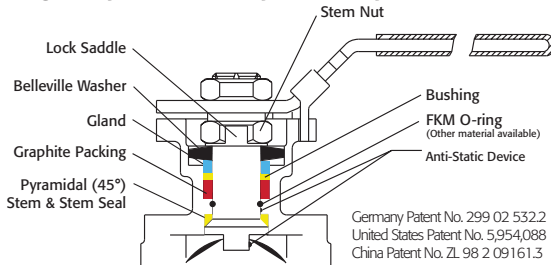


**API 607 - 6th Edition  
CERTIFIED**

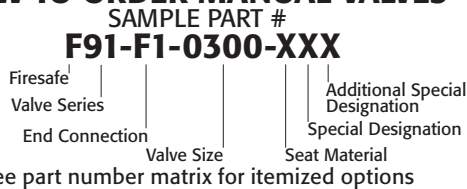


Triac Series F91 unibody flanged ball valves feature a high quality investment cast body and end. They are available in 1/2" through 6" regular port. Superior leak protection is accomplished by using our patented "pyramidal" stem seal system shown in the graphic below. This advanced system protects against wear and leakage experienced by ordinary ball valves.



RTFE seats are standard, but various options are available for seat materials. The 50/50 STFE seat option is excellent for services that call for higher temperatures and more difficult applications including steam. Call us for details.

**HOW TO ORDER MANUAL VALVES**



**Easy to Automate!**

See automated data sheets for pre-sized assemblies



Pneumatic



Electric

**A-T Controls, Inc.**

**Series F91**

**FIRESAFE**

**Unibody Direct Mount  
Flanged Ball Valve**

Sizes 1/2" – 6"

Available in 316SST or WCB

ASME Class 150

Regular Port Design

Superior Live Loaded Packing System

ISO 5211 Actuator Mounting Pad

Blowout Proof Stem w/ Dual  
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

Lockable Manual Handle

**STANDARDS**

Design	ASME B16.34 (fully conforms)
Face to Face	ASME B16.10
Flange Dimensions	ASME B16.5
Pressure Testing	API 598
Fire Testing	API 607-6th Edition (6" is 4th Edition)
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Safety Integrity	IEC 61508:2010; SIL 3
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015

**TABLE OF CONTENTS:**

- Page 2 - Materials & Dimensions
- Page 3 - Technical Data
- Page 4 - Double Acting
- Page 5 - Spring Return
- Page 6 - Electric
- Page 7 - How to Order - Manual
- Page 8 - How to Order - Automated

**SERIES F91 Unibody Flanged Ball Valve**  
**Firesafe**

**A-T Controls, Inc.**

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

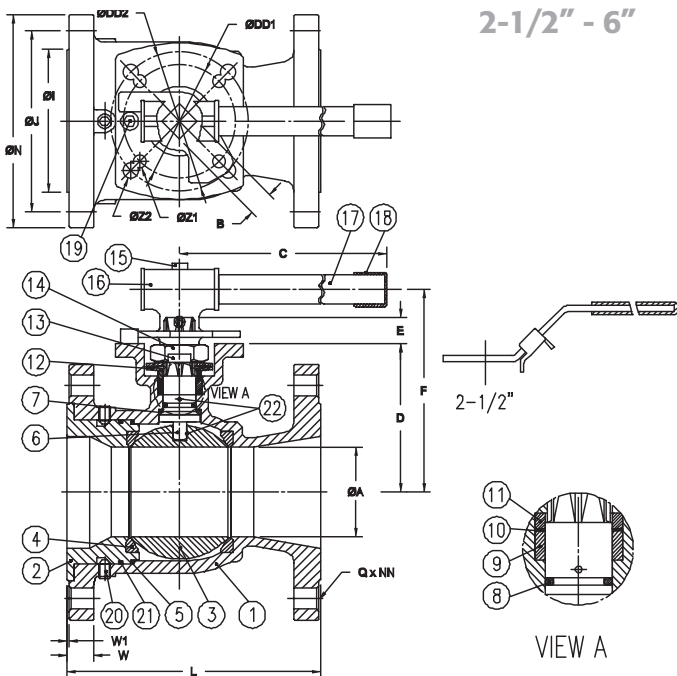
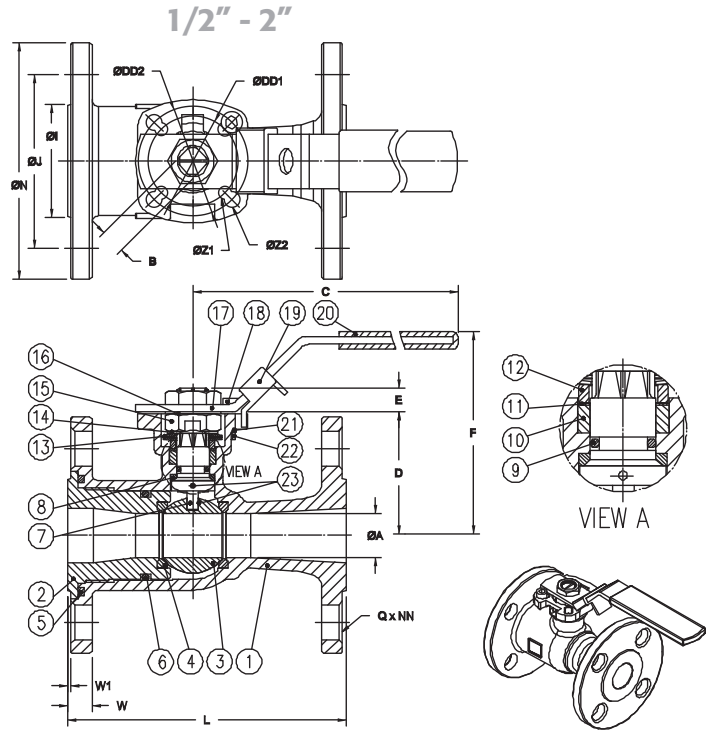
PHONE (513) 247-5465  
FAX (513) 247-5462  
sales@atcontrols.com

