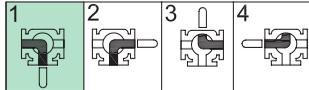




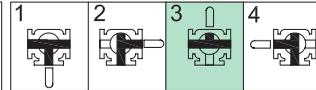
This 3-way ball valve offers diverting and mixing flow patterns, often eliminating the need for two valves. The full port design is easily automated and is available with various seat materials. The bolts on side flanges make for easy seat changes as necessary to accommodate your service. Available in L or T port configurations.

#### FLOW PATTERNS

##### 3-Way L-Port



##### 3-Way T-Port



Shaded boxes indicate standard flow path from factory unless otherwise specified by customer. Automated assemblies rotate counter-clockwise standard from the factory when energized. For L-Ports that would be L1 to L2 and T3 to T4 for T-ports. By specifying FCCW or DAR actuators, multiple flow patterns can be achieved to meet process requirements.

## Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric

31F1-3R-20250506  
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**A-T** A-T Controls, Inc.

# Series 31 3-Way Flanged Direct Mount Ball Valve

Sizes 1-1/2" thru 6"

316SST or WCB

Full Port Design

ASME Class 150

1-pc Ball & Stem

Blowout Proof Stem

RTFE Seats Standard

"L" or "T" Port Option

Trunnion Ball Design

Lockable Manual Handle

ISO 5211 Actuator Mounting Pad

#### STANDARDS

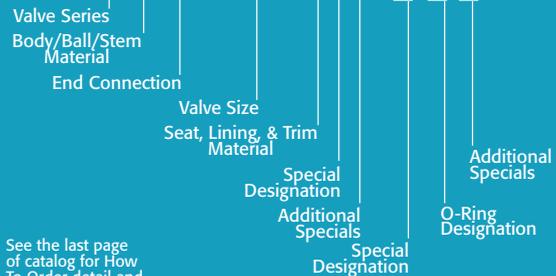
Design	ASME B16.34
Flanged Ends	ASME B16.5
Face-to-Face	(per factory's standard)
Pressure Testing	API 598
Mounting	ISO 5211
Safety Integrity	SIL 3; IEC 61508:2010
CE Approval (optional)	2014/68/EU/Module H
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



## HOW TO ORDER MANUAL VALVES

SAMPLE PART #

**31C-F1-0200-XXX- -**



See the last page of catalog for How To Order detail and options

Refer to Series 31 IOM for all repair kit, seat and gasket part numbers.

**A-T** A-T Controls, Inc.

9955 International Blvd.  
Cincinnati, Ohio 45246  
www.atcontrols.com

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

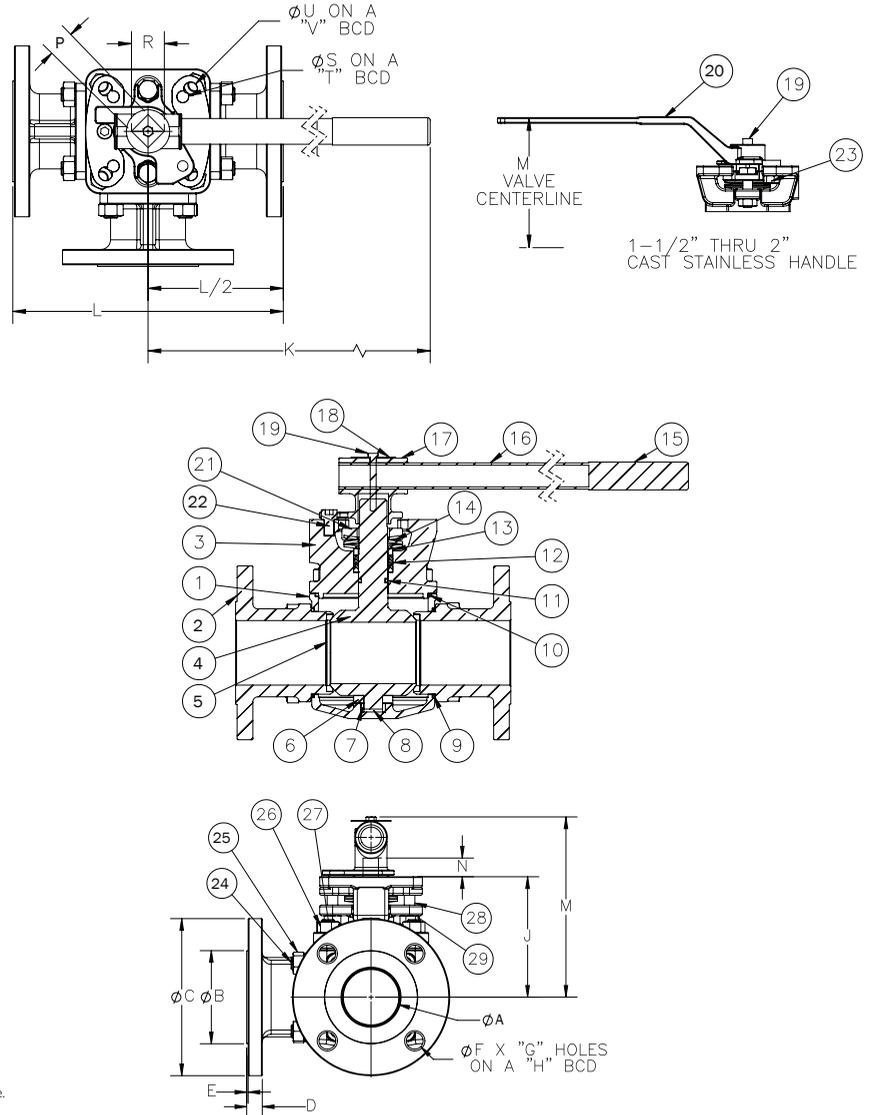
**SERIES 31 3-Way 150# Flanged Direct Mount Ball Valve**

### MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL	SPARE PART
1	BODY	1	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	
2	END CAP	3	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	
3	TOP COVER	1	ASTM A351 GRADE CF8M	ASTM A216 GRADE WCB	
4	BALL & STEM	1	ASTM A351 GRADE CF8M	ASTM A351 GRADE CF8M	
5	SEAT	3	RTFE	RTFE	*
6	THRUST WASHER	1	50/50 STFE	50/50 STFE	*
7	TRUNNION BEARING	1	PEEK	PEEK	*
8	ANTI-STATIC SPRING	1	AISI 316	AISI 316	*
9	JOINT GASKET	3	PTFE	PTFE	*
10	COVER GASKET	1	PTFE	PTFE	*
11	STEM O-RING	1	FKM	FKM	*
12	GLAND PACKING	1 SET	PTFE	PTFE	*
13	GLAND BUSHING	1	AISI 304	AISI 304	
14	BELLEVILLE WASHER	3 *	AISI 301	AISI 301	
15	HANDLE SLEEVE	1	VINYL	VINYL	
16	HANDLE BAR 2-1/2" - 3"	1	AISI 304	AISI 304	
16	HANDLE BAR -4"-6"	1	CARBON STEEL	CARBON STEEL	
17	HANDLE HUB 2-1/2" - 4"	1	ASTM A351 GRADE CF8	ASTM A351 GRADE CF8	
17	HANDLE HUB-6"	1	WCB	WCB	
18	INDICATOR PLATE	1	AISI 304	AISI 304	
19	HANDLE BOLT	1	AISI 304	AISI 304	
20	HANDLE 1-1/2" - 2"	1	AISI 304	AISI 304	
21	PACKING GLAND	1	ASTM A351 GRADE CF8	ASTM A351 GRADE CF8	
22	HANDLE STOP BOLT	1	AISI 304	AISI 304	
23	NUT & WASHER	1	AISI 304	AISI 304	
24	BODY STUD	#	ASTM A193 GRADE B8	ASTM A193 GRADE B8	
25	BODY NUT	#	ASTM A194 GRADE 8	ASTM A194 GRADE 8	
26	COVER STUD NUT	^	ASTM A194 GRADE 8	ASTM A194 GRADE 8	
27	COVER STUD	^	ASTM A193 GRADE B8	ASTM A193 GRADE B8	
28	PACKING GLAND BOLT	2	AISI 304	AISI 304	
29	PACKING GLAND NUT	2	AISI 304	AISI 304	

\* On 6" valve, qty is 8 pcs (4 on each packing gland bolt)  
 # 1-1/2" THRU 3" = Qty. 12 pcs | 4" = Qty. 18 pcs | 6" = Qty. 30 pcs  
 ^ 1-1/2" THRU 3" = 4 pcs, 4" = 6 pcs., 6" = 12 pcs

TFM™ is a trademark of Dyneon™, a 3M Company.  
 Kalrez® is a registered trademark of DuPont Performance Elastomers.  
 A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.



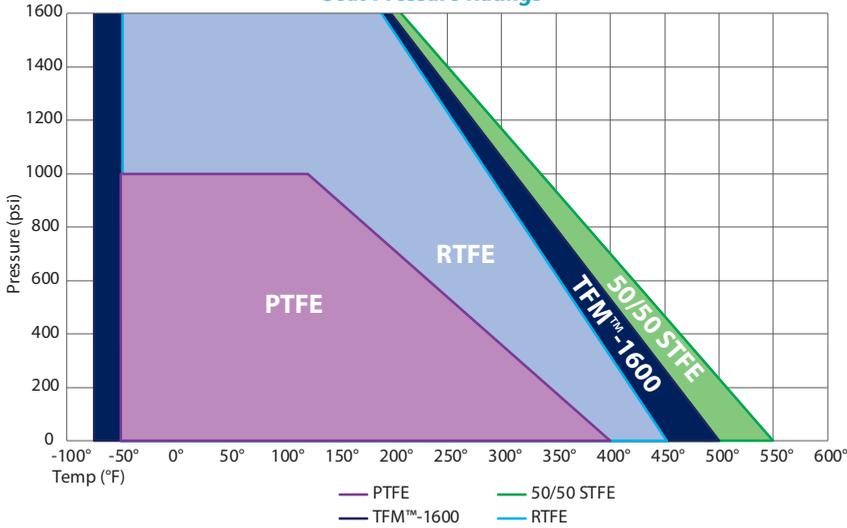
### DIMENSIONS For ASME Class 150 (IN)

