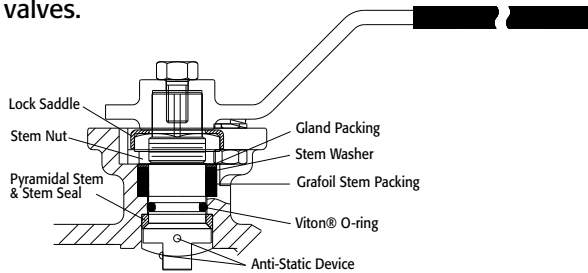




Triac Series 24 High Pressure Ball Valves feature a high quality investment cast body and end. They are available in 1/4" through 2" (all are full port except the 2" size). Superior leak protection is accomplished by using our patented Pyramidal Stem Seal Packing System shown in the graphic below. This advanced system protects against wear and leakage experienced by other ball valves.



VALVE SIZE	VALVE CV
1/4"	7
3/8"	8
1/2"	15
3/4"	35
1"	50
1-1/4"	95
1-1/2"	180
2"	210

Delrin® seats are standard in these high performance valves. See pressure temperature chart for performance particulars.

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric



Series 24

FIRESAFE

HIGH PRESSURE 2-Piece Design

Sizes 1/4" – 2"
(1/4" – 1-1/2" Full Port, 2" Regular Port)

Available in 316SST

Direct Mount

3000 psi WOG

High Cycle Design

Pyramidal Stem Seal Packing System

Compliant to NACE MR0175

Blowout Proof Stem

Delrin® Seats Standards

ISO 5211 Actuator Mounting Pad

Lockable Manual Handle

STANDARDS

Design	ANSI/ASME B16.34, Firesafe design
End Connections	ANSI/ASME B16.25, B1.20.1
Pressure Testing	API 598
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25, MSS SP-72, ISO 5209
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008

HOW TO ORDER MANUAL VALVES

SAMPLE PART #

24-TH-0200-DXX

Valve Series

End Connection

Valve Size

Seat Material

Special Designation

Additional Special Designation

See part number matrix for itemized options

SERIES 24 2-Piece Firesafe



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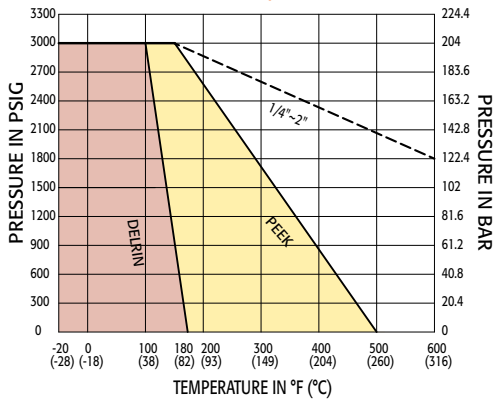
PHONE (513) 247-5465
FAX (513) 247-5462
sales@atcontrols.com

