

SERIES WE03 | 3-PIECE TRI-CLAMP STAINLESS STEEL BALL VALVE

FEATURES/BENEFITS

- Cavity filled valve for sanitary applications
- Tri-clamp fittings allow for quick removal of the valve
- Full port design reduces the pressure drop across the valve
- Limit switches can be mounted to manual valves for remote monitoring
- Weatherproof or explosion-proof electric actuators
- Double acting or spring return anodized aluminum pneumatic actuators

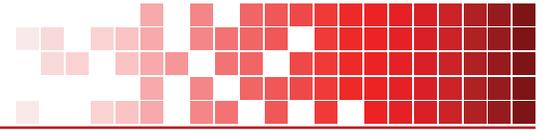
APPLICATIONS

- Food
- Dairy
- Beverage
- Drinking water

DESCRIPTION

The **SERIES WE03** incorporates a full port 3-piece 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 WE03 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 closed, 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

| | |
|---------------------------|--|
| Service | Compatible liquids and gases. |
| Body | 3-piece. |
| Line Sizes | 1/2 to 2". |
| End Connections | Tri-clamp ends. |
| Pressure Limits | 28" Hg to 1000 psi (-0.7 to 69 bar) up to 250°F. |
| Wetted Materials | Body and Ball: 316 SS (CF8M); Stem: 316SS; 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. |

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

| | |
|--------------------------------|--|
| 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 DA05: 1/4" female NPT; SR02 to SR07: 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. |

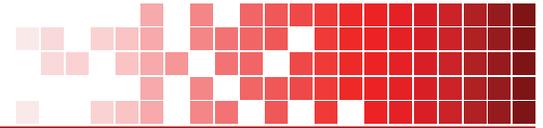
ELECTRIC ACTUATOR ("TD" & "MD" SERIES) SPECIFICATIONS

| | |
|------------------------------|--|
| Power Requirements | 110 VAC, 220 VAC, 24 VAC or 24 VDC (MD models not available in 24 VDC). |
| Power Consumption | See instruction manual. |
| Cycle Time (per 90°) | TD01: 4 s; MD01: 10 s; TD02 and MD02: 20 s; TD03 and MD03: 30 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. |

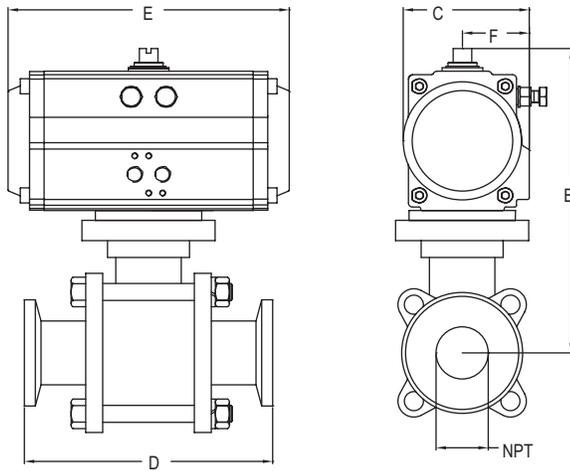
ELECTRIC ACTUATOR ("TI" & "MI" SERIES) SPECIFICATIONS

| | |
|------------------------------|--|
| Power Requirements | 110 VAC, 220 VAC, 24 VAC or 24 VDC. |
| Power Consumption | See instruction manual. |
| Cycle Time (per 90°) | See instruction manual. |
| Duty Rating | See instruction manual. |
| Enclosure Rating | NEMA 7, designed to meet hazardous locations: Class I, Group C & D; Class II, Group E, F & G; Division I & II. |
| 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. |





