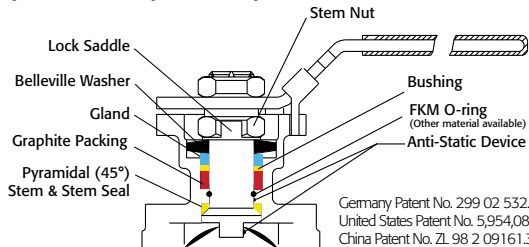


**API 607 - 6th Edition
CERTIFIED**



Triac FD9 Series Flanged Ball Valves feature a direct mount automation pad. 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

SAMPLE PART #
FD9C-F3-0300-XXX

Firesafe				Additional Special Designation
Valve Series				Special Designation
Carbon Steel				
End Connection	Valve Size	Seat Material		

See part number matrix for itemized options

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric

FD9-F3Series(B16.34)-20201124
Copyright 2013 A-T Controls, Inc.

A-T Controls, Inc.

Series FD9-F3

FIRESAFE

300# Direct Mount Split Body Flanged Ball Valve

Sizes 1/2" -6"

Available in 316SST or WCB

ANSI Class 300

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 on 1/2"-4" (SST & WCB) and 6" WCB; API-607-4th Edition on 6" SST
Sulfide Stress Protection	NACE MR0175
Safety Integrity	IEC 61508:2010; SIL 3
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015
Fugitive Emissions	ISO 15848-1

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

A-T Controls, Inc.

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Cincinnati, Ohio 45246
www.atcontrols.com

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

SERIES FD9 300# Direct Mount Split Body Flanged Ball Valve

Firesafe

Series FD9-F3

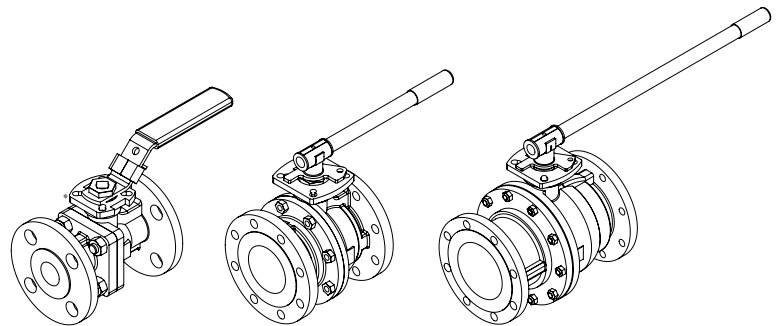
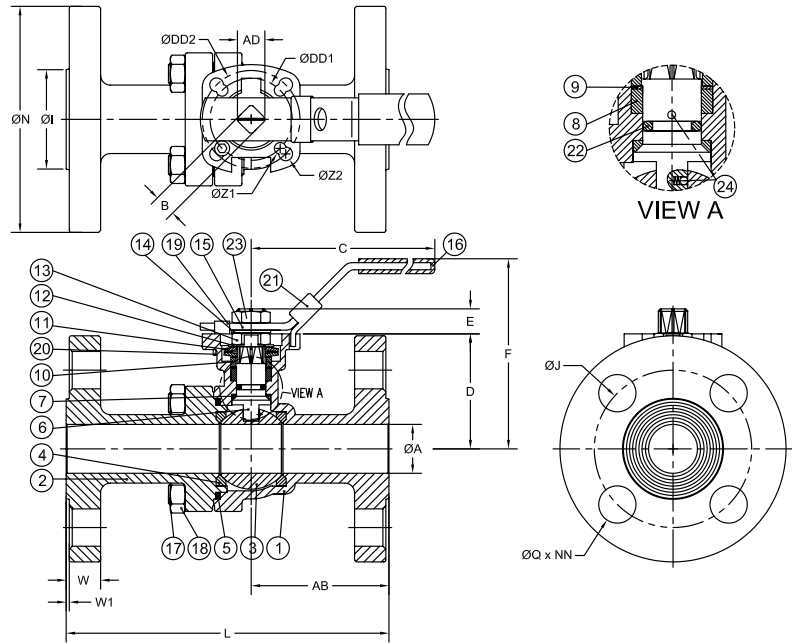
High Performance, Full Port 300# Split Body Flanged Ball Valve Series FD9-F3 (ANSI Class 300)