SIZE	VALVE DIMENSIONS												ACTUATOR MOUNTING DIMENSIONS									
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	ISO 5211	(LBS)	
1-1/2"	1.57	2.88	5.00	0.56	0.06	0.63	4	3.88	4.13	10.31	7.20	6.16	0.75	0.748	0.93	0.39	2.756	0.47	4.016	F07/F10	25	
2"	1.97	3.62	6.00	0.63	0.06	0.75	4	4.75	4.45	10.31	8.66	6.42	0.75	0.748	0.93	0.39	2.756	0.47	4.016	F07/F10	37	
2-1/2"	2.60	4.12	7.00	0.69	0.06	0.75	4	5.50	5.37	14.37	11.06	8.07	0.83	0.866	1.10	0.47	4.016	0.55	4.921	F10/F12	58	
3"	2.99	5.00	7.50	0.75	0.06	0.75	4	6.00	5.78	19.88	11.22	8.46	0.83	0.866	1.10	0.47	4.016	0.55	4.921	F10/F12	79	
4"	3.98	6.19	9.00	0.94	0.06	0.75	8	7.50	7.52	27.76	13.70	11.06	1.14	1.063	1.38	0.55	4.921	0.71	5.512	F12/F14	129	
6"	5.91	8.50	11.00	1.00	0.06	0.87	8	9.50	9.80	37.60	18.90	13.77	1.50	1.417	1.81	0.71	5.512	0.87	6.496	F14/F16	289	

# 3-Way Flanged Ball Valve Full Port, L or T Option ASME Class 150

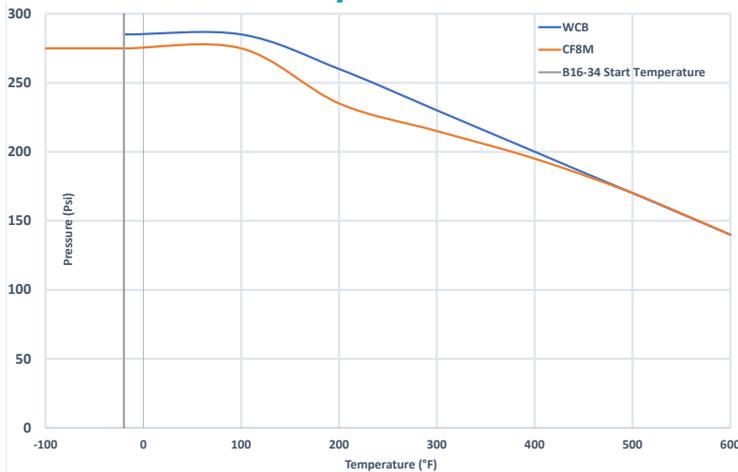
# Series 31

**Pressure vs. Temperature - Series 31**  
Seat Pressure Ratings



Temp	Pressure - Seat Material			
	RTFE	STFE	PTFE	TFM™-1600
-75°				2000
-50°	2000	2000	1000	2000
100°	2000	2000	1000	2000
122°	2000	2000	1000	2000
150°	1829	1869	899	1852
200°	1524	1636	719	1587
250°	1220	1402	540	1323
300°	915	1168	360	1058
350°	610	935	180	794
400°	305	701	0	529
450°	0	467		265
500°		234		0
550°		0		

**Pressure vs. Temperature - Series 31**



Temp	CF8M psi	WCB psi
-20°	275	285
100°	275	285
200°	235	260
300°	215	230
400°	195	200
500°	170	170
600°	140	140

NOTE: B16-34 Temperature Rating Starts at -20°F

### 31 Series Component Temperature Ratings

COMPONENT	MATERIAL	TEMPERATURE
Stem Packing	PTFE	-50°F to 450°F
	Graphite	-100°F to 1100°F
Gaskets	TFM™-1600	-75°F to 500°F
	PTFE (standard)	-50°F to 400°F
	Graphite	-100°F to 1100°F
Seats (Other Materials Available)	PTFE	-50°F to 400°F
	RTFE (standard)	-50°F to 450°F
	TFM™-1600	-75°F to 500°F
	50/50 STFE	-50°F to 550°F
O-Rings	FKM (standard)	-20°F to 450°F
	Markez® Z1028	5°F to 608°F
	Kalrez® 4079	30°F to 600°F
	Chemraz® 505	-22°F to 446°F
	Kalrez® 6375	-4°F to 527°F
	Perlast® G75M	5°F to 500°F
	Chemraz® 564	-40°F to 445°F
	Low Temp Buna	-65°F to 275°F
	EPDM	-70°F to 250°F
Silicone	-60°F to 400°F	

NOTE: At temperature, valves are limited by either the valve body/end cap pressure ratings, seat pressure ratings, or packing/stem seal/gaskets; whichever is lower.

