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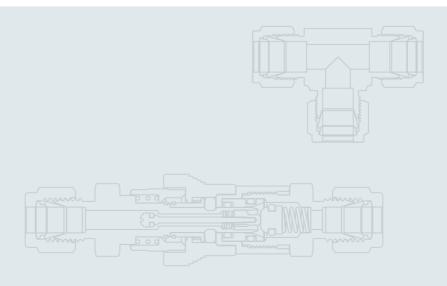
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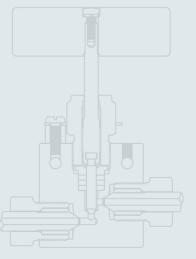
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Fittings

6 Series Tube Fittings



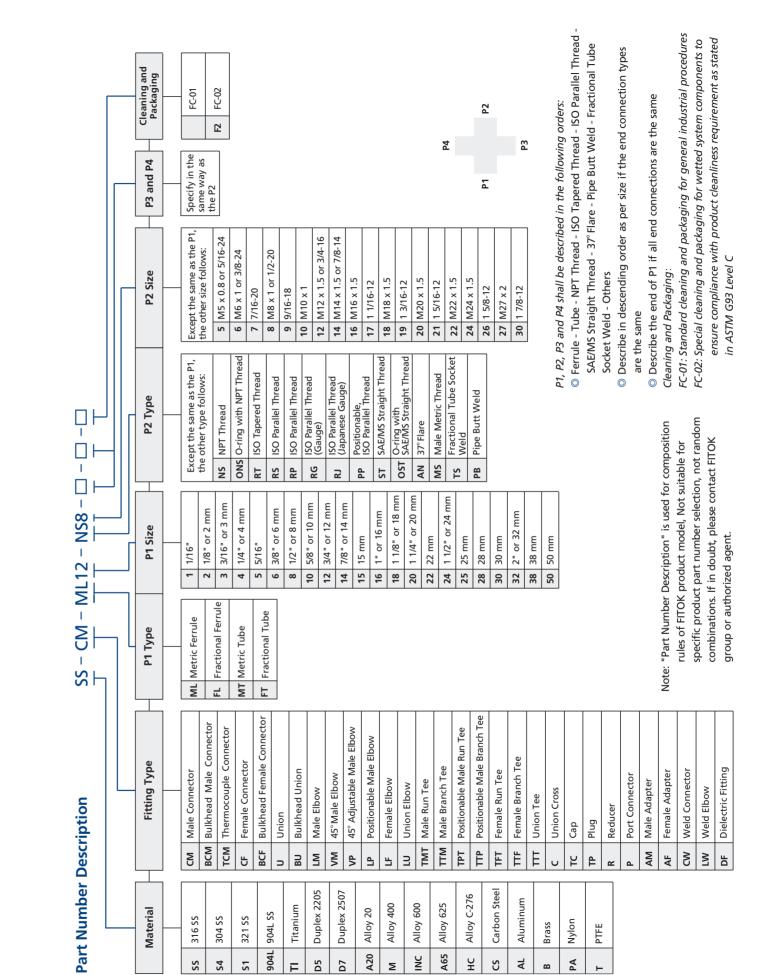
- \odot Sizes range from 1/16" to 2" and 2 mm to 50 mm.
- O Diverse materials and configurations are available.
- O Precision machined components ensure perfect deformation of the ferrules and tubing.
- O Hardened threads and smoothed surface finishes extend fitting life and prevent sticking of the matching threads.
- © Female nut threads are silver-plated to minimize the friction with body threads.
- O Radius junction design within elbows provides smooth
- © Every fitting is stamped with size, material, and heat code.
- © Fittings are easy to disconnect and retighten.

Configuration	Fitting Type	Example
	Male Connector	SS-CM-ML12-NS8
	Bulkhead Male Connector	S4-BCM-FL8-AN8
	Thermocouple Connector	S1-TCM-FL8-NS8
	Female Connector	B-CF-FL8-RG6
	Bulkhead Female Connector	CS-BCF-ML12-NS8
	Union	M-U-FL12
	Bulkhead Union	HC-BU-ML10
	Male Elbow	T-LM-FL8-NS8

Configuration	Fitting Type	Example
	Positionable Male Elbow	TI-LP-ML14-ST14
	Female Elbow	PA-LF-FL8-NS8
	Union Elbow	INC-LU-FL8
	Male Run Tee	A20-TMT-FL8-NS8
	Male Branch Tee	D5-TTM-ML16-NS8
	Positionable Male Run Tee	AL-TPT-FL8-ST14
	Positionable Male Branch Tee	A65-TTP-FL8-PP8
	Female Run Tee	SS-TFT-FL8-NS8
	Female Branch Tee	SS-TTF-ML12-NS8
	Union Tee	SS-TTT-FL6
	Union Cross	SS-C-FL8
	Сар	SS-TC-FL8
	Plug	SS-TP-ML12
	Nut+Ferrules	SS-NFR-FL8

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Configuration	Fitting Type	Example
	Reducer	SS-R-FL8-MT12
	Insert for Soft Plastic Tubing	SS-IN-8-6
over 25mm	Port Connector	SS-P-FL4
over 25mm	Male Adapter	SS-AM-FT8-RT8
over 25mm	Female Adapter	SS-AF-MT12-NS8
	Flange Adapter	SS-FA-FL6-F8-300
	Weld Connector	SS-CW-FL8-TS8
	Weld Elbow	SS-LW-FL8-PB8
	Lapped Flange Connector	SS-LFC-FL6A
	Calibration Fitting	SS-FC-FL4-1428
	Dielectric Fitting	SS-DF-FL6
	Nut-Ferrule Set	SS-NFS-FL6
	Ferrule Set	SS-FRS-FL6
	45° Male Elbow	SS-VM-FL5-NS2
	45° Adjustable Male Elbow	SS-VP-FL16-ST21
	Vent Protector	SS-VPF-NS12
	Fusible Fittings	SS-GFTA-4-160



Fittings / 37° Flared

37° Flared Tube Fittings

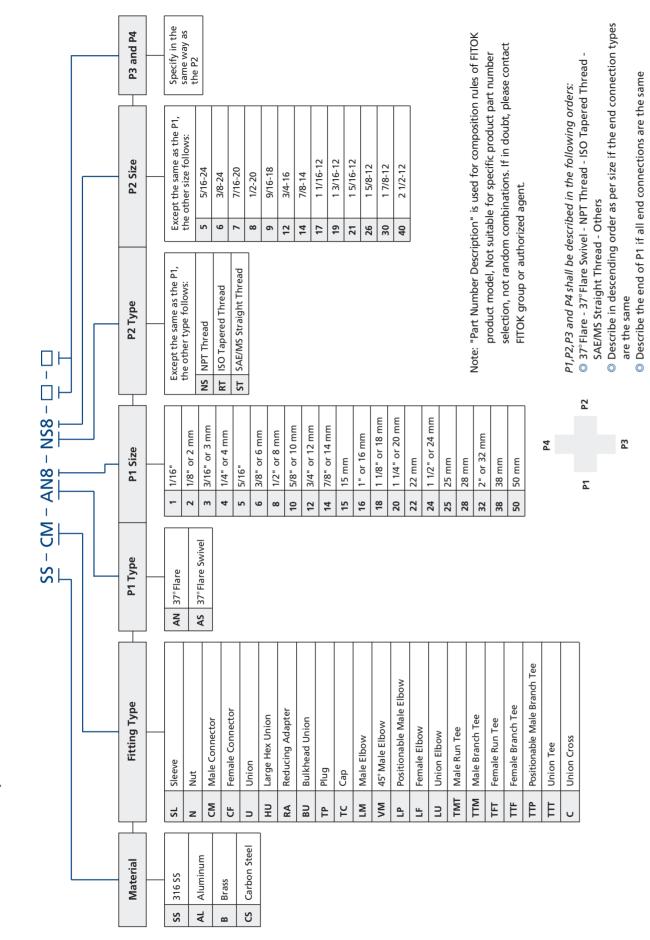


- © Fittings are designed and manufactured in compliance with SAE J514.
- © 316 stainless steel, aluminum, brass, and carbon steel materials are available.
- O Hardened threads and smoothed surface finishes extend fitting life and prevent sticking of the matching threads.
- © Radius junction design within elbows provides smooth flow path.
- © Every fitting is stamped with size, material and heat code.
- © Female nut threads are silver-plated to minimize the friction with body threads.
- © Fittings are easy to disconnect and retighten.