# Series F91

## High Performance, Regular Port Unibody Flanged Ball Valve Series F91 (ANSI Class 150)

### MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL	REPAIR KIT
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	SEAT	2	RTFE	RTFE	✓
5	JOINT GASKET	1	GRAPHITE	GRAPHITE	✓
6	BODY O-RING	1	FKM	FKM	✓
7	STEM	1	ASTM A276 316SST	ASTM A276 316SST	
8	STEM SEAL	1	TFM™-1600	TFM™-1600	✓
9	STEM O-RING	1	FKM	FKM	✓
10	GLAND PACKING	1	GRAPHITE	GRAPHITE	✓
11	GLAND WASHER	1	RTFE	RTFE	✓
12	GLAND BUSHING	1	AISI 304	AISI 304	
13	BELLEVILLE WASHER	2	AISI 301	AISI 301	
14	STOP WASHER	1	AISI 304	AISI 304	
15	STEM NUT	2	AISI 304	AISI 304	
16	STEM WASHER	1	AISI 304	AISI 304	
17	HANDLE	1	AISI 304	AISI 304	
18	STOP BOLT	1	AISI 304	AISI 304	
19	HANDLE LOCK	1	AISI 304	AISI 304	
20	HANDLE SLEEVE	1	VINYL	VINYL	
21	WASHER	1	AISI 304	AISI 304	
22	STOP NUT	1	AISI 304	AISI 304	
23	ANTI-STATIC DEVICE	2	AISI 316	AISI 316	



### MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL	REPAIR KIT
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	ASTM A351 GRADE CF8M	ASTM A351 GRADE CF8M	
4	SEAT	2	RTFE	RTFE	✓
5	JOINT GASKET	1	GRAPHITE	GRAPHITE	✓
6	STEM	1	ASTM A276 316SST	ASTM A276 316SST	
7	STEM SEAL	1	TFM™-1600	TFM™-1600	✓
8	STEM O-RING	1	FKM	FKM	✓
9	GLAND PACKING	1	GRAPHITE	GRAPHITE	✓
10	GLAND WASHER	1	RTFE	RTFE	✓
11	GLAND BUSHING	1	AISI 304	AISI 304	
12	BELLEVILLE WASHER	2	AISI 301	AISI 301	
13	STOP WASHER	1	AISI 304	AISI 304	
14	STEM NUT	1	AISI 304	AISI 304	
15	HANDLE BOLT	2	AISI 304	AISI 304	
16	HANDLE HUB	1	AISI 304	AISI 304	
17	HANDLE BAR	1	AISI 304	AISI 304	
18	HANDLE SLEEVE	1	VINYL	VINYL	
19	STOP PIN	1	AISI 304	AISI 304	
20	SCREW	*	AISI 304	AISI 304	
21	BODY O-RING	1	FKM	FKM	✓
22	ANTI-STATIC DEVICE	2	AISI 316	AISI 316	

