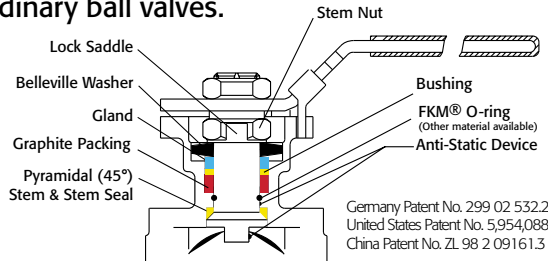


**API 607 - 6th Edition
CERTIFIED**

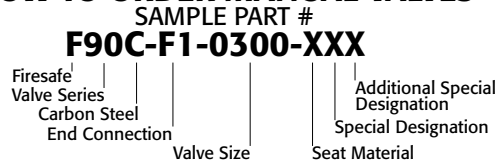


Triac 90 Series Flanged Ball Valves feature a split body design. The high quality investment castings feature a fully machined bore. The superior live-loaded packing system is accomplished with Belleville washers, "V" ring packing and a unique primary pyramidal stem seal. This advanced sealing system provides protection against stem leaks 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



See part number matrix for itemized options

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric

A-T Controls, Inc.

Series F90

FIRESAFE

Split Body Flanged Ball Valve

Sizes 1/2" - 4"

Available in 316SST or WCB

ANSI Class 150

Full 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

Monel Ball & Stem Available

Lockable Manual Handle

STANDARDS

Design	ANSI/ASME B16.34 (fully conforms)
Face to Face	ANSI/ASME B16.10
Flange Dimensions	ANSI/ASME B16.5
Pipeline Valves	API 6D
Pressure Testing	API 598
Fire Testing	API 607-6th Edition
Fugitive Emissions	ISO 15848-1
Gas Shut-off Valves	CSA 3.16-15
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 F90 Split Body Flanged Ball Valve
Firesafe**

Series F90

High Performance Full Port Split Body Flanged Ball Valve Series F90 (ANSI Class 150)

