



A-T Controls' Series LB ball valves feature the latest technology in PFA. These fully lined ball valves are available with stainless steel or epoxy coated carbon steel body. The superior PFA lining is able to withstand temperatures up to 400°F and demonstrates greater durability than PTFE. This high purity PFA has extremely low gas permeability and outperforms other materials in critical services.

These split body valves feature adjustable packing. The lining thickness is at least 3mm. throughout the body and ball. One-piece ball and stem design reduces side loading and extends stem and packing life.

VALVE SIZE	VALVE Cv
1/2"	20
3/4"	20
1"	55
1-1/2"	210
2"	310
2-1/2"	210
3"	684
4"	1,546
6"	3,262
8"	4,565

**Excellent for:**

- Pharmaceutical
- Food and Beverage
- Paints and Solvents
- Caustics and Acids
- Deionized Water and Semiconductor

**Easy to Automate!**

See automated data sheets for pre-sized assemblies



Pneumatic



Electric

Featuring **TRIAO**<sup>®</sup>  
Controls & Accessories

**Series LB**

**PFA Lined Split Body Flanged Ball Valve**

Available in 316SST or WCB  
Sizes 1/2"-8"

Flanged Ends - ANSI Class 150

Full Port Design

Superior Packing System

PTFE Seats Standard

Lockable Manual Handle

Spark Test Standard (20 kV)

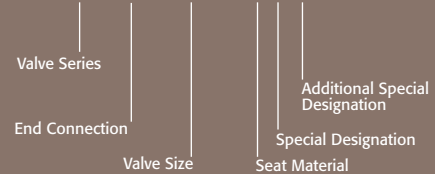
**STANDARDS**

Design & Manufactured	API 608
Face to Face Dimensions	ASME B16.10
Flange End Connections	ASME B16.5
Pressure Testing	API 598
Material Certification	EN 10204-3.1
Quality Assurance	ISO 9001:2015

**HOW TO ORDER MANUAL VALVES**

SAMPLE PART #

**LB-F1-0300-LXX**



See part number matrix for itemized options



9955 International Blvd.  
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# Series LB

## High Performance, Full Port PFA Lined, Split Body Ball Valve ANSI Class 150 Flanged Ends

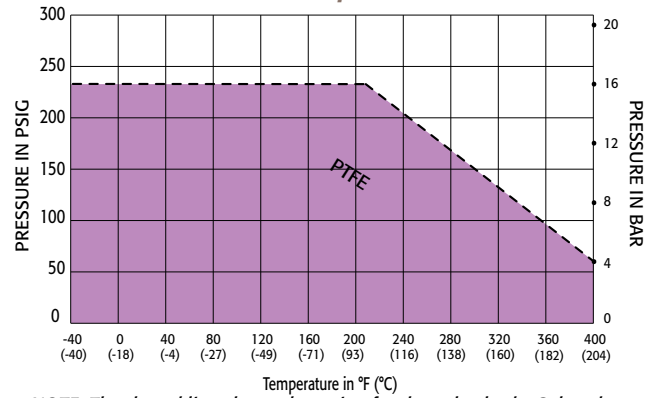
### MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL
1	Body	1	ASTM A351 GRADE CF8M/PFA	ASTM A216 GRADE WCB/PFA
2	End Cap	1	ASTM A351 GRADE CF8M/PFA	ASTM A216 GRADE WCB/PFA
3	Ball	1	ASTM A351 GRADE CF8M/PFA	ASTM A351 GRADE CF8/PFA
4	Seat	2	PTFE	PTFE
5	Body Studs	*	ASTM A193 GRADE B8	ASTM A193 GRADE B8
6	Body Nut	*	ASTM A193 GRADE 8	ASTM A193 GRADE 8
7	Packing	1	PTFE	PTFE
8	Packing Bushing	1	AISI 304	AISI 304
9	Packing Gland	1	ASTM A351 GRADE CF8	ASTM A351 GRADE CF8
10	Anti-Static Spring	1	AISI 321	AISI 321
11	Gland Stud	2	AISI 304	AISI 304
12	Gland Flat Washer	2	AISI 321	AISI 321
13	Gland Split Washer	2	AISI 321	AISI 321
14	Gland Nut	2	AISI 304	AISI 304
15	Handle	1	ASTM A351 GRADE CF8	ASTM A351 GRADE CF8
16	Handle Washer	1	AISI 321	AISI 321
17	Handle Bolt	1	AISI 304	AISI 304
18	Handle Stop	1	AISI 304	AISI 304
19	Handle Lock	1	AISI 321	AISI 321
20	Handle Lock Bolt	1	AISI 304	AISI 304