\* QTY = 4 for 2-1/2" thru 4", and QTY = 6 for 6"  
NOTE: 2-1/2" thru 6" valves are not to be used in dead end service on retainer side

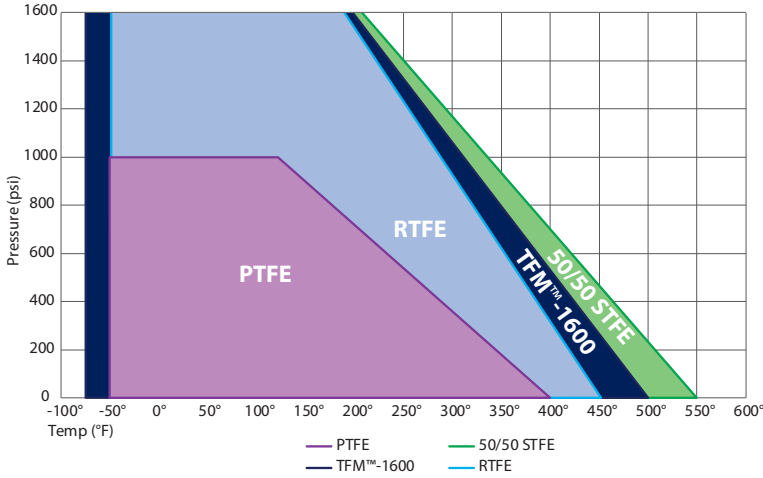
### DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	I	J	L	N	Q	W	W1	Z1	Z2	DD1	DD2	NN	LBS.	ISO 5211
1/2"	0.50	0.433	6.50	1.80	0.37	3.22	1.38	2.38	4.26	3.50	0.63	0.44	0.06	0.26	0.28	1.654	1.969	4	4	F04/F05
3/4"	0.59	0.433	6.50	2.02	0.39	3.44	1.69	2.75	4.62	3.88	0.63	0.44	0.06	0.26	0.28	1.654	1.969	4	4.5	F04/F05
1"	0.79	0.433	6.50	2.19	0.39	3.61	2.00	3.12	5.00	4.25	0.63	0.44	0.06	0.26	0.28	1.654	1.969	4	6	F04/F05
1-1/2"	1.26	0.551	8.46	2.86	0.51	4.71	2.88	3.88	6.50	5.00	0.63	0.56	0.06	0.30	0.35	1.969	2.756	4	11	F05/F07
2"	1.50	0.748	10.35	3.51	0.75	5.68	3.62	4.75	7.02	6.00	0.75	0.63	0.06	0.39	0.47	2.756	4.016	4	18.5	F07/F10
2-1/2"	1.97	0.748	10.35	3.0	0.75	5.97	4.12	5.50	7.50	7.00	0.75	0.69	0.06	0.39	0.47	2.756	4.016	4	26	F07/F10
3"	2.56	0.748	14.37	4.57	0.75	6.31	5.00	6.00	8.00	7.50	0.75	0.75	0.06	0.39	0.47	2.756	4.016	4	35	F07/F10
4"	3.15	0.866	14.37	5.22	0.91	7.13	6.19	7.50	9.00	9.00	0.75	0.94	0.06	0.47	0.55	4.016	4.921	8	56	F10/F12
6"	4.37	1.063	29.53	7.07	1.12	9.63	8.50	9.50	10.50	11.00	0.87	1.00	0.06	0.55	0.71	4.921	5.512	8	103	F12/F14