API 607 - 6th Edition
CERTIFIED FIRESAFE

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 SS316	ASTM A276 SS316	
7	STEM SEAL	1	TFM™-1600	TFM™-1600	✓
8	GLAND PACKING	1	GRAPHITE	GRAPHITE	✓
9	GLAND WASHER	1	RTFE	RTFE	✓
10	GLAND BUSHING	1	AISI 304	AISI 304	
11	BELLEVILLE WASHER	2	AISI 301	AISI 301	
12	LOCK SADDLE	1	AISI 304	AISI 304	
13	STEM NUT	1	AISI 304	AISI 304	
14	STEM WASHER	1	AISI 304	AISI 304	
15	HANDLE	1	AISI 304	AISI 304	
16	HANDLE SLEEVE	1	VINYL	VINYL	
17	BODY STUD	*	ASTM A193 GRADE B8M	ASTM A193 GRADE B7M	
18	BODY NUT	*	ASTM A194 GRADE 8M	ASTM A194 GRADE 2HM	
19	STOP BOLT	1	AISI 304	AISI 304	
20	STOP BOLT NUT	1	AISI 304	AISI 304	
21	HANDLE LOCK	1	AISI 304	AISI 304	
22	STEM O-RING	1	FKM	FKM	✓
23	HANDLE NUT	1	AISI 304	AISI 304	
24	ANTI-STATIC DEVICE	2	AISI 316	AISI 316	

* 1/2" THRU 2" QTY = 4 PCS
* 2-1/2" THRU 4" QTY = 8 PCS
* 6" QTY = 12 PCS



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

NOTE: A-T CONTROLS RECOMMENDS A GEAR FOR 6" VALVES AND LARGER

DIMENSIONS (IN)

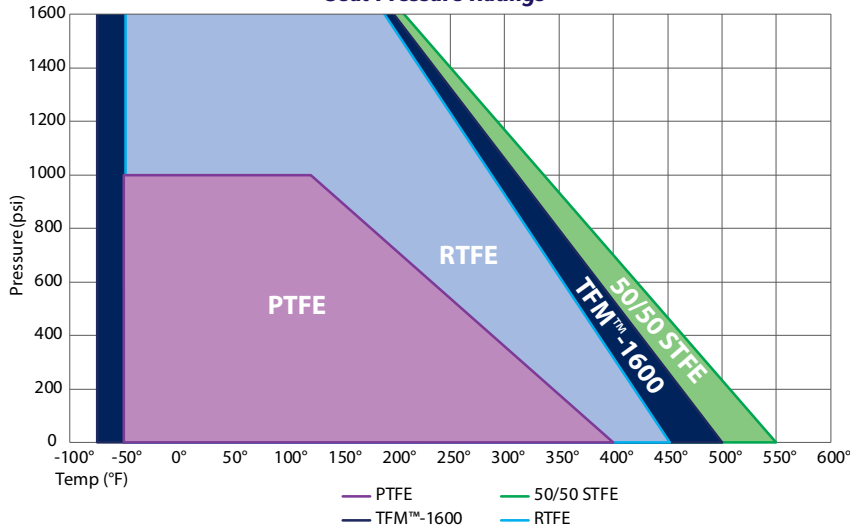
SIZE	A	B	C	D	E	F	I	J	L	N	Q	W	W1	Z1	Z2	AB	AC	AD	DD1	DD2	NN	ISO 5211	LBS
1/2"	0.59	0.433	6.50	1.92	0.39	3.40	1.38	2.62	5.50	3.75	0.63	0.56	0.06	0.26	0.28	2.32	1.17	0.55	1.654	1.969	4	F04/F05	5
3/4"	0.79	0.433	6.50	2.50	0.41	4.04	1.69	3.25	6.00	4.62	0.75	0.62	0.06	0.26	0.28	2.59	1.17	0.55	1.654	1.969	4	F04/F05	8
1"	0.98	0.433	6.50	2.50	0.41	4.06	2.00	3.50	6.50	4.88	0.75	0.69	0.06	0.26	0.28	2.78	1.17	0.55	1.654	1.969	4	F04/F05	10.5
1-1/2"	1.50	0.748	10.32	3.51	0.75	5.41	2.88	4.50	7.50	6.12	0.87	0.81	0.06	0.39	0.47	3.13	2.08	0.94	2.756	4.016	4	F07/F10	22
2"	1.97	0.748	10.32	3.80	0.75	5.87	3.62	5.00	8.50	6.50	0.75	0.88	0.06	0.39	0.47	3.81	2.08	0.94	2.756	4.016	8	F07/F10	28.5
2-1/2"	2.56	0.748	10.32	4.57	0.75	6.44	4.12	5.88	9.50	7.50	0.87	1.00	0.06	0.39	0.47	4.20	2.08	0.94	2.756	4.016	8	F07/F10	42
3"	3.15	0.866	14.37	5.22	0.91	8.10	5.00	6.62	11.12	8.25	0.87	1.12	0.06	0.47	0.55	5.10	2.55	1.17	4.016	4.921	8	F10/F12	59
4"	3.94	0.866	14.37	6.18	0.91	8.70	6.19	7.88	12.00	10.00	0.87	1.25	0.06	0.47	0.55	5.50	2.55	1.17	4.016	4.921	8	F10/F12	96
6"	5.91	1.063	29.53	8.28	1.12	13.00	8.50	10.62	15.87	12.50	0.87	1.44	0.06	0.55	0.71	7.30	3.07	1.40	4.921	5.512	12	F12/F14	213