Series 24

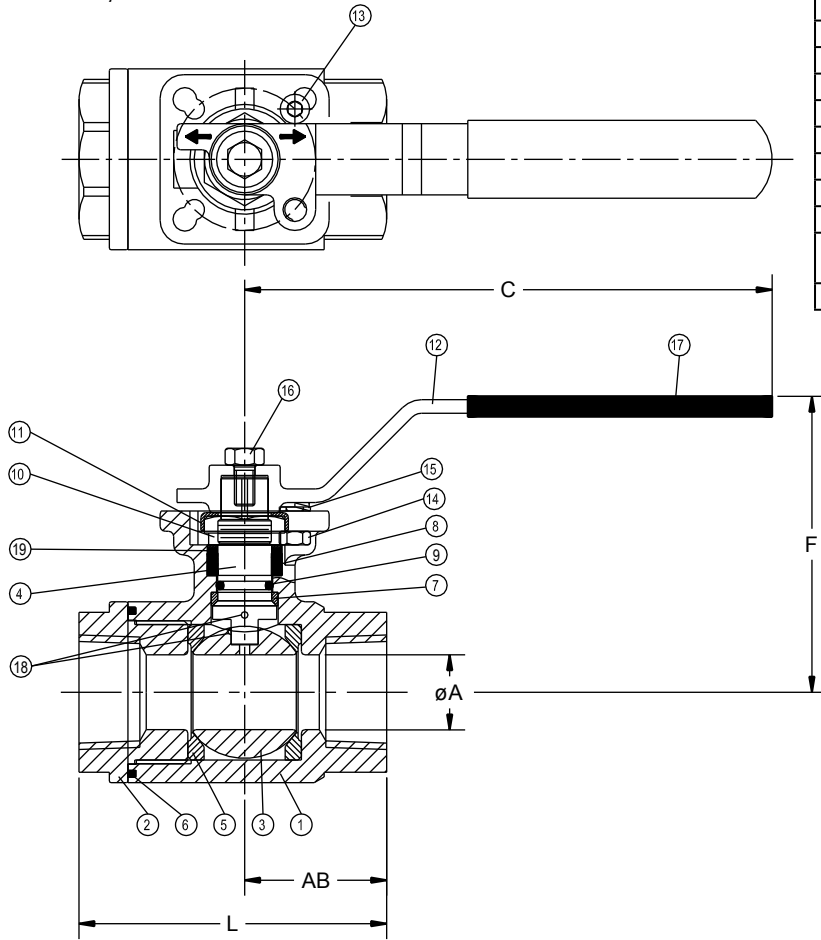
2-Piece Direct Mount Ball Valve
Integrated ISO 5211
Actuator Mounting Pad

3000 psi WOG
1/4" to 1-1/2" Full Port
2" Regular Port

Pressure vs. Temperature Chart
for Valves 1/4" 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.



DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	G	L	AB	DD1	DD2	DD3	Z1	Z2	Z3	ISO 5211
1/4"	0.38	0.354	4.96	1.61	0.31	2.83	1.02	2.95	1.417	1.417	1.654	1.969	0.24	0.24	0.28	F03/F04/F05
3/8"	0.38	0.354	4.96	1.61	0.31	2.83	1.02	2.95	1.417	1.417	1.654	1.969	0.24	0.24	0.28	F03/F04/F05
1/2"	0.50	0.354	4.96	1.61	0.31	2.83	1.28	2.95	1.417	1.417	1.654	1.969	0.24	0.24	0.28	F03/F04/F05
3/4"	0.69	0.354	4.96	1.72	0.31	2.87	1.51	3.19	1.417	1.417	1.654	1.969	0.24	0.24	0.28	F03/F04/F05
1"	0.87	0.433	6.14	2.11	0.39	3.43	1.86	3.58	1.654	1.654	1.969	—	0.24	0.28	—	F04/F05
1-1/4"	1.14	0.433	6.14	2.32	0.39	3.66	2.32	4.33	1.654	1.654	1.969	—	0.24	0.28	—	F04/F05
1-1/2"	1.37	0.551	7.13	2.96	0.51	4.49	2.61	4.76	1.969	1.969	2.756	—	0.28	0.34	—	F05/F07
2" RP	1.37	0.551	7.13	2.96	0.51	4.49	3.23	5.71	1.969	1.969	2.756	—	0.28	0.34	—	F05/F07

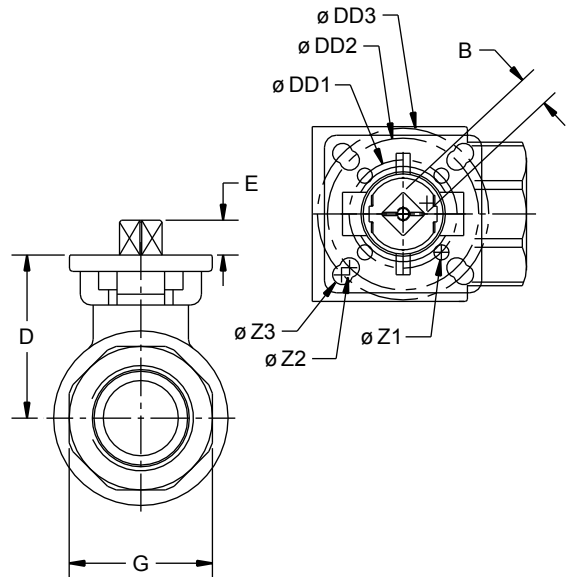
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Delrin® is a registered trademark of DuPont Performance Polymers.
A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.