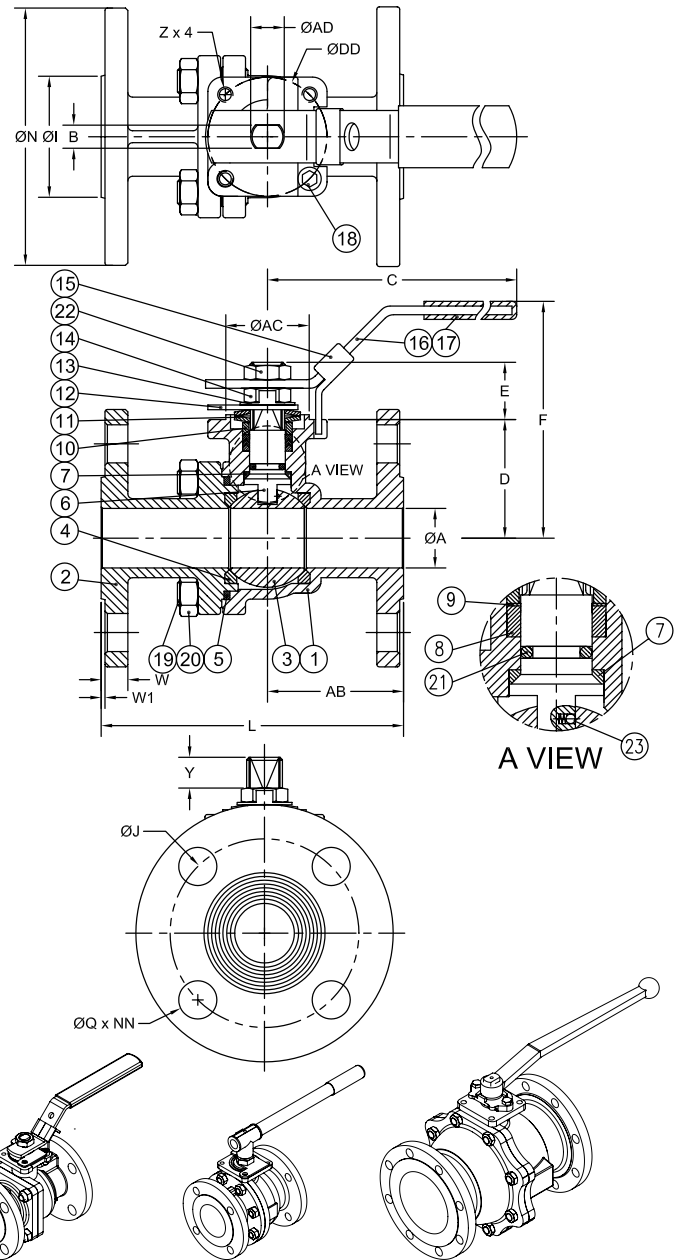
API 607 - 6th Edition
CERTIFIED

MATERIAL 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 SS316	ASTM A276 SS316	
7	STEM SEAL	1	TFM™-1600	TFM™-1600	✓
8	GLAND PACKING	1	GRAPHITE	GRAPHITE	✓
9	GLAND WASHER	1	TFM™-1600	TFM™-1600	✓
10	GLAND BUSHING	1	AISI 304	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	AISI 301	
12	LOCKING PLATE	1	AISI 304	AISI 304	
13	LOCK SADDLE	1	AISI 304	AISI 304	
14	STEM NUT	1	AISI 304	AISI 304	
15	HANDLE LOCK	1	AISI 304	AISI 304	
16	HANDLE	1	AISI 304	AISI 304	
17	HANDLE SLEEVE	1	VINYL	VINYL	
18	STOP BOLT	1	AISI 304	AISI 304	
19	BODY STUD	*	ASTM A193 GRADE B8	ASTM A193 GRADE B8	
20	BODY NUT	*	ASTM A194 GRADE 8	ASTM A194 GRADE 8	
21	STEM O-RING	1	FKM	FKM	✓
22	HANDLE NUT	1	AISI 304	AISI 304	
23	ANTI-STATIC DEVICE	2	AISI 316	AISI 316	

* 1/2" THRU 2" QTY = 4 PCS

* 2-1/2" THRU 4" QTY = 8 PCS



BENT HANDLE SIZES 1/2" - 2-1/2" PIPE HANDLE SIZES 3" - 4" CAST HANDLE SIZES 6"

NOTE: A-T CONTROLS RECOMMENDS A GEAR FOR 6" VALVES AND LARGER. 6" SERIES 93 VALVES DO NOT HAVE LOCKABLE HANDLES.

DIMENSIONS (IN)