High Performance, Full Port 300# Split Body Flanged Ball Valve Series FD9-F3 (ANSI Class 300)

Series FD9-F3

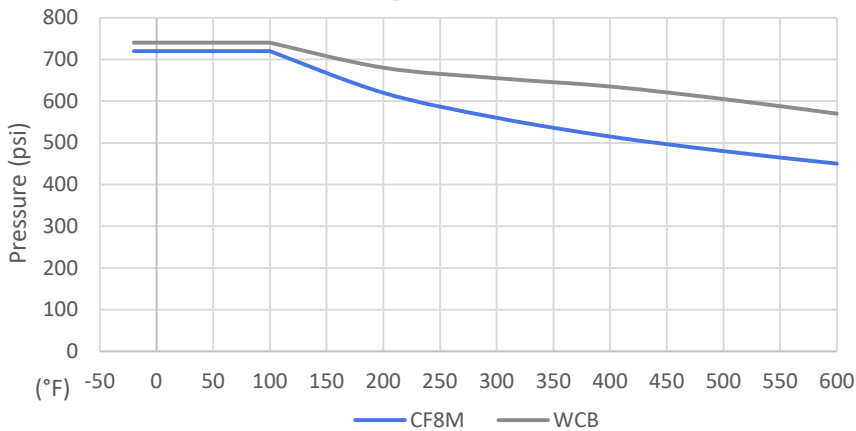
API 607 - 6th Edition
CERTIFIED FIRESAFE

Pressure vs. Temperature - Series D9/FD9-F3
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 FD9-F3



Temp (°F)	WCB psi	CF8M psi
-20°	740	720
50°	740	720
75°	740	720
90°	740	720
99°	740	720
100°	740	720
200°	680	620
300°	655	560
400°	635	515
500°	605	480
600°	570	450

FD9-F3 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 Torque for RTFE Seats	
SIZE	IN-LBS
1/2"	125
3/4"	175
1"	220
1-1/2"	450
2"	525
2-1/2"	750
3"	1,400
4"	1,900
6"	3,050

NOTE: For other seat material, consult factory

VALVE SIZE	VALVE Cv
1/2"	15
3/4"	45
1"	85
1-1/2"	275
2"	450
2-1/2"	700
3"	1,100
4"	2,200
6"	5,150

Pneumatic Double Acting

Automated Ball Valve Package

Series FD9-F3

ANSI Class 300

Flanged Ball Valve

Direct Mount

Firesafe

Sizes 1/2" - 6"

