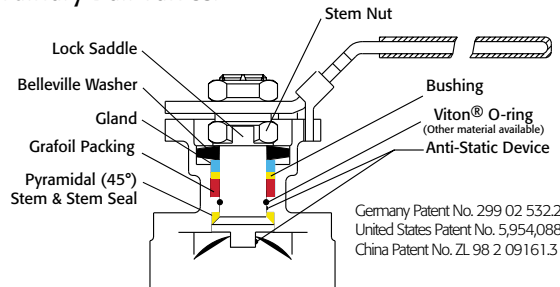


**API 607 - 6th Edition  
CERTIFIED**



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.



VALVE SIZE	VALVE Cv
1/2"	28
3/4"	50
1"	95
1-1/2"	260
2"	485

CTFE 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.

### Easy to Automate!

See automated data sheets for pre-sized assemblies



**Pneumatic**



**Electric**

**TRIAC**  
CONTROLS

## Series FD9-F6

**FIRESAFE**

# 600# Direct Mount Split Body Flanged Ball Valve

Sizes 1/2" - 2"

Available in 316SST or WCB

ANSI Class 600

Full Port Design

Superior Live Loaded Packing System

ISO 5211 Actuator Mounting Pad

Blowout Proof Stem w/ Dual Anti-Static Devices

CTFE Seats Standard

Pyramidal Stem Seal Design

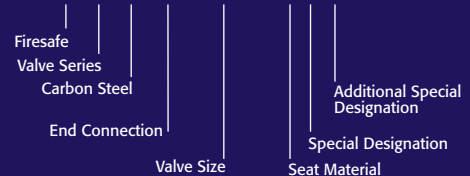
Lockable Manual Handle

#### STANDARDS

Design	ANSI/ASME B16.34
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
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

#### HOW TO ORDER MANUAL VALVES

SAMPLE PART #  
**FD9C-F6-0200-CXX**



See part number matrix for itemized options

**A-T Controls, Inc.**

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Cincinnati, Ohio 45246  
www.atcontrols.com

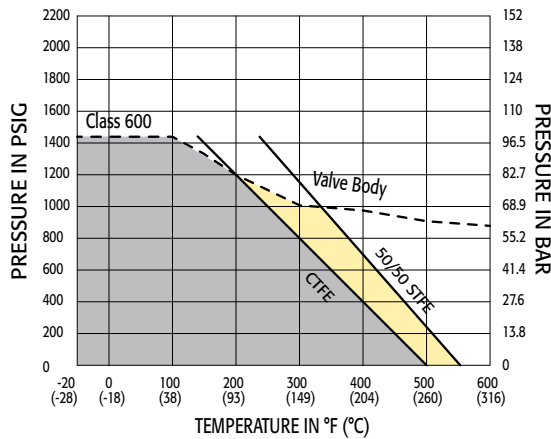
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FAX (513) 247-5462  
sales@atcontrols.com

# Series FD9-F6

## High Performance, Full Port 600# Split Body Flanged Ball Valve Series FD9-F6 (ANSI Class 600)

API 607 - 6th Edition  
CERTIFIED

**Pressure vs. Temperature Chart**  
for Valves 1/2" to 2"



NOTE: Dotted line shows the rating for valve body. Solid line shows the rating for valve seat. Both ratings need to be considered when determining the limitation of the valve for specific application. Consult factory for other seat materials.

Break Away Torque for CTFE Seats	
SIZE	IN-LBS.
1/2"	150
3/4"	200
1"	260
1-1/2"	525
2"	610

NOTE: For other seat material, consult factory

### MATERIALS LIST

NO.	PART NAME	QTY	STAINLESS STEEL	CARBON STEEL
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	CTFE	CTFE
5	JOINT GASKET	1	\$	\$
6	STEM	1	ASTM A276 316SST	ASTM A276 316SST
7	STEM SEAL	1	RTFE	RTFE
8	GLAND PACKING	1	GRAFOIL	GRAFOIL
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	2	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 BOLT	*	ASTM A193 GRADE B8M	ASTM A193 GRADE B7M
18	BODY BOLT NUT	*	ASTM A194 GRADE 8M	ASTM A194 GRADE 2HM
19	STOP BOLT	1	AISI 304	AISI 304
20	STOP NUT	1	AISI 304	AISI 304
21	HANDLE LOCK	1	AISI 304	AISI 304
22	O-RING	1	VITON®	VITON®
23	STOP BOLT WASHER	1	AISI 304	AISI 304
24	ANTI-STATIC DEVICE	2	AISI 316	AISI 316
25	JOINT GASKET	1	\$\$	\$\$
30	HANDLE SLEEVE	1	VINYL	VINYL
31	HANDLE BAR	1	AISI 304	AISI 304
32	HANDLE BOLT	2	AISI 304	AISI 304
33	HANDLE HUB	1	AISI 304	AISI 304
34	STOP BOLT	1	AISI 304	AISI 304