Configuration	Fitting Type	Example
	Sleeve	SS-SL-AN8
	Nut	AL-N-AN8
	Male Connector	B-CM-AN8-NS8
	Female Connector	CS-CF-AN8-RT6
	Union	SS-U-AN8
	Reducing Adapter	SS-RA-AN8-AN4
	Bulkhead Union	SS-BU-AN6
	Tube Plug	SS-TP-AN6
	Tube Cap	SS-TC-AN6

Configuration	Fitting Type	Example
	Male Elbow	SS-LM-AN8-NS4
	Positionable Male Elbow	SS-LP-AN10-ST14
	45° Male Elbow	SS-VM-AN8-NS6
	Female Elbow	SS-LF-AN8-NS6
	Union Elbow	SS-LU-AN4
	Male Branch Tee	SS-TTM-AN8-NS4
	Male Run Tee	SS-TMT-AN8-RT4
	Female Branch Tee	SS-TTF-AN8-RT4
	Female Run Tee	SS-TFT-AN8-NS4
	Union Tee	SS-TTT-AN8
	Union Cross	SS-C-AN12

Part Number Description



6 Series Pipe Fittings

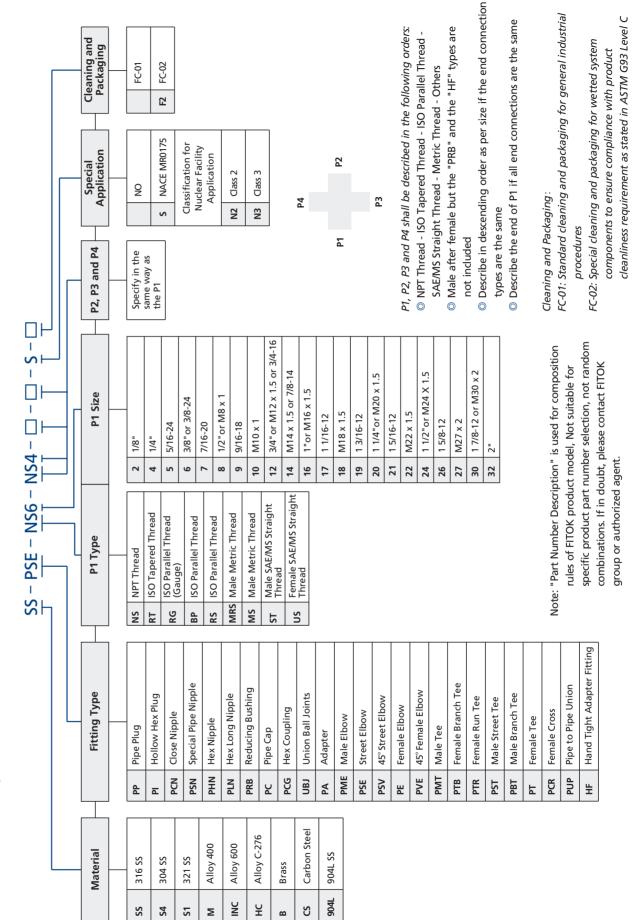


- O Sizes range from 1/16 to 2.
- Materials include stainless steel, alloy 400, alloy 600, brass, and carbon steel.
- End connections with NPT, ISO/BSP, SAE, and metric threads are available.
- O Hardened threads and smoothed surface finishes extend fitting life and prevent sticking of the matching threads.
- Radius junction design within elbows provides smooth flow path.
- © Every fitting is stamped with size, materia, and heat code.

Configuration	Fitting Type	Example
	Pipe Plug	SS-PP-MRS14
	Hollow Hex Plug	S4-PI-NS4
	Close Nipple	S1-PCN-RT6
	Special Pipe Nipple	M-PSN-NS6-50.8
	Hex Nipple	INC-PHN-NS8-RP8
	Hex Long Nipple	B-PLN-NS6-76.2
	Reducing Bushing	CS-PRB-NS8-RT4
	Pipe Cap	SS-PC-NS4
	Hex Coupling	SS-PCG-NS12-NS8
	Union Ball Joint	SS-UBJ-NS4

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Configuration	Fitting Type	Example
	Adapter	SS-PA-NS8-ST12
	Male Elbow	SS-PME-NS6
	Street Elbow	SS-PSE-RT6-RT4
	45° Street Elbow	SS-PSV-NS6-NS4
	Female Elbow	SS-PE-NS6
	45° Female Elbow	SS-PVE-NS6
	Male Tee	SS-PMT-NS4
	Female Branch Tee	SS-PTB-NS6
	Female Run Tee	SS-PTR-RT6
	Male Street Tee	SS-PST-NS6
	Male Branch Tee	SS-PBT-NS6
	Female Tee	SS-PT-RT8
	Female Cross	SS-PCR-NS6
	Pipe to Pipe Union	SS-PUP-MS20-NS4
	Hand Tight Adapter Fitting	SS-HF-MS20-FMS20
	Fusible Fittings	SS-GFPP-4-160



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Part Number Description

6 Series Weld Fittings

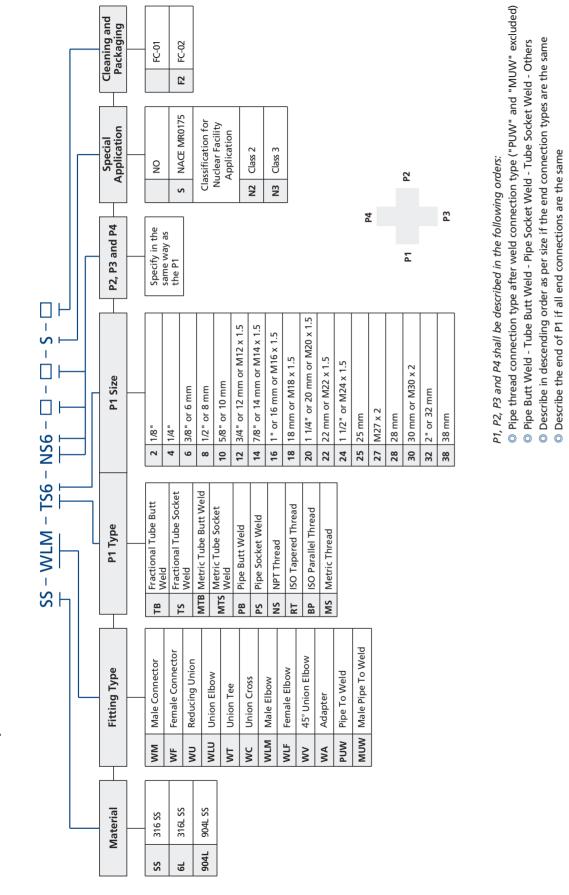


- © 316 stainless steel material is standard; other materials are available on request.
- O Radius junction design within elbows provides smooth
- Maximum working temperature is 1000° F (538°C).
- © Every fitting is stamped with size, material, and heat code.