Available in 316SST or WCB

ANSI Class 300

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

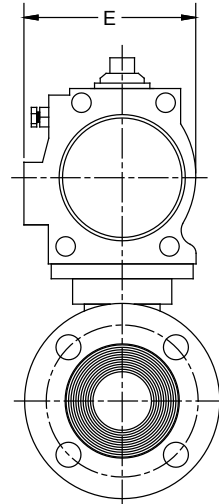
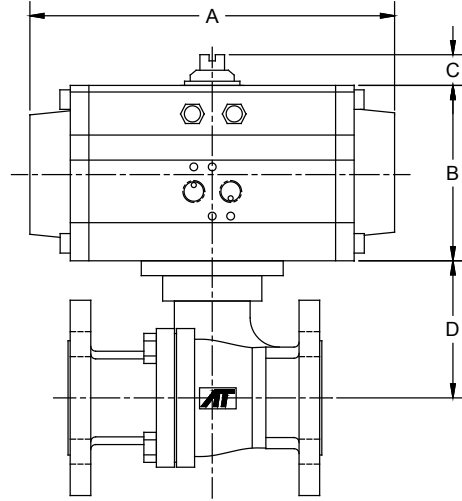
Design	ANSI/ASME B16.34 (fully conforms)
Face to Face	ANSI/ASME B16.10
Flange Dimensions	ANSI/ASME B16.5
Pipeline Valves	API 6D
Pressure Testing	API 598
Fire Testing	API 607-6th Edition on 1/2"-4" (SST & WCB), and 6" WCB; API-607-4th Edition on 6" SST

Sulfide Stress Protection	NACE MR0175
Safety Integrity	IEC 61508:2010; SIL 3
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015
Fugitive Emissions	ISO 15848-1

API 607 - 6th Edition CERTIFIED



300# Flanged Firesafe Tested to API-607 Direct Mount



DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	7.95	3.43	0.79	1.92	3.29	15
3/4"	7.95	3.43	0.79	2.50	3.29	45
1"	7.95	3.43	0.79	2.50	3.29	85
1-1/2"	9.29	4.49	0.79	3.51	4.41	275
2"	9.29	4.49	0.79	3.80	4.41	450
2-1/2"	10.87	4.88	0.79	4.57	4.69	700
3"	13.90	6.18	0.79	5.22	5.91	1,100
4"	13.90	6.18	0.79	6.18	5.91	2,200
6"	20.95	8.30	1.18	8.28	6.89	5,150

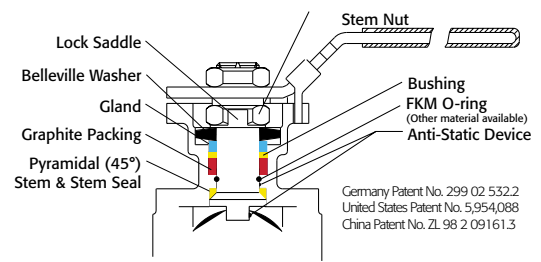
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES FD9-F3 300# Flanged Direct Mount

Firesafe

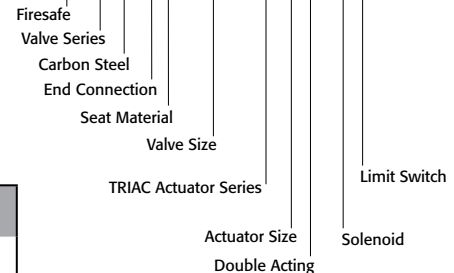
SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-3X-050/2R2D-XX
3/4"	FD9-3X-075/2R2D-XX
1"	FD9-3X-100/2R2D-XX
1-1/2"	FD9-3X-150/2R3D-XX
2"	FD9-3X-200/2R3D-XX
2-1/2"	FD9-3X-250/2R4D-XX
3"	FD9-3X-300/2R6D-XX
4"	FD9-3X-400/2R6D-XX
6"	FD9-3X-600/2R8D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-3X-050/2R2D-XX
3/4"	FD9-3X-075/2R2D-XX
1"	FD9-3X-100/2R3D-XX
1-1/2"	FD9-3X-150/2R3D-XX
2"	FD9-3X-200/2R3D-XX
2-1/2"	FD9-3X-250/2R4D-XX
3"	FD9-3X-300/2R6D-XX
4"	FD9-3X-400/2R7D-XX
6"	FD9-3X-600/2R9D-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 # FD9C-3X-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
Automated
Ball Valve Package**
Series FD9-F3
ANSI Class 300
Flanged Ball Valve
Direct Mount

