

## SERIES WE33 | 3-WAY TRI-CLAMP STAINLESS STEEL BALL VALVE

### FEATURES/BENEFITS

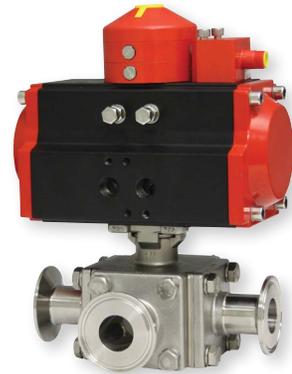
- Capable of being configured to fit any application
- Limit switches can be mounted to manual valves for remote monitoring
- Cavity filled valve for sanitary applications
- Weatherproof or explosion-proof electric actuators
- Double acting or spring return anodized aluminum pneumatic actuators
- Full port design reduces the pressure drop across the valve

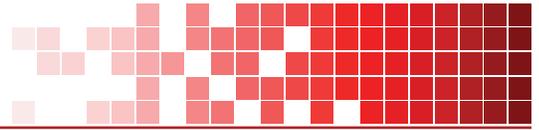
### APPLICATIONS

- Gas or liquid flow control
- Ideal for quick bubble tight shut-off
- Mixing or diverting liquids and gases

### DESCRIPTION

The **SERIES WE33** incorporates a full port 3-way tri-clamp SS ball valve for great flow rates with minimal pressure drop. The valve features a blowout-proof stem for added safety, reinforced PTFE seats and seals for longer life, and a 316 SS (ASTM CF8M) ball for better performance. Actuators are direct mounted creating a compact assembly for tight spaces. Limit switches are able to be mounted directly to the valves allowing for remote position indication. The Series WE33 can be configured with either an electric or pneumatic actuator. Electric actuators are available in weatherproof or explosion-proof, a variety of supply voltages and two-position or modulating control. Two-position actuators use the supply voltage to drive the valve open or close, while the modulating actuator accepts a 4 to 20 mA input for valve positioning. Actuators feature thermal overload protection and permanently lubricated gear train. The pneumatic double acting actuator uses an air supply to drive the valve open and closed. The actuator has two supply ports, with one driving the valve open and the other driving the valve closed. Spring return pneumatic actuators use the air supply to open the valve, and internally loaded springs return the valve to the closed position. Also available is the SN solenoid valve to electrically switch the air supply pressure between the air supply ports for opening and closing the valve. Actuators are constructed of anodized and epoxy coated aluminum for years of corrosion free service.





### VALVE SPECIFICATIONS

<b>Service</b>	Compatible liquids and gases.
<b>Body</b>	3-piece.
<b>Line Sizes</b>	1/2 to 2".
<b>End Connections</b>	Tri-clamp ends.
<b>Pressure Limits</b>	20" Hg to 1000 psi (-0.7 to 69 bar) up to 250°F.
<b>Wetted Materials</b>	Body and ball: 316 SS (CF8M); Stem: 316 SS; Seat: RTFE/PTFE; Seal, washer and packing: PTFE.
<b>Temperature Limits</b>	-20 to 392°F (-29 to 200°C).
<b>Other Materials</b>	O-ring: Fluoroelastomer; Handle: 304 SS; Washer: 301 SS; Stem nut, locking device, gland ring: 304 SS; Handle sleeve: PVC.

### PNEUMATIC ACTUATOR ("DA" & "SR" SERIES) SPECIFICATIONS

<b>Type</b>	DA series is double acting and SR series is spring return (rack and pinion).
<b>Normal Supply Pressure</b>	DA: 40 to 115 psi (2.7 to 7.9 bar); SR: 80 psi (5.5 bar).
<b>Maximum Supply Pressure</b>	120 psi (8.6 bar).
<b>Air Connections</b>	DA01: 1/8" female NPT; DA02 to DA04: 1/4" female NPT; SR03 to SR07: 1/4" female NPT.
<b>Housing Material</b>	Anodized aluminum body and epoxy coated aluminum end caps.
<b>Temperature Limits</b>	-40 to 176°F (-40 to 80°C).
<b>Accessory Mounting</b>	NAMUR standard.