Configuration	Fitting Type	Example
	Tube Butt Weld Male Connector	SS-WM-TB12-NS8
	Tube Butt Weld Female Connector	SS-WF-MTB14-NS8
	Tube Butt Weld Reducing Union	SS-WU-MTB20-MTB14
	Tube Butt Weld Union Elbow	SS-WLU-TB8
	Tube Butt Weld Union Tee	SS-WT-MTB14
	Tube Butt Weld Union Cross	SS-WC-MTB12
	Tube Socket Weld Male Connector	SS-WM-TS8-NS8
	Tube Socket Weld Female Connector	SS-WF-MTS14-NS4
	Tube Socket Weld Male Elbow	SS-WLM-TS6-NS6
	Tube Socket Weld Female Elbow	SS-WLF-TS8-NS8

Configuration	Fitting Type	Example
	Tube Socket Weld Union	SS-WU-TS8
	Tube Socket Weld Reducing Union	SS-WU-TS12-TS8
	Tube Socket Weld Union Elbow	SS-WLU-MTS14
	Tube Socket Weld Union 45° Elbow	SS-WV-TS8
	Tube Socket Weld Union Tee	SS-WT-MTS14
	Tube Socket Weld Union Cross	SS-WC-TS8
	Pipe Butt Weld Male Connector	SS-WM-PB6-NS6
	Pipe Butt Weld Female Connector	SS-WF-PB8-NS8
	Pipe Socket Weld Male Connector	SS-WM-PS6-NS6
	Pipe Socket Weld Female Connector	SS-WF-PS8-NS8
	Pipe Socket Weld Union	SS-WU-PS8
	Tube to Tube Weld Adapter	SS-WA-TB8-TS6
	Pipe to Tube Weld Adapter	SS-WA-PB8-TS8
	Pipe to Weld End Union	SS-PUW-MS20-MTB14
	Male Pipe to Weld End Union	SS-MUW-NS8-MTB14

Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

Cleaning and Packaging:
FC-01: Standard cleaning and packaging for general industrial procedures
FC-02: Special cleaning and packaging for wetted system components to
ensure compliance with product cleanliness requirement as stated
in ASTM G93 Level C

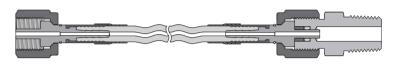
Calibration Hoses and Fittings

- Assembly and disassembly without requirement for a wrench or thread sealant
- Flexible hoses with small inside diameter and low internal volume
- Variety of adapters to connect with wide range of calibration devices
- Mix-interchangeable with other main brands
- Every assembly is factory tested with pure water at 1.5 times the maximum working pressure.

Quick-test Hoses

QH Series

- Working pressure up to: 6900 psig (475 bar)
- Working temperature: -10°F to 140°F (-23°C to 60°C)
- \odot Hose outside diameter: 0.2" (5 mm)
- Hose inside diameter: 0.08" (2 mm)
- $\, \odot \,$ End connection materials: 316 SS, 304 SS $\,$

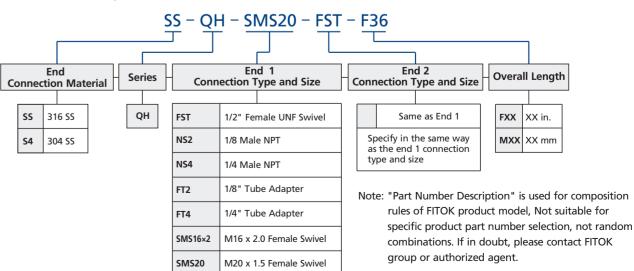


Hose Ends

FST End	1/2-20 UNF	NS2 End	1/8-27 NPT
SMS16×2 End	M16×2.0	NS4 End	1/4-18 NPT
SMS20 End	M20×1.5	FT2 End	1/8" Tube Adapter
FT4 End	1/4" Tube Adapter		

Types listed are standard. Other types are available upon request.

Part Number Description



Quick-test Adapters and Fittings

QT Series

- Working pressure up to: Without valve: 5000 psig (345 bar) With valve: 3000 psig (207 bar)
- Working temperature:
- Fluorocarbon FKM seal: -10°F to 400°F (-23°C to 204°C)
- Buna N seal: -10°F to 250°F (-23°C to 121°C)

- O Materials: 316 SS, 304 SS
- Optional check valves and protective caps available

Configuration	guration Fitting Type	
	Male NPT Adapters	SS-QT-NS4-ST
	Female NPT Adapters	SS-QT-FNS4-ST
	Male BSPT Adapters, with valve	SS-QT-RT4-ST-V
	Female BSPT Adapters, with cap	SS-QT-FRT4-ST-PC
	Male BSPP Adapters	SS-QT-RS2-ST
	Female BSPP Adapters	SS-QT-RG4-ST
	Male NPT Quick-test Gauge Adapters	SS-QT-NS4-FST
	Female NPT Quick-test Gauge Adapters	SS-QT-FNS4-FST
	Female BSPP Quick-test Gauge Adapters	SS-QT-RG4-FST
	Quick-test Hose Unions	SS-QT-ST-ST
	Quick-test Tube Adapters	SS-QT-QL4-ST
	Hand Tight Female NPT Quick-test Gauge Adapters	SS-QT-QNS8-ST

Fitting Type	Example
DP Transmitter Calibration Adapters	SS-QT-CH-ST
Quick-test Tees	SS-QT-ST-ST-ST
Male High Pressure Adapters	SS-QT-60HP-ST
DP Transmitter Calibration Adapters	SS-QT-CH-FL4
Hand Tight Adapters	SS-QT-MS20-MS14
	DP Transmitter Calibration Adapters Quick-test Tees Male High Pressure Adapters DP Transmitter Calibration Adapters

High Pressure Quick-test Hose Assemblies

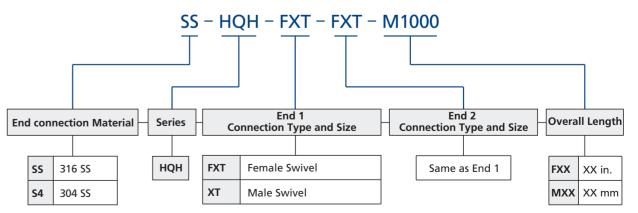
HQH Series

- O Working pressure up to: 10000 psig (690 bar)
- O Working temperature: -40°F to 140°F (-40°C to 60°C)
- Outer diameter of hose: 0.24" (6 mm)

- Inner diameter of hose: 0.08" (2 mm)
- O Hose end materials: 316 SS, 304 SS
- O Fluid media: water, petroleum based oils, air, inert gas



Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

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Fittings / Calibration Fittings and Hoses

High Pressure Quick-test Fittings

HQT Series

- Working pressure up to: 690 bar (10000 psig)
- Working temperature:

FKM Seal: -10°F to 400°F (-23°C to 204°C)

NBR Seal: -10°F to 250°F (-23°C to 121°C)

- O Materials: 316 SS, 304 SS
- O Convenient connection: No wrench or thread sealant required for assembly or disassembly.
- O This kind of fittings is not applicable to use with FITOK QH series Quick-test Hose, please use with FITOK HQH series Quick-test Hose.

