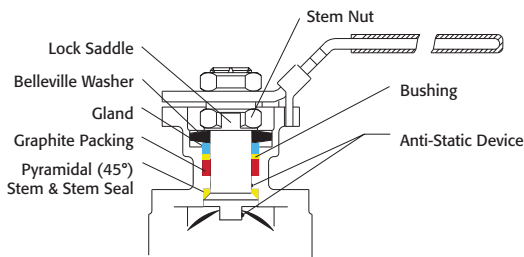


**API 607 - 6th Edition
CERTIFIED**



The F8R Series Firesafe 3-piece ball valves are the finest quality 3-piece valves on the market. The high quality investment castings feature a fully machined bore. The superior live-loaded packing system is accomplished with Belleville washers, graphite packing and a unique primary pyramidal stem seal. This advanced sealing system provides protection against stem leaks experienced by ordinary ball valves.



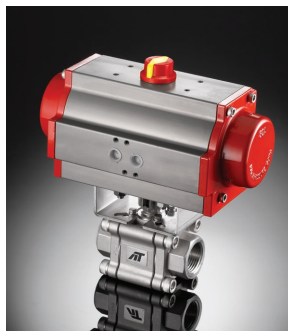
Conforms to ASME B16.34 (2020)

- SST Body - Class 260 to 600
- WCB Body - Class up to 600

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.

Easy to Automate!

See automated data sheets for pre-sized assemblies



Pneumatic



Electric



Series F8R

FIRESAFE

3-Piece Design

Sizes 1/2" - 2-1/2"

Regular Port Design

Conforms to ASME B16.34

Classes up to 600

1000 to 2000 psi (BPVC) by size

CF8M or WCB

Threaded, Socket Weld, or Butt Weld Ends

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) |
| END CONNECTIONS | ASME B16.25, B1.20.1, B16.11 |
| 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, ISO 5209 |
| MATERIAL CERTIFICATION | EN 10204-3.1 MTR |
| QUALITY ASSURANCE | ISO 9001:2015 |

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



**SERIES F8R
3-Piece**

Firesafe

Series F8R

API 607 - 6th Edition
CERTIFIED

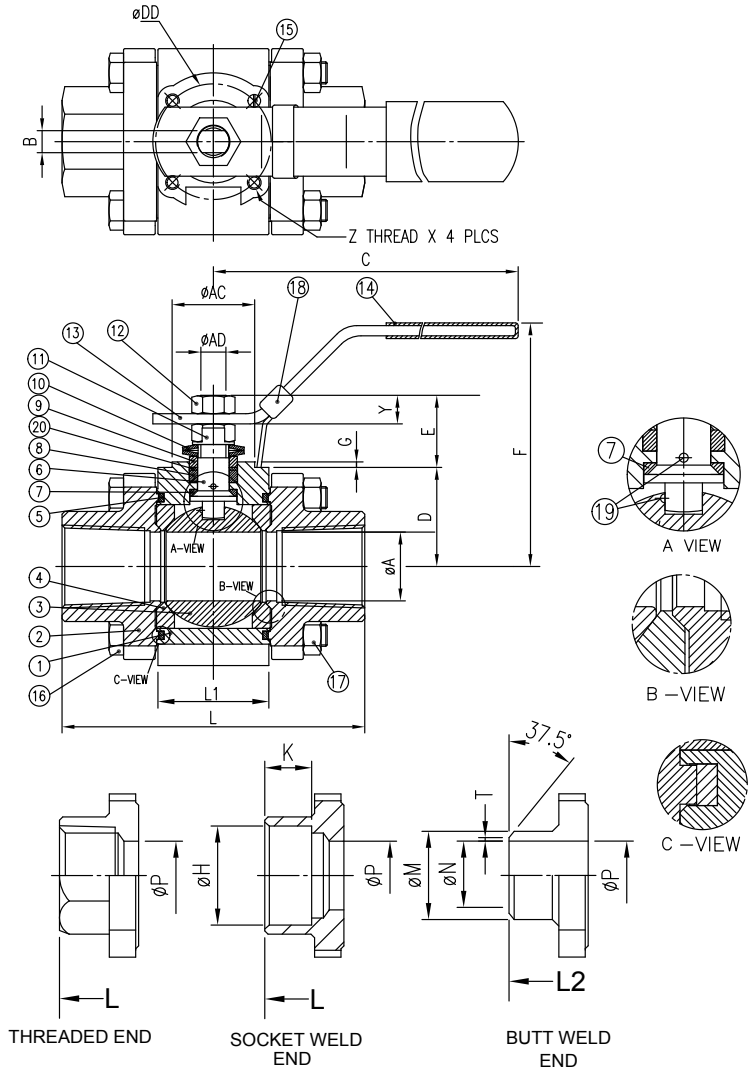
High Performance, Regular Port
3-Piece Ball Valve
ISO 5211 Mounting Pad

Class up to 600
960 to 1480 psi (by size)
1/2" to 2-1/2"