BREAKAWAY TORQUES w/Delrin® Seats	
SIZE	IN-LBS
1/4"	122
3/8"	122
1/2"	153
3/4"	184
1"	247
1-1/4"	470
1-1/2"	553
2"	553

NOTE: For other seat material, consult factory.

MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL
1	BODY	1	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB
2	END CAP	1	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB
3	BALL	1	1/4" THRU 3/8" ASTM A276 SS316	1/4" THRU 3/8" ASTM A276 SS316
3	BALL	1	1/2" THRU 2" ASTM A351 GRADE CF8M	1/2" THRU 2" ASTM A351 GRADE CF8M
4	STEM	1	ASTM A276 SS316	ASTM A276 SS316
5	SEAT	2	DELRIN®	DELRIN®
6	JOINT GASKET	1	GRAFOIL	GRAFOIL
7	STEM SEAL	1	DELRIN®	DELRIN®
8	STEM PACKING	1	GRAFOIL	GRAFOIL
9	O-RING	1	VITON®	VITON®
10	STEM NUT	1	AISI 304	AISI 304
11	LOCK SADDLE	1	AISI 304	AISI 304
12	HANDLE	1	AISI 304	AISI 304
13	STOP BOLT	1	AISI 304	AISI 304
14	STOP NUT	1	AISI 304	AISI 304
15	STOP WASHER	1	AISI 304	AISI 304
16	HANDLE BOLT	1	AISI 304	AISI 304
17	HANDLE SLEEVE	1	VINYL	VINYL
18	ANTI-STATIC DEVICE	2	AISI 316	AISI 316
19	GLAND WASHER	1	RTFE	RTFE





Pneumatic Double Acting

Automated Ball Valve Package

Series 24
Firesafe
High Pressure 2-Piece Design

Sizes 1/4" - 2"
Full Port 1/4" - 1-1/2" Regular Port 2"

Available in 316SST

Direct Mount

3000 psi WOG

High Cycle Design

Pyramidal Stem Seal Packing
System

Compliant to NACE MR0175

Blowout Proof Stem

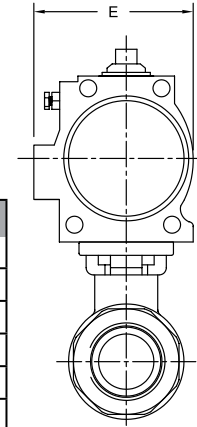
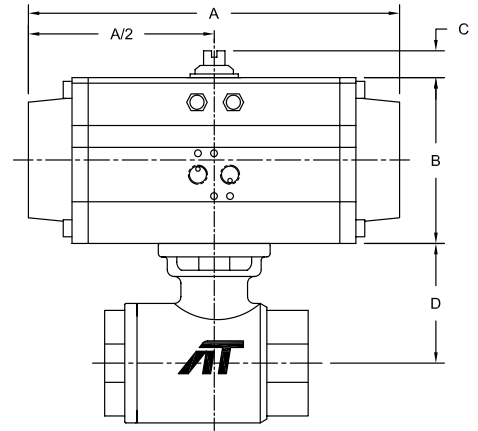
Delrin® Seats Standard

STANDARDS

Design	ANSI/ASME B16.34, Firesafe design
End Connections	ANSI/ASME B16.25, B1.20.1
Pressure Testing	API 598
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25, MSS SP-72, ISO 5209
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008



Direct Mount



DIMENSIONS (IN)