**High Performance, Regular Port  
Unibody Flanged Ball Valve  
Series F91 (ANSI Class 150)**

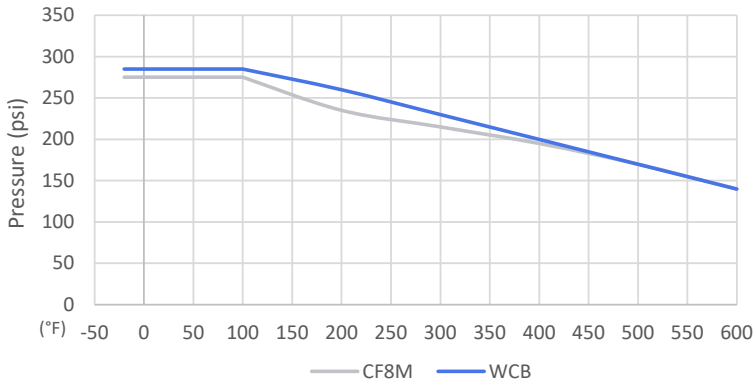
# Series F91

**Pressure vs. Temperature - Series F91**  
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 F91**



Temp (°F)	WCB psi	CF8M psi
-20°	285	275
50°	285	275
75°	285	275
90°	285	275
99°	285	275
100°	285	275
200°	260	235
300°	230	215
400°	200	195
500°	170	170
600°	140	140

**Component Temperature Ratings**

COMPONENT	MATERIAL	TEMPERATURE
Stem Packing	Graphite	-100°F to 1100°F
Stem Seal	TFM™-1600	-75°F to 500°F
Gaskets	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.

**Break Away Torques**

SIZE	IN-LBS
1/2"	45
3/4"	73
1"	91
1-1/2"	149
2"	230
2-1/2"	297
3"	535
4"	768
6"	1250

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

SIZE	Cv
1/2"	9
3/4"	15
1"	42
1-1/2"	125
2"	165
2-1/2"	245
3"	350
4"	680
6"	1020

# Pneumatic Double Acting

## Series F91 Unibody Direct Mount Flanged Ball Valve

Firesafe

Sizes 1/2" - 6"

Available in 316SST or WCB

ASME Class 150

Regular Port Design

Superior Live Loaded Packing System

Blowout Proof Stem w/ Dual Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

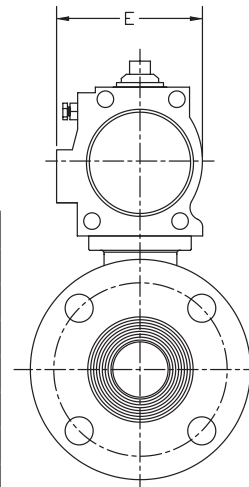
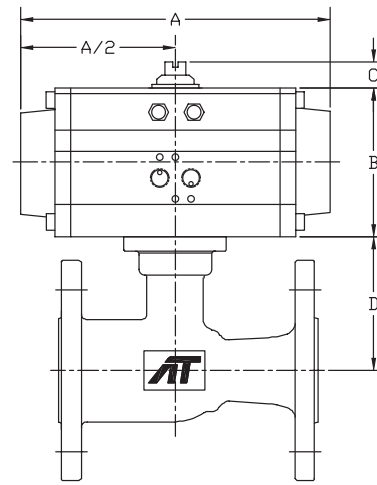
### STANDARDS

Design	ASME B16.34 (fully conforms)
Face to Face	ASME B16.10
Flange Dimensions	ASME B16.5
Pressure Testing	API 598
Fire Testing	API 607-6th Edition (6" is 4th Edition)
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Safety Integrity	IEC 61508:2010; SIL 3
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008

**API 607 - 6th Edition  
CERTIFIED**



**150# Flanged  
Firesafe tested to API-607**



### DIMENSIONS (IN)

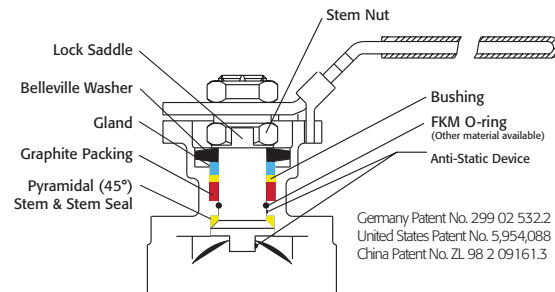
VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	5.98	2.76	0.79	1.80	2.58	9
3/4"	5.98	2.76	0.79	2.02	2.58	15
1"	7.95	3.43	0.79	2.19	3.29	42
1-1/2"	9.29	4.49	0.79	2.86	4.41	125
2"	9.29	4.49	0.79	3.51	4.41	165
2-1/2"	9.29	4.49	0.79	3.80	4.41	245
3"	9.29	4.49	0.79	4.57	4.41	350
4"	11.46	5.28	0.79	5.22	5.20	680
6"	13.90	6.18	0.79	7.07	6.04	1020