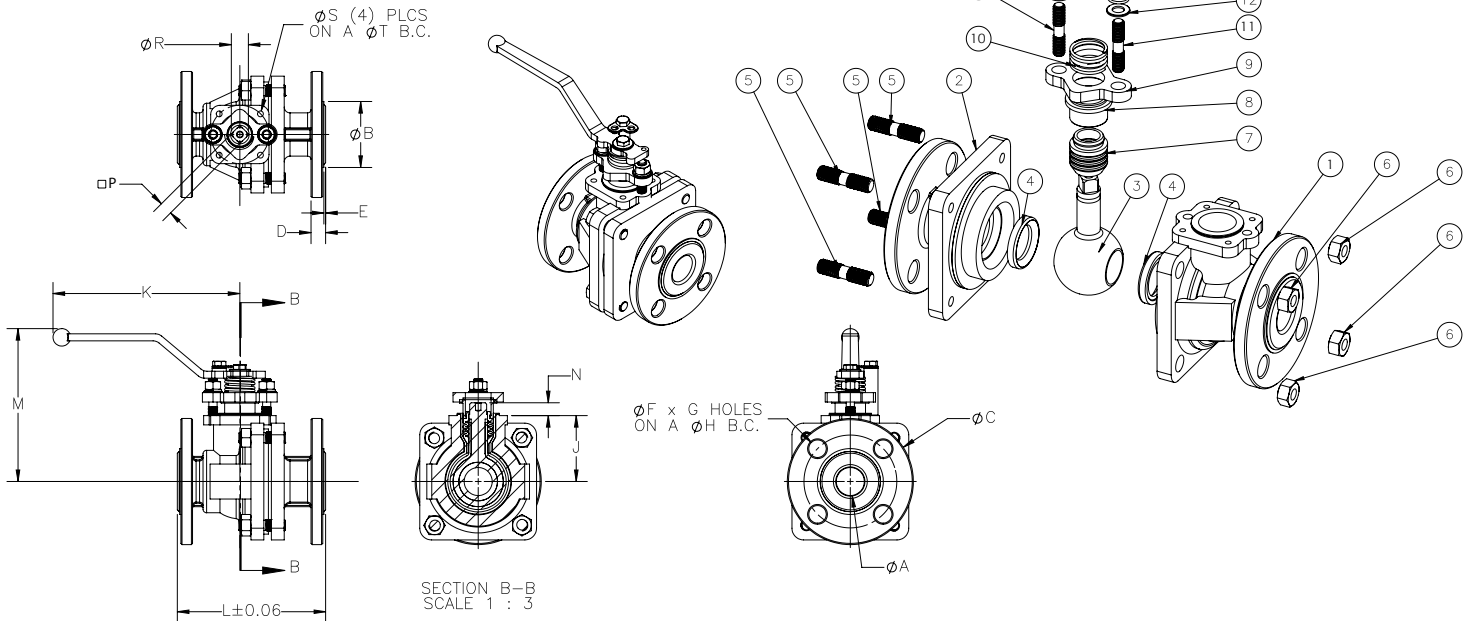
\* 1/2" THRU 2-1/2" - QTY 4  
\* 3" THRU 4" - QTY 6