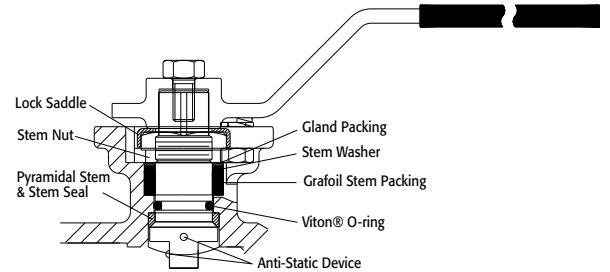
VALVE SIZE	A	B	C	D	E	VALVE Cv
1/4"	5.98	2.76	0.79	1.61	2.50	7
3/8"	5.98	2.76	0.79	1.61	2.50	8
1/2"	7.95	3.43	0.79	1.61	3.29	15
3/4"	9.29	4.49	0.79	1.72	4.41	35
1"	9.29	4.49	0.79	2.11	4.41	50
1-1/4"	9.29	4.49	0.79	2.32	4.41	95
1-1/2"	9.29	4.49	0.79	2.96	4.41	180
2"	9.29	4.49	0.79	2.96	4.41	210

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

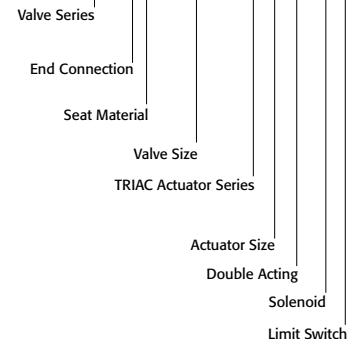
SERIES 24 Direct Mount

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/4"	24-TD-025/TR1D-XX
3/8"	24-TD-038/TR1D-XX
1/2"	24-TD-050/2R2D-XX
3/4"	24-TD-075/2R3D-XX
1"	24-TD-100/2R3D-XX
1-1/4"	24-TD-125/2R3D-XX
1-1/2"	24-TD-150/2R3D-XX
2"	24-TD-200/2R3D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/4"	24-TD-025/2R2D-XX
3/8"	24-TD-038/2R2D-XX
1/2"	24-TD-050/2R2D-XX
3/4"	24-TD-075/2R3D-XX
1"	24-TD-100/2R3D-XX
1-1/4"	24-TD-125/2R3D-XX
1-1/2"	24-TD-150/2R3D-XX
2"	24-TD-200/2R4D-XX



SAMPLE PART #
24-TD-050/2R2D-XX



OPTIONS

DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
NEMA 4 Solenoid	(A)	NEMA 4 Limit Switch (2) spdt	(A)
NEMA 7 Solenoid	(B)	NEMA 7 Limit Switch (2) spdt	(B)
Intrinsically Safe Solenoid	(C)	Intrinsically Safe Limit Switch	(C)

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.

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Pneumatic Spring Return Automated Ball Valve Package

Series 24
Firesafe
High Pressure 2-Piece Design

Sizes 1/4" – 2"
Full Port 1/4" – 1-1/2" Regular Port 2"

Available in 316SST

Direct Mount

3000 psi WOG

High Cycle Design

Pyramidal Stem Seal Packing
System

Compliant to NACE MR0175

Blowout Proof Stem

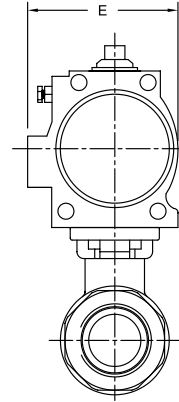
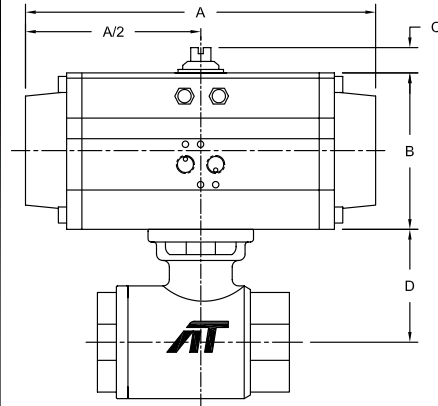
Delrin® Seats Standard

STANDARDS

Design	ANSI/ASME B16.34, Firesafe design
End Connections	ANSI/ASME B16.25, B1.20.1
Pressure Testing	API 598
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25, MSS SP-72, ISO 5209
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008



Direct Mount



DIMENSIONS (IN)