Firesafe

- Sizes 1/2" - 6"
- Available in 316SST or WCB
- ANSI Class 300
- 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

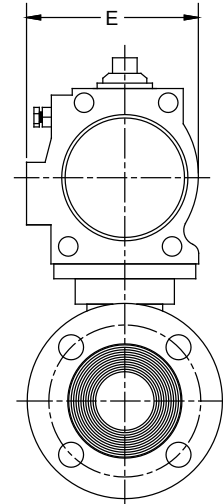
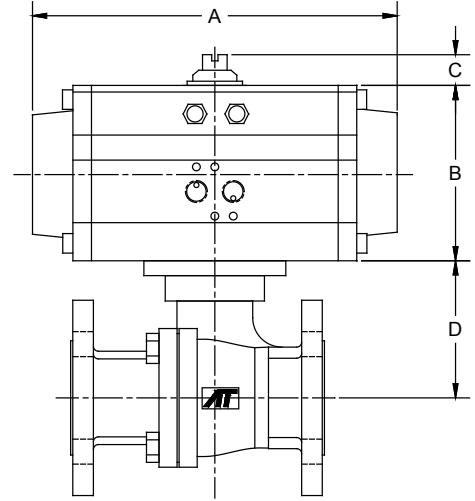
STANDARDS

- 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 on 1/2"-4" (SST & WCB), and 6" WCB; API-607-4th Edition on 6" SST
- Sulfide Stress Protection: NACE MR0175
- Safety Integrity: IEC 61508:2010; SIL 3
- Mounting: ISO 5211
- Marking System for Valves: MSS SP-25
- Material Certification: EN 10204-3.1 MTR
- Quality Assurance: ISO 9001:2015
- Fugitive Emissions: ISO 15848-1

**API 607 - 6th Edition
CERTIFIED**



**300# Flanged
Firesafe Tested to API-607
Direct Mount**



DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	7.95	3.43	0.79	1.92	3.29	15
3/4"	9.29	4.49	0.79	2.50	4.41	45
1"	9.29	4.49	0.79	2.50	4.41	85
1-1/2"	10.87	4.88	0.79	3.51	4.82	275
2"	11.46	5.28	0.79	3.80	5.06	450
2-1/2"	13.90	6.18	0.79	4.57	5.91	700
3"	15.16	6.93	0.79	5.22	6.50	1,100
4"	15.16	6.93	1.18	6.18	6.50	2,200
6"	24.37	10.12	1.18	8.28	8.31	5,150

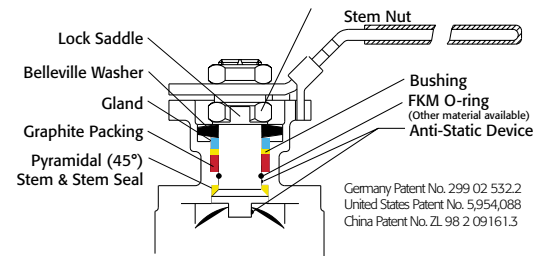
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

SERIES FD9-F3 300# Flanged Direct Mount

Firesafe

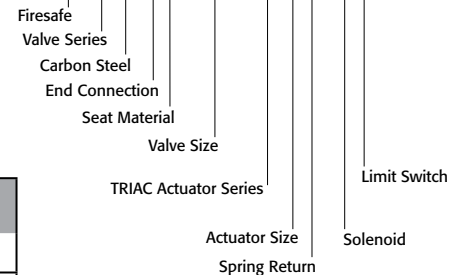
SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-3X-050/2R2S-XX
3/4"	FD9-3X-075/2R3S-XX
1"	FD9-3X-100/2R3S-XX
1-1/2"	FD9-3X-150/2R4S-XX
2"	FD9-3X-200/2R5S-XX
2-1/2"	FD9-3X-250/2R6S-XX
3"	FD9-3X-300/2R7S-XX
4"	FD9-3X-400/2R7S-XX
6"	FD9-3X-600/2R0S-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-3X-050/2R3S-XX
3/4"	FD9-3X-075/2R3S-XX
1"	FD9-3X-100/2R3S-XX
1-1/2"	FD9-3X-150/2R4S-XX
2"	FD9-3X-200/2R5S-XX
2-1/2"	FD9-3X-250/2R6S-XX
3"	FD9-3X-300/2R7S-XX
4"	FD9-3X-400/2R8S-XX
6"	FD9-3X-600/2RAS-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 #
FD9C-3X-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