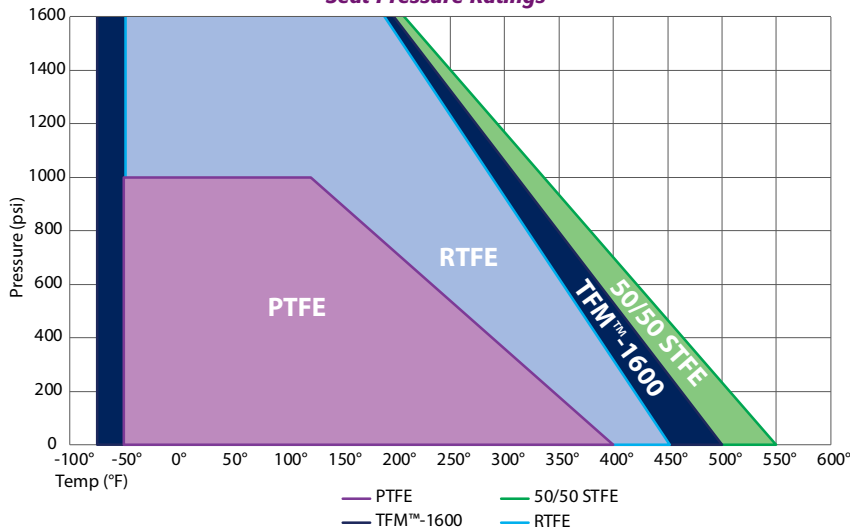
SIZE	A	B	C	D	E	F	I	J	L	N	Q	W	W1	Y	Z	AB	AC	AD	DD	NN	LBS	ISO 5211
1/2"	0.59	0.315	6.69	1.34	0.92	3.15	1.47	2.38	4.26	3.50	0.63	0.44	0.06	0.36	M5	1.82	1.17	0.43	1.654	4	3.7	F04
3/4"	0.79	0.315	6.69	1.65	0.94	3.43	1.82	2.75	4.62	3.88	0.63	0.44	0.06	0.40	M5	2.17	1.17	0.43	1.654	4	4.6	F04
1"	0.98	0.382	8.05	1.95	0.94	3.85	2.08	3.13	5.00	4.26	0.63	0.44	0.06	0.42	M6	2.20	1.37	0.56	1.969	4	6.8	F05
1-1/2"	1.50	0.472	10.28	3.08	1.37	6.02	2.88	3.88	6.50	5.00	0.63	0.56	0.06	0.58	M8	2.81	2.17	0.75	2.756	4	13.6	F07
2"	1.97	0.472	10.28	3.40	1.37	6.38	3.62	4.75	7.02	6.00	0.75	0.63	0.06	0.58	M8	3.38	2.17	0.75	2.756	4	19.2	F07
2-1/2"	2.56	0.472	10.28	3.83	1.37	6.81	4.12	5.50	7.49	7.00	0.75	0.69	0.06	0.58	M8	3.02	2.17	0.75	2.756	4	30.0	F07
3"	3.15	0.591	13.94	4.23	1.81	6.95	5.00	6.00	8.01	7.50	0.75	0.75	0.06	0.93	M10	4.01	2.76	0.94	4.016	4	41.0	F10
4"	3.94	0.591	13.94	4.82	1.79	7.52	6.19	7.50	9.04	9.00	0.75	0.94	0.06	0.93	M10	4.06	2.76	0.94	4.016	8	65.0	F10

High Performance Full Port Split Body Flanged Ball Valve Series F90 (ANSI Class 150)

Series F90

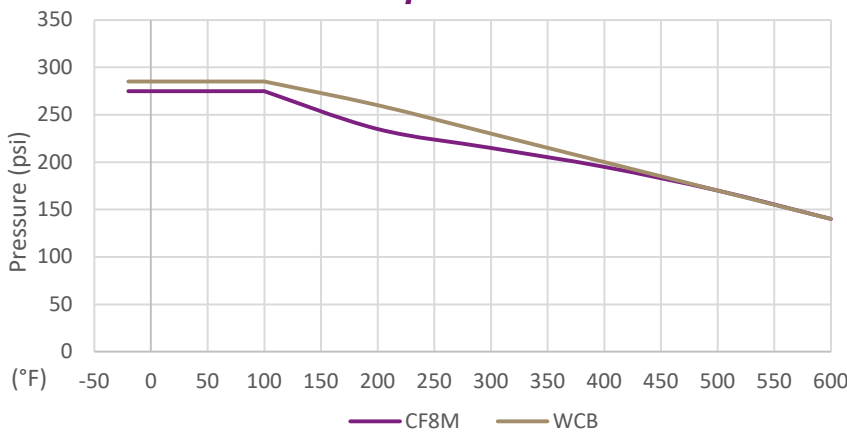
API 607 - 6th Edition
CERTIFIED

Pressure vs. Temperature - F90
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 F90



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

F90 Component Temperature Ratings		
COMPONENT	MATERIAL	TEMPERATURE
Stem Packing	Graphite	-100°F to 1100°F
Stem Seal	TFM™-1600	-75°F to 500°F
Gaskets	TFM™-1600	-75°F to 500°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.