MATERIALS LIST

| NO. | PART NAME | QTY | STAINLESS STEEL | CARBON STEEL | REPAIR KIT |
|-----|--------------------|-----|---------------------------------------|---------------------------------------|------------|
| 1 | BODY | 1 | ASTM A351 GRADE CF8M | ASTM A216 GRADE WCB | |
| 2 | TH END CAP | 2 | ASTM A351 GRADE CF8M | ASTM A216 GRADE WCB | |
| 2 | SW/BW END CAP | 2 | ASTM A351 GRADE CF3M | ASTM A216 GRADE WCB | |
| 3 | BALL | 1 | 1/4" THRU 3/8" ASTM A276 SS 316 | 1/4" THRU 3/8" ASTM A276 SS 316 | |
| 3 | BALL | 1 | 1/2" THRU 2-1/2" ASTM A351 GRADE CF8M | 1/2" THRU 2-1/2" ASTM A351 GRADE CF8M | |
| 4 | SEAT | 2 | RTFE | RTFE | ✓ |
| 5 | JOINT GASKET | 2 | GRAPHITE | GRAPHITE | ✓ |
| 6 | STEM | 1 | ASTM A276 SS 316 | ASTM A276 SS 316 | |
| 7 | STEM SEAL | 1 | TFM™-1600 | TFM™-1600 | ✓ |
| 8 | STEM PACKING | 1 | GRAPHITE | GRAPHITE | ✓ |
| 9 | GLAND BUSHING | 1 | AISI 304 | AISI 304 | |
| 10 | BELLEVILLE WASHER | 2 | AISI 301 | AISI 301 | |
| 11 | LOCK SADDLE | 1 | AISI 304 | AISI 304 | |
| 12 | STEM NUT | 2 | AISI 304 | AISI 304 | |
| 13 | HANDLE | 1 | AISI 304 | AISI 304 | |
| 14 | HANDLE SLEEVE | 1 | VINYL | VINYL | |
| 15 | STOP BOLT | 1 | AISI 304 | AISI 304 | |
| 16 | BODY BOLT | * | ASTM A193 GRADE B8M | ASTM A193 GRADE B7M | |
| 17 | BOLT NUT | * | ASTM A194 GRADE 8M | ASTM A194 GRADE 2HM | |
| 18 | HANDLE LOCK | 1 | AISI 304 | AISI 304 | |
| 19 | ANTI-STATIC DEVICE | 2 | AISI 316 | AISI 316 | |
| 20 | GLAND WASHER | 1 | RTFE | RTFE | ✓ |

*1/4" THRU 2" - 4 PCS.
* 2-1/2" - 6 PCS.



DIMENSIONS (IN)

| SIZE | A | AC | AD | B | C | D | DD | E | F | G | H | K | L | L1 | L2 | M | N | P | T | Y | Z | ISO 5211 | LBS |
|--------|------|------|------|-------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|----|----------|------|
| 1/2" | 0.39 | 0.98 | 0.37 | 0.256 | 5.28 | 1.17 | 1.417 | 0.29 | 2.53 | 0.02 | 0.86 | 0.39 | 2.55 | 0.81 | 2.55 | 0.85 | 0.62 | 0.39 | 0.06 | 0.24 | M5 | F03 | 1.5 |
| 3/4" | 0.59 | 0.98 | 0.37 | 0.256 | 5.28 | 1.14 | 1.417 | 0.63 | 2.81 | 0.08 | 1.07 | 0.51 | 2.85 | 0.96 | 2.94 | 1.07 | 0.83 | 0.59 | 0.06 | 0.29 | M5 | F03 | 1.9 |
| 1" | 0.79 | 0.98 | 0.37 | 0.256 | 5.28 | 1.30 | 1.417 | 0.71 | 2.99 | 0.08 | 1.33 | 0.51 | 3.36 | 1.24 | 3.54 | 1.34 | 1.05 | 0.79 | 0.06 | 0.35 | M5 | F03 | 3.2 |
| 1-1/4" | 0.98 | 1.18 | 0.44 | 0.315 | 6.69 | 1.56 | 1.654 | 0.97 | 3.39 | 0.08 | 1.69 | 0.51 | 4.15 | 1.63 | 4.31 | 1.68 | 1.38 | 0.98 | 0.06 | 0.43 | M5 | F04 | 4.0 |
| 1-1/2" | 1.26 | 1.18 | 0.44 | 0.315 | 6.69 | 1.79 | 1.654 | 1.00 | 3.65 | 0.08 | 1.93 | 0.51 | 4.37 | 1.91 | 4.5 | 1.91 | 1.61 | 1.26 | 0.06 | 0.43 | M5 | F04 | 5.7 |
| 2" | 1.50 | 1.38 | 0.56 | 0.382 | 8.15 | 2.09 | 1.969 | 1.19 | 4.30 | 0.07 | 2.41 | 0.63 | 5.01 | 2.22 | 5.12 | 2.38 | 2.07 | 1.50 | 0.06 | 0.48 | M6 | F05 | 8.1 |
| 2-1/2" | 1.97 | 1.38 | 0.56 | 0.382 | 8.15 | 2.74 | 1.969 | 1.02 | 4.79 | 0.06 | 2.91 | 0.63 | 5.71 | 2.81 | 5.71 | 3.00 | 2.59 | 1.97 | 0.08 | 0.50 | M6 | F05 | 12.0 |

A-T Controls reserves the right to change product designs and technical/dimensional specifications without notice.