\* 6" - QTY 8  
\* 8" - QTY 10

Pressure vs. Temperature Chart



NOTE: The dotted line shows the rating for the valve body. Colored area shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application.  
**LBC Series is rated to -20° F, LB Series rated to -40° F.**



### Break Away Torque for PTFE Seats

SIZE	IN.-LBS.
1/2"	80
3/4"	80
1"	100
1-1/2"	185
2"	250
2-1/2"	285
3"	475
4"	805
6"	1,300
8"	3,300

SIZE	VALVE DIMENSIONS											ACTUATOR MOUNTING DIMENSIONS							
	ØA	ØB	ØC	D	E	ØF	G	H	J	K	L	M	N	□P	ØR	ØS	T	ISO 5211	(LBS)
1/2"	0.59	1.38	3.50	0.44	0.06	0.63	4	2.38	2.03	6.30	4.25	5.04	0.16	0.354	0.46	1/4"-20	1.969	F05	7.72
3/4"	0.79	1.69	3.88	0.44	0.06	0.63	4	2.74	2.03	6.30	4.62	5.04	0.16	0.354	0.46	1/4"-20	1.969	F05	10.14
1"	0.98	2.00	4.25	0.44	0.06	0.63	4	3.12	2.22	6.30	5.00	5.24	0.16	0.433	0.57	1/4"-20	1.969	F05	11.02
1-1/2"	1.50	2.88	5.00	0.56	0.06	0.63	4	3.88	2.76	7.87	6.50	6.30	0.61	0.551	0.75	5/16"-18	2.756	F07	24.25
2"	1.87	3.62	6.00	0.63	0.06	0.75	4	4.75	3.21	7.87	7.00	6.69	0.53	0.551	0.75	5/16"-18	2.756	F07	30.86
2-1/2"	2.56	4.12	7.00	0.69	0.06	0.75	4	5.50	3.21	7.87	7.50	6.69	0.53	0.748	0.75	5/16"-18	2.756	F07	41.89
3"	3.15	5.00	7.50	0.75	0.06	0.75	4	6.00	4.45	10.24	8.00	9.05	0.75	0.748	1.02	5/16"-18	2.756	F07	63.49
4"	3.86	6.19	9.00	0.94	0.06	0.75	8	7.50	5.31	12.32	9.00	10.43	0.91	0.748	1.02	3/8"-16	4.016	F10	98.77
6"	5.75	8.50	11.00	1.00	0.06	0.87	8	8.50	7.26	21.06	10.50	14.45	1.20	1.063	1.46	7/16"-14	4.921	F12	212.08
8"	7.80	11.75	13.50	1.12	0.06	0.87	8	11.75	8.96	-	11.50	-	1.36	1.417	1.97	9/16"-12	5.512	F14	260.15

NOTE: For other seat material, consult factory

A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.



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# Pneumatic Double Acting

## Automated Ball Valve Package

Series LB  
ANSI Class 150  
Flanged PFA Lined Ball Valve

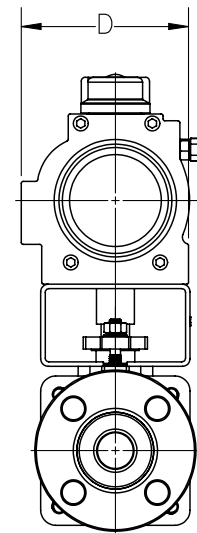
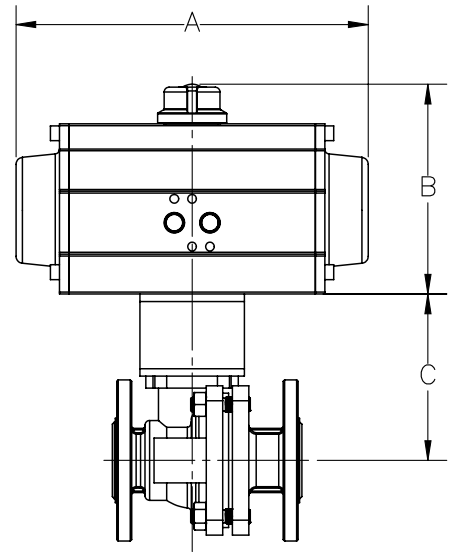
Available in 316SST or WCB  
Sizes 1/2"-8"  
Flanged Ends • ANSI Class 150  
Full Port Design  
Superior Packing System  
PTFE Seats Standard  
Spark Test Standard (20 kV)