Automated Ball Valve Package Series FD9-F3 ANSI Class 300 Flanged Ball Valve Direct Mount

- Firesafe
- Sizes 1/2" - 6"
- Available in 316SST or WCB
- ANSI Class 300
- 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 on 1/2"-4" (SST & WCB), and 6" WCB; API-607-4th Edition on 6" SST
Sulfide Stress Protection	NACE MR0175
Safety Integrity	IEC 61508:2010; SIL 3
Mounting	ISO 5211
Marking System for Valves	MSS SP-25
Material Certification	EN 10204-3.1 MTR
Quality Assurance	ISO 9001:2015
Fugitive Emissions	ISO 15848-1

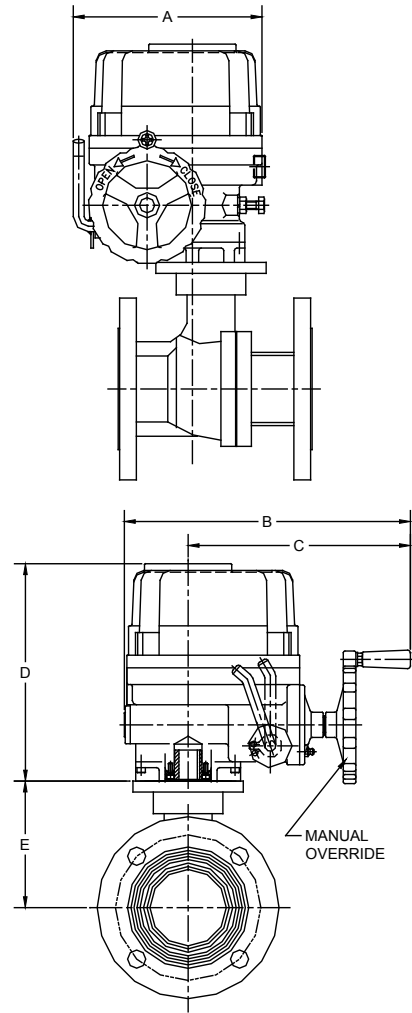
**API 607 - 6th Edition
CERTIFIED**



**300# Flanged
Firesafe Tested to API-607
Direct Mount**

DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	4.98	4.08	N/A	5.24	1.92	15
3/4"	4.98	4.08	N/A	5.24	2.50	45
1"	4.98	4.08	N/A	5.24	2.50	85
1-1/2"	4.98	4.08	N/A	5.24	3.51	275
2"	6.69	10.16	8.19	9.25	3.80	450
2-1/2"	9.02	13.31	10.43	10.55	4.57	700
3"	9.02	13.31	10.43	10.55	5.22	1,100
4"	10.20	14.49	11.26	11.42	6.18	2,200
6"	11.69	16.14	12.09	12.99	8.28	5,150

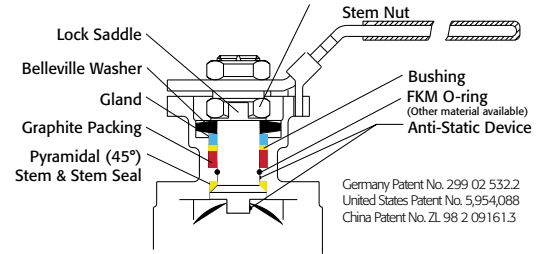


SERIES FD9-F3 300# Flanged Direct Mount

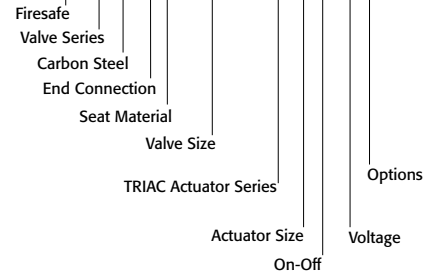
Firesafe

ON-OFF	
SIZE	MODEL
1/2"	FD9-3X-050/WEA1-XX
3/4"	FD9-3X-075/WEA1-XX
1"	FD9-3X-100/WEA1-XX
1-1/2"	FD9-3X-150/WEA1-XX
2"	FD9-3X-200/WEB1-XX
2-1/2"	FD9-3X-250/WEC1-XX
3"	FD9-3X-300/WED1-XX
4"	FD9-3X-400/WEE1-XX
6"	FD9-3X-600/WEH1-XX