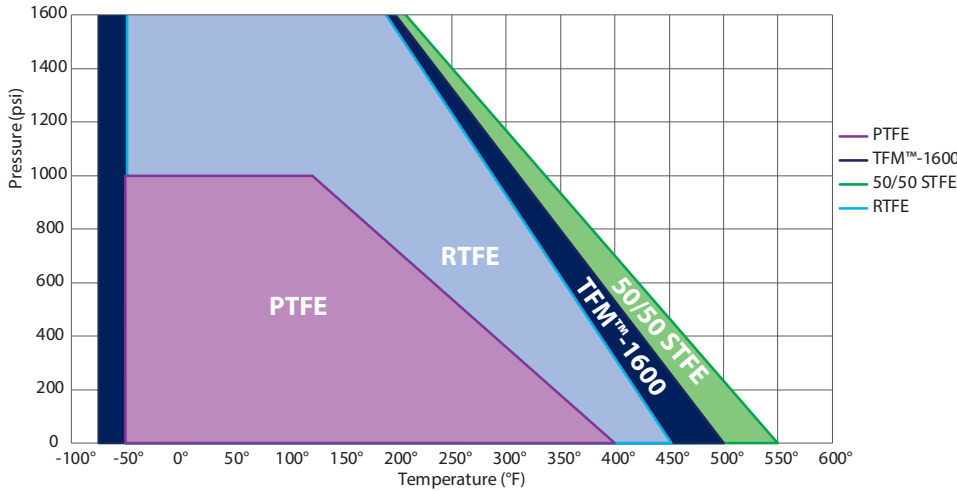
**High Performance, Regular Port
3-Piece Ball Valve
ISO 5211 Mounting Pad**

**Class up to 600
960 to 1480 psi (by size)
1/2" to 2-1/2"**

Series F8R

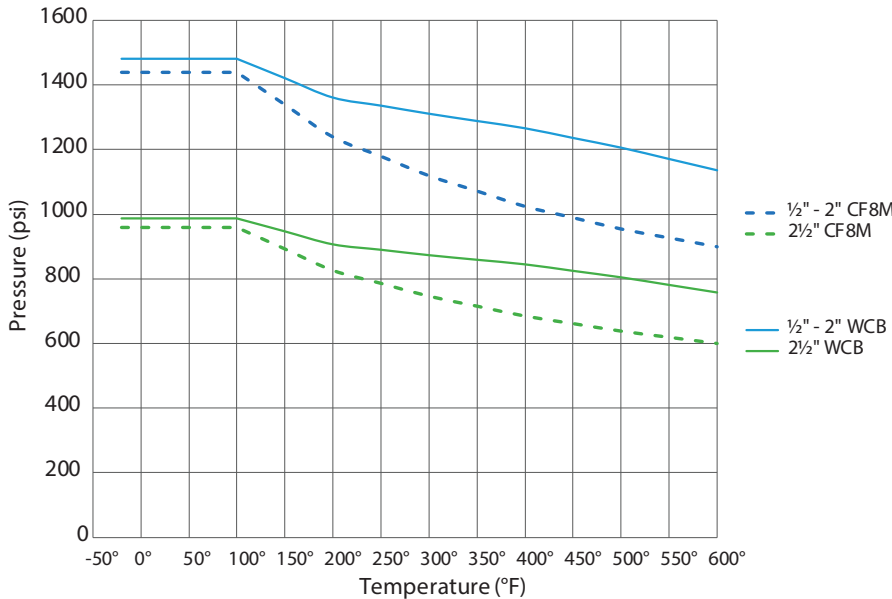
**API 607 - 6th Edition
CERTIFIED**

Pressure vs. Temperature | Series F8R 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 F8R Body & End Cap Pressure Ratings



| Pressure Class/Rating | | |
|-----------------------|---------------------------------|-----------------------------------|
| Size | ASME B16.34-2020 Pressure Class | BPVC*-2019 Pressure Rating (psig) |
| 1/2" - 1" | 600 | 2000 |
| 1 1/4" - 1 1/2" | 600 | 1500 |
| 2" | 600 | 1500 |
| 2 1/2" | 400 | 1500 |

