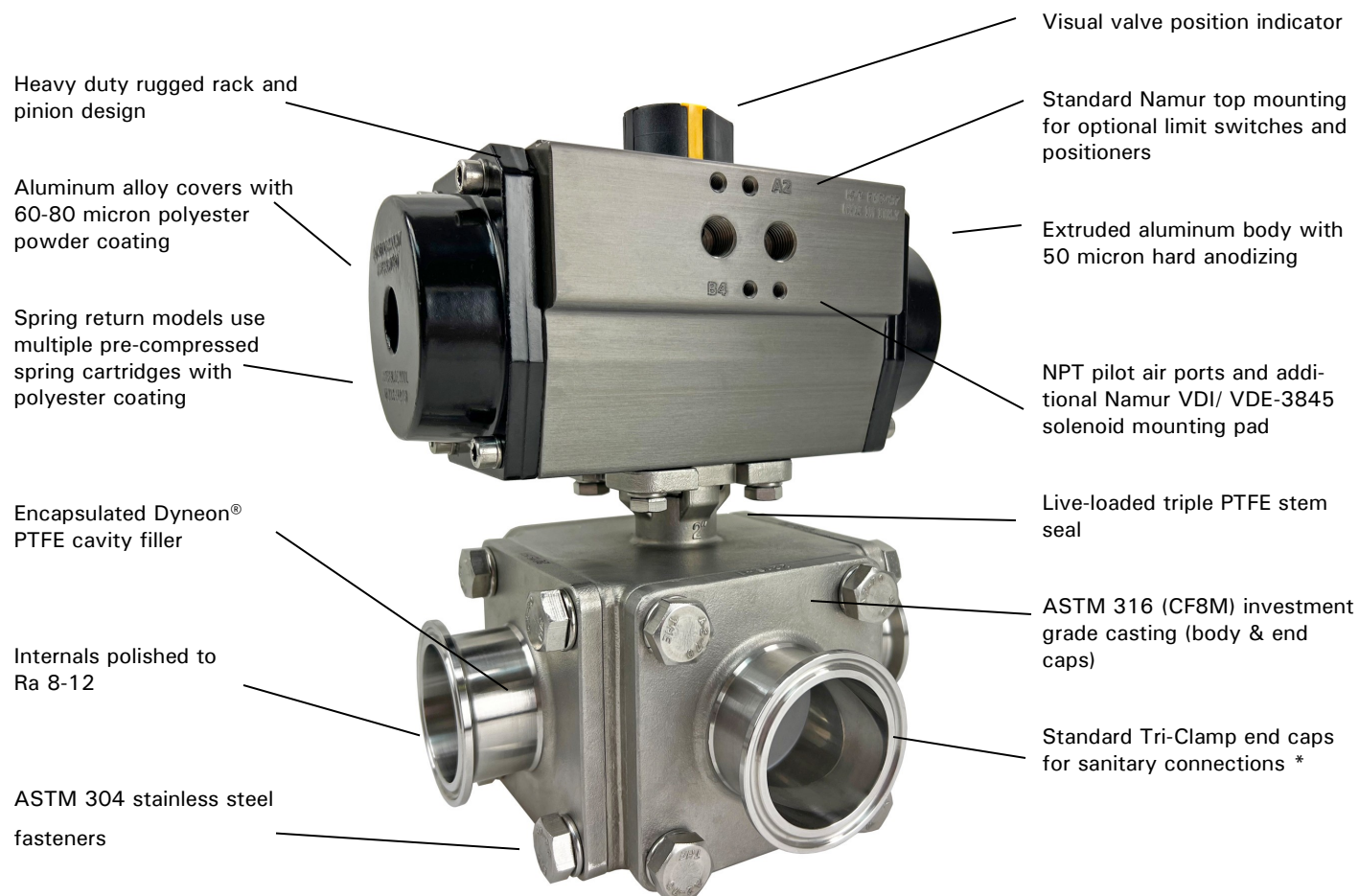
Heavy duty quarter turn rack & pinion actuators designed for long life and tested for a minimum 1 million operations. Sanitary 3-way T-port flow pattern ball valve has four Dyneon® PTFE ball seats, allowing for full pressure at any port. Adjustable live loaded stem seal packing helps compensate for wear, pressure and 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



* Refer to specifications table for Tri-Clamp size

* Note: Tri-Clamp size is **NOT** determined by the OD of the end cap

Pressure-Temperature

Shell Pressure Rating (Max)*: 1000 PSI @ 120°F (1/2" to 2"), 600 PSI (2 1/2" to 3")