\*FOR 1/2"-1-1/2" : 4 PCS. OF BOLTS AND NUTS

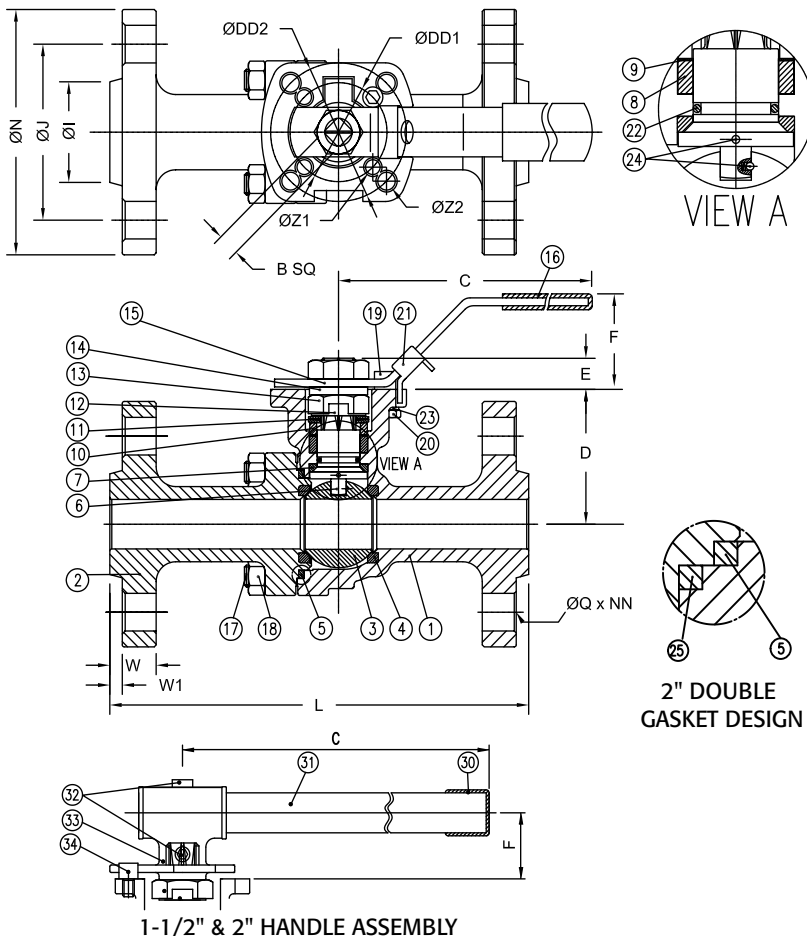
\*FOR 2" : 8 PCS. OF BOLTS AND BOLT NUTS

\$ FOR 1/2" - 1-1/2" : SPIRAL WOUND SS316 WITH GRAPHITE

\$ FOR 2" - PTFE

\$\$ SPIRAL WOUND SS316 WITH GRAPHITE

\$\$ ONLY PRESENT IN 2" DESIGN



### DIMENSIONS (IN)

SIZE	A	B	C	D	E	F	I	J	L	N	Q	W	W1	Z1	Z2	DD1	DD2	NN	LBS	ISO
1/2"	0.59	0.433	8.39	1.92	0.39	1.89	1.38	2.63	6.50	3.75	0.63	0.81	0.25	0.26	0.28	1.654	1.969	4	6.5	F04/F05
3/4"	0.79	0.433	8.39	2.5	0.41	1.89	1.69	3.25	7.50	4.63	0.75	0.87	0.25	0.26	0.28	1.654	1.969	4	10.5	F04/F05
1"	0.98	0.551	10.37	2.68	0.51	1.93	2.00	3.5	8.50	4.88	0.75	0.94	0.25	0.30	0.35	1.969	2.756	4	14	F05/F07
1-1/2"	1.50	0.748	14.57	3.51	0.75	1.74	2.88	4.5	9.50	6.13	0.88	1.13	0.25	0.39	0.47	2.756	4.016	4	27	F07/F10
2"	1.97	0.748	14.57	4.33	0.75	1.74	3.63	5.00	11.50	6.50	0.75	1.25	0.25	0.39	0.47	2.756	4.016	8	39	F07/F10