MODULATING	
SIZE	MODEL
1/2"	FD9-3X-050/WEA2-XX
3/4"	FD9-3X-075/WEA2-XX
1"	FD9-3X-100/WEA2-XX
1-1/2"	FD9-3X-150/WEA2-XX
2"	FD9-3X-200/WEB2-XX
2-1/2"	FD9-3X-250/WEC2-XX
3"	FD9-3X-300/WED2-XX
4"	FD9-3X-400/WEE2-XX
6"	FD9-3X-600/WEH2-XX



SAMPLE PART #
FD9C-3X-150/WEA1-XX



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

OPTIONS

DESCRIPTION
24 VAC/24 VDC/220VAC
Feedback potentiometer

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

HOW TO ORDER: Manual Valves

Series FD9-F3

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

2	Valve Series
D9	Direct Mount Flanged

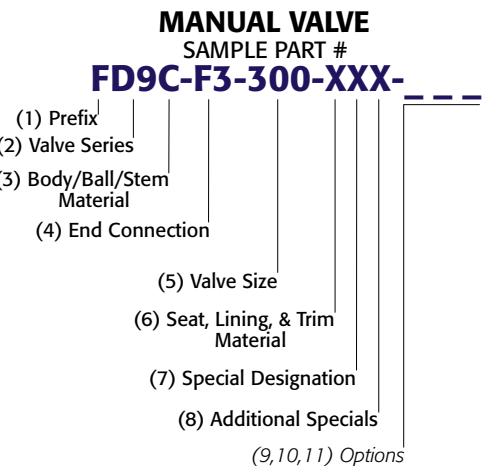
3	Body/Ball/Stem Material
Blank	Valve Series Standard (316SST)
A	Alloy 20 Body, Ball, & Stem
C	Carbon Steel Body
L	Low Carbon 316L Stainless Steel
H	Carbon Body / Hastelloy Ball & Stem
Q	Carbon Body/Monel Ball & Stem
R	316 SST Body/Monel Ball & Stem
R	316 SST Body/Monel Ball & Stem

4	End Connection
F3	300# 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)
M	MG1241
Z	PEEK

7	Special Designations
X	No Specials/Series Standard
G	Gear Operator
H	Gear Operator with Lockout Plate
O	Oval Handle (available on some)
S	Spring Return (Direct Mount Only)
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

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
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.

Series FD9-F3

HOW TO ORDER: Automated Valves w/ Options

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

2	Valve Series
D9	Direct Mount Flanged

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
H	Carbon Body / Hastelloy Ball & Stem
Q	Carbon Body/Monel Ball & Stem
R	316 SST Body/Monel Ball & Stem
R	316 SST Body/Monel Ball & Stem

4	End Connection
3	300# Flanged Ends

5	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)
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	2R0S	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	

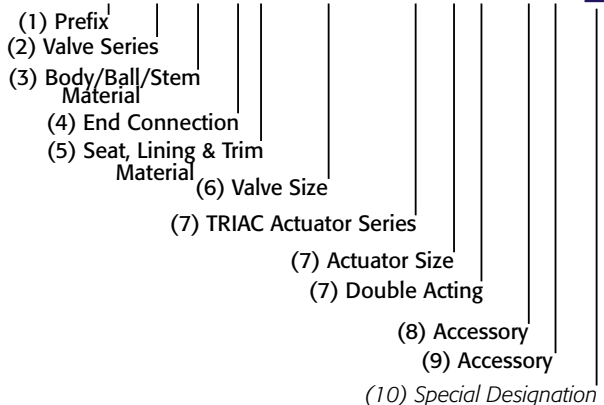
10	Special Designation	
Blank	No Designation, Valve Series Standard	
X	Multiple Option Designation	
A	17-4 PH® Stem	

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

AUTOMATED VALVE

SAMPLE PART #

FD9C-3X-150/2R3D-XX-



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