Configuration	Fitting Type	Example
	Male NPT Adapter	SS-HQT-NS4-XT
	Male NPT Quick-test Gauge Adapters	SS-HQT-NS4-FXT
	Female NPT Adapters	SS-HQT-FNS4-XT
	Male BSPP Adapters	SS-HQT-RS4-XT
	High Pressure Male Adapters	SS-HQT-60HP-XT
	Quick-test Unions	SS-HQT-XT-XT
	Quick-test Bulkhead Unions	SS-HQT-XT-TXT
	Quick-test Tees	SS-HQT-XT-XT

VL Series Vacuum Tube Fittings

- O Stainless steel construction, fluorocarbon FKM O-ring
- O Available in tube sizes from 1/16" to 1 1/2"
- © Working temperature: -25°F to 400°F (-31°C to 204°C)
- © Knurled nut for easy, finger-tight assembly
- O Reliable, repeatable sealing performance



Configuration	Fitting Type	Example
	Union	SS-U-VL8
	Reducing Union	SS-U-VL6-VL4
	Tube Fitting Union	SS-U-VL4-FL4
	Union Elbow	SS-LU-VL8
	Union Tee	SS-TTT-VL8
	Male Connector	SS-CM-VL8-NS6
	Adapter	SS-CW-VL4-A4
	Nut	SS-N-VL10
	O-ring	VI7-014

VA Series Vacuum Adapter Fittings

- O Vacuum Range: Copper Seal: ≥ 10⁻¹² Torr Elastomeric Seal: ≥ 10⁻⁸ Torr
- Working temperature: Copper Seal: -325°F to 842°F (-200°C to 450°C) Elastomeric Seal: -4°F to 302°F (-20°C to 150°C)
- O Standard materials are in stainless steel 304, 304L, 316, 316L and Aluminum.



KF Adapter Fittings

Configuration	Fitting Type	Example
A Type (Default)	KF to Female NPT	S4-VA-KF10-FNS2
B Type	KF to Female NPT	S4-VA-KF16-FNS2-N
	KF to Male NPT	S4-VA-KF10-NS2
	KF to Female FR Metal Gasket Face Seal Fitting	S4-VA-KF10-FFR4
	KF to Rotatable Male FR Metal Gasket Face Seal Fitting	S4-VA-KF10-RFR4
	KF to Tube Fitting	S4-VA-KF10-FL4
	KF to Vacuum Tube Fitting	S4-VA-KF25-VL4

Configuration	Fitting Type	Example
	KF to CF Flange Straight Reducing	S4-VA-KF10-CF133-SR
	KF to CF Flange Conical Reducing	S4-VA-KF16-CF212-NCR

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Fittings / VA Series Vacuum Adapter Fittings

CF Adapter Fittings

Configuration	Fitting Type	Example
	CF to Female FR Metal Gasket Face Seal Fitting	S4-VA-CF133-FFR4
	CF to Rotatable Male FR Metal Gasket Face Seal Fitting	S4-VA-CF133-RFR4
	CF to Tube Fitting	S4-VA-CF133-FL4
	CF to Vacuum Tube Fitting	S4-VA-CF212-VL4

Other Adapter Fittings

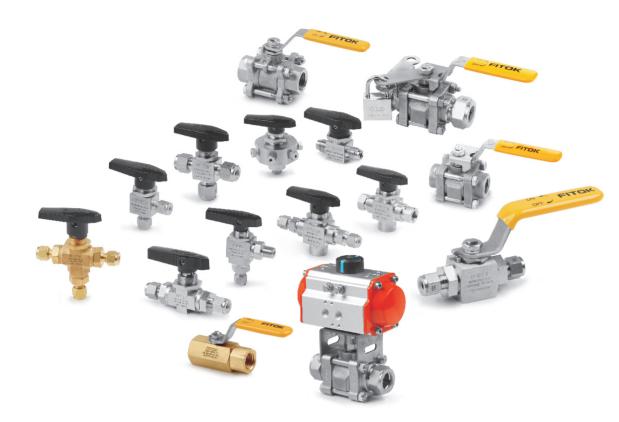
Configuration	Fitting Type	Example
	Male ISO Tapered Thread	S4-VA-KF10-RT4

Valves / Ball

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Valves

Ball Valves



- O Strong flowing capability and low operating torque
- © 2-way Ball valves available for flow in two direction
- Symmetrical damping of operate, low operating torque and easy to operate
- O Pneumatic or electric actuator available

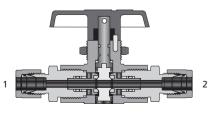
- Options for handle color
- © Every valve is factory tested with nitrogen at rated pressure; If rated pressure is greater than 6000 psig, tested at 6000 psig accordingly.

BF and BFH Series

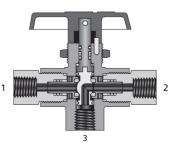
- Forged body with end connectors
- O Body materials: 316 SS, 316L SS, 904L SS, and alloy 400
- O Packing materials: fluorocarbon FKM and PTFE
- O End connections: 1/8 to 1/2 female NPT

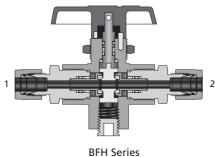
1/4" to 1/2" and 6 mm to 12 mm tube fitting

- Orifice size: 0.19" (4.8 mm)
- Working pressure up to: BF Series: 6000 psig (414 bar) BFH Series: 10 000 psig (690 bar)



BF Series





BF Series

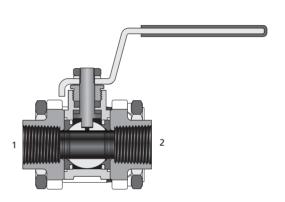
BG Series

- O 3-piece precision cast body construction
- Body materials: CF8M (316), CF3M (316L), CF8 (304), CF3 (304L) and 904L SS
- O Seat material: PTFE
- O Packing material: PTFE
- © End connections:

1/8 to 1 thread

1/8" to 1" pipe butt or socket weld 1/4" to 2" and 6 mm to 25 mm tube butt or socket weld 1/4" to 1" and 6 mm to 25 mm tube fitting

- Orifice sizes: 0.19" (4.8 mm) to 3" (76 mm)
- O Working pressure up to: 1000 psig (69.0 bar)
- O Working temperature: -20°F to 450°F (-28°C to 232°C)



BH Series

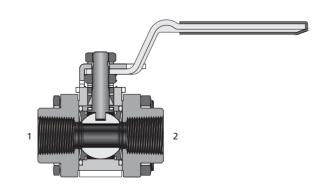
- O 3-piece precision cast body construction
- Body materials: CF8M (316), CF3M (316L), CF8 (304), CF3 (304L) and 904L SS
- O Seat materials: PTFE, RPTFE and PEEK
- O Packing materials: PTFE, RPTFE, Graphite and O-ring
- © End connections:

1/8 to 2 thread

1/8" to 2" pipe butt or socket weld

1/2" to 2" and 12 mm to 50 mm tube butt or socket weld 1/2" to 2" and 12 mm to 38 mm tube fitting

- Orifice sizes: 0.19" (4.8 mm) to 1.5" (38.1 mm)
- O Working pressure up to: 3000 psig (207 bar)
- O Working temperature: -20°F to 450°F (-28°C to 232°C)

