



While A-T Controls is known for superior service in automated valves and controls, we specialize in offering solutions to the more unique, specific or custom applications.

For tank temperature control in the wine industry, A-T Controls offers custom solutions. On the SUPPLY side (3 position control, off/cooling/heating) and RETURN side (2 position, diverting from cooling and heating), our DR Series ball valves may be automated with Triac WE-500 electric actuators.

These packages are designed to operate 180° to control the SUPPLY side of both heating and cooling or 90° on the RETURN side to divert from cooling or heating the tanks. The valve is 316SST with direct mount automation pad for actuator mounting, eliminating the need for extra hardware and cost. Superior live loaded packing and unique pyramidal stem seal design ensures superior protection against stem leakage experienced over time by using ordinary brass ball valves. The actuator is Type 4/4X, compact and light, suitable for use with valves 1/2" – 2".



Sample Installation Setup



WE-500 Electric Actuator
2 & 3 position, mounted to
DR Series 3-way valve

Additional A-T offerings for the WINE INDUSTRY include:

- Butterfly valves for irrigation systems, automated with 12VDC or 24VDC actuators.
- Sanitary valves (77 Series)



Series DR 3-Way Ball Valve for Temperature Control

Sizes 1/2" - 2"

Regular Port Design (1/2" Full Port)
2000/1500 psi WOG (by size)

Available in 316SST or Carbon Steel

Threaded, Socket Weld, or Butt Weld Ends

Superior Live Loaded Packing System

ISO 5211 Actuator Mounting Pad

Blowout Proof Stem w/ Dual Anti-Static Devices

RTFE Seats Standard

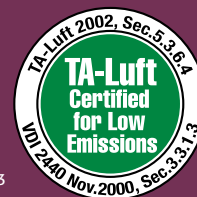
VL-Bottom Entry Port Arrangement Standard

Pyramidal Stem Seal Design

Lockable Manual Handle

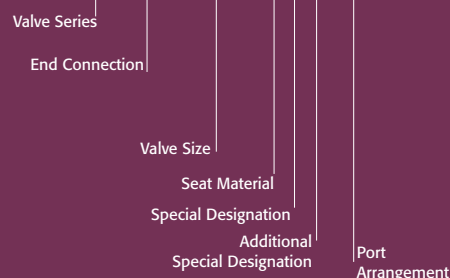
STANDARDS

Design	ANSI B16.34
Butt Weld Ends	ANSI B16.25
Threaded Ends	ANSI B1.20.1
Fittings	ANSI B16.11
Pipeline Valves	ISO 7-1
Pressure Testing	API 598
Mounting	ISO 5211
Marking System for Valves	MSS SP25, ISO 5209
Safety Integrity	IEC 61508:2010; SIL 3
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



MANUAL VALVE SAMPLE PART #

DR-TH-0075-XXX-VL



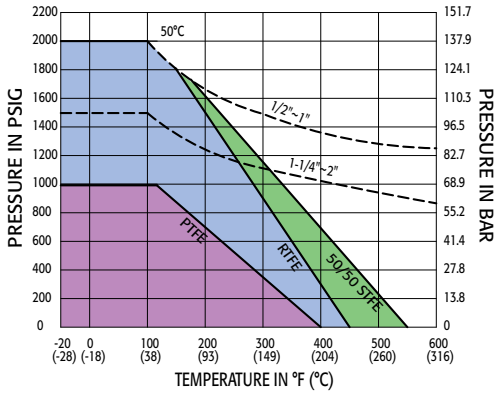
DR-TH-0075-XXX-VL
3/4" DR-Series 316SST 3-Way Diverter Ball Valve, 2000psi (WOG), Reduced Port, VL-Bottom Entry, Threaded Ends, Direct Mount, F04/F05 B.C. with RTFE Seats

See valve part number matrix for complete part number and options.

Series DR

3-Way Diverter Ball Valve for Temperature Control ISO 5211 Direct Mount

Pressure vs. Temperature Chart
for Valves 1/2" to 2"



NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials

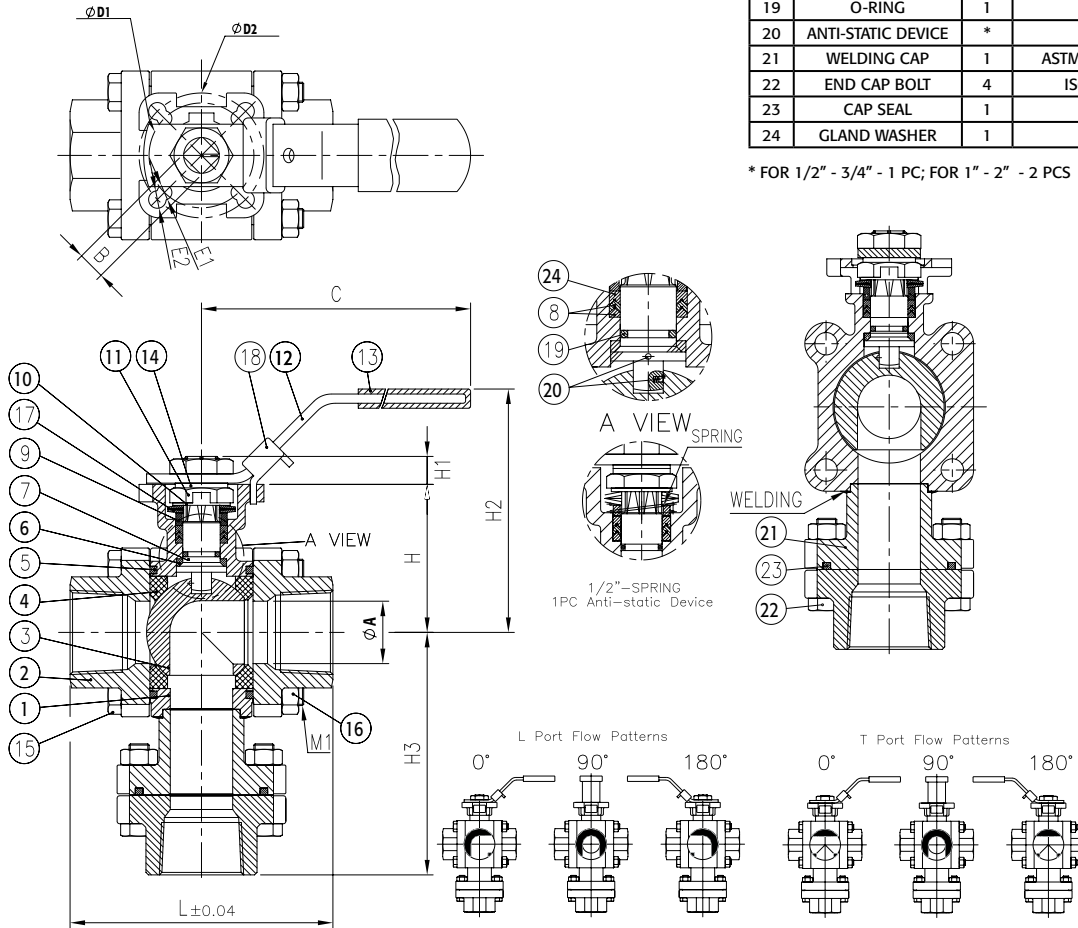
Break Away Torque for RTFE Seats	
SIZE	IN-LBS.
1/2"	75
3/4"	100
1"	145
1-1/4"	220
1-1/2"	300
2"	420

NOTE: For other seat material, consult factory

MATERIALS LIST

NO.	PART NAME	QTY.	MATERIAL
1	BODY	1	ASTM A351 Grade CF8M
2	END CAP	3	ASTM A351 Grade CF8M
3	BALL	1	1/2"-3/4": ASTM A276 SS316 1"-2": ASTM A351 Grade CF8M
4	SEAT	2	RTFE
5	JOINT GASKET	2	PTFE
6	STEM SEAL	1	RTFE
7	STEM	1	ASTM A276 SS316
8	GLAND PACKING	2	PTFE
9	GLAND BUSHING	1	AISI 304
10	LOCK SADDLE	1	AISI 304
11	STEM NUT	2	AISI 304
12	HANDLE	1	AISI 304
13	HANDLE SLEEVE	1	VINYL
14	STEM WASHER	1	AISI 304
15	BODY BOLT	4	ISO 3506-1 A2-70
16	BODY NUT	8	ISO 3506-2 A2-70
17	BELLEVILLE WASHER	2	AISI 301
18	HANDLE LOCK	1	AISI 304
19	O-RING	1	Viton®
20	ANTI-STATIC DEVICE	*	AISI 316
21	WELDING CAP	1	ASTM A351 Grade CF3M
22	END CAP BOLT	4	ISO 3506-1 A2-70
23	CAP SEAL	1	PTFE
24	GLAND WASHER	1	RTFE

* FOR 1/2" - 3/4" - 1 PC; FOR 1" - 2" - 2 PCS



DIMENSIONS (IN)

SIZE	ØA	B	C	ØD1	ØD2	ØE1	ØE2	H	H1	H2	H3	L	M1	ISO 5211
1/2"	0.50	0.354	5.47	1.417	1.654	0.24	0.24	1.68	0.30	3.03	2.88	2.95	M6	F03/F04
3/4"	0.59	0.354	5.47	1.417	1.654	0.24	0.24	1.68	0.30	3.03	2.83	2.85	M6	F03/F04
1"	0.79	0.354	5.47	1.417	1.654	0.24	0.24	1.84	0.34	3.23	3.31	3.36	M8	F03/F04
1-1/4"	0.98	0.433	6.50	1.654	1.969	0.24	0.28	2.33	0.41	3.88	3.82	4.15	M8	F04/F05
1-1/2"	1.26	0.433	6.50	1.654	1.969	0.24	0.28	2.46	0.41	4.02	3.94	4.37	M10	F04/F05
2"	1.50	0.551	8.46	1.969	2.756	0.30	0.35	3.11	0.53	5.04	4.42	5.01	M10	F05/F07