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

**SERIES F91 Unibody Flanged  
Firesafe**

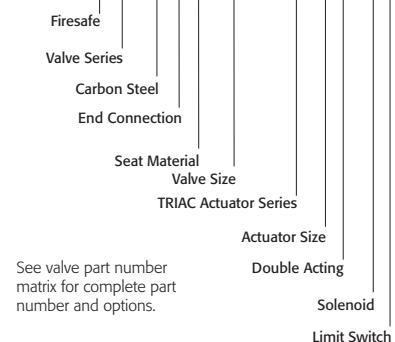
SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F91-F1-050/TR1D-XX
3/4"	F91-F1-075/TR1D-XX
1"	F91-F1-100/2R2D-XX
1-1/2"	F91-F1-150/2R3D-XX
2"	F91-F1-200/2R3D-XX
2-1/2"	F91-F1-250/2R3D-XX
3"	F91-F1-300/2R3D-XX
4"	F91-F1-400/2R6D-XX
6"	F91-F1-600/2R7D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F91-F1-050/TR1D-XX
3/4"	F91-F1-075/TR1D-XX
1"	F91-F1-100/2R2D-XX
1-1/2"	F91-F1-150/2R3D-XX
2"	F91-F1-200/2R3D-XX
2-1/2"	F91-F1-250/2R3D-XX
3"	F91-F1-300/2R4D-XX
4"	F91-F1-400/2R6D-XX
6"	F91-F1-600/2R7D-XX



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

### SAMPLE PART # F91C-F1-150/2R3D-XX



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

### 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.

# Pneumatic Spring Return

## Series F91 Unibody Direct Mount Flanged Ball Valve

Firesafe

Sizes 1/2" - 6"

Available in 316SST or WCB

ASME Class 150

Regular Port Design

Superior Live Loaded Packing  
System

Blowout Proof Stem w/ Dual  
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

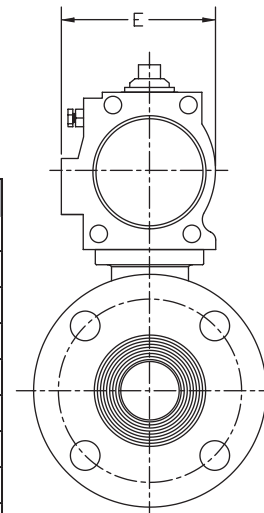
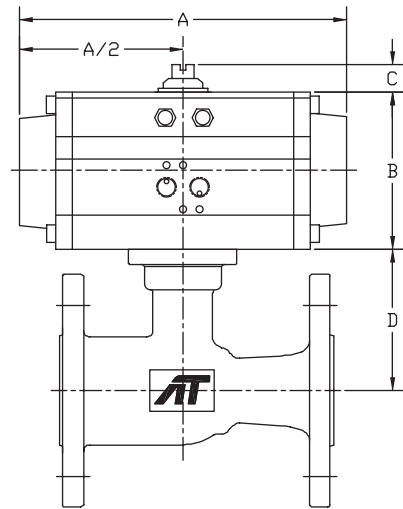
### STANDARDS

Design	ASME B16.34 (fully conforms)
Face to Face	ASME B16.10
Flange Dimensions	ASME B16.5
Pressure Testing	API 598
Fire Testing	API 607-6th Edition (6" is 4th Edition)
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Safety Integrity	IEC 61508:2010; SIL 3
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008

**API 607 - 6th Edition  
CERTIFIED**



**150# Flanged  
Firesafe tested to API-607**



### DIMENSIONS (IN)

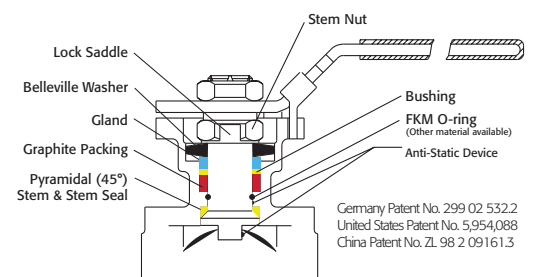
VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	7.95	3.43	0.79	1.80	3.29	9
3/4"	7.95	3.43	0.79	2.02	3.29	15
1"	9.29	4.49	0.79	2.19	4.41	42
1-1/2"	9.29	4.49	0.79	2.86	4.41	125
2"	10.87	4.88	0.79	3.51	4.82	165
2-1/2"	10.87	4.88	0.79	3.80	4.82	245
3"	11.46	5.28	0.79	4.57	5.20	350
4"	13.90	6.18	0.79	5.22	6.04	680
6"	20.95	8.30	1.18	7.07	7.64	1020

