



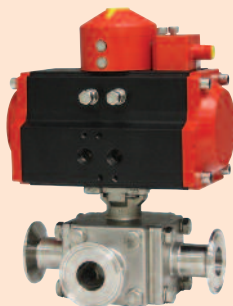
Series  
WE33

# 3-Way Tri-Clamp Stainless Steel Ball Valve

## Cavity Filled, Electric and Pneumatic Actuators



WE33-DHD00-T2



WE33-ESR03-T1-NN07



WE33-DDA01-L1-AA06



WE33-DTD01-T3-A



WE33-DTI01-T2-A

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.

### SPECIFICATIONS VALVE

**Service:** Compatible liquids and gases.

**Body:** 3-way.

**Line Sizes:** 1/2 to 2".

**End Connections:** Tri-clamp ends.

**Pressure Limits:** 20" Hg to 1000 psi (-0.7 to 69 bar).

#### Wetted Materials:

Body and ball: 316 SS (CF8M);

Stem: 316 SS;

Seat: RTFE/PTFE;

Seal, Washer, and Packing: PTFE.

**Temperature Limits:** -20 to 392°F (-29 to 200°C).

#### Other Materials:

O-ring: Fluoroelastomer;

Handle: 304 SS;

Washer: 301 SS;

Stem Nut, Locking Device,

Gland Ring: 304 SS;

Handle Sleeve: PVC.

### ACTUATORS

#### Pneumatic "DA" and "SR" Series

**Type:** DA series is double acting and SR series is spring return (rack and pinion).

#### Normal Supply Pressure:

DA: 40 to 115 psi (2.7 to 7.9 bar);

SR: 80 psi (5.5 bar).

**Maximum Supply Pressure:** 120 psi (8.6 bar).

#### Air Connections:

DA01: 1/8" female NPT;

DA02 to DA03: 1/4" female NPT;

SR02 to SR04: 1/4" female NPT.

**Housing Material:** Anodized aluminum body and epoxy coated aluminum end caps.

**Temperature Limits:** -40 to 176°F (-40 to 80°C).

**Accessory Mounting:** NAMUR standard.

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.

### FEATURES

- 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

### Electric "TD" and "MD" Series

**Power Requirements:** 110 VAC, 220 VAC, 24 VAC or 24 VDC (MD models not available in 24 VDC).

**Power Consumption:** See manual.

#### Cycle Time (per 90°):

TD01: 4 s;

MD01: 10 s;

TD02 and MD02: 20 s.

**Duty Rating:** 85%.

**Enclosure Rating:** NEMA 4X (IP67).

**Housing Material:** Powder coated aluminum.

**Temperature Limits:** -22 to 140°F (-30 to 60°C).

**Electrical Connection:** 1/2" female NPT.

**Modulating Input:** 4 to 20 mA.

**Standard Features:** Manual override, position indicator, and TD models come with two limit switches.

### Electric "TI" and "MI" Series

**Power Requirements:** 110 VAC, 220 VAC, 24 VAC or 24 VDC.

**Power Consumption:** See manual.

#### Cycle Time (per 90°):

TI01 and MI01: 2.5 s;

TI02 and MI02: 5 s;

TI03 and MI03: 5 s.

#### Duty Rating:

Two-Position: TI01-TI03: 25%;

Modulating: MI01-MI03: 75%.