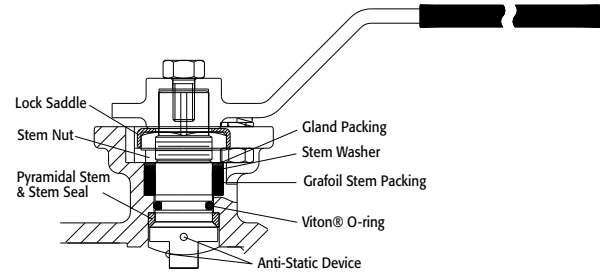
VALVE SIZE	A	B	C	D	E	VALVE Cv
1/4"	7.95	3.43	0.79	1.61	3.29	7
3/8"	7.95	3.43	0.79	1.61	3.29	8
1/2"	9.29	4.49	0.79	1.61	4.41	15
3/4"	9.29	4.49	0.79	1.72	4.41	35
1"	9.29	4.49	0.79	2.11	4.41	50
1-1/4"	10.87	4.88	0.79	2.32	4.82	95
1-1/2"	10.87	4.88	0.79	2.96	4.82	180
2"	11.46	5.28	0.79	2.96	5.20	210

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

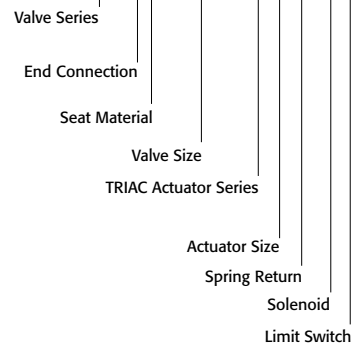
SERIES 24 Direct Mount

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/4"	24-TD-025/2R2S-XX
3/8"	24-TD-038/2R2S-XX
1/2"	24-TD-050/2R3S-XX
3/4"	24-TD-075/2R3S-XX
1"	24-TD-100/2R3S-XX
1-1/4"	24-TD-125/2R4S-XX
1-1/2"	24-TD-150/2R4S-XX
2"	24-TD-200/2R5S-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/4"	24-TD-025/2R2S-XX
3/8"	24-TD-038/2R2S-XX
1/2"	24-TD-050/2R3S-XX
3/4"	24-TD-075/2R3S-XX
1"	24-TD-100/2R3S-XX
1-1/4"	24-TD-125/2R4S-XX
1-1/2"	24-TD-150/2R5S-XX
2"	24-TD-200/2R5S-XX



SAMPLE PART # 24-TD-050/2R3S-XX



OPTIONS

DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
NEMA 4 Solenoid	(A)	NEMA 4 Limit Switch (2) spdt	(A)
NEMA 7 Solenoid	(B)	NEMA 7 Limit Switch (2) spdt	(B)
Intrinsically Safe Solenoid	(C)	Intrinsically Safe Limit Switch	(C)

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

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Delrin® is a registered trademark of DuPont Performance Polymers.

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



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Electric

Automated Ball Valve Package

Series 24
Firesafe
High Pressure 2-Piece Design

Sizes 1/4" – 2"
Full Port 1/4" – 1-1/2" Regular Port 2"

Available in 316SS

Direct Mount

3000 psi WOG

High Cycle Design

Pyramidal Stem Seal Packing System

Compliant to NACE MR0175

Blowout Proof Stem

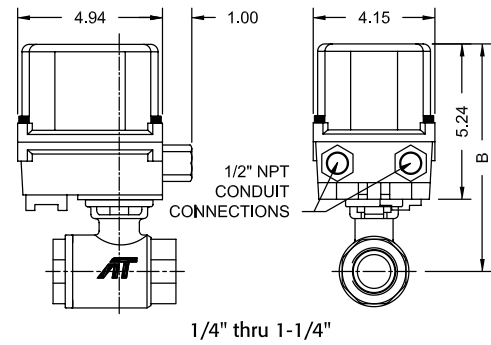
Delrin® Seats Standard

STANDARDS

Design	ANSI/ASME B16.34, Firesafe design
End Connections	ANSI/ASME B16.25, B1.20.1
Pressure Testing	API 598
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25, MSS SP-72, ISO 5209
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008