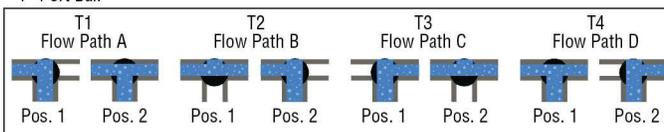
### ELECTRIC ACTUATOR ("TD" & "MD" SERIES) SPECIFICATIONS

<b>Power Requirements</b>	110 VAC, 220 VAC, 24 VAC or 24 VDC (MD models not available in 24 VDC).
<b>Power Consumption</b>	See instruction manual.
<b>Cycle Time (per 90°)</b>	TD01: 4 s; MD01: 10 s; TD02 and MD02: 20 s; TD03 and MD03: 30 s.
<b>Duty Rating</b>	85%.
<b>Enclosure Rating</b>	NEMA 4X (IP67).
<b>Housing Material</b>	Powder coated aluminum.
<b>Temperature Limits</b>	-22 to 140°F (-30 to 60°C).
<b>Electrical Connection</b>	1/2" female NPT.
<b>Modulating Input</b>	4 to 20 mA.
<b>Standard Features</b>	Manual override, position indicator, and TD models come with two limit switches.

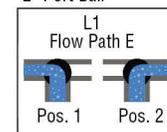
### ELECTRIC ACTUATOR ("TI" & "MI" SERIES) SPECIFICATIONS

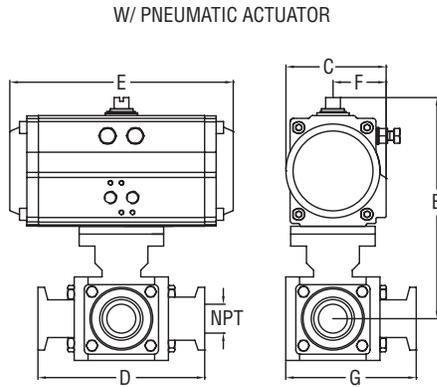
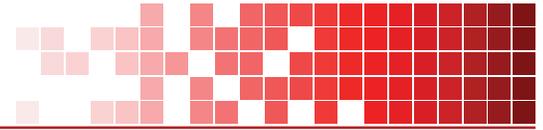
<b>Power Requirements</b>	110 VAC, 220 VAC, 24 VAC or 24 VDC.
<b>Power Consumption</b>	See instruction manual.
<b>Cycle Time (per 90°)</b>	See instruction manual.
<b>Duty Rating</b>	See instruction manual.
<b>Enclosure Rating</b>	NEMA 7, designed to meet hazardous locations: Class I, Group C & D; Class II, Group E, F & G; Division I & II.
<b>Housing Material</b>	Powder coated aluminum.
<b>Temperature Limits</b>	-40 to 140°F (-40 to 60°C).
<b>Electrical Connection</b>	1/2" female NPT.
<b>Modulating Input</b>	4 to 20 mA.
<b>Standard Features</b>	Position indicator and two limit switches.

"T" Port Ball



"L" Port Ball





DOUBLE ACTING PNEUMATIC ACTUATOR					
NPT	1/2"	3/4"	1"	1-1/2"	2"
<b>B</b>	4-7/8"	5"	6"	6-1/2"	7-1/2"
	125 mm	128 mm	151 mm	164 mm	190 mm
<b>C</b>	2-3/8"	2-3/8"	2-3/4"	2-3/4"	3-1/4"
	61 mm	61 mm	71 mm	71 mm	82 mm
<b>D</b>	4-5/8"	5"	6"	6-7/8"	7-1/2"
	118 mm	127 mm	152 mm	175 mm	190 mm
<b>E</b>	4-5/8"	4-5/8"	5-3/4"	5-3/4"	6-5/8"
	116 mm	116 mm	145 mm	145 mm	169 mm
<b>F</b>	1-1/2"	1-1/2"	1-5/8"	1-5/8"	1-3/4"
	37 mm	37 mm	41 mm	41 mm	46 mm