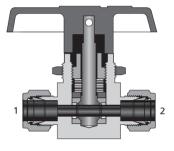


BO Series

- O 1-piece forged body, top entry
- Body materials: 316 SS, 316L SS, 304 SS, 321 SS, 304L SS, 904L SS, alloy 400, and brass
- © Seat materials: PTFE and UHMWPE
- © Flow patterns: 2-way, 3-way, 4-way, 5-way, 6-way and 7-way
- © End Connections:

1/8 to 1/2 female thread 1/16" to 3/4" and 3 mm to 18 mm tube fitting

- Orifice sizes: 0.05" (1.3 mm) to 0.41" (10.3 mm)
- O Working pressure up to: 3000 psig (207 bar)
- O Working temperature: -65°F to 300°F (-54°C to 148°C)

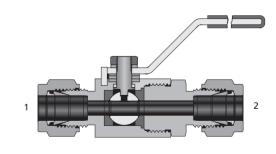


BR Series

- O Cold drawn hex bar and casting body with single connector
- O Body materials: 316 SS, 304 SS, 316L SS, 904L SS and brass
- O Seat material: PTFE
- O Packing material: PTFE
- © End connections: 1/8 to 1 thread

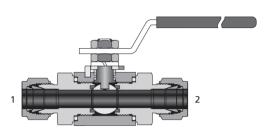
1/4" to 1" and 6 mm to 25 mm tube fitting

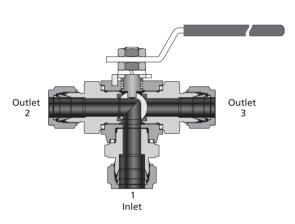
- © Orifice sizes: 0.19" (4.8 mm) to 0.63" (16 mm)
- O Working pressure up to: 1000 psig (69.0 bar)
- O Working temperature: -20°F to 450°F (-28°C to 232°C)



BP Series

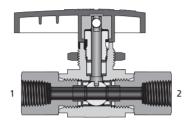
- O Cold drawn bar or forged body with end connectors
- $\ensuremath{\mathbb{O}}$ Body materials: 316 SS, 304 SS, 321 SS, and 904L SS
- O Seat materials: PVDF, PCTFE and PEEK
- Packing material: PTFE
- O Flow patterns: 2-way and 3-way
- © End connections:
- 1/4 to 1 thread
- 1/4" to 1" and 6 mm to 25 mm tube fitting
- \odot Orifice sizes: 0.39" (10 mm), 0.5" (12.7 mm) and 0.71" (18 mm)
- O Working pressure up to: 10 000 psig (690 bar)
- © Working temperature: -40°F to 450°F (-40°C to 232°C)

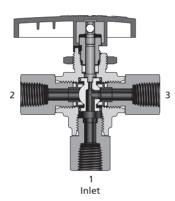


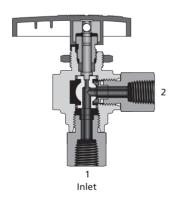


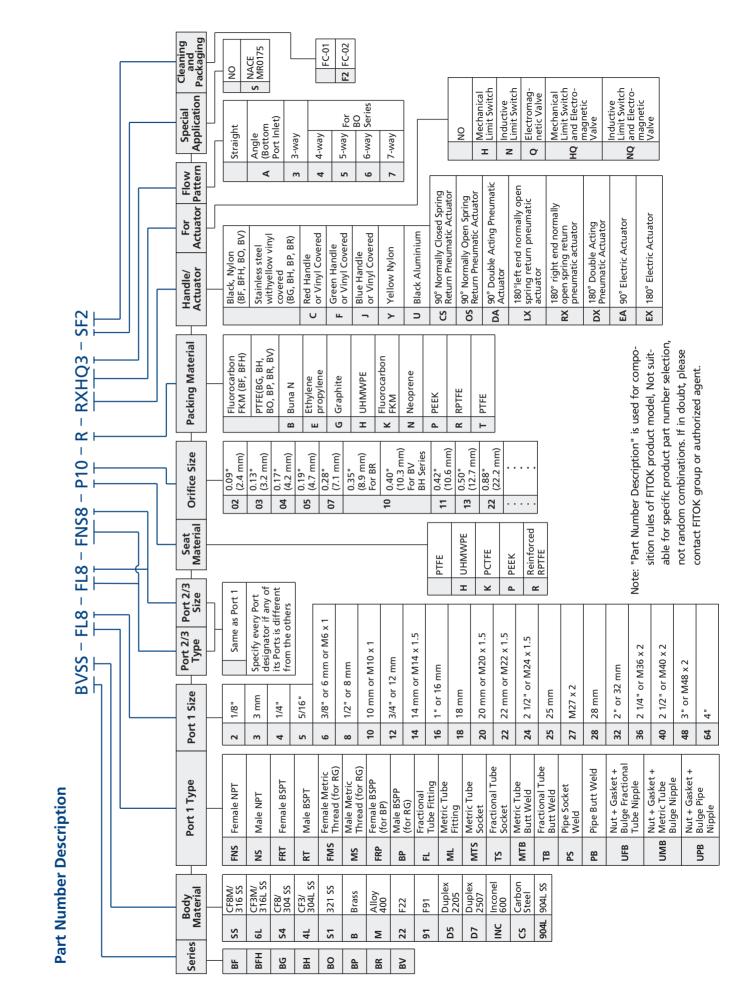
BV Series

- O Precision cast body with end connectors
- Body materials: CF8M (316), CF3M (316L), CF8 (304),
 904L SS, CF3 (304L) and brass
- O Seat materials: PTFE, PCTFE and PEEK
- Packing material: PTFE
- O Flow patterns: 2-way straight, 2-way angle, and 3-way
- © End connections:
- 1/8 to 3/4 thread
- 1/8" to 3/4" and 3 mm to 22 mm tube fitting
- Orifice sizes: 0.09" (2.4 mm) to 0.41" (10.3 mm)
- Working pressure up to: 6000 psig (414 bar)
- $\ensuremath{\bigcirc}$ Working temperature: -65°F to 450°F (-54°C to 232°C)









Valves / Bleed

FITOK

Bleed Valves

RB Series

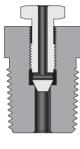
- O Compact design for convenient installation
- O Chrome-plated stem and tip extend cycle life
- Working pressure up to 10 000 psig (690 bar)
- © Stainless steel, carbon steel, and alloy R-405 body materials
- © End connections:

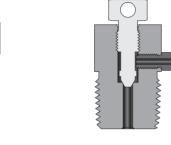
1/8 to 1/2 male NPT

1/4 to 1/2 male BSPT

M6 x 1, M8 x 1 and M10 x 1 male Metric Thread



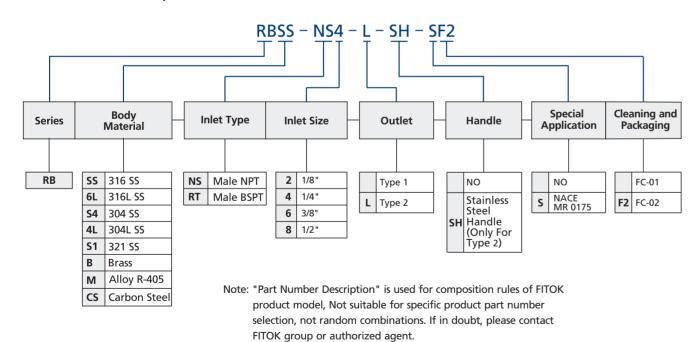




Type 1

Type 2

Part Number Description



Check Valves



CV. CH and CO Series

Fixed cracking pressure Can be installed in any direction

CV Series

- The resilient O-ring seat design provides cushioned and noise-free closing, and resists seat flow-out.
- O Working pressure up to: 3000 psig (207 bar)
- O Working temperature: -10°F to 375°F (-23°C to 190°C)
- O Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- O Body materials: stainless steel, brass, and alloy
- © End connections:

1/8" to 1" and 6 mm to 12 mm tube fitting

1/8 to 1 female NPT

1/8 to 1 male NPT

1/4 to 1 male FR fitting

CH Series

- O The seat ring is continuously cleaned by media, avoiding secondary pollution.
- O Working pressure up to: 6000 psig (414 bar)
- O Working temperature: -10°F to 400°F (-23°C to 204°C)
- O Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- O Body materials: stainless steel and alloy
- O End connections:

1/8" to 1" and 6 mm to 25 mm tube fitting

1/8 to 1 female NPT, 1/8 to 1 male NPT

1/4 to 1 female BSPT, 1/4 to 1 male BSPT

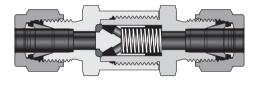
1/4 to 3/4 male FO fitting, 1/4 to 1 male FR fitting

CO Series

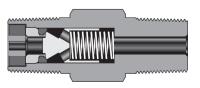
- O Compact, one piece body
- O Working pressure up to: 3000 psig (207 bar)
- O Working temperature: -10°F to 375°F (-23°C to 190°C)
- © Cracking pressure: 1/3 to 25 psig (0.02 to 1.7 bar)
- O Body materials: stainless steel, brass, and alloy
- O End connections:

1/4 to 1/2 NPT

1/4 to 1/2 BSPT







CA and COA Series

Adjustable cracking pressure Variety of springs available Installation in any direction

CA Series

- Working pressure up to: 3000 psig (207 bar)
- © Cracking pressure: 3 to 600 psig (0.2 to 41.4 bar)
- O Body materials: stainless steel, brass, and alloy
- © End connections:

1/4" to 3/8" and 8 mm tube fitting 1/4 male FR fitting

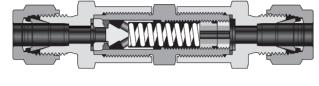
COA Series

- Compact, one piece body
- Working pressure up to: 3000 psig (207 bar)
- © Cracking pressure: 3 to 600 psig (0.2 to 41.4 bar)
- O Body materials: stainless steel, brass, and alloy
- O End connections:

1/4 female NPT

1/4 to 1/2 male NPT

1/4 to 1/2 male BSPT





CL Series

Union bonnet design All stainless steel construction Horizontal installation

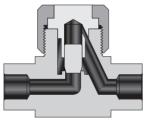
- Working pressure up to: 6000 psig (414 bar)
- Working temperature: -65°F to 900°F (-53°C to 482°C)
- Body materials: stainless steel
- © End connections:

1/4" to 3/4" and 6 mm tube fitting

1/8 to 1/2 female NPT

1/4" to 1/2" tube socket weld

1/4" to 1/2" pipe butt weld



CW Series

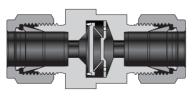
All-welded design for enhanced safety Installation in any directions

- Working pressure up to: 3000 psig (207 bar)
- Cracking pressure: less than 2 psig (0.14 bar)
- Body materials: stainless steel
- © End connections:

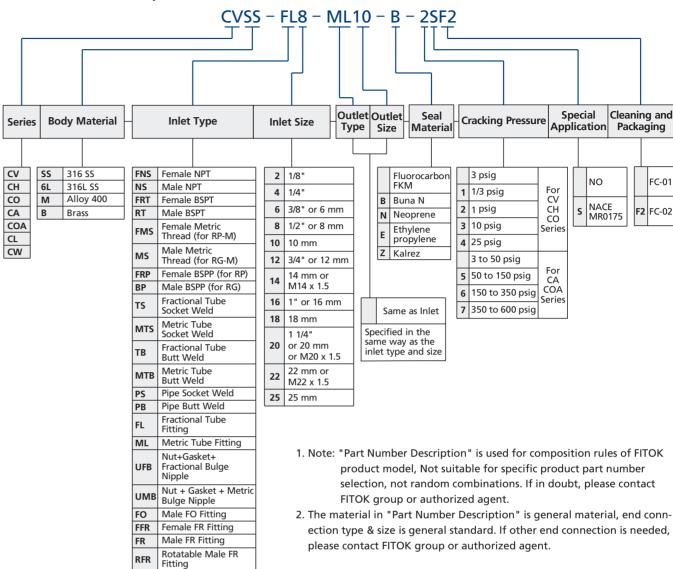
1/4" and 6 mm tube fitting

1/4" to 1/2" male and female FR fitting

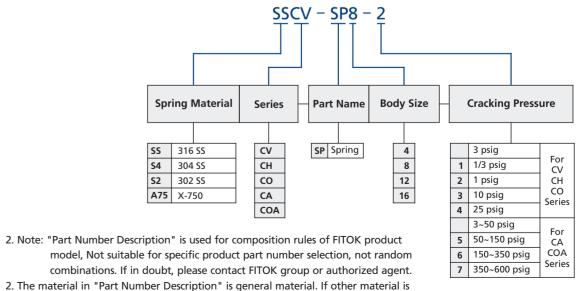
1/4" to 1/2" and 6 mm tube butt weld



Part Number Description



Part Number Description of Spring Kits



needed, please contact FITOK group or authorized agent.

Excess Flow Valves

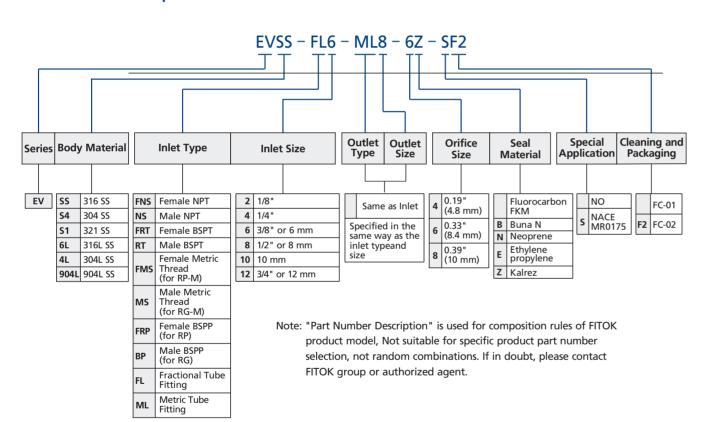
EV Series

- O Compact design for convenient installation
- O Working pressure up to: 6000 psig (414 bar)
- O Working temperature: -10°F to 400°F (-23°C to 204°C)
- Stainless steel construction
- O Leak-tight performance testing for every valve with nitrogen at the maximum working pressure
- O End connections: 1/4" to 1/2" male 6 mm to 12 mm tube fitting 1/4 to 1/2 male FR Fitting 1/4 to 1/2 NPT





Part Number Description



Purge Valves

RP Series

- O Compact design for convenient installation
- © Bonnet crimped to valve body to prevent accidental disassembly
- Straight, tee and cross body constructions
- O Working pressure up to: 4000 psig (276 bar)
- O Working temperature: -65°F to 600°F (-54°C to 315°C)
- O Stainless steel, brass, and carbon steel body materials
- © End connections:

1/8" to 1" and 3 mm to 16 mm tube fitting

1/8 to 1 female NPT

1/8 to 1 male NPT

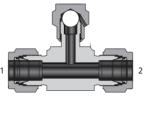




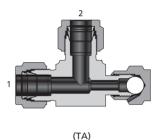
30

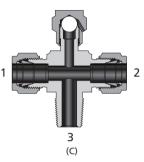
Valves / Purge



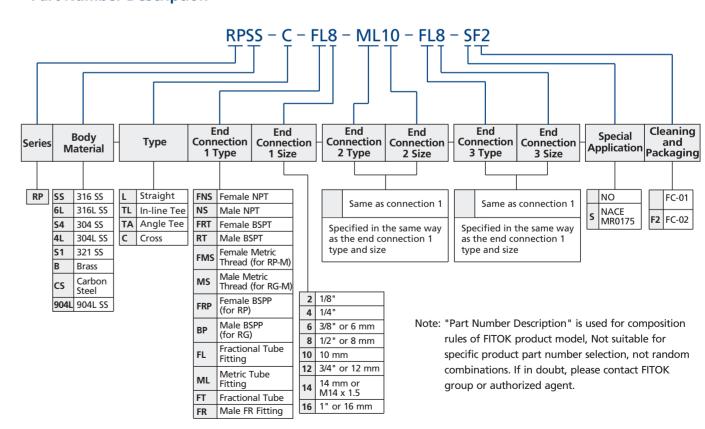


(TL)





Part Number Description



Valves / Relief

32

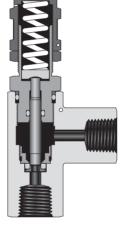
Relief Valves



RV Series

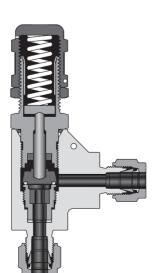
- © Set Pressure: 7 color-coded springs available for a wide range of set pressure, 50 to 6000 psig @ 70°F (3.4 to 414 bar @ 20°C)
- Maximum outlet pressure: 1500 psig (103 bar)
- Orifice size: RV Series: 0.14" (3.6 mm)
- © Balance stem design to eliminate the effect of system back pressure
- Working temperature: -10°F to 300°F (-23°C to 148°C)
- O Liquid or gas service
- Adjustable bonnet cap and adjustable set pressure
- O Lock wired secure cap to maintain the set pressure
- O Variety of seal materials
- O Label identifies the set pressure range.
- Manual override handle available to open the valve without changing the set pressure which is lower than 1500 psig
- O End connections:

1/4" and 6 mm to 8 mm tube fitting 1/4 NPT



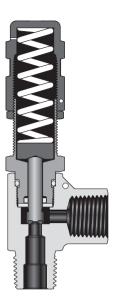
RL Series

- © Set Pressure: 10 to 225 psig @ 70°F (0.68 to 15.5 bar @ 20°C)
- Maximum outlet pressure: 225 psig (15.5 bar)
- Orifice size: 0.19" (4.8 mm) and 0.25" (6.4 mm)
- Pre-set pressure = Desired pressure 0.8 × Back pressure
- © Working temperature: -10°F to 300°F (-23°C to 148°C)
- O Liquid or gas service
- O Adjustable bonnet cap and adjustable set pressure
- O Lock wired secure cap to maintain the set pressure
- O Variety of seal materials
- O Label identifies the set pressure range
- Manual override handle available to open the valve without changing the set pressure which is lower than 1500 psig
- © End connections: 1/4" to 1/2" and 6 mm to 12 mm tube fitting 1/4 to 1/2 NPT

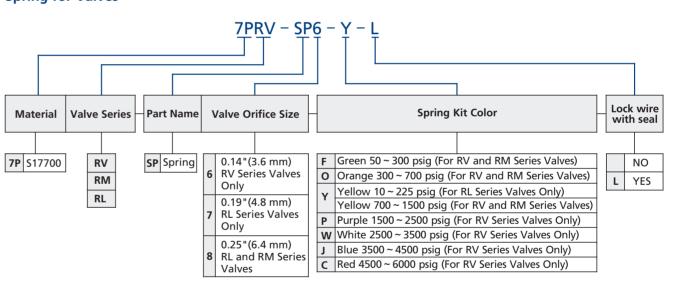


RM Series

- © Set Pressure: 3 color-coded springs available for a wide range of set pressure, 50 to 1500 psig @ 70°F (3.4 to 103 bar @ 20°C)
- O Maximum outlet pressure: 1500 psig (103 bar)
- Orifice size: 0.25" (6.4 mm)
- O Balance stem design to eliminate the effect of system back pressure
- O Working temperature: -10°F to 300°F (-23°C to 148°C)
- O Liquid or gas service
- O Adjustable bonnet cap and adjustable set pressure
- O Lock wired secure cap to maintain the set pressure
- O Variety of seal materials
- O Label identifies the set pressure range
- O Manual override handle available to open the valve without changing the set pressure which is lower than 1500 psig
- © End connections: 3/8" to 1/2" and 8 mm to 12 mm tube fitting 1/4 to 1/2 NPT



Part Number Description Spring for Valves



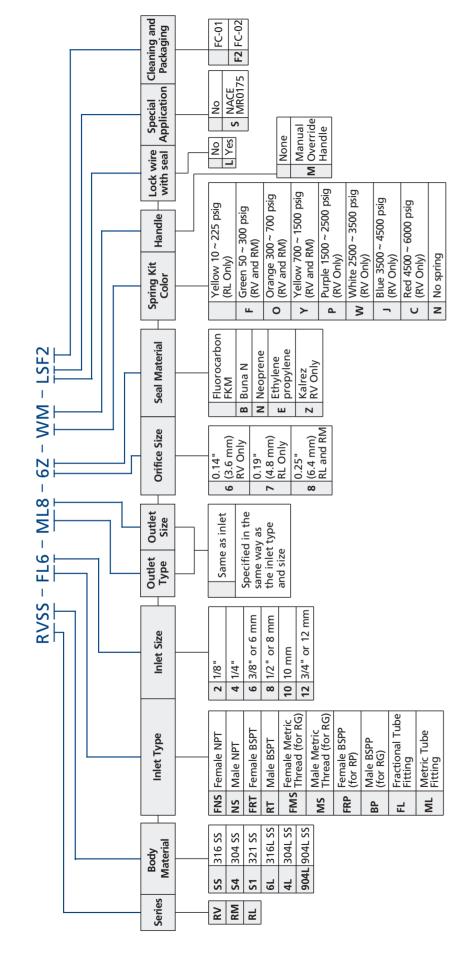
Note: "Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

© Every spring kit includes a corresponding color label.

Valves / Bellows-sealed

Part Number Description

Valves



"Part Number Description" is used for composition rules of FITO product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

Bellows-sealed Valves



- O Secondary containment system above the bellows.
- O Hydraulic-formed multilayer bellows enhance cycle life.
- O Nonrotating stem tip eliminates galling within the seat area.
- © Strictly controlled bellows stroke to improve safety and cycle life.
- O Replaceable bellows and stem assembly.
- O Regulating, conical and spherical stem tips available.
- O Panel, bottom and side mounting available.