BREAKAWAY TORQUES	
SIZE	IN-LBS
1/2"	92
3/4"	127
1"	150
1-1/2"	311
2"	396
2-1/2"	657
3"	980
4"	1,700

NOTE: RTFE Seats. Consult factory when using other seat material.

VALVE SIZE	VALVE Cv
1/2"	15
3/4"	45
1"	85
1-1/2"	275
2"	460
2-1/2"	700
3"	1,100
4"	2,200

Pneumatic Double Acting Automated Ball Valve Package

**Series F90
ANSI Class 150
Flanged Ball Valve**

Firesafe

Sizes 1/2" - 4"

Available in 316SST or WCB

ANSI Class 150

Full Port Design

Superior Live Loaded Packing System

Blowout Proof Stem w/ Dual
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

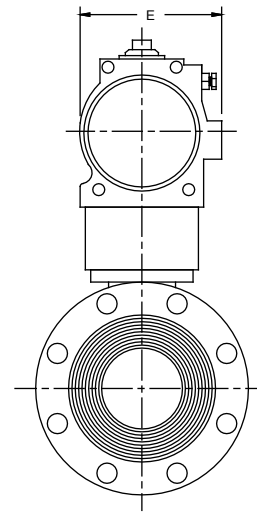
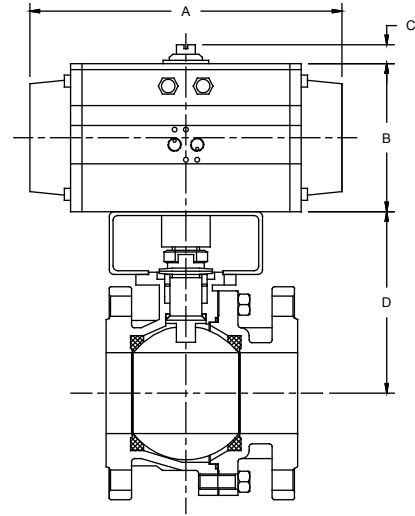
Monel Ball & Stem Available

STANDARDS

Design	ANSI/ASME B16.34 (fully conforms)
Face to Face	ANSI/ASME B16.10
Flange Dimensions	ANSI/ASME B16.5
Pipeline Valves	API 6D
Pressure Testing	API 598
Fire Testing	API 607-6th Edition
Fugitive Emissions	ISO 15848-1
Gas Shut-off Valves	CSA 3.16-15
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



**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	2.91	2.58	15
3/4"	5.98	2.76	0.79	3.21	2.58	45
1"	7.95	3.43	0.79	3.52	3.29	85
1-1/2"	9.29	4.49	0.79	5.04	4.41	275
2"	9.29	4.49	0.79	5.37	4.41	460
2-1/2"	10.87	4.88	0.79	5.80	4.82	700
3"	11.46	5.28	0.79	6.85	5.20	1,100
4"	13.90	6.18	0.79	7.44	6.04	2,200

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES F90 150# Flanged

Firesafe

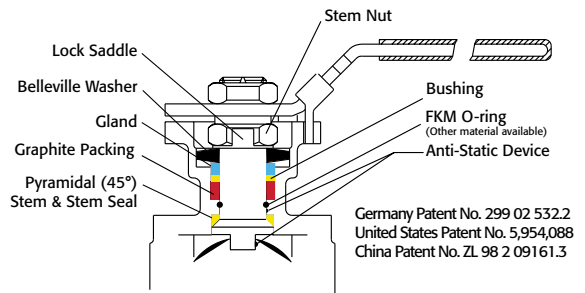
SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F90-F1-050/TR1D-XX
3/4"	F90-F1-075/TR1D-XX
1"	F90-F1-100/2R2D-XX
1-1/2"	F90-F1-150/2R3D-XX
2"	F90-F1-200/2R3D-XX
2-1/2"	F90-F1-250/2R4D-XX
3"	F90-F1-300/2R5D-XX
4"	F90-F1-400/2R6D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F90-F1-050/TR1D-XX
3/4"	F90-F1-075/2R2D-XX
1"	F90-F1-100/2R2D-XX
1-1/2"	F90-F1-150/2R3D-XX
2"	F90-F1-200/2R3D-XX
2-1/2"	F90-F1-250/2R5D-XX
3"	F90-F1-300/2R6D-XX
4"	F90-F1-400/2R6D-XX