SPRING RETURN PNEUMATIC ACTUATOR					
NPT	1/2"	3/4"	1"	1-1/2"	2"
<b>B</b>	5-3/8"	5-1/2"	6-5/8"	7-1/8"	8-1/8"
	137 mm	140 mm	167 mm	180 mm	208 mm
<b>C</b>	2-3/4"	2-3/4"	3-1/4"	3-1/4"	3-3/4"
	71 mm	71 mm	82 mm	82 mm	94 mm
<b>D</b>	4-5/8"	5"	6"	6-7/8"	7-1/2"
	118 mm	127 mm	152 mm	175 mm	190 mm
<b>E</b>	5-3/4"	5-3/4"	6-5/8"	6-5/8"	7-7/8"
	145 mm	145 mm	169 mm	169 mm	201 mm
<b>F</b>	1-5/8"	1-5/8"	1-3/4"	1-3/4"	2"
	41 mm	41 mm	46 mm	46 mm	52 mm

## HOW TO ORDER – HAND OPERATED & PNEUMATIC ACTUATOR

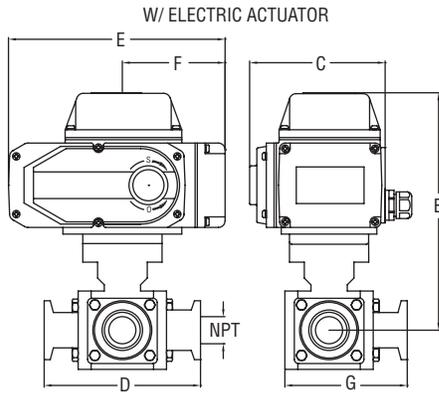
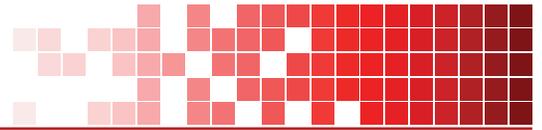
Use the **bold** characters from the chart below to construct a product code.

<p><b>SERIES</b></p> <p><b>WE33</b> - 316 SS 3-way tri-clamp</p> <p><b>SIZE</b></p> <p>-C - 1/2"      -G - 1-1/2"</p> <p>-D - 3/4"      -H - 2"</p> <p>-E - 1"</p> <p><b>ACTUATOR</b></p> <p><b>HD00</b> - Hand operated</p> <p><b>DA01</b> - Double acting (1/2" to 3/4")</p> <p><b>DA02</b> - Double acting (1" to 1-1/2")</p> <p><b>DA03</b> - Double acting (2")</p> <p><b>SR02</b> - Spring return (1/2" to 3/4")</p> <p><b>SR03</b> - Spring return (1" to 1-1/2")</p> <p><b>SR04</b> - Spring return (2")</p> <p><b>VALVE POSITION</b></p> <p>-T1 - Flow path A      -T4 - Flow path D</p> <p>-T2 - Flow path B      -L1 - Flow path E</p> <p>-T3 - Flow path C</p>	<p><b>WE33</b>    <b>-X</b>    <b>X</b>    <b>-X</b>    <b>-X</b>    <b>X</b>    <b>X</b></p>	<p><b>POSITIONER AND SWITCHES</b></p> <p><b>00</b> - 42AD0 exp limit switch</p> <p><b>01</b> - 45VD0 exp position transmitter</p> <p><b>02</b> - 42AD0-B ATEX limit switch</p> <p><b>03</b> - 42AD0-IE IECEX limit switch</p> <p><b>04</b> - QV-210101 poly limit switch</p> <p><b>06</b> - VPS and P1 prox switch</p> <p><b>07</b> - 265ER-D5 positioner</p> <p><b>08</b> - 265ER-D5 positioner</p> <p><b>09</b> - 285ER-D5 smart positioner</p> <p><b>SOLENOID VOLTAGE</b></p> <p><b>N</b> - No Solenoid      <b>C</b> - 24 VAC</p> <p><b>A</b> - 110 VAC            <b>D</b> - 24 VDC</p> <p><b>B</b> - 220 VAC            <b>E</b> - 12 VDC</p> <p><b>SOLENOID</b></p> <p><b>-N</b> - No Solenoid</p> <p><b>-A</b> - NEMA 4X NAMUR solenoid</p>
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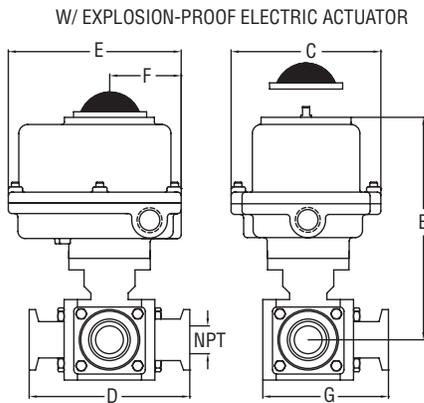
## ACCESSORIES