### Cv Values

VALVE SIZE	T-PORT STRAIGHT THRU	L & T-PORT 90°
1-1/2"	213	54
2"	312	90
2-1/2"	688	159
3"	886	211
4"	1,891	386
6"	5,834	926

### Class 150 Torque Values for RTFE Seats

VALVE SIZE	BREAK IN <sup>®</sup> LBS.
1-1/2"	343
2"	546
2-1/2"	769
3"	1,019
4"	1,814
6"	3,740

Published torques are based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

# Pneumatic Double Acting

## Automated Ball Valve Package

### Series 31 3-Way Flanged Ball Valve

- Sizes 1-1/2"-6"
- 316SST or WCB
- ASME Class 150
- Full Port Design
- 1-pc Ball & Stem
- Blowout Proof Stem
- RTFE Seats Standard
- "L" or "T" Port Option
- Trunnion Ball Design
- ISO 5211 Actuator Mounting Pad

#### STANDARDS

Design	ASME B16.34
Flanged Ends	ASME B16.5
Face-to-Face	(per factory's standard)
Pressure Testing	API 598
Mounting	ISO 5211
Safety Integrity	SIL 3; IEC 61508:2010
CE Approval (optional)	2014/68/EU Module H
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



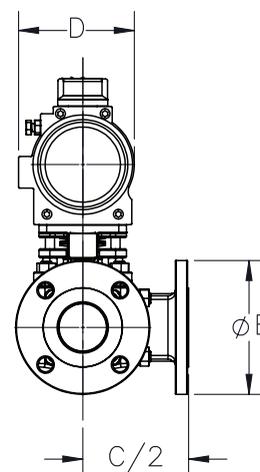
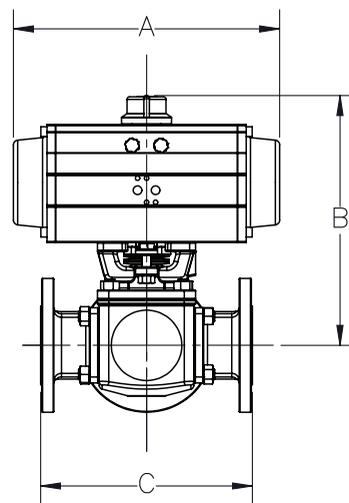
3-Way Flanged, Direct Mount, Full Port

For operating temperatures in excess of 175° F with Buna-N seals in the actuator, an extended bracket is required. FKM seals in the actuator require an extended bracket for more than 300° F. Please consult factory for sizing information.

#### Class 150 Double Acting Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E
1-1/2"	9.29	9.23	7.20	4.18	5.00
2"	9.29	9.54	8.66	4.18	6.00
2-1/2"	13.39	12.30	11.06	5.59	7.00
3"	13.39	12.71	11.22	5.59	7.50
4"	15.35	15.51	13.70	5.98	9.00
6"	19.31	19.83	18.90	7.48	11.00

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

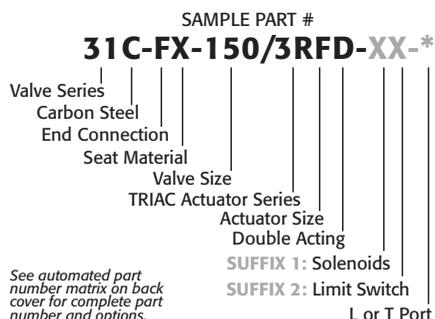


SERIES 31 3-Way 150# Flanged Direct Mount

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1-1/2"	31-FX-150/3RFD-XX-*
2"	31-FX-200/3RFD-XX-*
2-1/2"	31-FX-250/3RJD-XX-*
3"	31-FX-300/3RJD-XX-*
4"	31-FX-400/3RKD-XX-*
6"	31-FX-600/3RND-XX-*

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1-1/2"	31-FX-150/3RFD-XX-*
2"	31-FX-200/3RFD-XX-*
2-1/2"	31-FX-250/3RJD-XX-*
3"	31-FX-300/3RJD-XX-*
4"	31-FX-400/3RKD-XX-*
6"	31-FX-600/3RND-XX-*