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# Pneumatic Double Acting

## Automated Ball Valve Package

Series FD9-F6  
ANSI Class 600  
Flanged Ball Valve  
Direct Mount

Firesafe

Sizes 1/2" - 2"

Available in 316SST or WCB

ANSI Class 600

Full Port Design

Superior Live Loaded Packing System

Blowout Proof Stem w/ Dual Anti-Static Devices

CTFE Seats Standard

Pyramidal Stem Seal Design

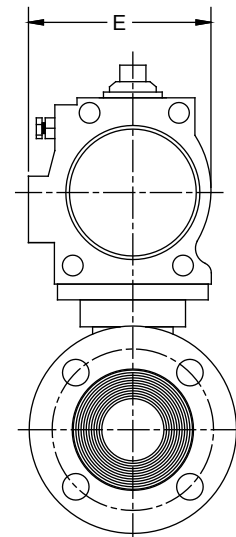
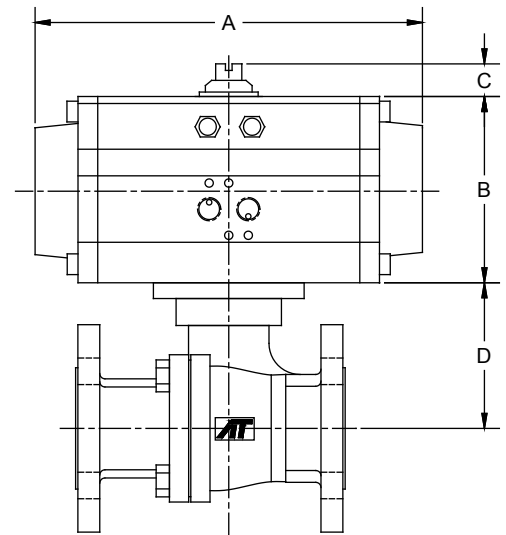
### STANDARDS

Design	ANSI/ASME B16.34
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
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**



600# Flanged  
Firesafe Tested to API-607  
Direct Mount



### DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	E	VALVE Cv
1/2"	5.98	2.76	0.79	1.92	2.58	28
3/4"	7.95	3.43	0.79	2.50	3.29	50
1"	7.95	3.43	0.79	2.68	3.29	95
1-1/2"	9.29	4.49	0.79	3.51	4.41	260
2"	10.87	4.88	0.79	4.33	4.82	485

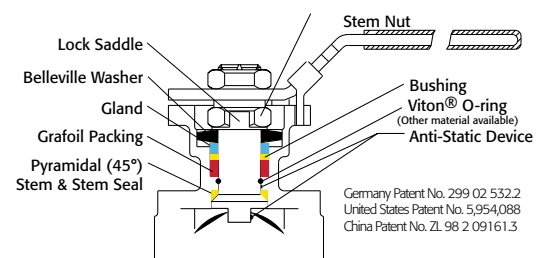
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

**SERIES FD9-F6 600# Flanged Direct Mount**

**Firesafe**

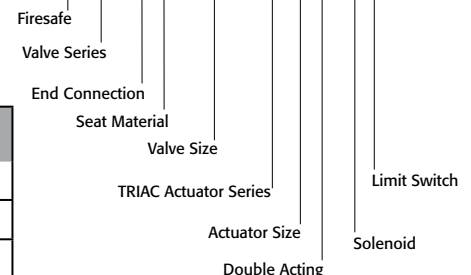
SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-6C-050/2R2D-XX
3/4"	FD9-6C-075/2R2D-XX
1"	FD9-6C-100/2R2D-XX
1-1/2"	FD9-6C-150/2R3D-XX
2"	FD9-6C-200/2R4D-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-6C-050/2R2D-XX
3/4"	FD9-6C-075/2R2D-XX
1"	FD9-6C-100/2R3D-XX
1-1/2"	FD9-6C-150/2R3D-XX
2"	FD9-6C-200/2R4D-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 # FD9-6C-100/2R3D-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.