*ASME Boiler Pressure Vessel Code

| Pressure Class B16.34 (2020) | | | | |
|------------------------------|-------|--------------|-------|--------------|
| Size | CF8M | | WCB | |
| | Class | Rating (psi) | Class | Rating (psi) |
| 1/2" | 600 | 1440 | 600 | 1480 |
| 3/4" | 600 | 1440 | 600 | 1480 |
| 1" | 600 | 1440 | 600 | 1480 |
| 1 1/4" | 600 | 1440 | 600 | 1480 |
| 1 1/2" | 600 | 1440 | 600 | 1480 |
| 2" | 600 | 1440 | 600 | 1480 |
| 2 1/2" | 400 | 960 | 400 | 986 |

Break Away Torque for RTFE Seats

| SIZE | IN-LBS. |
|--------|---------|
| 1/2" | 58 |
| 3/4" | 58 |
| 1" | 83 |
| 1 1/4" | 120 |
| 1 1/2" | 171 |
| 2" | 235 |
| 2 1/2" | 398 |

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

Cv

| SIZE | Cv |
|--------|-----|
| 1/2" | 9 |
| 3/4" | 15 |
| 1" | 42 |
| 1 1/4" | 45 |
| 1 1/2" | 125 |
| 2" | 165 |
| 2 1/2" | 245 |

F8R Component Temperature Ratings

| Component | Material | Temperature |
|-----------------------------------|-----------------|------------------|
| Packing | Graphite | -100°F to 1000°F |
| Stem Seal | TFM™-1600 | -75°F to 500°F |
| Gaskets | Graphite | -100°F to 1000°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 |

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

Pneumatic Double Acting

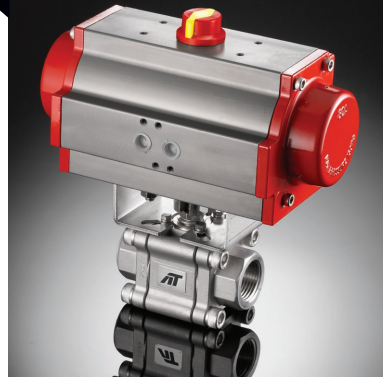
Automated Ball Valve Package
Series F8R
3-Piece Ball Valve

Firesafe
Sizes 1/2" - 2-1/2"
Regular Port Design
Conforms to ASME B16.34
Classes up to 600
1000 to 2000 psi (BPVC) by size
CF8M or WCB
Threaded, Socket Weld, or Butt Weld Ends
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

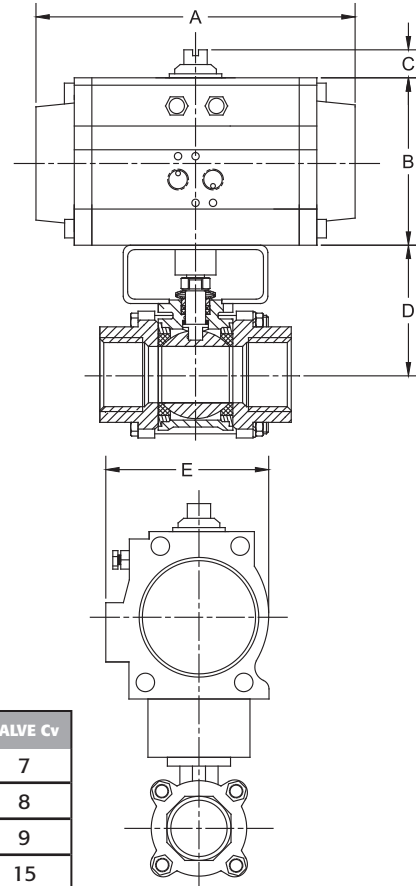
STANDARDS

| | |
|---------------------------|------------------------------|
| DESIGN | ASME B16.34 (fully conforms) |
| END CONNECTIONS | ASME B16.25, B1.20.1, B16.11 |
| 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, ISO 5209 |
| MATERIAL CERTIFICATION | EN 10204-3.1 MTR |
| QUALITY ASSURANCE | ISO 9001:2015 |

**API 607 - 6th Edition
CERTIFIED**



Firesafe tested to API-607 (valve only)



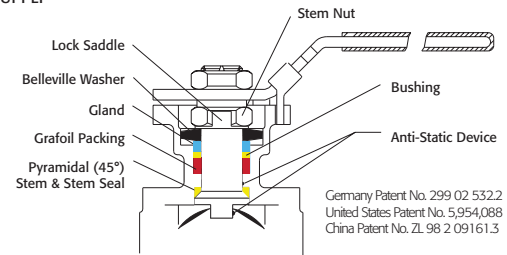
DIMENSIONS (IN)

| VALVE SIZE | A | B | C | D | E | VALVE Cv |
|------------|-------|------|------|------|------|----------|
| 1/4" | 5.98 | 2.76 | 0.79 | 2.65 | 2.58 | 7 |
| 3/8" | 5.98 | 2.76 | 0.79 | 2.65 | 2.58 | 8 |
| 1/2" | 5.98 | 2.76 | 0.79 | 2.65 | 2.58 | 9 |
| 3/4" | 7.95 | 3.43 | 0.79 | 2.65 | 3.29 | 15 |
| 1" | 7.95 | 3.43 | 0.79 | 2.78 | 3.29 | 42 |
| 1-1/4" | 7.95 | 3.43 | 0.79 | 2.90 | 3.29 | 45 |
| 1-1/2" | 9.29 | 4.49 | 0.79 | 3.13 | 4.41 | 125 |
| 2" | 9.29 | 4.49 | 0.79 | 3.42 | 4.41 | 165 |
| 2-1/2" | 10.87 | 4.88 | 0.79 | 4.30 | 4.82 | 245 |