W/ PNEUMATIC ACTUATOR



| DOUBLE ACTING PNEUMATIC ACTUATOR | | | | | |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| NPT | 1/2" | 3/4" | 1" | 1-1/2" | 2" |
| B | 4-1/2" 114 mm | 4-1/2" 115 mm | 5-1/2" 139 mm | 6-1/8" 156 mm | 6-1/2" 164 mm |
| C | 2-3/8" 61 mm | 2-3/8" 61 mm | 2-3/4" 71 mm | 2-3/4" 71 mm | 2-3/4" 71 mm |
| D | 3-5/8" 91 mm | 4" 103 mm | 4-1/2" 115 mm | 5-1/2" 139 mm | 6-1/4" 158 mm |
| E | 4-5/8" 116 mm | 4-5/8" 116 mm | 5-3/4" 145 mm | 5-3/4" 145 mm | 5-3/4" 145 mm |
| F | 1-1/2" 37 mm | 1-1/2" 37 mm | 1-5/8" 41 mm | 1-5/8" 41 mm | 1-5/8" 41 mm |

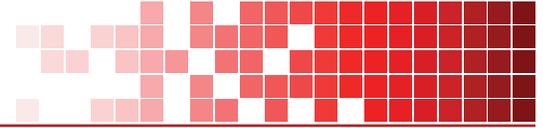
| SPRING RETURN PNEUMATIC ACTUATOR | | | | | |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|
| NPT | 1/2" | 3/4" | 1" | 1-1/2" | 2" |
| B | 5" 126 mm | 5" 127 mm | 6-1/8" 155 mm | 7-1/4" 184 mm | 7-1/2" 192 mm |
| C | 2-3/4" 71 mm | 2-3/4" 71 mm | 3-1/4" 82 mm | 3-3/4" 94 mm | 3-3/4" 94 mm |
| D | 3-5/8" 91 mm | 4" 103 mm | 4-1/2" 115 mm | 5-1/2" 139 mm | 6-1/4" 158 mm |
| E | 5-3/4" 145 mm | 5-3/4" 145 mm | 6-5/8" 169 mm | 7-7/8" 201 mm | 7-7/8" 201 mm |
| F | 1-5/8" 41 mm | 1-5/8" 41 mm | 1-3/4" 46 mm | 2" 52 mm | 2" 52 mm |

HOW TO ORDER – HAND OPERATED & PNEUMATIC ACTUATOR

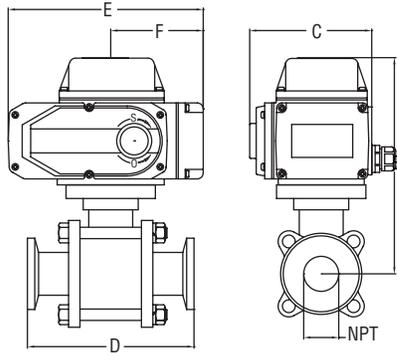
Use the **bold** characters from the chart below to construct a product code.

| | | |
|---|---|--|
| <p>SERIES</p> <p>WE03 - 316 SS 3-piece tri-clamp</p> <p>SIZE</p> <p>-C - 1/2" -F - 1-1/4" -D - 3/4" -G - 1-1/2" -E - 1" -H - 2"</p> <p>ACTUATOR</p> <p>HD00 - Hand operated DA01 - Double acting (1/2" to 3/4") DA02 - Double acting (1" to 2") SR02 - Spring return (1/2" to 3/4") SR03 - Spring return (1") SR04 - Spring return (1-1/2" to 2")</p> | <p>WE03 -X X -X X X -X</p> | <p>OPTIONS</p> <p>-NO - Fail open spring return actuator</p> <p>POSITIONER AND SWITCHES</p> <p>00 - 42AD0 exp limit switch 01 - 45VD0 exp position transmitter 02 - 42AD0-B ATEX limit switch 03 - 42AD0-IE IECEx limit switch 04 - QV-210101 poly limit switch 06 - VPS and P1 prox switch 07 - 265ER-D5 positioner 08 - 265ER-D5 positioner 09 - 285ER-D5 smart positioner</p> <p>SOLENOID VOLTAGE</p> <p>N - No Solenoid C - 24 VAC A - 110 VAC D - 24 VDC B - 220 VAC E - 12 VDC</p> <p>SOLENOID</p> <p>-N - No Solenoid -A - NEMA 4X NAMUR solenoid</p> |
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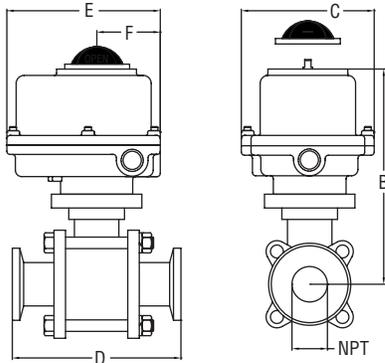