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)

Optional Accessories

DMS: Direct Mount Solenoid
- pilot to electrically operate the ball valve
VPS: Valve Position Switches
- limit switches to confirm valve position
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)
VALVE WITH SPRING RETURN ACTUATOR							
573300A	1/2	3/4	4.3	1000	1	1/4	79.3
573301A	3/4	3/4	10.4	1000	1	1/4	79.3
573302A	1	1-1/2	17.3	1000	1	1/4	164.8
573303A	1-1/2	1-1/2	43.3	1000	1	1/4	305.1
573304A	2	2	77.9	1000	1	1/4	305.1
573305A	2-1/2	2-1/2	115.9	600	3	1/4	476.0
573306A	3	3	210.2	600	3	1/4	634.6
VALVE WITH DOUBLE ACTING ACTUATOR							
573200A	1/2	3/4	4.3	1000	1	1/8	97.6
573201A	3/4	3/4	10.4	1000	1	1/8	97.6
573202A	1	1-1/2	17.3	1000	1	1/4	195.3
573203A	1-1/2	1-1/2	43.3	1000	1	1/4	262.4
573204A	2	2	77.9	1000	1	1/4	262.4
573205A	2-1/2	2-1/2	115.9	600	1	1/4	421.1
573206A	3	3	210.2	600	1	1/4	1196.1

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

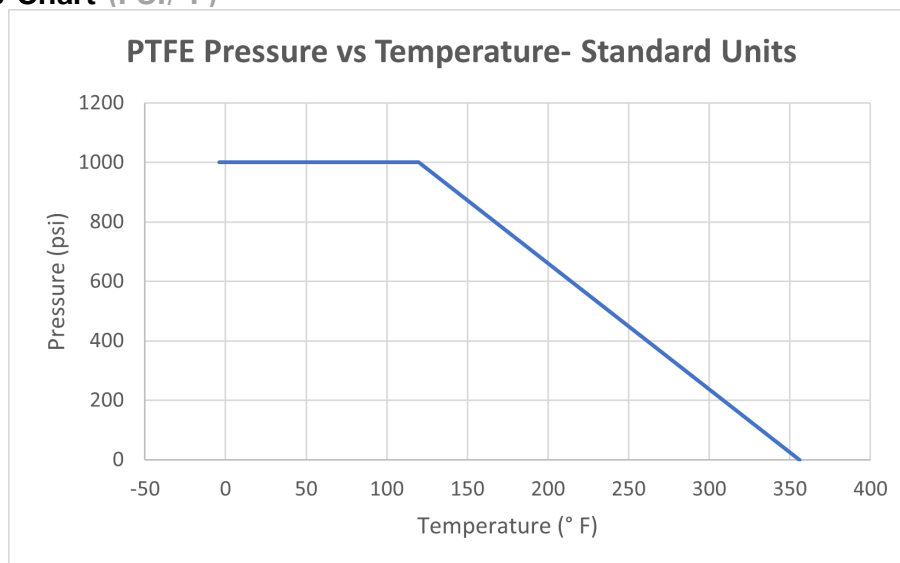
* Pressure @ -4° to 356° F (reduced pressure at higher temperatures—see P/T chart)

• 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)