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

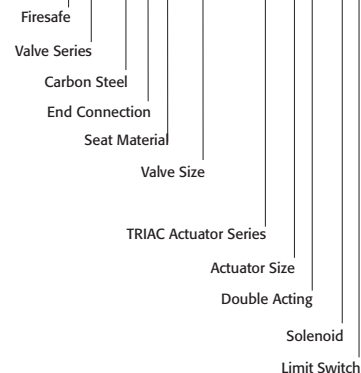
| SIZED FOR 80 psi AIR SUPPLY | |
|-----------------------------|--------------------|
| SIZE | MODEL |
| 1/4" | F8R-TX-025/TR1D-XX |
| 3/8" | F8R-TX-038/TR1D-XX |
| 1/2" | F8R-TX-050/TR1D-XX |
| 3/4" | F8R-TX-075/2R2D-XX |
| 1" | F8R-TX-100/2R2D-XX |
| 1-1/4" | F8R-TX-125/2R2D-XX |
| 1-1/2" | F8R-TX-150/2R3D-XX |
| 2" | F8R-TX-200/2R3D-XX |
| 2-1/2" | F8R-TX-250/2R4D-XX |

| SIZED FOR 60 psi AIR SUPPLY | |
|-----------------------------|--------------------|
| SIZE | MODEL |
| 1/4" | F8R-TX-025/TR1D-XX |
| 3/8" | F8R-TX-038/TR1D-XX |
| 1/2" | F8R-TX-050/TR1D-XX |
| 3/4" | F8R-TX-075/2R2D-XX |
| 1" | F8R-TX-100/2R2D-XX |
| 1-1/4" | F8R-TX-125/2R2D-XX |
| 1-1/2" | F8R-TX-150/2R3D-XX |
| 2" | F8R-TX-200/2R4D-XX |
| 2-1/2" | F8R-TX-250/2R4D-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 # F8RC-TX-100/2R2D-XX



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

OPTIONS

| DESCRIPTION | PART NO. SUFFIX | DESCRIPTION | PART NO. SUFFIX |
|-----------------------------|-----------------|---------------------------------|-----------------|
| TYPE 4 Solenoid | (A) | TYPE 4 Limit Switch (2) spdt | (A) |
| TYPE 7 Solenoid | (B) | TYPE 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.

SERIES F8R 3-Piece

Firesafe

Pneumatic Spring Return

Automated Ball Valve Package

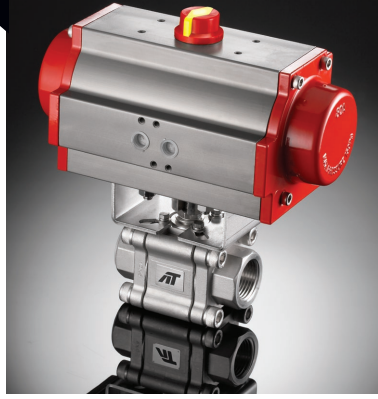
Series F8R
3-Piece Ball Valve

- Firesafe
- Sizes 1/2" - 2-1/2"
- Regular Port Design
- Conforms to ASME B16.34
- Classes up to 600
- 1000 to 2000 psi (BPVC) by size
- CF8M or WCB
- Threaded, Socket Weld, or Butt Weld Ends
- 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

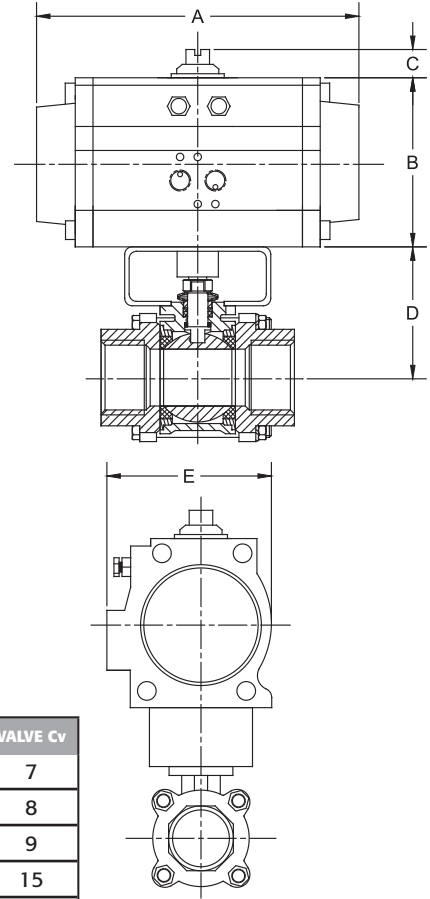
STANDARDS

| | |
|---------------------------|------------------------------|
| DESIGN | ASME B16.34 (fully conforms) |
| END CONNECTIONS | ASME B16.25, B1.20.1, B16.11 |
| 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, ISO 5209 |
| MATERIAL CERTIFICATION | EN 10204-3.1 MTR |
| QUALITY ASSURANCE | ISO 9001:2015 |