OPTIONS

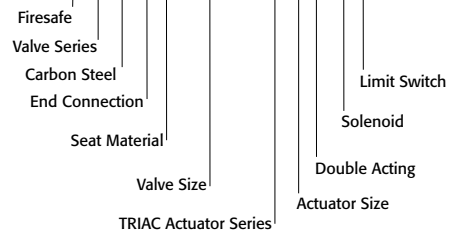
DESCRIPTION	PART NO. SUFFIX	DESCRIPTION	PART NO. SUFFIX
NEMA 4 Solenoid	(A)	NEMA 4 Limit Switch (2) spdt	(A)
NEMA 7 Solenoid	(B)	NEMA 7 Limit Switch (2) spdt	(B)
Intrinsically Safe Solenoid	(C)	Intrinsically Safe Limit Switch	(C)

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



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

SAMPLE PART # F90C-F1-0150/2R3D-XX



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

**Pneumatic
Spring Return
Automated
Ball Valve Package**

**Series F90
ANSI Class 150
Flanged Ball Valve**

Firesafe

Sizes 1/2" - 4"

Available in 316SST or WCB

ANSI Class 150

Full Port Design

Superior Live Loaded Packing System

Blowout Proof Stem w/ Dual
Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

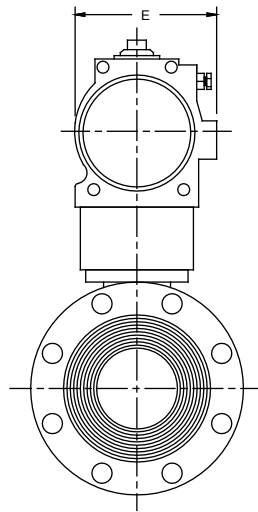
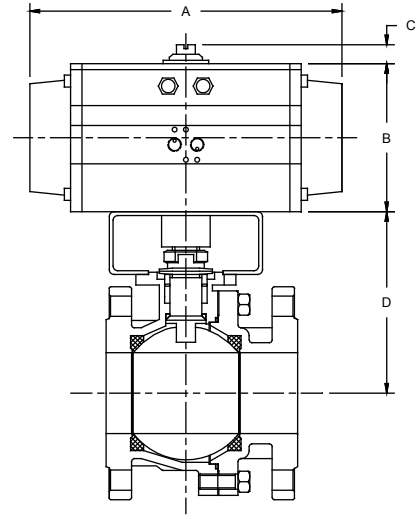
Monel Ball & Stem Available

STANDARDS

Design	ANSI/ASME B16.34 (fully conforms)
Face to Face	ANSI/ASME B16.10
Flange Dimensions	ANSI/ASME B16.5
Pipeline Valves	API 6D
Pressure Testing	API 598
Fire Testing	API 607-6th Edition
Fugitive Emissions	ISO 15848-1
Gas Shut-off Valves	CSA 3.16-15
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