### STANDARDS

Design & Manufactured	API 608
Face to Face Dimensions	ASME B16.10
Flange End Connections	ASME B16.5
Pressure Testing	API 598
Material Certification	EN 10204-3.1
Quality Assurance	ISO 9001:2015



ANSI Class 150 Flanged PFA Lined Ball Valve



### Double Acting Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	5.98	3.55	4.20	2.50	20
3/4"	5.98	3.55	4.20	2.50	20
1"	5.98	3.55	4.39	2.50	55
1-1/2"	7.95	4.22	5.38	3.21	210
2"	7.95	4.22	5.83	3.21	310
2-1/2"	7.95	4.22	5.83	3.21	210
3"	9.29	5.28	7.07	4.17	684
4"	10.87	5.67	8.31	4.83	1,546
6"	11.46	6.07	10.26	5.19	3,262
8"	15.16	8.11	11.96	6.69	4,565

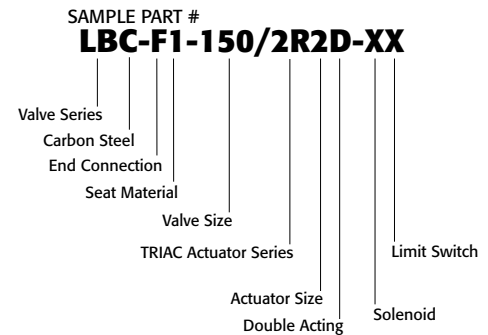
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES LB PFA Lined Ball Valve

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/TR1D-XX
3/4"	LB-F1-075/TR1D-XX
1"	LB-F1-100/TR1D-XX
1-1/2"	LB-F1-150/2R2D-XX
2"	LB-F1-200/2R2D-XX
2-1/2"	LB-F1-250/2R2D-XX
3"	LB-F1-300/2R3D-XX
4"	LB-F1-400/2R4D-XX
6"	LB-F1-600/2R5D-XX
8"	LB-F1-800/2R7D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/TR1D-XX
3/4"	LB-F1-075/TR1D-XX
1"	LB-F1-100/TR1D-XX
1-1/2"	LB-F1-150/2R2D-XX
2"	LB-F1-200/2R3D-XX
2-1/2"	LB-F1-250/2R3D-XX
3"	LB-F1-300/2R3D-XX
4"	LB-F1-400/2R5D-XX
6"	LB-F1-600/2R6D-XX
8"	LB-F1-800/2R8D-XX

Actuators are sized based on clean/clear fluid at 80 psi.



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

### OPTIONS

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

Other options available - call for details.