**API 607 - 6th Edition
CERTIFIED**



Firesafe tested to API-607
(valve only)



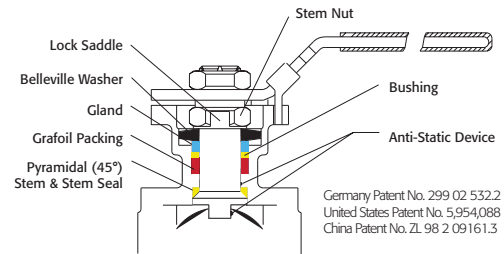
DIMENSIONS (IN)

| VALVE SIZE | A | B | C | D | E | VALVE Cv |
|------------|-------|------|------|------|------|----------|
| 1/4" | 7.95 | 3.43 | 0.79 | 2.65 | 3.29 | 7 |
| 3/8" | 7.95 | 3.43 | 0.79 | 2.65 | 3.29 | 8 |
| 1/2" | 7.95 | 3.43 | 0.79 | 2.65 | 3.29 | 9 |
| 3/4" | 7.95 | 3.43 | 0.79 | 2.62 | 3.29 | 15 |
| 1" | 9.29 | 4.49 | 0.79 | 2.78 | 4.41 | 42 |
| 1-1/4" | 9.29 | 4.49 | 0.79 | 2.90 | 4.41 | 45 |
| 1-1/2" | 9.29 | 4.49 | 0.79 | 3.13 | 4.41 | 125 |
| 2" | 10.87 | 4.88 | 0.79 | 3.42 | 4.82 | 165 |
| 2-1/2" | 11.46 | 5.28 | 0.79 | 4.30 | 5.20 | 245 |

DIMENSIONS SHOWN ARE FOR ASSEMBLIES SIZED FOR 80 PSI SUPPLY

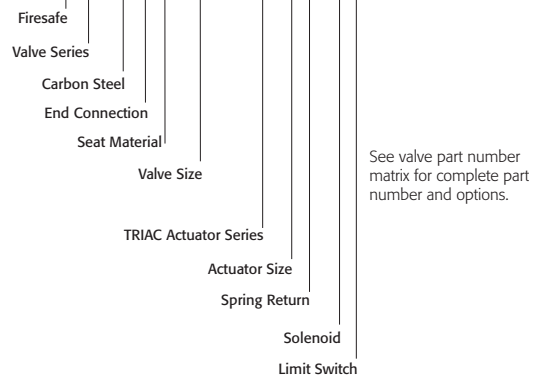
| SIZED FOR 80 psi AIR SUPPLY | |
|--------------------------------|--------------------|
| SIZE | MODEL |
| 1/4" | F8R-TX-025/2R2S-XX |
| 3/8" | F8R-TX-038/2R2S-XX |
| 1/2" | F8R-TX-050/2R2S-XX |
| 3/4" | F8R-TX-075/2R3S-XX |
| 1" | F8R-TX-100/2R3S-XX |
| 1-1/4" | F8R-TX-125/2R3S-XX |
| 1-1/2" | F8R-TX-150/2R3S-XX |
| 2" | F8R-TX-200/2R4S-XX |
| 2-1/2" | F8R-TX-250/2R5S-XX |

| SIZED FOR 60 psi AIR SUPPLY | |
|--------------------------------|--------------------|
| SIZE | MODEL |
| 1/4" | F8R-TX-025/2R2S-XX |
| 3/8" | F8R-TX-038/2R2S-XX |
| 1/2" | F8R-TX-050/2R2S-XX |
| 3/4" | F8R-TX-075/2R3S-XX |
| 1" | F8R-TX-100/2R3S-XX |
| 1-1/4" | F8R-TX-125/2R3S-XX |
| 1-1/2" | F8R-TX-150/2R4S-XX |
| 2" | F8R-TX-200/2R4S-XX |
| 2-1/2" | F8R-TX-250/2R6S-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 # F8RC-TX-050/2R2S-XX



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

OPTIONS

| DESCRIPTION | PART NO. SUFFIX | DESCRIPTION | PART NO. SUFFIX |
|-----------------------------|-----------------|---------------------------------|-----------------|
| TYPE 4 Solenoid | (A) | TYPE 4 Limit Switch (2) spdt | (A) |
| TYPE 7 Solenoid | (B) | TYPE 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 F8R
3-Piece Ball Valve