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



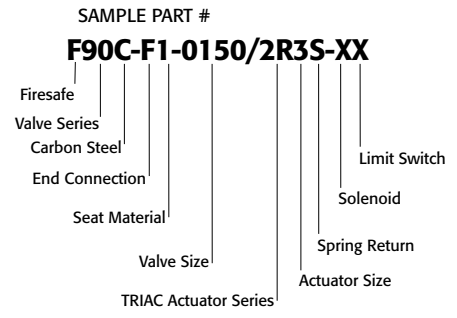
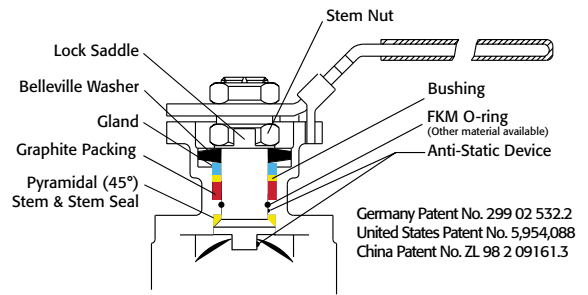
DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	7.95	3.43	0.79	2.90	3.29	15
3/4"	7.95	3.43	0.79	3.20	3.29	45
1"	9.29	4.49	0.79	3.52	4.41	85
1-1/2"	9.29	4.49	0.79	5.04	4.41	275
2"	10.87	4.88	0.79	5.37	4.82	460
2-1/2"	13.90	6.18	0.79	5.80	6.04	700
3"	13.90	6.18	0.79	6.85	6.04	1,100
4"	15.16	6.93	0.79	7.44	6.69	2,200

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F90-F1-050/2R2S-XX
3/4"	F90-F1-075/2R3S-XX
1"	F90-F1-100/2R3S-XX
1-1/2"	F90-F1-150/2R3S-XX
2"	F90-F1-200/2R4S-XX
2-1/2"	F90-F1-250/2R6S-XX
3"	F90-F1-300/2R6S-XX
4"	F90-F1-400/2R7S-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	F90-F1-050/2R3S-XX
3/4"	F90-F1-075/2R3S-XX
1"	F90-F1-100/2R3S-XX
1-1/2"	F90-F1-150/2R4S-XX
2"	F90-F1-200/2R5S-XX
2-1/2"	F90-F1-250/2R6S-XX
3"	F90-F1-300/2R6S-XX
4"	F90-F1-400/2R7S-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

Automated Ball Valve Package

Series F90 ANSI Class 150 Flanged Ball Valve

Firesafe

Sizes 1/2" - 4"

Available in 316SST or WCB

ANSI Class 150

Full Port Design

Superior Live Loaded Packing System

Blowout Proof Stem w/ Dual Anti-Static Devices

RTFE Seats Standard

Pyramidal Stem Seal Design

Monel Ball & Stem Available

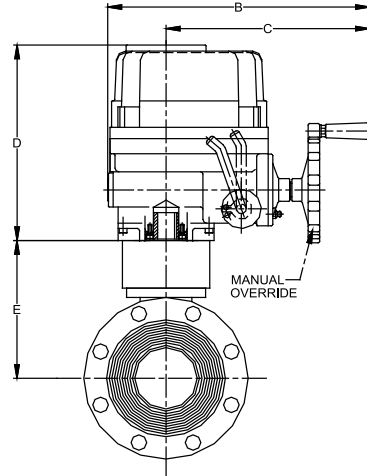
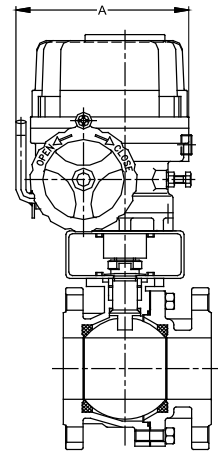
STANDARDS

Design	ANSI/ASME B16.34 (fully conforms)
Face to Face	ANSI/ASME B16.10
Flange Dimensions	ANSI/ASME B16.5
Pipeline Valves	API 6D
Pressure Testing	API 598
Fire Testing	API 607-6th Edition
Fugitive Emissions	ISO 15848-1
Gas Shut-off Valves	CSA 3.16-15
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

**API 607 - 6th Edition
CERTIFIED**



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



DIMENSIONS (IN)