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# Pneumatic Spring Return

## Automated Ball Valve Package

Series LB  
ANSI Class 150  
Flanged PFA Lined Ball Valve

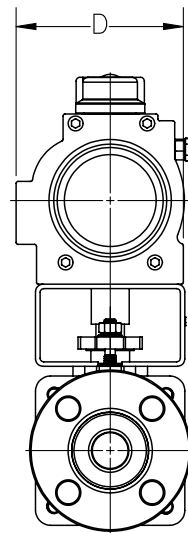
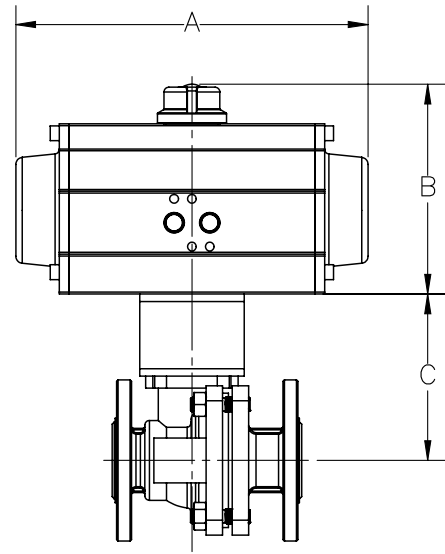
Available in 316SST or WCB  
Sizes 1/2"-8"  
Flanged Ends • ANSI Class 150  
Full Port Design  
Superior Packing System  
PTFE Seats Standard  
Spark Test Standard (20 kV)

### STANDARDS

Design & Manufactured	API 608
Face to Face Dimensions	ASME B16.10
Flange End Connections	ASME B16.5
Pressure Testing	API 598
Material Certification	EN 10204-3.1
Quality Assurance	ISO 9001:2015



ANSI Class 150 Flanged PFA Lined Ball Valve



### Spring Return Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	7.95	4.22	4.20	3.21	20
3/4"	7.95	4.22	4.20	3.21	20
1"	9.29	5.28	4.39	4.17	55
1-1/2"	9.29	5.28	5.38	4.17	210
2"	10.87	5.67	5.83	4.83	310
2-1/2"	10.87	5.67	5.83	4.83	210
3"	13.90	6.97	7.07	6.05	684
4"	13.90	6.97	8.31	6.05	1,546
6"	15.16	8.11	10.26	6.69	3,262
8"	24.37	11.30	11.96	9.29	4,565

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES LB PFA Lined Ball Valve

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/2R2S-XX
3/4"	LB-F1-075/2R2S-XX
1"	LB-F1-100/2R3S-XX
1-1/2"	LB-F1-150/2R3S-XX
2"	LB-F1-200/2R4S-XX
2-1/2"	LB-F1-250/2R4S-XX
3"	LB-F1-300/2R6S-XX
4"	LB-F1-400/2R6S-XX
6"	LB-F1-600/2R7S-XX
8"	LB-F1-800/2R0S-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	LB-F1-050/2R3S4-XX
3/4"	LB-F1-075/2R3S4-XX
1"	LB-F1-100/2R3S4-XX
1-1/2"	LB-F1-150/2R4S4-XX
2"	LB-F1-200/2R5S4-XX
2-1/2"	LB-F1-250/2R5S4-XX
3"	LB-F1-300/2R6S4-XX
4"	LB-F1-400/2R7S4-XX
6"	LB-F1-600/2R8S4-XX
8"	LB-F1-800/2RAS*-XX

Actuators are sized based on clean/clear fluid at 80 psi.

\*60 PSI SPRING

### OPTIONS

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

Other options available - call for details.

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SAMPLE PART #  
**LBC-F1-150/2R4S4-XX**

Valve Series  
Carbon Steel  
End Connection  
Seat Material  
Valve Size  
TRIAC Actuator Series  
Actuator Size  
Spring Return  
Limit Switch  
Solenoid  
Spring Designation  
(Omitted if standard per actuator)