- Firesafe
- Sizes 1/2"- 2-1/2"
- Regular Port Design
- Conforms to ASME B16.34
- Classes up to 600
- 1000 to 2000 psi (BPVC) by size
- CF8M or WCB
- Threaded, Socket Weld, or Butt Weld Ends
- 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

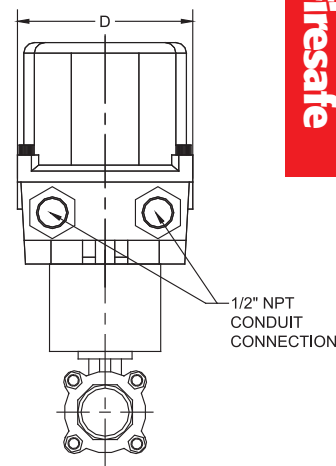
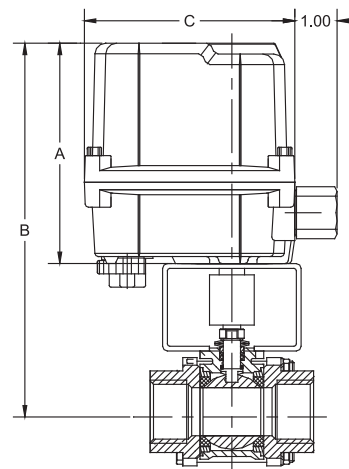
STANDARDS

| | |
|---------------------------|------------------------------|
| DESIGN | ASME B16.34 (fully conforms) |
| END CONNECTIONS | ASME B16.25, B1.20.1, B16.11 |
| 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, ISO 5209 |
| MATERIAL CERTIFICATION | EN 10204-3.1 MTR |
| QUALITY ASSURANCE | ISO 9001:2015 |

**API 607 - 6th Edition
CERTIFIED**



Firesafe tested to API-607 (valve only)



DIMENSIONS (IN)

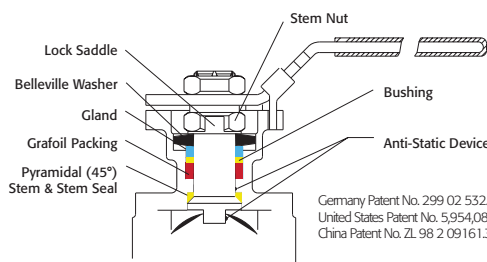
| VALVE SIZE | A | B | C | D | VALVE Cv |
|------------|------|------|------|------|----------|
| 1/4" | 5.24 | 7.89 | 4.94 | 4.08 | 7 |
| 3/8" | 5.24 | 7.89 | 4.94 | 4.08 | 8 |
| 1/2" | 5.24 | 7.89 | 4.94 | 4.08 | 9 |
| 3/4" | 5.24 | 7.89 | 4.94 | 4.08 | 15 |
| 1" | 5.24 | 8.02 | 4.94 | 4.08 | 42 |
| 1-1/4" | 5.24 | 8.14 | 4.94 | 4.08 | 45 |
| 1-1/2" | 5.24 | 8.29 | 4.94 | 4.08 | 125 |
| 2" | 5.24 | 8.66 | 4.94 | 4.08 | 165 |
| 2-1/2" | 5.24 | 9.54 | 4.94 | 4.08 | 245 |

| ON-OFF | |
|--------|--------------------|
| SIZE | MODEL |
| 1/4" | F8R-TX-025/WEA1-XX |
| 3/8" | F8R-TX-038/WEA1-XX |
| 1/2" | F8R-TX-050/WEA1-XX |
| 3/4" | F8R-TX-075/WEA1-XX |
| 1" | F8R-TX-100/WEA1-XX |
| 1-1/4" | F8R-TX-125/WEA1-XX |
| 1-1/2" | F8R-TX-150/WEA1-XX |
| 2" | F8R-TX-200/WEA1-XX |
| 2-1/2" | F8R-TX-250/WEA1-XX |

| MODULATING | |
|------------|--------------------|
| SIZE | MODEL |
| 1/4" | F8R-TX-025/WEA2-XX |
| 3/8" | F8R-TX-038/WEA2-XX |
| 1/2" | F8R-TX-050/WEA2-XX |
| 3/4" | F8R-TX-075/WEA2-XX |
| 1" | F8R-TX-100/WEA2-XX |
| 1-1/4" | F8R-TX-125/WEA2-XX |
| 1-1/2" | F8R-TX-150/WEA2-XX |
| 2" | F8R-TX-200/WEA2-XX |
| 2-1/2" | F8R-TX-250/WEA2-XX |

| 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.