\* Must specify L or T port



OPTIONS		
SUFFIX 1	Accessories/Options	Model no.
X	No Specials	
A	TYPE 4 Solenoid 120VAC	TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC	TVC6-X411-7N-A120
C	Intrinsically Safe Solenoid	TVIS-X411-4N-D24
D	TYPE 4 Solenoid 24VDC	TVCS-X411-4N-D24
F	TYPE 7 Solenoid 24VDC	TVC6-X411-7N-D24
Q	TYPE 4 SST Solenoid 120VAC	TVSS-X411-4N-A120
M	TYPE 7 SST Solenoid 120VAC	TVSS-X411-7N-A120
L	TYPE 4 SST Solenoid 24VDC	TVSS-X411-4N-D24
N	TYPE 7 SST Solenoid 24VDC	TVSS-X411-7N-D24
P	Pneumatic Positioner	PPR-1200
E	Electro-Pneumatic Positioner	EPR-1000
SUFFIX 2	Accessories	Model no.
X	No Specials	
A	TYPE 4 Limit Switch	APL-210N
B	TYPE 7 Limit Switch	APL-510N
C	Intrinsically Safe Limit Switch	APL-218N
Q	TYPE 4 SST Limit Switch	APL-910N
M	TYPE 7 SST Limit Switch	APL-510S
H	NEMA 4 Std. Enc.	APL-310N

Other options available - call for details  
Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

# Pneumatic Spring Return

## Automated Ball Valve Package

### Series 31 3-Way Flanged Ball Valve

- Sizes 1-1/2" - 6"
- 316SST or WCB
- ASME Class 150
- Full Port Design
- 1-pc Ball & Stem
- Blowout Proof Stem
- RTFE Seats Standard
- "L" or "T" Port Option
- Trunnion Ball Design
- ISO 5211 Actuator Mounting Pad

#### STANDARDS

Design	ASME B16.34
Flanged Ends	ASME B16.5
Face-to-Face	(per factory's standard)
Pressure Testing	API 598
Mounting	ISO 5211
Safety Integrity	SIL 3; IEC 61508:2010
CE Approval (optional)	2014/68/EU Module H
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



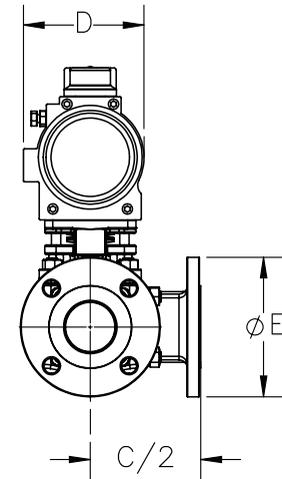
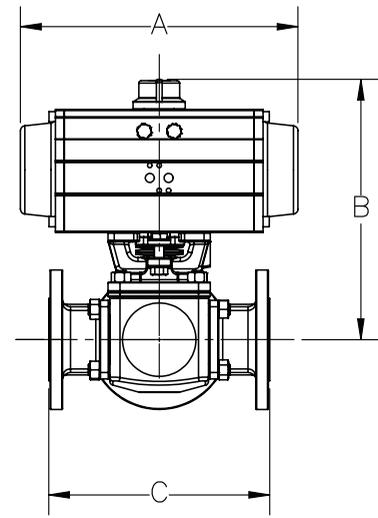
3-Way Flanged, Direct Mount, Full Port

For operating temperatures in excess of 175° F with Buna-N seals in the actuator, an extended bracket is required. FKM seals in the actuator require an extended bracket for more than 300° F. Please consult factory for sizing information.

#### Class 150 Spring Return Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E
1-1/2"	11.02	9.53	7.20	4.27	5.00
2"	11.50	10.51	8.66	5.78	6.00
2-1/2"	15.35	12.97	11.06	5.98	7.00
3"	15.35	13.38	11.22	5.98	7.50
4"	16.89	16.06	13.70	6.38	9.00
6"	23.54	21.06	18.90	8.90	11.00

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

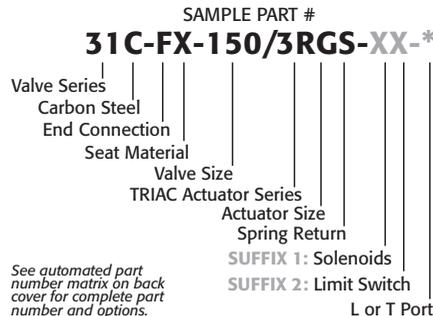


SERIES 31 3-Way 150# Flanged Direct Mount

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1-1/2"	31-FX-150/3RGS-XX-*
2"	31-FX-200/3RHS-XX-*
2-1/2"	31-FX-250/3RKS-XX-*
3"	31-FX-300/3RKS-XX-*
4"	31-FX-400/3RLS-XX-*
6"	31-FX-600/3RRS-XX-*