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

**SERIES F91 Unibody Flanged  
Firesafe**

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F91-F1-050/2R2S-XX
3/4"	F91-F1-075/2R2S-XX
1"	F91-F1-100/2R3S-XX
1-1/2"	F91-F1-150/2R3S-XX
2"	F91-F1-200/2R4S-XX
2-1/2"	F91-F1-250/2R4S-XX
3"	F91-F1-300/2R5S-XX
4"	F91-F1-400/2R6S-XX
6"	F91-F1-600/2R8S-XX

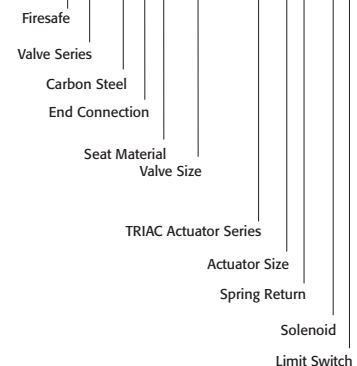
SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F91-F1-050/2R2S-XX
3/4"	F91-F1-075/2R3S-XX
1"	F91-F1-100/2R3S-XX
1-1/2"	F91-F1-150/2R3S-XX
2"	F91-F1-200/2R5S-XX
2-1/2"	F91-F1-250/2R5S-XX
3"	F91-F1-300/2R6S-XX
4"	F91-F1-400/2R7S-XX
6"	F91-F1-600/2R8S-XX



Germany Patent No. 299 02 5322  
United States Patent No. 5,954,088  
China Patent No. ZL 98 2 09161.3

SAMPLE PART #

### F91C-F1-150/2R3S-XX



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

### 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.

# Electric

## Series F91 Unibody Direct Mount Flanged Ball Valve

Firesafe

Sizes 1/2" - 6"

Available in 316SST or WCB

ASME Class 150

Regular Port Design

Superior Live Loaded Packing  
System

Blowout Proof Stem w/ Dual  
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

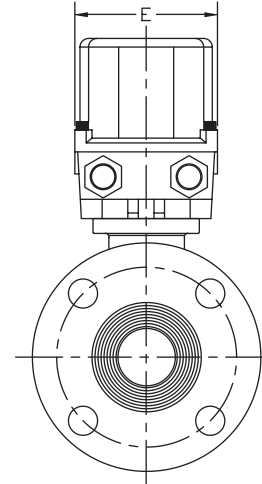
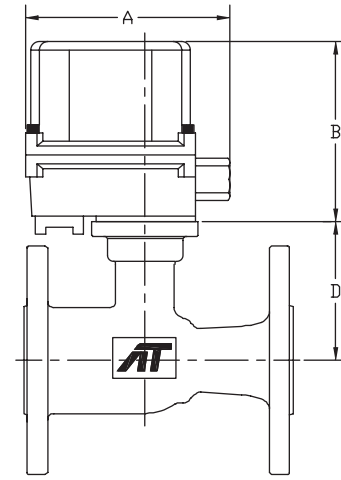
### STANDARDS

Design	ASME B16.34 (fully conforms)
Face to Face	ASME B16.10
Flange Dimensions	ASME B16.5
Pressure Testing	API 598
Fire Testing	API 607-6th Edition (6" is 4th Edition)
Sulfide Stress Protection	NACE MR0175
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Safety Integrity	IEC 61508:2010; SIL 3
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2008

**API 607 - 6th Edition  
CERTIFIED**



**150# Flanged  
Firesafe tested to API-607**



### DIMENSIONS (IN)

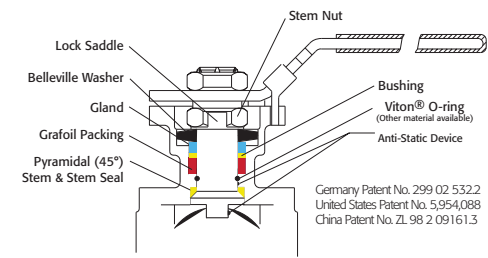
VALVE SIZE	A	B	D	E	VALVE Cv
1/2"	5.94	5.24	1.80	4.15	9
3/4"	5.94	5.24	2.02	4.15	15
1"	5.94	5.24	2.19	4.15	42
1-1/2"	5.94	5.24	2.86	4.15	125
2"	5.94	5.24	3.51	4.15	165
2-1/2"	13.31	10.55	3.80	9.02	245
3"	13.31	10.55	4.57	9.02	350
4"	14.49	11.42	5.22	10.20	680
6"	14.49	11.42	7.07	10.20	1020

