

# 2-PIECE FLANGED STAINLESS STEEL BALL VALVES

150# ANSI Flange, Vented Ball, Electric or Pneumatic Actuators



WE04-DHD00



WE04-DDA02-AA03



WE04-DDA02-NN09



WE04-DTD01-A



WE04-CTI01-A



The Series WE04 2-Piece Flanged Stainless Steel Ball Valves incorporate a full port 2-piece flanged 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 stainless steel (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 WE04 can be configured with either a pneumatic or electric 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 4-20 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.

## BENEFITS/FEATURES

- Capable of being configured to fit any application
- Limit switches can be mounted to manual valves for remote monitoring
- Vented ball to reduce operating torque
- Weatherproof or explosion-proof electric actuators
- Double acting or spring return anodized aluminum pneumatic actuators
- Eliminates threads and reduces installation and maintenance time
- Full port design reduces the pressure drop across the valve

## APPLICATIONS

- Gas or liquid flow control
- Ideal for quick bubble tight shut-off

## SPECIFICATIONS

### VALVE

**Service:** Compatible liquids and gases.

**Body:** 2-piece.

**Line Sizes:** 1/2 to 3" .

**End Connections:** 150# ANSI flange.

**Pressure Limits:** 28" Hg to 275 psi (-0.7 to 19 bar) up to 392°F.

**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.

**Compliance:** Meets the technical requirements of EU Directive 2011/65/ EU (RoHS II).

### 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 DA04: 1/4" female NPT; SR02 to SR06: 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 "TD" and "MD" Series

**Power Requirements:** 110 VAC, 220 VAC, 24 VAC or 240 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:** 4-20 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 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 and D; Class II, Group E, F and G; Division I and II.

**Housing Material:** Powder coated aluminum.

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

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

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

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

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MODEL CHART						
Size	Cv (gal/min)	Popular Hand Operated Model	Popular Double Acting Pneumatic Model	Popular Spring Return Pneumatic Model	Popular NEMA 4X Two Position Electric (110 VAC) Model	Popular NEMA 4X Modulating Electric (110 VAC) Model
1/2"	36.64	WE04-CHD00	WE04-CDA01	WE04-CSR02	WE04-CTD01-A	WE04-CMD01-A
3/4"	67.69	WE04-DHD00	WE04-DDA01	WE04-DSR02	WE04-DTD01-A	WE04-DMD01-A
1"	101.63	WE04-EHD00	WE04-EDA03	WE04-ESR03	WE04-ETD01-A	WE04-EMD01-A
1-1/2"	266.62	WE04-GHD00	WE04-GDA03	WE04-GSR04	WE04-GTD02-A	WE04-GMD01-A
2"	485.3	WE04-HHD00	WE04-HDA03	WE04-HSR05	WE04-HTD02-A	WE04-HMD02-A
2-1/2"	816.9	WE04-IHD00	WE04-IDA04	WE04-ISR06	WE04-ITD03-A	WE04-IMD03-A
3"	1121.84	WE04-JHD00	WE04-JDA04	WE04-JSR06	WE04-JTD03-A	WE04-JMD03-A

MODEL CHART - HAND OPERATED AND PNEUMATIC ACTUATOR						
Example	WE04	-GDA03	-A	B	05	WE04-GDA03-AB05
Series	WE04					316 SS 2-piece flanged
Size and Actuator		CHD00 DHD00 EHD00 GHD00 HHD00 IHD00 JHD00 CDA01 DDA01 EDA03 GDA03 HDA03 IDA04 JDA04 CSR02 DSR02 ESR03 GSR04 HSR05 ISR06 JSR06				1/2" hand operated 3/4" hand operated 1" hand operated 1-1/2" hand operated 2" hand operated 2-1/2" hand operated 3" hand operated 1/2" double acting 3/4" double acting 1" double acting 1-1/2" double acting 2" double acting 2-1/2" double acting 3" double acting 1/2" spring return 3/4" spring return 1" spring return 1-1/2" spring return 2" spring return 2-1/2" spring return 3" spring return
Solenoid			N A			No solenoid NEMA 4X NAMUR solenoid
Solenoid Voltage				N A B C D E		No solenoid 110 VAC 220 VAC 24 VAC 24 VDC 12 VDC
Positioner and Switches					00 01 02 03 04 06 07 08 09	None 42AD0 exp limit switch 45VD0 exp position transmitter 42AD0-B ATEX limit switch 42AD0-IE IECEX limit switch QV-210101 poly limit switch VPS and P1 prox switch 265ER-D5 positioner 285ER-D5 smart positioner
Options					NO	Fail open spring return actuator

ACCESSORIES	
Model	Description
VB-01	Volume booster

MODEL CHART - ELECTRIC ACTUATOR				
Example	WE04	-ITD03	-B	WE04-ITD03-B
Series	WE04			316 SS 2-piece flanged
Size and Actuator		CTD01 DTD01 ETD01 GTD02 HTD02 ITD03 JTD03 CMD01 DMD01 EMD01 GMD01 HMD02 IMD03 JMD03 CTI01 DTI01 ETI02 GTI03 HTI04 ITI04 JTI05 CMI01 DMI01 EMI02 GMI03 HMI04 IMI04 JMI05		1/2" NEMA 4X two-position 3/4" NEMA 4X two-position 1" NEMA 4X two-position 1-1/2" NEMA 4X two-position 2" NEMA 4X two-position 2-1/2" NEMA 4X two-position 3" NEMA 4X two-position 1/2" NEMA 4X modulating 3/4" NEMA 4X modulating 1" NEMA 4X modulating 1-1/2" NEMA 4X modulating 2" NEMA 4X modulating 2-1/2" NEMA 4X modulating 3" NEMA 4X modulating 1/2" exp two-position 3/4" exp two-position 1" exp two-position 1-1/2" exp two-position 2" exp two-position 2-1/2" exp two-position 3" exp two-position 1/2" exp electric modulating 3/4" exp electric modulating 1" exp electric modulating 1-1/2" exp electric modulating 2" exp electric modulating 2-1/2" exp electric modulating 3" exp electric modulating
Actuator Voltage			A B C D	110 VAC 220 VAC 24 VAC 24 VDC

REPAIR KIT	
Model	Valve Series and Size
VRK-27	WE04-1/2"
VRK-28	WE04-3/4"
VRK-29	WE04-1"
VRK-31	WE04-1-1/2"
VRK-32	WE04-2"
VRK-33	WE04-2-1/2"
VRK-34	WE04-3"
Parts List - Included in Kit	
1 PTFE thrust washer	
1 FKM O-ring	
2 PTFE stem packing	
2 PTFE seals	
2 RTFE seats	