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1-1/2"	31-FX-150/3RH4-XX-*
2"	31-FX-200/3RJ4-XX-*
2-1/2"	31-FX-250/3RK4-XX-*
3"	31-FX-300/3RK4-XX-*
4"	31-FX-400/3RM4-XX-*
6"	31-FX-600/3RR4-XX-*

OPTIONS		
SUFFIX 1	Accessories/Options	Model no.
X	No Specials	
A	TYPE 4 Solenoid 120VAC	TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC	TVC6-X411-7N-A120
C	Intrinsically Safe Solenoid	TVIS-X411-4N-D24
D	TYPE 4 Solenoid 24VDC	TVCS-X411-4N-D24
F	TYPE 7 Solenoid 24VDC	TVC6-X411-7N-D24
Q	TYPE 4 SST Solenoid 120VAC	TVSS-X411-4N-A120
M	TYPE 7 SST Solenoid 120VAC	TVSS-X411-7N-A120
L	TYPE 4 SST Solenoid 24VDC	TVSS-X411-4N-D24
N	TYPE 7 SST Solenoid 24VDC	TVSS-X411-7N-D24
P	Pneumatic Positioner	PPR-1200
E	Electro-Pneumatic Positioner	EPR-1000
SUFFIX 2	Accessories	Model no.
X	No Specials	
A	TYPE 4 Limit Switch	APL-210N
B	TYPE 7 Limit Switch	APL-510N
C	Intrinsically Safe Limit Switch	APL-218N
Q	TYPE 4 SST Limit Switch	APL-910N
M	TYPE 7 SST Limit Switch	APL-510S
H	NEMA 4 Std. Enc.	APL-310N



Other options available - call for details  
Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.

# Electric

## Automated Ball Valve Package

### Series 31 3-Way Flanged Ball Valve

- Sizes 1-1/2" - 6"
- 316SST or WCB
- Full Port Design
- ASME Class 150
- 1-pc Ball & Stem
- Blowout Proof Stem
- RTFE Seats Standard
- "L" or "T" Port Option
- Trunnion Ball Design
- ISO 5211 Actuator Mounting Pad

#### STANDARDS

Design	ASME B16.34
Flanged Ends	ASME B16.5
Face-to-Face	(per factory's standard)
Pressure Testing	API 598
Mounting	ISO 5211
Safety Integrity	SIL 3; IEC 61508:2010
CE Approval (optional)	2014/68/EU Module H
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015



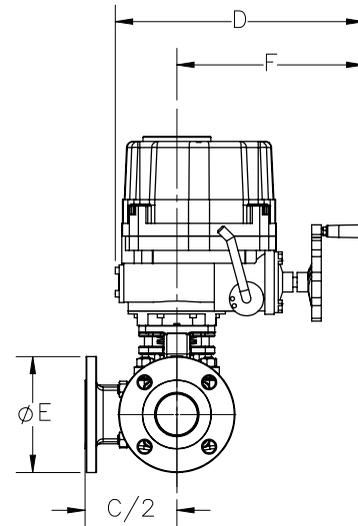
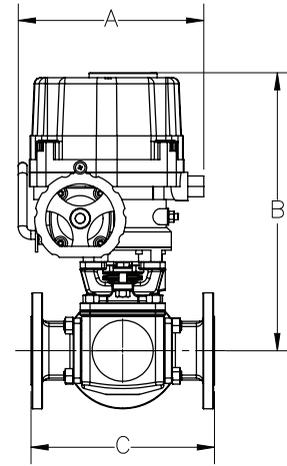
3-Way Flanged, Direct Mount, Full Port

For operating temperatures in excess of 158° F with an electric actuator, an extended bracket is required. Please consult factory for sizing information.

#### Class 150 Electric Assembly DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E	F
1-1/2"	9.02	14.69	7.20	13.31	5.00	10.43
2"	9.02	15.00	8.66	13.31	6.00	10.43
2-1/2"	10.20	16.79	11.06	14.49	7.00	11.26
3"	10.20	17.20	11.22	14.49	7.50	11.26
4"	10.20	18.94	13.70	14.49	9.00	11.26
6"	11.69	22.60	18.90	16.14	11.00	12.09

DIMENSIONS ARE FOR ON/OFF ASSEMBLIES



SERIES 31 3-Way 150# Flanged Direct Mount

ON-OFF	
SIZE	MODEL
1-1/2"	31-FX-150/WEC1-XX-*
2"	31-FX-200/WEC1-XX-*
2-1/2"	31-FX-250/WEE1-XX-*
3"	31-FX-300/WEE1-XX-*
4"	31-FX-400/WEE1-XX-*
6"	31-FX-600/WEH1-XX-*