Direct Mount

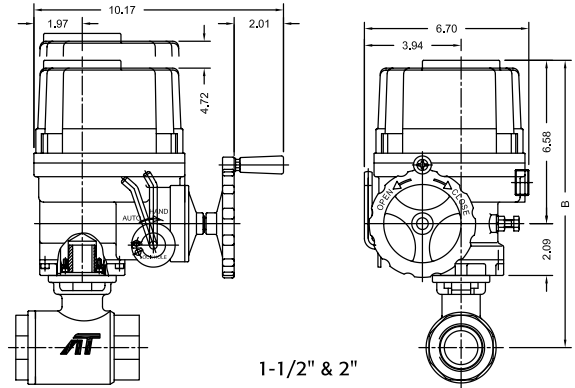


1/4" thru 1-1/4"

ELECTRIC ON/OFF SERIES

VALVE SIZE	B	VALVE Cv
1/4"	6.85	7
3/8"	6.85	8
1/2"	6.85	15
3/4"	6.96	35
1"	7.35	50
1-1/4"	7.56	95
1-1/2"	11.62	180
2"	11.62	210

FOR SPECIALS, CONSULT FACTORY

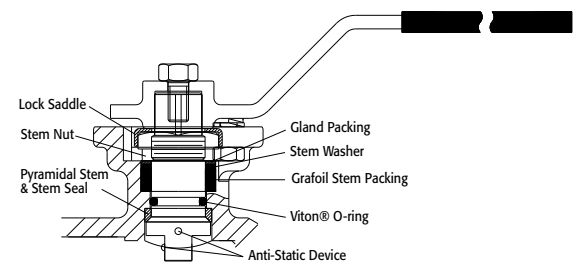


1-1/2" & 2"

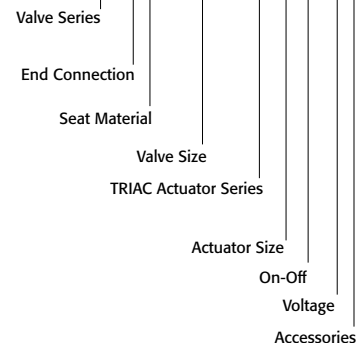
SERIES 24 Direct Mount

ON-OFF	
SIZE	MODEL
1/4"	24-TD-025/WEA1-XX
3/8"	24-TD-038/WEA1-XX
1/2"	24-TD-050/WEA1-XX
3/4"	24-TD-075/WEA1-XX
1"	24-TD-100/WEA1-XX
1-1/4"	24-TD-125/WEA1-XX
1-1/2"	24-TD-150/WEB1-XX
2"	24-TD-200/WEB1-XX

MODULATING	
SIZE	MODEL
1/4"	24-TD-025/WEA2-XX
3/8"	24-TD-038/WEA2-XX
1/2"	24-TD-050/WEA2-XX
3/4"	24-TD-075/WEA2-XX
1"	24-TD-100/WEA2-XX
1-1/4"	24-TD-125/WEA2-XX
1-1/2"	24-TD-150/WEB2-XX
2"	24-TD-200/WEB2-XX



SAMPLE PART #
24-TD-050/WEA1-XX



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

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.

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Valve Options

Various Seat Materials

PTFE, RTFE, 50/50 STFE, 25% CTFE, Delrin, PEEK, UHMWPE, TFM-1600

Operator Options

Quarter-turn Gear Operators
Spring Return "Deadman" Handles
Oval handles, TEE Handles

Specials and Solutions

Steam Jackets
Stem Extensions
V-ported Control Valves
Multi-port Valve Solutions
Fugitive Emissions Bonnets (TSM's)
Oxygen Cleaning
Lockout Brackets
Vented Balls
"No Play" Mounting Kits

• FM Approved Valves and Assemblies



Manual and automated valve assemblies for gas burner management applications and safety shutoff

Other Products

Special Seats Balls and Seal Designs



Steam Jacketed Valves



Floor Mounted Damper Drives



Limit Switches Mounted on Manual Valves



Fusible Link Assemblies



180° Actuators



Lockout Mounting Kits



Stem Extensions



Special Multi-Port Valves



Dual Valve Assemblies