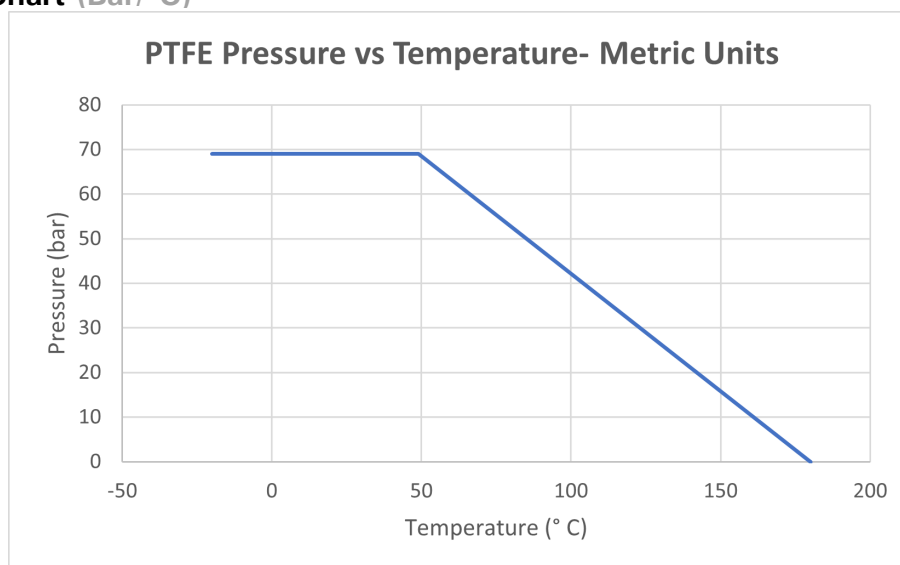
Stock Number	Pipe Size (mm)	Tri-Clamp Size (inch)	Kv Flow Factor	Shell Pressure Max.(Bar)*	Cycle Time/90° (seconds)	Pilot Air Port (NPT)	Air Volume (standard)
VALVE WITH SPRING RETURN ACTUATOR							
573300A	12.7	3/4	5.0	69	1	1/4	1.3
573301A	19.1	3/4	12.0	69	1	1/4	1.3
573302A	25.4	1-1/2	20.0	69	1	1/4	2.7
573303A	38.1	1-1/2	50.0	69	1	1/4	5.0
573304A	50.8	2	90.0	69	1	1/4	5.0
573305A	63.5	2-1/2	134.0	41	3	1/4	7.8
573306A	76.2	3	243.0	41	3	1/4	10.4
VALVE WITH DOUBLE ACTING ACTUATOR							
573200A	12.7	3/4	5.0	69	1	1/8	1.6
573201A	19.1	3/4	12.0	69	1	1/8	1.6
573202A	25.4	1-1/2	20.0	69	1	1/4	3.2
573203A	38.1	1-1/2	50.0	69	1	1/4	4.3
573204A	50.8	2	90.0	69	1	1/4	4.3
573205A	63.5	2-1/2	134.0	41	1	1/4	6.9
573206A	76.2	3	243.0	41	1	1/4	19.6

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

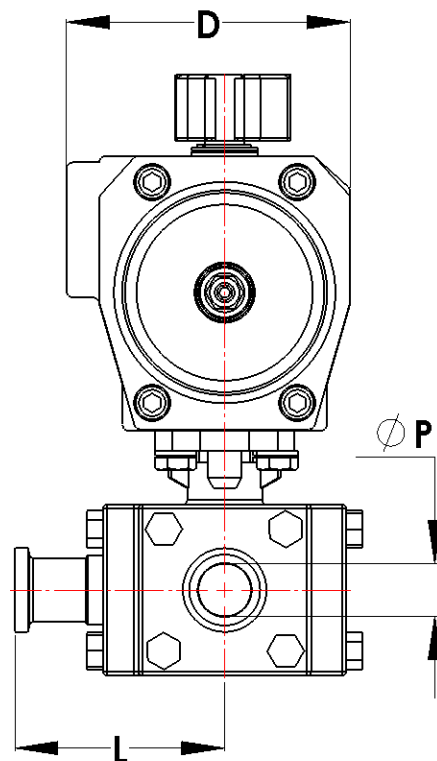
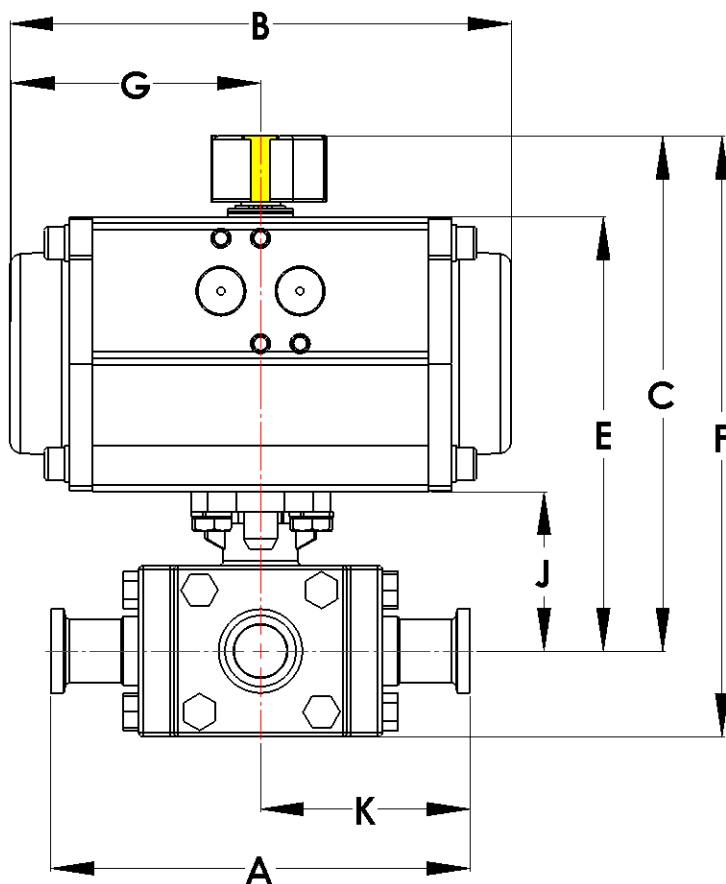
Pressure/Temperature Chart (Bar/°C)