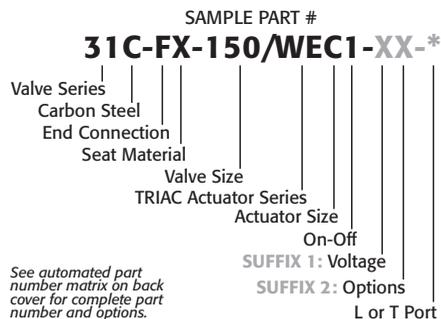
MODULATING	
SIZE	MODEL
1-1/2"	31-FX-150/WEC2-XX-*
2"	31-FX-200/WEC2-XX-*
2-1/2"	31-FX-250/WEE2-XX-*
3"	31-FX-300/WEE2-XX-*
4"	31-FX-400/WEE2-XX-*
6"	31-FX-600/WEH2-XX-*

\* Must specify L or T port

OPTIONS	
Suffix 1 Voltage / Accessory	Model No.
X No Specials	
R 24VDC Electric Actuator	
S 220VAC Electric Actuator	
T Other Voltage Electric Actuator	
W 12VDC Electric Actuator	
Y 24VAC Electric Actuator	
* No voltage specified on electric assemblies denotes 120VAC	
Suffix 2 Accessories	
X No Specials	
1 HS1 High Speed Electric	
2 HS2 High Speed Electric	

Other options available - call for details.

Actuators are sized based on full differential pressure with clean water. Consult the Application Sizing Guide for assistance with sizing actuators.



# HOW TO ORDER: Manual Valves

# Series 31

2	Valve Series
31	3-Way Flanged, Direct Mount, Full Port

3	Body/Ball/Stem Material
Blank	Valve Series Standard (316SST)
C	Carbon Steel Body

4	End Connection
F1	150# Flanged Ends
F3	300# Flanged Ends

5	Valve Size	
0150	1-1/2"	0300 3"
0200	2"	0400 4"
0250	2-1/2"	0600 6"

6	Seat, Lining & Trim Material
X	Reinforced TFE Seats (RTFE)
P	Virgin TFE Seats (PTFE)
S	50/50 STFE Seats
T	TFM™-1600 Seats
A	50% SS Powder/50% TFM™-1600 Seats (STFM)
E	All TFM™-1600 Seats, Seals, & Packing
G	STFE Seats w/ Non-Standard Graphite Packing & Gaskets

7	Special Designation
X	No Specials/Series Standard Handle
G	Gear Operator
H	Gear Operator with Lockout Plate
4	4" Lockable Stem Extension

8	Additional Specials
X	No Specials/Series Standard
O	Oxygen Cleaned
E	Bonnet Extension Lockable Handle
D	Degreased & Bagged

## OPTIONS:

9	Special Designation
L	L-Port, 3-Way arrangement
T	T-Port, 3-Way arrangement

10	O-Ring
Blank	No Designation, Valve Series Standard
X	Multiple Option Designation
2	Markez® Z1028
4	Kalrez 4079
5	Chemraz® 505
6	Kalrez 6375
7	Perlast® G75M
9	Chemraz® 564
B	Low Temp Buna
E	EPDM
S	Silicone

11	Additional Specials
Blank	No Designation, Valve Series Standard
E	CE/PED Certified
B	B7M Bolting
M	Marine Epoxy Coating

17-4 PH® is a registered trademark of AK Steel Corporation.  
 Chemraz® is a registered trademark of Greene, Tweed & Co.  
 Markez® is a registered trademark of Marco Rubber & Plastic Products Inc.  
 Perlast® is a registered trademark of Precision Polymer Engineering Limited.  
 TFM™ is a trademark of Dyneon®, a 3M Company.

HOW TO ORDER MANUAL VALVES												
<b>2</b>	<b>3</b>	-	<b>4</b>	-	<b>5</b>	-	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>
↓	↓		↓		↓		↓	↓	↓	↓	↓	↓
<b>31</b>	<b>C</b>	-	<b>F1</b>	-	<b>0150</b>	-	<b>X</b>	<b>X</b>	<b>X</b>			

2	Valve Series
31	3-Way Flanged, Direct Mount, Full Port

3	Body/Ball/Stem Material
Blank	Valve Series Standard (316SST)
C	Carbon Steel Body

4	End Connection
F	150# Flanged Ends
3	300# Flanged Ends

5	Seat, Lining & Trim Material
X	Reinforced TFE Seats (RTFE)
P	Virgin TFE Seats (PTFE)
S	50/50 STFE Seats
T	TFM™-1600 Seats
A	50% SS Powder/50% TFM™-1600 (STFM)
E	All TFM™-1600 Seats, Seals, & Packing
G	STFE Seats w/ Non-Standard Graphite Packing & Gaskets

6	Valve Size
150	1-1/2" 300 3"
200	2" 400 4"
250	2-1/2" 600 6"

7 (A) Pneumatic Actuator - 3R, 3N, 3P Series			
3RC	3R10	3RM	3R850
3RD	3R20	3RN	3R1000
3RE	3R40	3RP	3R1200
3RF	3R80	3RR	3R1750
3RG	3R130	3RS	3R2400
3RH	3R200	3RT	3R2500
3RJ	3R300	3RU	3R2700
3RK	3R500	3RV	3R3300
3RL	3R700	3RW	3R3500