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

**MANUAL VALVE
SAMPLE PART #
F8RC-TH-0200-XXX-X-__**

- (1) Prefix
- (2) Valve Series
- (3) Body/Ball/Stem Material
- (4) End Connection
- (5) Valve Size
- (6) Seat, Lining & Trim Material
- (7) Special Designation
- (8) Additional Specials
- (9,10,11) Options

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

HOW TO ORDER: Manual Valves w/ Options

Series F8R

API 607 - 6th Edition
CERTIFIED

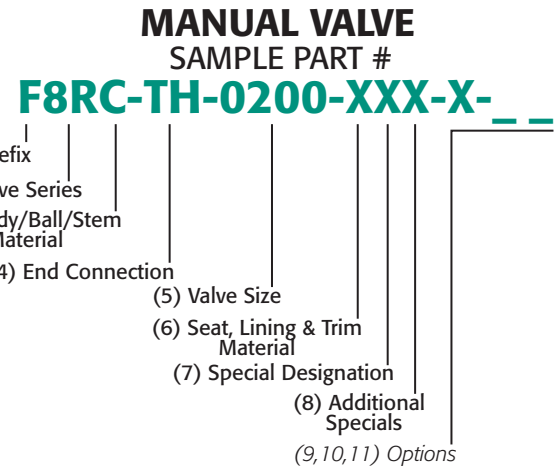
| 1 | Prefix |
|---|-----------------|
| F | Firesafe Tested |

| 2 | Valve Series |
|----|----------------------------------|
| 8R | 3 pc. 2000 psi max, Regular Port |

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

| 4 | End Connection |
|----|-----------------------------|
| TH | NPT Ends |
| SW | Socket Weld Ends |
| BW | Butt Weld Ends |
| EW | Extended Butt Weld Ends |
| TE | NPT x Extended Butt Weld |
| TS | NPT x Socket Weld |
| TB | NPT x Butt Weld |
| XX | Configurable End Connection |

| 5 | Valve Size | |
|------|------------|-------------|
| 0050 | 1/2" | 0150 1-1/2" |
| 0075 | 3/4" | 0200 2" |
| 0100 | 1" | 0250 2-1/2" |
| 0125 | 1-1/4" | |



| 6 | Seat, Lining & Trim Materials |
|---|--|
| X | Reinforced TFE Seats (RTFE) |
| P | Virgin TFE Seats (PTFE) |
| S | 50/50 STFE Seats |
| C | 25% CS Powder/75% TFE Seats (CTFE) |
| T | TFM™-1600 Seats |
| E | All TFM™-1600 Seats, Seals, & Packing |
| A | 50% SS Powder/50% TFM™-1600 Seats (STFM) |

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

| 7 | Special Designation |
|---|-----------------------------------|
| X | No Specials/Series Standard |
| G | Gear Operator |
| H | Gear Operator w/ 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 |
| 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 |
| H | Hard Coated (HMF) Ball |

| 10 | O-Ring |
|-------|---------------------------------------|
| Blank | No Designation, Valve Series Standard |
| X | Multiple Option Designation |

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

HOW TO ORDER: Automated Valves

| 1 | Prefix |
|---|-----------------|
| F | Firesafe Tested |

| 2 | Valve Series |
|----|-----------------------------------|
| 8R | 3 pc. 2000/1500 psi, Regular Port |

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

| 4 | End Connection |
|---|-------------------------|
| T | NPT Ends |
| S | Socket Weld Ends |
| B | Butt Weld Ends |
| E | Extended Butt Weld Ends |
| M | NPT x Socket Weld |
| P | NPT x Butt Weld |

| 5 | Seat, Lining & Trim Materials |
|---|--|
| X | Reinforced TFE Seats (RTFE) |
| P | Virgin TFE Seats (PTFE) |
| S | 50/50 STFE Seats |
| C | 25% CS Powder/75% TFE Seats (CTFE) |
| T | TFM™-1600 Seats |
| E | All TFM™-1600 Seats, Seals, & Packing |
| A | 50% SS Powder/50% TFM™-1600 Seats (STFM) |

| 6 | Valve Size | |
|-----|------------|------------|
| 025 | 1/4" | 125 1-1/4" |
| 038 | 3/8" | 150 1-1/2" |
| 050 | 1/2" | 200 2" |
| 075 | 3/4" | 250 2-1/2" |
| 100 | 1" | |

| 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 | TVCG-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 | TVCG-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 | |

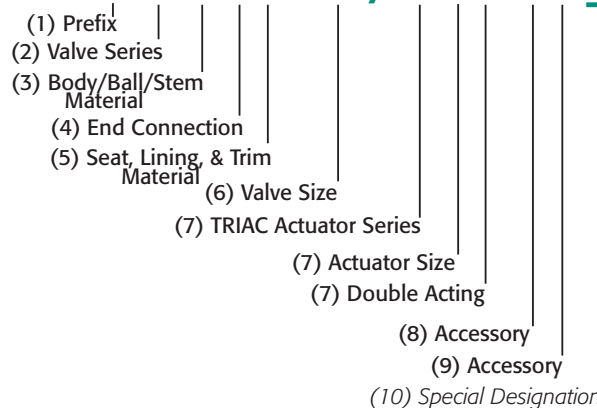
| 10 | Special Designation |
|-------|--------------------------|
| Blank | No Designation, SST Stem |

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

AUTOMATED VALVE

SAMPLE PART #

F8RC-TX-100/2R3D-XX-



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