W/ ELECTRIC ACTUATOR



| ELECTRIC ACTUATOR | | | | | |
|-------------------|--------|--------|--------|--------|--------|
| NPT | 1/2" | 3/4" | 1" | 1-1/2" | 2" |
| B | 6-1/4" | 6-3/8" | 8-1/4" | 8-7/8" | 9-1/4" |
| | 160 mm | 161 mm | 209 mm | 226 mm | 234 mm |
| C | 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 |
| D | 3-5/8" | 4" | 4-1/2" | 5-1/2" | 6-1/4" |
| | 91 mm | 103 mm | 115 mm | 139 mm | 158 mm |
| E | 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 |
| F | 2-3/4" | 2-3/4" | 5" | 5" | 5" |
| | 68 mm | 68 mm | 126 mm | 126 mm | 126 mm |

W/ EXPLOSION-PROOF ELECTRIC ACTUATOR



| EXPLOSION-PROOF ELECTRIC ACTUATOR | | | | | | |
|-----------------------------------|--------|--------|--------|--------|--------|--------|
| NPT | 1/2" | 3/4" | 1" | 1-1/2" | 2" | 2" |
| B | 6-1/2" | 6-5/8" | 7-1/8" | 7-3/4" | 7-1/4" | 8" |
| | 167 mm | 168 mm | 180 mm | 196 mm | 186 mm | 205 mm |
| C | 4-1/2" | 4-1/2" | 4-1/2" | 4-1/2" | 3-3/4" | 4-1/2" |
| | 113 mm | 113 mm | 113 mm | 113 mm | 94 mm | 113 mm |
| D | 3-5/8" | 4" | 4-1/2" | 5-1/2" | 4-1/8" | 6-1/4" |
| | 91 mm | 103 mm | 115 mm | 139 mm | 105 mm | 158 mm |
| E | 6-1/4" | 6-1/4" | 6-1/4" | 6-1/4" | 7-7/8" | 6-1/4" |
| | 160 mm | 160 mm | 160 mm | 160 mm | 201 mm | 160 mm |
| F | 3" | 3" | 3" | 3" | 2" | 3" |
| | 77 mm | 77 mm | 77 mm | 77 mm | 52 mm | 77 mm |

HOW TO ORDER – HAND OPERATED & PNEUMATIC ACTUATOR

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

| | | |
|--|---|---|
| <p>SERIES</p> <p>WE03 - 316 SS 3-piece tri-clamp</p> <p>SIZE</p> <p>-C - 1/2"</p> <p>-D - 3/4"</p> <p>-E - 1"</p> <p>-F - 1-1/4"</p> <p>-G - 1-1/2"</p> <p>-H - 2"</p> | <p>WE03 -X X -X</p> | <p>ACTUATOR VOLTAGE</p> <p>-A - 110 VAC</p> <p>-B - 220 VAC</p> <p>-C - 24 VAC</p> <p>-D - 24 VDC</p> <p>ACTUATOR</p> <p>TD01 - NEMA 4X two-position (1/2" to 1-1/2")</p> <p>TD02 - NEMA 4X two-position (2")</p> <p>MD01 - NEMA 4X modulating(1/2" to 1-1/2")</p> <p>MD02 - NEMA 4X modulating (2")</p> <p>TI01 - Exp two-position (1/2" to 3/4")</p> <p>TI02 - Exp two-position (1" to 2")</p> <p>MI01 - Exp electric modulating (1/2" to 3/4")</p> <p>MI02 - Exp electric modulating (1" to 2")</p> |
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