3R=Standard, 3N=Electroless Nickel Plating, 3P=Teflon™ (PTFE) Coating

7 (A) Pneumatic Actuator - S2 Series			
S2C	S2-052	S2G	S2-125
S2D	S2-063	S2H	S2-140
S2E	S2-083	S2J	S2-160
S2F	S2-105	S2K	S2-210

7 (B) Pneumatic Action	
D	Double Acting (DA)
S	Spring CW (5 springs)*
O	Spring CCW (5 springs)*
4	Spring CW (4 springs)**
F	Spring CCW (4 springs)**
6	Spring CW (6 springs)
H	Spring CCW (6 springs)

\*2500 & 3500 80 psig spring

\*\*2500 & 3500 60 psig spring

7	Actuator - Electric (On-Off)		
WEX1	WE-350	WEG1	WE-5200
WEA1	WE-500	WEH1	WE-6900
WEB1	WE-690	WEJ1	WE-10500
WEC1	WE-1350	WEK1	WE-17500
WED1	WE-1700	WEL1	WE-25900
WEE1	WE-2640	WEM1	WE-53000
WEF1	WE-4400	WEN1	WE-80000

7	Actuator - Electric (Modulating)		
WEA2	WEM-500	WEH2	WEM-6900
WEB2	WEM-690	WEJ2	WEM-10500
WEC2	WEM-1350	WEK2	WEM-17500
WED2	WEM-1700	WEL2	WEM-25900
WEE2	WEM-2640	WEM2	WEM-53000
WEF2	WEM-4400	WEN2	WEM-80000
WEG2	WEM-5200		

### OPTIONS:

8	Accessories/Options	Model no.
X	No Specials	
A	TYPE 4 Solenoid 120VAC	TVCS-X411-4N-A120
B	TYPE 7 Solenoid 120VAC	TVCS-X411-7N-A120
C	Intrinsically Safe Solenoid	TVIS-X411-4N-D24
D	TYPE 4 Solenoid 24VDC	TVCS-X411-4N-D24
F	TYPE 7 Solenoid 24VDC	TVCS-X411-7N-D24
Q	TYPE 4 SST Solenoid 120VAC	TVSS-X411-4N-A120
M	TYPE 7 SST Solenoid 120VAC	TVSS-X411-7N-A120
L	TYPE 4 SST Solenoid 24VDC	TVSS-X411-4N-D24
N	TYPE 7 SST Solenoid 24VDC	TVSS-X411-7N-D24
P	Pneumatic Positioner	PPR-1200
E	Electro-Pneumatic Positioner	EPR-1000
R	24VDC Electric Actuator	
S	220VAC Electric Actuator	
T	Other Voltage Electric Actuator	
W	12VDC Electric Actuator	
Y	24VAC Electric Actuator	

\* No voltage specified on electric assemblies denotes 120VAC

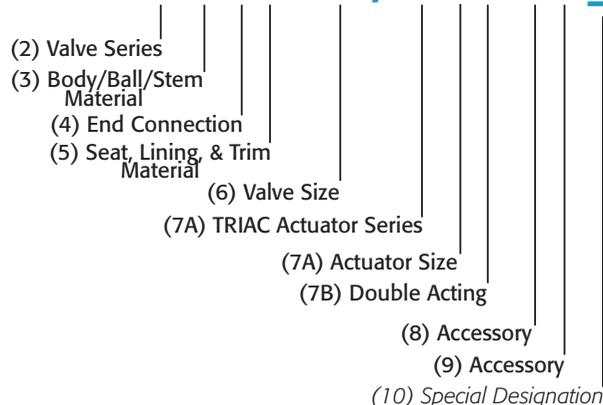
9	Accessories	Model no.
X	No Specials	
A	TYPE 4 Limit Switch	APL-210N
B	TYPE 7 Limit Switch	APL-510N
C	Intrinsically Safe Limit Switch	APL-218N
Q	TYPE 4 SST Limit Switch	APL-910N
M	TYPE 7 SST Limit Switch	APL-510S
H	NEMA 4 Std. Enc.	APL-310N
Z	180° Operation	
1	HS1 High Speed Electric	
2	HS2 High Speed Electric	

10	Special Designation
L	L-Port, 3-Way arrangement
T	T-Port, 3-Way arrangement
E	CE/PED Certified
F	Viton® Seal for Pneumatic Actuators (0°F to 300°F)

### AUTOMATED VALVE

SAMPLE PART #

**31C-FX-200/3RFD-XX-**



Refer to Series 31 IOM for all repair kit, seat and gasket part numbers.