Metric Units

Temp °C	-20	49	180
Pressure	69	69	0

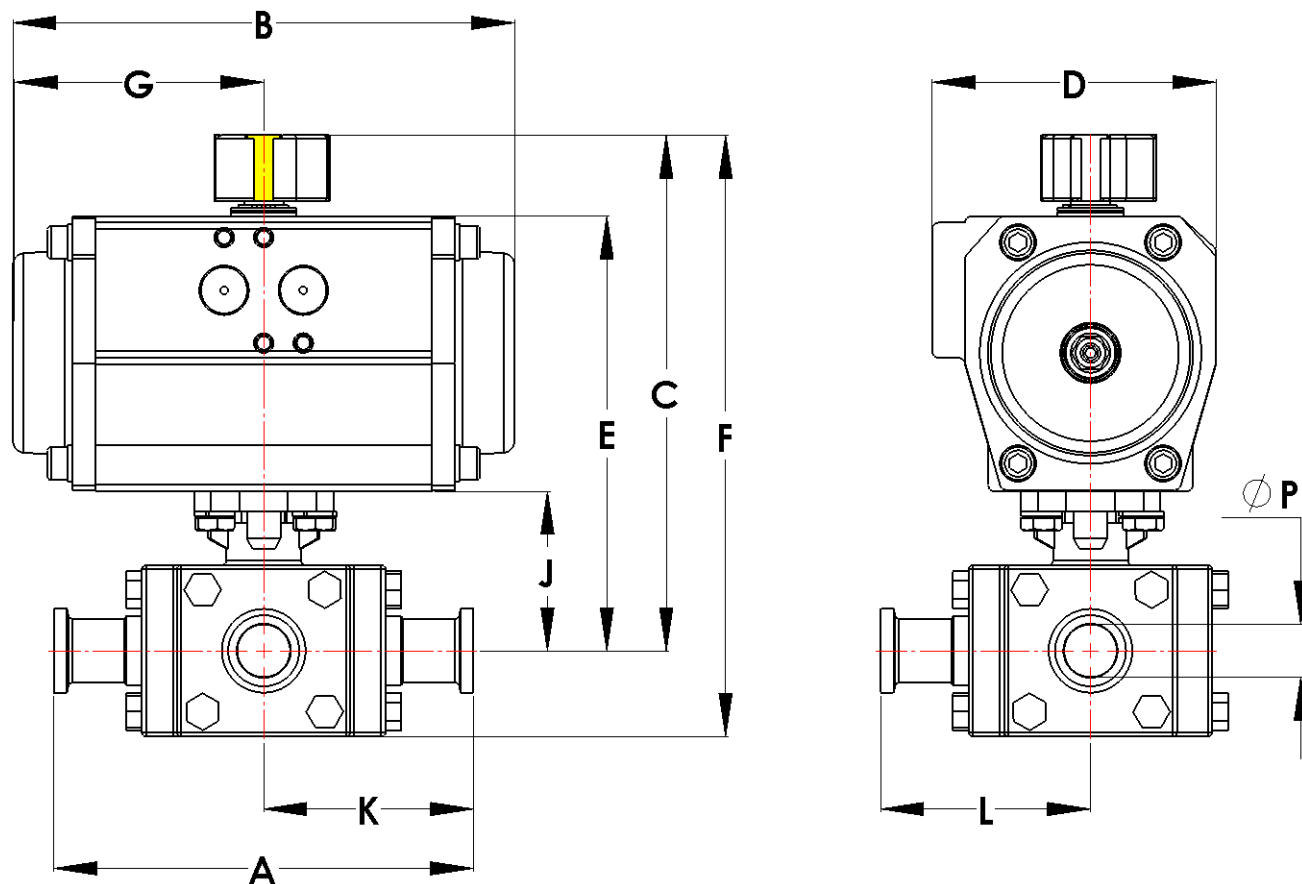


Dimensions: Spring Return



Stock Number	Pipe Size		A	B	C	D	E	F	G	J	K	L	P	Ports (NPT)	Weight
573300A	1/2	inch	4.6	6.1	5.6	3.4	4.8	6.5	3.1	1.8	2.3	2.3	0.4	1/4	7.3 lb
		mm	118.0	154.9	142.2	86.4	121.9	165.1	78.7	44.5	59.0	59.0	9.4	-	3.3 kg
573301A	3/4	inch	5.0	6.1	5.9	3.4	5.1	6.9	3.1	1.9	2.5	2.6	0.6	1/4	7.9 lb
		mm	127.0	154.9	149.9	86.4	129.5	175.3	78.7	48.0	63.5	64.9	15.8	-	3.6 kg
573302A	1	inch	6.0	9.1	7.2	4.1	6.4	8.3	4.6	2.3	3.1	3.0	0.9	1/4	16.2 lb
		mm	152.4	231.1	182.9	104.1	162.6	210.8	116.8	59.0	77.5	76.2	22.2	-	7.3 kg
573303A	1-1/2	inch	6.9	11.0	8.6	4.7	7.8	10.1	5.5	2.8	3.4	3.5	1.4	1/4	26.5 lb
		mm	175.0	279.4	218.4	119.4	198.1	256.5	139.7	72.0	87.5	88.8	35.0	-	12.0 kg
573304A	2	inch	7.5	11.0	9.0	4.7	8.2	10.8	5.5	3.2	3.7	3.8	1.9	1/4	33.7 lb
		mm	190.0	279.4	228.6	119.4	208.3	274.3	139.7	82.0	95.0	96.3	47.6	-	15.3 kg
573305A	2-1/2	inch	9.0	12.2	11.1	5.3	9.9	13.3	6.1	4.0	4.5	4.2	2.4	1/4	45.5 lb
		mm	228.0	309.9	281.9	134.6	251.5	337.8	154.9	102.5	114.0	107.0	60.2	-	20.6 kg
573306A	3	inch	10.2	14.3	12.0	5.6	10.8	14.6	7.2	4.9	5.1	4.2	2.9	1/4	69.1 lb