DIMENSIONS FOR ON/OFF ACTUATORS ONLY, MODULATING NOT SHOWN 2-1/2" THRU 6" HAVE HANDWHEELS THAT ARE NOT SHOWN

**SERIES F91 Unibody Flanged  
Firesafe**

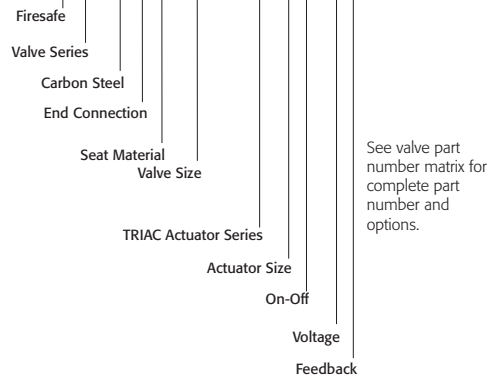
ON-OFF	
SIZE	MODEL
1/2"	F91-F1-050/WEA1-XX
3/4"	F91-F1-075/WEA1-XX
1"	F91-F1-100/WEA1-XX
1-1/2"	F91-F1-150/WEA1-XX
2"	F91-F1-200/WEA1-XX
2-1/2"	F91-F1-250/WEC1-XX
3"	F91-F1-300/WEC1-XX
4"	F91-F1-400/WEE1-XX
6"	F91-F1-600/WEE1-XX

MODULATING	
SIZE	MODEL
1/2"	F91-F1-050/WEA2-XX
3/4"	F91-F1-075/WEA2-XX
1"	F91-F1-100/WEA2-XX
1-1/2"	F91-F1-150/WEA2-XX
2"	F91-F1-200/WEA2-XX
2-1/2"	F91-F1-250/WEC2-XX
3"	F91-F1-300/WEC2-XX
4"	F91-F1-400/WEE2-XX
6"	F91-F1-600/WEE2-XX



Germany Patent No. 299 02 5322  
United States Patent No. 5,954,088  
China Patent No. ZL 98 2 09161.3

### SAMPLE PART # F91C-F1-150/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.

# HOW TO ORDER: Manual Valves

# Series F91

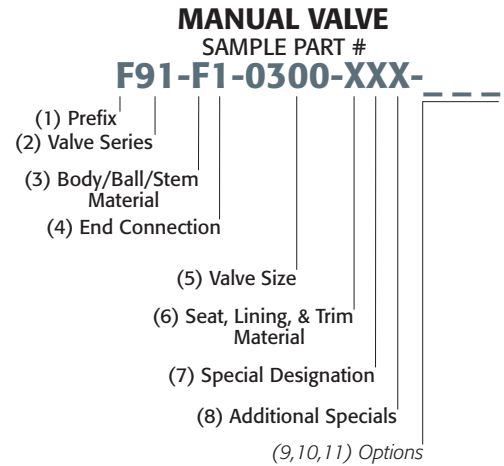
1	Prefix
F	Firesafe Tested <i>(see valve series for details &amp; testing)</i>

2	Valve Series
91	Unibody Regular Port Flanged

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

4	End Connection
F1	150# Flanged Ends

5	Valve Size
0050	1/2" 0250 2-1/2"
0075	3/4" 0300 3"
0100	1" 0400 4"
0150	1-1/2" 0600 6"
0200	2"



6	Seat, Lining & Trim Materials
X	Reinforced TFE Seats (RTFE)
P	Virgin TFE (PTFE)
U	UHMWPE Seats
S	50/50 STFE Seats
C	25% CS Powder / 75% TFE Seats (CTFE)
T	TFM™-1600
A	50% SS Powder / 50% TFM™-1600 (STFM)
F	PTFE Cavity Filler
M	MG1241
Z	PEEK

7	Special Designations
X	No Specials/Series Standard
O	Oval Handle <i>(available on some)</i>
S	Spring Return <i>(Direct Mount Only)</i>
4	4" Lockable Stem Extension