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# Pneumatic Spring Return

## Automated Ball Valve Package

Series FD9-F6  
ANSI Class 600  
Flanged Ball Valve  
Direct Mount

Firesafe

Sizes 1/2" - 2"

Available in 316SST or WCB

ANSI Class 600

Full Port Design

Superior Live Loaded Packing System

Blowout Proof Stem w/ Dual Anti-Static Devices

CTFE Seats Standard

Pyramidal Stem Seal Design

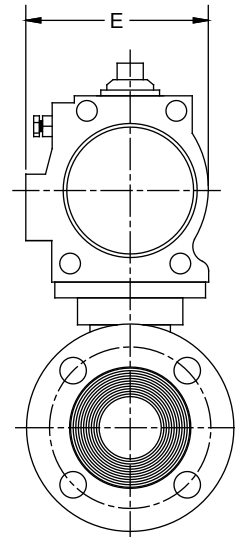
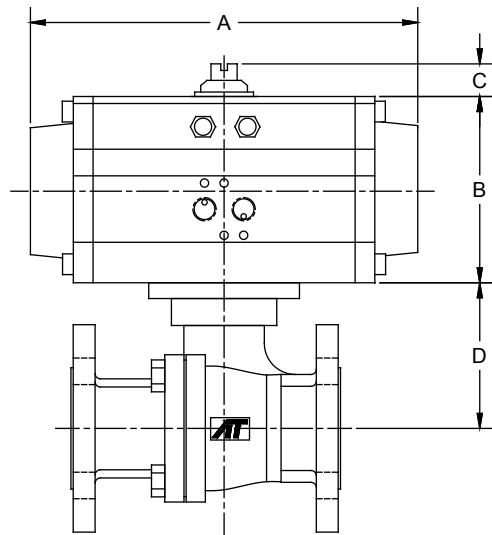
### STANDARDS

Design	ANSI/ASME B16.34
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
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**



**600# 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	28
3/4"	9.29	4.49	0.79	2.50	4.41	50
1"	9.29	4.79	0.79	2.68	4.41	95
1-1/2"	10.87	4.88	0.79	3.51	4.82	260
2"	11.46	5.28	0.79	4.33	5.20	485

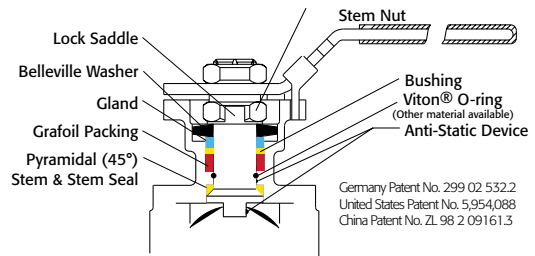
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

**SERIES FD9-F6 600# Flanged Direct Mount**

**Firesafe**

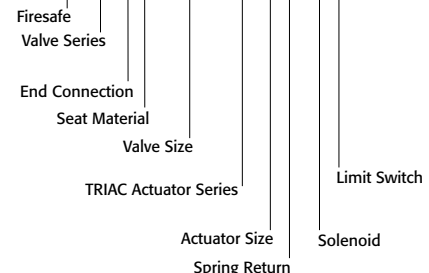
SIZED FOR 80 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-6C-050/2R2S-XX
3/4"	FD9-6C-075/2R3S-XX
1"	FD9-6C-100/2R3S-XX
1-1/2"	FD9-6C-150/2R4S-XX
2"	FD9-6C-200/2R5S-XX

SIZED FOR 60 psi AIR SUPPLY	
SIZE	MODEL
1/2"	FD9-6C-050/2R3S-XX
3/4"	FD9-6C-075/2R3S-XX
1"	FD9-6C-100/2R3S-XX
1-1/2"	FD9-6C-150/2R5S-XX
2"	FD9-6C-200/2R6S-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 # FD9-6C-100/2R3S-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.