**Enclosure Rating:** NEMA 7.

**Housing Material:** Powder coated aluminum.

**Temperature Limits:** -40 to 140°F (-40 to 60°C).

**Electrical Connection:** 1/2" female NPT.

**Modulating Input:** 4 to 20 mA.

**Standard Features:** Position indicator and two limit switches.

Popular Models

	Cv	Hand Operated	Double Acting	Spring Return	NEMA 4X Two-	NEMA 4X
Size	(gal/min)	Model	Pneumatic Model	Pneumatic Model	Position Electric (110 VAC) Model	Modulating Electric (110 VAC) Model
1/2"	14.39	WE33-CHD00-T2	WE33-CDA01-T2	WE33-CSR02-T2	WE33-CTD01-T2-A	WE33-CMD01-T2-A
3/4"	42.25	WE33-DHD00-T2	WE33-DDA01-T2	WE33-DSR02-T2	WE33-DTD01-T2-A	WE33-DMD01-T2-A
1"	86.17	WE33-EHD00-T2	WE33-EDA02-T2	WE33-ESR03-T2	WE33-ETD01-T2-A	WE33-EMD01-T2-A
1-1/2"	223.61	WE33-GHD00-T2	WE33-GDA02-T2	WE33-GSR03-T2	WE33-GTD02-T2-A	WE33-GMD02-T2-A
2"	437.98	WE33-HHD00-T2	WE33-HDA03-T2	WE33-HSR04-T2	WE33-HTD02-T2-A	WE33-HMD02-T2-A

WE33 Hand Operated and Pneumatic Actuator Model Chart

Example Series	WE33	CSR02	T4	N	N	07	WE33-CSR02-T4-NN07
	WE33						316 SS 3-Way
Size and Actuator		CHD00					1/2" Hand Operated
		DHD00					3/4" Hand Operated
		EHD00					1" Hand Operated
		GHD00					1-1/2" Hand Operated
		HHD00					2" Hand Operated
		CDA01					1/2" Double Acting
		DDA01					3/4" Double Acting
		EDA02					1" Double Acting
		GDA02					1-1/2" Double Acting
		HDA03					2" Double Acting
		CSR02					1/2" Spring Return
		DSR02					3/4" Spring Return
		ESR03					1" Spring Return
		GSR03					1-1/2" Spring Return
		HSR04					2" Spring Return
Valve Position			T1				Flow Path A
			T2				Flow Path B
			T3				Flow Path C
			T4				Flow Path D
			L1				Flow Path E
Solenoid				N			No Solenoid
				A			NEMA 4X NAMUR Solenoid
Solenoid Voltage				N			No Solenoid
				A			110 VAC
				B			220 VAC
				C			24 VAC
				D			24 VDC
				E			12 VDC
Positioner and Switches						00	None
						01	42AD0 Exp Limit Switch
						02	45VD0 Exp Position Transmitter
						03	42AD0-B ATEX Limit Switch
						04	42AD0-IE IECEX Limit Switch
						05	VPI-M01 Limit Switch
						06	QV-210101 Poly Limit Switch
						07	VPS and P1 Prox Switch
						08	265ER-D5 Positioner
						09	285ER-D5 Smart Positioner

WE33 Electric Actuator Model Chart

Example Series	WE33	DMD01	T2	B	WE33-DMD01-T2-B
	WE33				316 SS 3-Way
Size and Actuator		CTD01			1/2" NEMA 4X Two Position
		DTD01			3/4" NEMA 4X Two Position
		ETD01			1" NEMA 4X Two Position
		GTD02			1-1/2" NEMA 4X Two Position
		HTD02			2" NEMA 4X Two Position
		CMD01			1/2" NEMA 4X Modulating
		DMD01			3/4" NEMA 4X Modulating
		EMD01			1" NEMA 4X Modulating
		GMD02			1-1/2" NEMA 4X Modulating
		HMD02			2" NEMA 4X Modulating
		CTI01			1/2" Exp Two Position
		DTI01			3/4" Exp Two Position
		ETI02			1" Exp Two Position
		GTI02			1-1/2" Exp Two Position
		HTI03			2" Exp Two Position
Valve Position		CMI01			1/2" Exp Electric Modulating
		DMI01			3/4" Exp Electric Modulating
		EMI02			1" Exp Electric Modulating
		GMI02			1-1/2" Exp Electric Modulating
		HMI03			2" Exp Electric Modulating
Valve Position			T1		Flow Path A
			T2		Flow Path B
			T3		Flow Path C
			T4		Flow Path D
			L1		Flow Path E
Actuator Voltage				A	110 VAC
				B	220 VAC
				C	24 VAC
				D	24 VDC

ACCESSORIES

- R2-2120, Air Regulator  
AFR2-2, Instrument Air Filter Regulator  
VB-01, Volume Booster

Flow Paths