8	Additional Specials
X	No Specials, Series Standard
O	Oxygen Cleaned
V	Vented Ball
E	Bonnet Extension Lockable Handle
D	Degreased & Bagged
A	Vented Ball, Degreased & Bagged
B	Vented Ball, Oxygen Cleaned

## OPTIONS:

9	Special Designation
Blank	No Designation, Valve Series Standard
X	Multiple Option Designation
A	17-4 PH® Stem
H	Hard Coated (HMF) Ball

10	O-Ring
X	Multiple Option Designation
2	Markez® Z1028
4	Karlez 4079
6	Karlez 6375
7	Perlast® G75M
9	Chemraz® 564
B	Low Temp Buna
E	EPDM

11	Additional Specials
X	Multiple Option Designation
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.

# Series F91

## HOW TO ORDER: Automated Valves w/ Options

1	Prefix
F	Firesafe Tested (see valve series for details & testing)

2	Valve Series
91	Unibody Regular Port Flanged

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

4	End Connection
F	150# Flanged Ends

5	Seat, Lining & Trim Materials
T	Valve Series Standard (RTFE)
P	Virgin TFE (PTFE)
U	UHMWPE Seats
S	50/50 STFE Seats
C	25% CS Powder / 75% TFE Seats (CTFE)
T	TFM™-1600
A	50% SS Poder / 50% TFM™-1600 (STFM)
F	PTFE Cavity Filler
M	MG1241
Z	PEEK

6	Valve Size	
050	1/2"	250 2-1/2"
075	3/4"	300 3"
100	1"	400 4"
150	1-1/2"	600 6"
200	2"	

7	Actuator - Pneumatic (DA)			
TRYD	TR10DA	2R7D	2R500DA	
TR1D	TR20DA	2R8D	2R850DA	
2R2D	2R40DA	2R9D	2R1200DA	
2R3D	2R80DA	2R0D	2R1750DA	
2R4D	2R130DA	2RAD	2R2500DA	
2R5D	2R200DA	2RBD	2R3500DA	
2R6D	2R300DA			

7	Actuator - Pneumatic (SR)			
TR1S	TR20SR	2R7S	2R500SR	
2R2S	2R40SR	2R8S	2R850SR	
2R3S	2R80SR	2R9S	2R1200SR	
2R4S	2R130SR	2ROS	2R1750SR	
2R5S	2R200SR	2RAS	2R2500SR	
2R6S	2R300SR	2RBS	2R3500SR	

7	Actuator - Pneumatic Stainless (DA)			
S21D	S2-052DA	S25D	S2-125DA	
S22D	S2-063DA	S26D	S2-140DA	
S23D	S2-083DA	S27D	S2-160DA	
S24D	S2-105DA	S28D	S2-210DA	

7	Actuator - Pneumatic Stainless (SR)			
S21S	S2-052SR	S25S	S2-125SR	
S22S	S2-063SR	S26S	S2-140SR	
S23S	S2-083SR	S27S	S2-160SR	
S24S	S2-105SR	S28S	S2-210SR	

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		

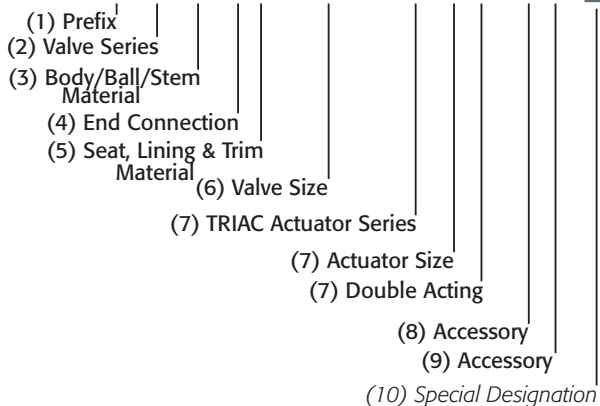
*\* No voltage specified on electric assemblies denotes 120VAC*

9	Accessories		Model no.
X	No Specials		
A	TYPE 4 Limit Switch	APL-210N/APL-310N	
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	
1	HS1 High Speed Electric		
2	HS2 High Speed Electric		

10	Special Designation	
Blank	No Designation, Valve Series Standard	
X	Multiple Option Designation	
A	17-4 PH® Stem	

17-4 PH® is a registered trademark of AK Steel Corporation.  
TFM™ is a trademark of Dyneon™, a 3M Company.

### AUTOMATED VALVE SAMPLE PART # F91C-F1-150/2R3D-XX-



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