Electric Automated Ball Valve Package

Series DR

3-Way Diverter Ball Valve for Temperature Control

Size 1/2" Full Port
 Sizes 3/4" - 2" Regular Port
 2000/1500 psi WOG
 (by size)

Available in 316SST or Carbon
 TH, SW, or BW Ends
 Superior Live Loaded Packing
 System

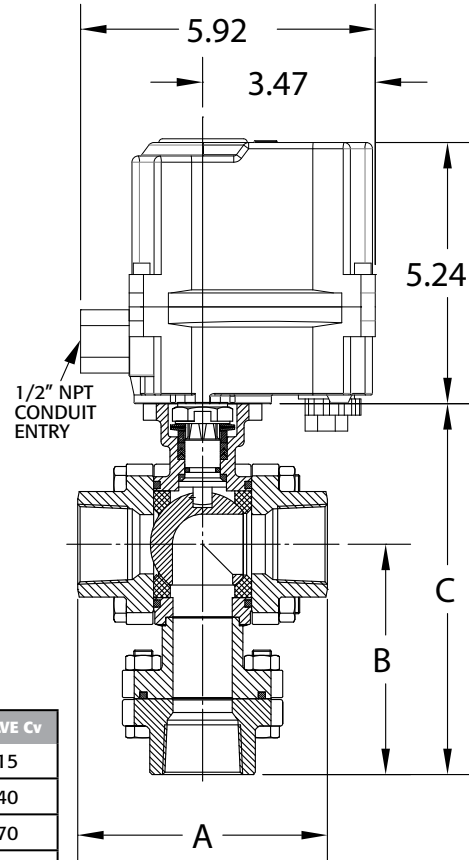
Blowout Proof Stem w/ Dual
 Anti-Static Devices
 RTFE Seats Standard
 VL-Bottom Entry Port Arrangement
 Pyramidal Stem Seal Design

STANDARDS

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WE Series Electric Actuator
 Weatherproof, Type 4, 4X



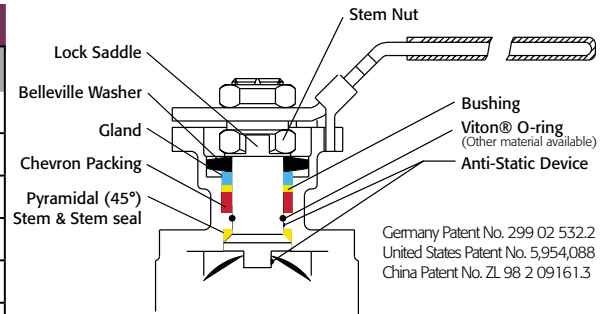
DIMENSIONS (IN)

VALVE SIZE	A	B	C	VALVE Cv
1/2"	2.85	2.83	4.51	15
3/4"	2.85	2.83	4.51	40
1"	3.36	3.31	5.15	70
1-1/4"	4.15	3.83	6.16	110
1-1/2"	4.37	3.94	6.40	250
2"	5.01	4.42	7.53	430

SERIES DR 3-Way Diverter Ball Valve

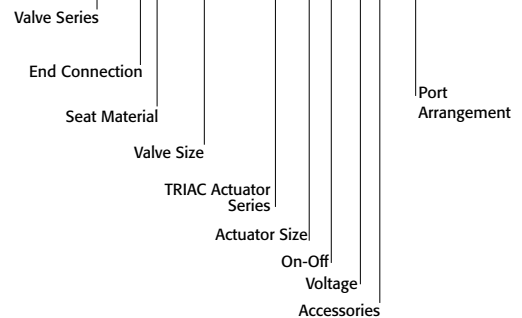
ON-OFF	
SIZE	MODEL
1/2"	DR-TX-050/WEA1-XX-VL
3/4"	DR-TX-075/WEA1-XX-VL
1"	DR-TX-100/WEA1-XX-VL
1-1/4"	DR-TX-125/WEA1-XX-VL
1-1/2"	DR-TX-150/WEA1-XX-VL
2"	DR-TX-200/WEA1-XX-VL

MODULATING	
SIZE	MODEL
1/2"	DR-TX-050/WEA2-XX-VL
3/4"	DR-TX-075/WEA2-XX-VL
1"	DR-TX-100/WEA2-XX-VL
1-1/4"	DR-TX-125/WEA2-XX-VL
1-1/2"	DR-TX-150/WEA2-XX-VL
2"	DR-TX-200/WEA2-XX-VL



Germany Patent No. 299 02 532.2
 United States Patent No. 5,954,088
 China Patent No. ZL 98 2 09161.3

ELECTRIC ASSEMBLY SAMPLE PART # **DR-TX-075/WEA1-XX-VL**



OPTIONS

DESCRIPTION
24 VAC/24 VDC/220VAC
Feedback potentiometer

NOTE: Heater and thermostat standard
 (2) auxiliary switches standard

Other options available - call for details
 Actuators are sized based on clean/clear fluid.

See valve part number matrix for complete part number and options.