FD9F6SR-20160111

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# Electric

## Automated Ball Valve Package

**Series FD9-F6  
ANSI Class 600  
Flanged Ball Valve  
Direct Mount**

Firesafe

- Sizes 1/2" - 2"
- Available in 316SST or WCB
- ANSI Class 600
- Full Port Design
- Superior Live Loaded Packing System
- Blowout Proof Stem w/ Dual Anti-Static Devices
- CTFE Seats Standard
- Pyramidal Stem Seal Design

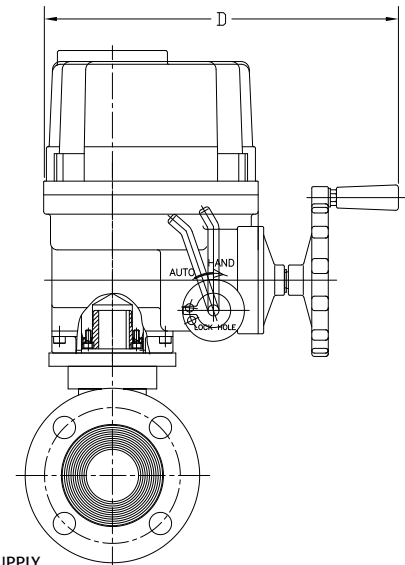
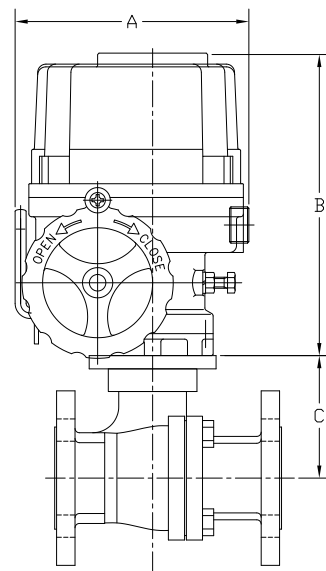
### STANDARDS

Design	ANSI/ASME B16.34
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
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**



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



### DIMENSIONS (IN)

VALVE SIZE	A	B	C	D	VALVE Cv
1/2"	5.94	5.24	1.92	4.08	28
3/4"	5.94	5.24	2.50	4.08	50
1"	5.94	5.24	2.68	4.08	95
1-1/2"	6.69	9.25	3.51	10.16	260
2"	6.69	9.25	4.33	10.16	485

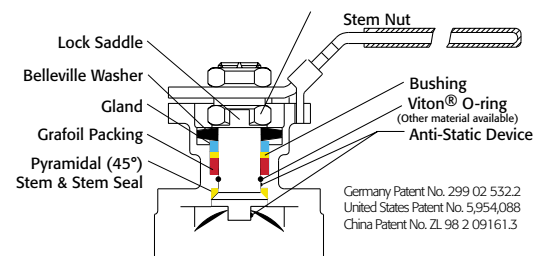
DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

**SERIES FD9-F6 600# Flanged Direct Mount**

**Firesafe**

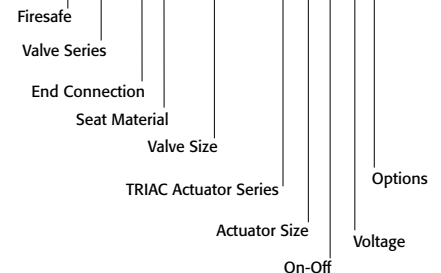
ON-OFF	
SIZE	MODEL
1/2"	FD9-6C-050/WEA1-XX
3/4"	FD9-6C-075/WEA1-XX
1"	FD9-6C-100/WEA1-XX
1-1/2"	FD9-6C-150/WEB1-XX
2"	FD9-6C-200/WEB1-XX

MODULATING	
SIZE	MODEL
1/2"	FD9-6C-050/WEA2-XX
3/4"	FD9-6C-075/WEA2-XX
1"	FD9-6C-100/WEA2-XX
1-1/2"	FD9-6C-150/WEB2-XX
2"	FD9-6C-200/WEB2-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 # FD9-6C-100/WEA1-XX



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

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

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



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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

# Other Products

## Special Seats Balls and Seal Designs



## Steam Jacketed Valves



## Floor Mounted Damper Drives



## Limit Switches Mounted on Manual Valves



## Fusible Link Assemblies



## 180° Actuators



## Lockout Mounting Kits



## Stem Extensions



## Special Multi-Port Valves



## Dual Valve Assemblies