Model	Description
<b>R2-2120</b>	Air regulator
<b>AFR4</b>	Air filter regulator 0 to 120 psi
<b>VB-01</b>	Volume booster





ELECTRIC ACTUATOR					
NPT	1/2"	3/4"	1"	1-1/2"	2"
<b>B</b>	6-3/4"	6-7/8"	8-3/4"	9-1/4"	9-5/8"
	170 mm	174 mm	221 mm	234 mm	244 mm
<b>C</b>	5-1/4"	5-1/4"	9-3/8"	9-3/8"	9-3/8"
	133 mm	133 mm	239 mm	239 mm	239 mm
<b>D</b>	4-5/8"	5"	6"	6-7/8"	7-1/2"
	118 mm	127 mm	152 mm	175 mm	190 mm
<b>E</b>	6-1/8"	6-1/8"	8-1/2"	8-1/2"	8-1/2"
	154 mm	154 mm	217 mm	217 mm	217 mm
<b>F</b>	2-3/4"	2-5/8"	5"	5"	5"
	68 mm	68 mm	126 mm	126 mm	126 mm



EXPLOSION-PROOF ELECTRIC ACTUATOR					
NPT	1/2"	3/4"	1"	1-1/2"	2"
<b>B</b>	7"	7-1/8"	7-1/2"	8"	8-1/2"
	177 mm	181 mm	192 mm	205 mm	215 mm
<b>C</b>	4-1/2"	4-1/2"	4-1/2"	4-1/2"	4-1/2"
	113 mm				
<b>D</b>	4-5/8"	5"	6"	6-7/8"	7-1/2"
	118 mm	127 mm	152 mm	175 mm	190 mm
<b>E</b>	6-1/4"	6-1/4"	6-1/4"	6-1/4"	6-1/4"
	160 mm				
<b>F</b>	3"	3"	3"	3"	3"
	77 mm				

## HOW TO ORDER – HAND OPERATED & PNEUMATIC ACTUATOR

Use the **bold** characters from the chart below to construct a product code.

**WE33 -X X -X -X**

**SERIES** \_\_\_\_\_

**WE33** - 316 SS 3-way tri-clamp

**SIZE** \_\_\_\_\_

-C - 1/2"                      -G - 1-1/2"

-D - 3/4"                      -H - 2"

-E - 1"

**ACTUATOR** \_\_\_\_\_

**TD01** - NEMA 4X two-position (1/2" to 1")

**TD02** - NEMA 4X two-position (1-1/2" to 2")

**MD01** - NEMA 4X modulating (1/2" to 1")

**MD02** - NEMA 4X modulating (1-1/2" to 2")

**TI01** - Exp two-position (1/2" to 3/4")

**TI02** - Exp two-position (1" to 1-1/2")

**TI03** - Exp two-position (2")

**MI01** - Exp electric modulating (1/2" to 3/4")

**MI02** - Exp electric modulating (1" to 1-1/2")

**MI03** - Exp electric modulating (2")

**ACTUATOR VOLTAGE**

**-A** - 110 VAC

**-B** - 220 VAC

**-C** - 24 VAC

**-D** - 24 VDC

**VALVE POSITION**

**-T1** - Flow path A

**-T2** - Flow path B

**-T3** - Flow path C

**-T4** - Flow path D

**-L1** - Flow path E

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