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



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## Electric

### Automated Ball Valve Package

Series LB  
ANSI Class 150  
Flanged PFA Lined Ball Valve

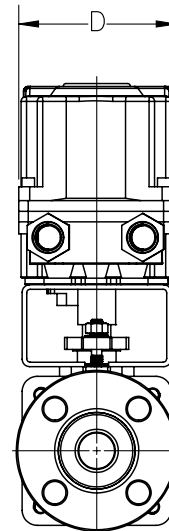
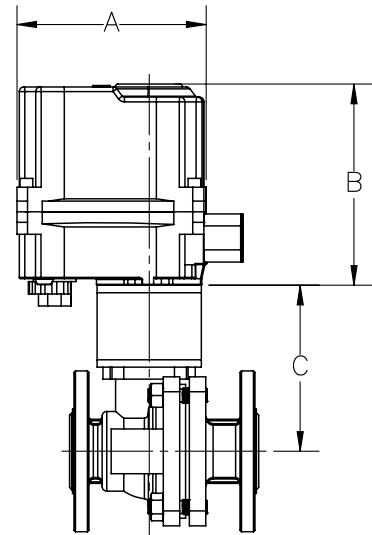
Available in 316SST or WCB  
Sizes 1/2"-8"  
Flanged Ends • ANSI Class 150  
Full Port Design  
Superior Packing System  
PTFE Seats Standard  
Spark Test Standard (20 kV)

#### STANDARDS

Design & Manufactured	API 608
Face to Face Dimensions	ASME B16.10
Flange End Connections	ASME B16.5
Pressure Testing	API 598
Material Certification	EN 10204-3.1
Quality Assurance	ISO 9001:2015



ANSI Class 150 Flanged PFA Lined Ball Valve



#### Electric Assembly DIMENSIONS (IN)

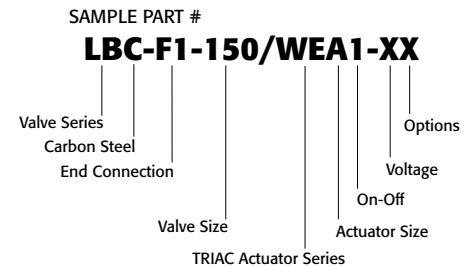
VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	4.95	5.32	4.20	4.09	20
3/4"	4.95	5.32	4.20	4.09	20
1"	4.95	5.32	4.39	4.09	55
1-1/2"	4.95	5.32	5.38	4.09	210
2"	4.95	5.32	5.83	4.09	310
2-1/2"	4.95	5.32	5.83	4.09	210
3"	10.16	9.25	7.07	6.70	684
4"	13.31	10.55	8.31	9.02	1,546
6"	13.31	10.55	10.26	9.02	3,262
8"	14.49	11.97	11.96	10.20	4,565

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES LB PFA Lined Ball Valve

ON-OFF	
SIZE	MODEL
1/2"	LB-F1-050/WEA1-XX
3/4"	LB-F1-075/WEA1-XX
1"	LB-F1-100/WEA1-XX
1-1/2"	LB-F1-150/WEA1-XX
2"	LB-F1-200/WEA1-XX
2-1/2"	LB-F1-250/WEA1-XX
3"	LB-F1-300/WEB1-XX
4"	LB-F1-400/WEC1-XX
6"	LB-F1-600/WED1-XX
8"	LB-F1-800/WEF1-XX

MODULATING	
SIZE	MODEL
1/2"	LB-F1-050/WEA2-XX
3/4"	LB-F1-075/WEA2-XX
1"	LB-F1-100/WEA2-XX
1-1/2"	LB-F1-150/WEA2-XX
2"	LB-F1-200/WEA2-XX
2-1/2"	LB-F1-250/WEA2-XX
3"	LB-F1-300/WEB2-XX
4"	LB-F1-400/WEC2-XX
6"	LB-F1-600/WED2-XX
8"	LB-F1-800/WEF2-XX



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

Actuators are sized based on clean/clear fluid, in on/off applications.

OPTIONS
DESCRIPTION
24 VAC/24 VDC/220VAC
Feedback potentiometer

NOTE: Heater and thermostat standard  
(2) auxiliary switches standard  
Other options available - call for details.

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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



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# Other Products

## Special Seats Balls and Seal Designs



## Floor Mounted Damper Drives



## Fusible Link Assemblies



## Lockout Mounting Kits



## Special Multi-Port Valves



## Steam Jacketed Valves



## Limit Switches Mounted on Manual Valves



## 180° Actuators



## Stem Extensions



## Dual Valve Assemblies