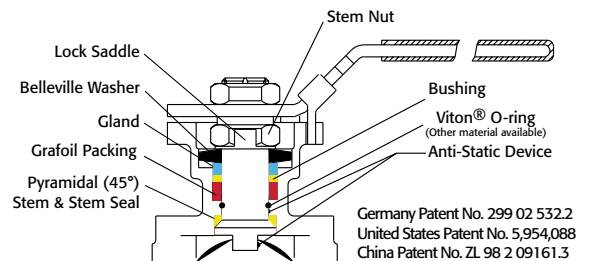
VALVE SIZE	A	B	C	D	E	VALVE CV
1/2"	4.94	4.08	N/A	5.24	2.90	15
3/4"	4.94	4.08	N/A	5.24	3.20	45
1"	4.94	4.08	N/A	5.24	3.52	85
1-1/2"	4.94	4.08	N/A	5.24	5.05	275
2"	4.94	4.08	N/A	5.24	5.37	460
2-1/2"	9.02	13.31	10.43	10.55	5.80	700
3"	9.02	13.31	10.43	10.55	6.85	1,100
4"	10.20	14.49	11.26	11.42	7.44	2,200

SERIES F90 150# Flanged

Firesafe

ON-OFF	
SIZE	MODEL
1/2"	F90-F1-050/WEA1-XX
3/4"	F90-F1-075/WEA1-XX
1"	F90-F1-100/WEA1-XX
1-1/2"	F90-F1-150/WEA1-XX
2"	F90-F1-200/WEB1-XX
2-1/2"	F90-F1-250/WEC1-XX
3"	F90-F1-300/WEC1-XX
4"	F90-F1-400/WEE1-XX

MODULATING	
SIZE	MODEL
1/2"	F90-F1-050/WEA2-XX
3/4"	F90-F1-075/WEA2-XX
1"	F90-F1-100/WEA2-XX
1-1/2"	F90-F1-150/WEA2-XX
2"	F90-F1-200/WEB2-XX
2-1/2"	F90-F1-250/WEC2-XX
3"	F90-F1-300/WEC2-XX
4"	F90-F1-400/WEE2-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 #
F90C-F1-0150/WEA1-XX

Firesafe
Valve Series
Carbon Steel
End Connection
Seat Material
Valve Size
TRIAC Actuator Series
Actuator Size
On-Off
Voltage
Options

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

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

2	Valve Series
90	2pc. Flanged Full Port (Investment Cast)

3	Body/Ball/Stem Material
Blank	Valve Series Standard (316SST)
A	Alloy 20 Body, Ball, & Stem
C	Carbon Steel Body
L	Low Carbon 316L Stainless Steel
J	Low Carbon 304 Stainless Steel
Q	Carbon Body/Monel Ball & Stem
R	316SST Body/Monel Call & Stem
T	Hastelloy C-276 Body, Ball, & Stem
D	CD3MN Body/Duplex SST Ball & Stem
G	CE3MN Body/Super Duplex SST Ball & Stem
P	CF8 (304SST) Body/304SST Ball & Stem

4	End Connection
F1	150# Flanged Ends

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

6	Seat, Lining & Trim Materials
X	Reinforced TFE Seats (RTFE)
P	Virgin TFE Seats (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 (available on some)
4	4" Lockable Stem Extension

8	Additional Specials
X	No Specials, Series Standard
O	Oxygen Cleaned
V	Vented Ball
F	Fugitive Emissions Bonnet
D	Degreased & Bagged
A	Vented Ball, Degreased & Bagged
B	Vented Ball, Oxygen Cleaned

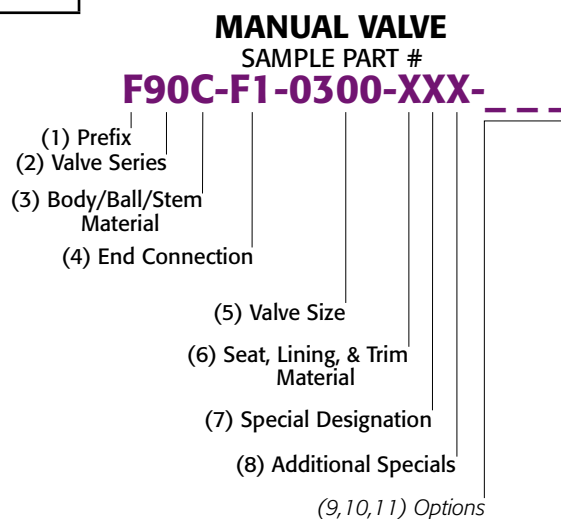
OPTIONS:

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

10	O-Ring
X	Multiple Option Designation
2	Markez® Z1028
4	Karlez 4079
5	Chemraz® 505
6	Karlez 6375
7	Perlast® G75M
9	Chemraz® 564
B	Low Temp Buna
E	EPDM

11	Additional Specials
Blank	Standard
X	Multiple Option Designation
B	B7M Bolting
M	Marine Epoxy Coating
C	CSA 3.16 Certified (F90/F88/93 Series)

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 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 Ltd.
 TFM™ is a trademark of Dyneon™, a 3M Company.



Series F90

HOW TO ORDER: Automated Valves

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

2	Valve Series
90	2pc. Flanged Full Port (Investment Cast)

3	Body/Ball/Stem Material
Blank	Valve Series Standard (316SST)
A	Alloy 20 Body, Ball, & Stem
C	Carbon Steel Body
L	Low Carbon 316L Stainless Steel
J	Low Carbon 304 Stainless Steel
Q	Carbon Body/Monel Ball & Stem
R	316SST Body/Monel Call & Stem
T	Hastelloy C-276 Body, Ball, & Stem
D	CD3MN Body/Duplex SST Ball & Stem
G	CE3MN Body/Super Duplex SST Ball & Stem
P	CF8 (304SST) Body/304SST Ball & Stem

4	End Connection
F	150# Flanged Ends

5	Seat, Lining & Trim Materials
I	Valve Series Standard (RTFE)
P	Virgin TFE Seats (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" 200 2"
075	3/4" 250 2 1/2"
100	1" 300 3"
150	1 1/2" 400 4"

7	Actuator - Pneumatic (DA)
TR1D	TR10DA 2R7D 2R500DA
TR2D	TR20DA 2R8D 2R850DA
TR3D	TR40DA 2R9D 2R1200DA
TR4D	TR80DA 2R0D 2R1750DA
TR5D	TR130DA 2RAD 2R2500DA
TR6D	TR200DA 2RBD 2R3500DA

7	Actuator - Pneumatic (SR)
TR1S	TR20SR 2R7S 2R500SR
TR2S	TR40SR 2R8S 2R850SR
TR3S	TR80SR 2R9S 2R1200SR
TR4S	TR130SR 2R0S 2R1750SR
TR5S	TR200SR 2RAS 2R2500SR
TR6S	TR300SR 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	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
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	

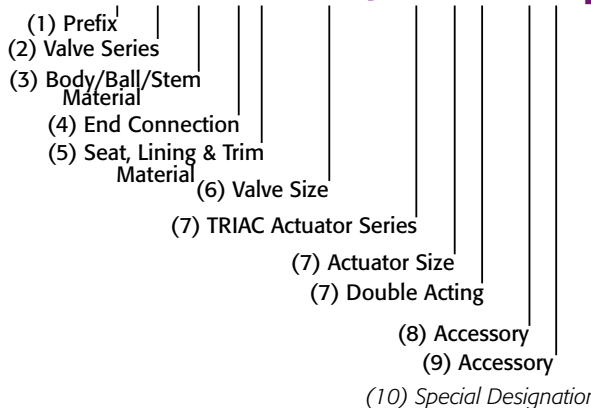
10	Special Designation
Blank	No Designation, Valve Series Standard
X	Multiple Option Designation
A	17-4 PH® Stem

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TFM™ is a trademark of Dyneon™, a 3M Company.

AUTOMATED VALVE

SAMPLE PART #

F90C-F1-150/2R3D-XX-



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