		mm	260.0	362.0	304.8	141.0	274.3	370.8	182.9	125.5	130.0	107.0	72.9	-	31.3 kg

Dimensions: Double Acting



Stock Number	Pipe Size		A	B	C	D	E	F	G	J	K	L	P	Ports (NPT)	Weight
573200A	1/2	inch	4.6	5.5	4.9	3.0	4.1	5.8	2.8	1.8	2.3	2.3	0.4	1/8	5.9 lb
		mm	118.0	139.0	124.5	76.2	104.1	147.3	71.1	44.5	59.0	59.0	9.4	-	2.7 kg
573201A	3/4	inch	5.0	5.5	5.2	3.0	4.4	6.2	2.8	1.9	2.5	2.6	0.6	1/8	6.5 lb
		mm	127.0	139.0	132.1	76.2	111.8	157.5	71.1	48.0	63.5	64.9	15.8	-	2.9 kg
573202A	1	inch	6.0	6.1	6.2	3.4	5.4	7.3	3.1	2.3	3.1	3.0	0.9	1/4	9.8 lb
		mm	152.4	155.5	157.5	86.4	137.2	185.4	78.7	59.0	77.5	76.2	22.2	-	4.4 kg
573203A	1-1/2	inch	6.9	8.3	7.6	3.7	6.8	9.1	4.2	2.8	3.4	3.5	1.4	1/4	18.5 lb
		mm	175.0	210.0	193.0	94.0	172.7	231.1	106.7	72.0	87.5	88.8	35.0	-	8.4 kg
573204A	2	inch	7.5	8.3	8.0	3.7	7.2	9.8	4.2	3.2	3.7	3.8	1.9	1/4	25.6 lb
		mm	190.0	210.0	203.2	94.0	182.9	248.9	106.7	82.0	95.0	96.3	47.6	-	11.6 kg
573205A	2-1/2	inch	9.0	9.1	9.4	4.1	8.6	11.6	4.6	4.0	4.5	4.2	2.4	1/4	31.7 lb
		mm	228.0	230.0	238.8	104.1	218.4	294.6	116.8	102.5	114.0	107.0	60.2	-	14.4 kg
573206A	3	inch	10.2	11.0	10.4	4.7	9.6	13.0	5.5	4.9	5.1	4.2	2.9	1/4	58.9 lb
		mm	260.0	280.0	264.2	119.4	243.8	330.2	139.7	125.5	130.0	107.0	72.9	-	26.7 kg