SW Series

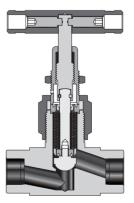
- Working pressure up to: 1000 psig (69.0 bar)
- O Working temperature: -20°F to 900°F (-28°C to 482°C)
- O Stainless steel, brass and alloy 400 body materials
- © End connections:

1/4" to 1" and 6 mm to 25 mm tube fitting 1/4" to 1/2" and 6 mm to 12 mm tube socket weld 1/4" to 1/2" and 6 mm to 12 mm tube butt weld 1/4 to 1/2 FR fitting

SU Series

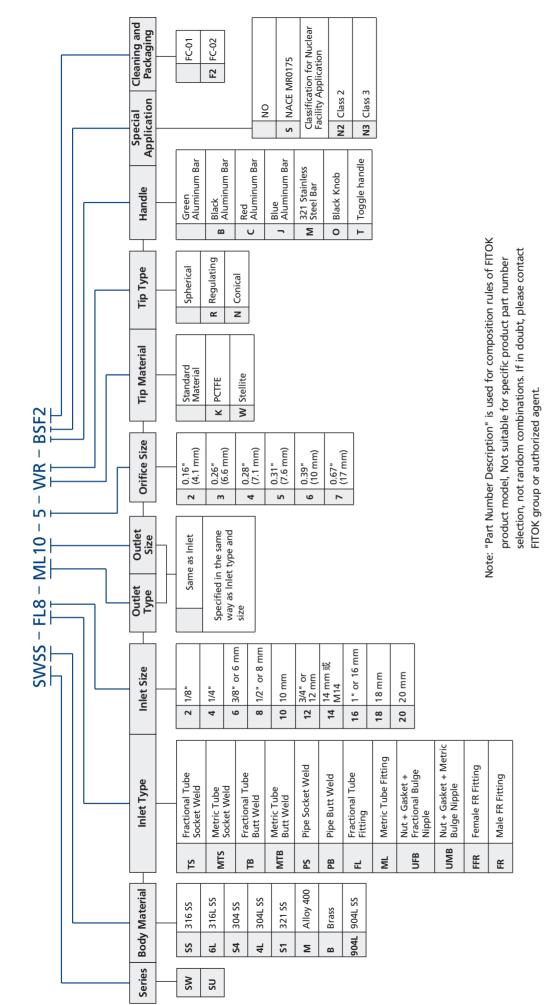
- O Working pressure up to: 2500 psig (172 bar)
- O Working temperature: -20°F to 1200°F (-28°C to 649°C)
- Stainless steel body materials
- O End connections:

1/4" to 1/2" and 6 mm to 25 mm tube fitting 1/4" to 1" and 6 mm to 25 mm tube socket weld 3/8" to 1" and 6 mm to 25 mm tube butt weld 1/4 to 1/2 FR fitting





Part Number Description

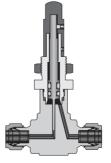


Metering Valves



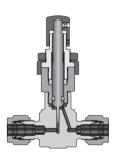
MS Series

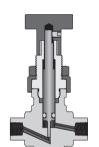
- O Working pressure up to: 2000 psig (138 bar)
- O Working temperature: -10°F to 400°F (-23°C to 204°C)
- Orifice size: 0.032" (0.81 mm)
- © Flow coefficient (Cv): 0.004
- O Stem taper: 1°
- O Turns to open: 9 to 12
- Shutoff service: not available
- O Panel mountable
- O Flow patterns: straight, angle, cross and double
- O Handle types: round, vernier, slotted and adjustable-torque
- O Variety of materials available for valve body
- O End connections: 1/16" to 1/4" and 3 mm to 6 mm tube fitting 1/4 male FR Fitting 1/8 to 1/4 NPT



MV and **ML** Series

- O Working pressure up to: 1000 psig (69.0 bar)
- O Working temperature: -10°F to 400°F (-23°C to 204°C)
- © Flow coefficients (Cv): MV series: 0.03
 - ML series: 0.15
- Orifice sizes: MV series: 0.056" (1.42 mm)
 - ML series: 0.128" (3.25 mm)
- © Stem taper: MV series: 3°
 - ML series: 6.5°
- © Turns to open: MV series: 8 to 10
- O ML series: 10 to 11
- O Shutoff service: MV series: not available
- ML series: available
- Panel mountable
- © Flow patterns: straight, angle, cross (MV Series) and double (MV Series)
- O Handle types: round, vernier, slotted and adjustable-torque
- O Variety of materials available for valve body
- © End connections:
- 1/8" to 1/4" and 3 mm to 8 mm tube fitting 1/4 male FR Fitting 1/8 to 1/4 NPT

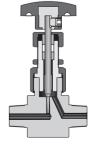




MH Series

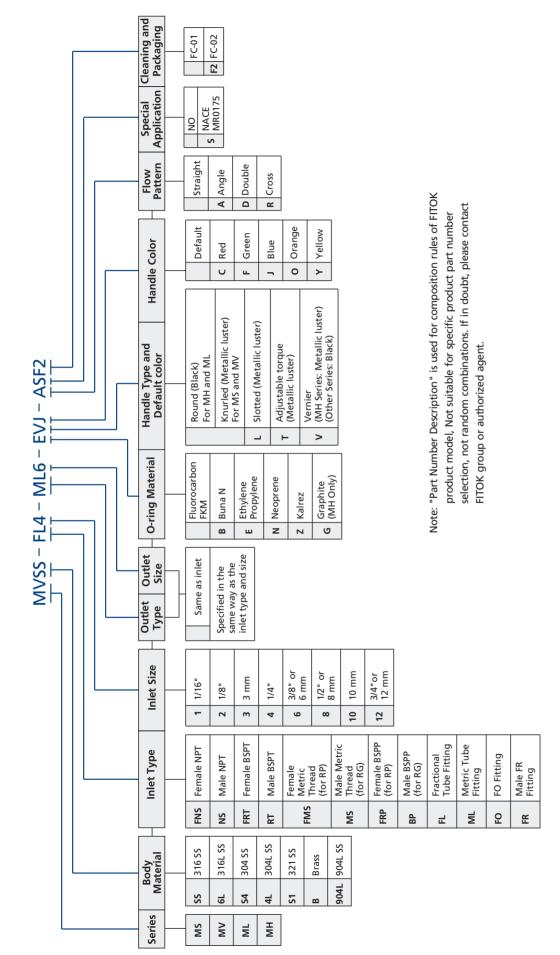
- O Working pressure up to: 5000 psig (345 bar)
- Working temperature: -65°F to 850°F (-54°C to 454°C)
- Orifice size: 0.062" (1.6 mm)
- O Flow coefficient (Cv): 0.04
- O Stem taper: 2°
- Shutoff service: available
- O Variety of end connections
- © Turns to open: 9 to 10
- Panel mountable
- O Flow patterns: straight and angle
- O Handle type: round phenolic, vernier
- O Variety of materials available for valve body
- © End connections:
- 1/8" to 1/4" and 3 mm to 8 mm tube fitting 1/4 male FR Fitting

1/8 to 1/4 NPT



Valves / Needle

Part Number Description



Needle Valves



Needle Valves Features

- O The nonrotating stem eliminates galling between the seat and tip, and reducing the friction of sealed packing. Effectively improve the service life of the valve and valve packing.
- O Intermittent packing system designed to effectively reduce the cold flow of valve packing and the valve operating torque, while use System media for the useful of valve packing.
- O Packing mounted on the bottom of the stem transmission thread designed to achieve the isolation of transmission thread lubricating material and system medium to prevent transmission thread lubricating substance contamination of the media on the
- O Threaded operating torque transmitted using online extrusion and roll forming process, Effectively improve the strength and precision of the threads. To provide strong protection for operating torque for the screw to pass long-term, stable and reliable torque transmission.
- O Different body materials and structure selection, a variety of colors and forms of the handle, and optional panel mounting structure to achieve different requirements, different applica-
- O Valve reference standard: According to ASME B16.34, each valve is tested for strength and leak-tight performance with pure water or nitrogen at max working pressure before delivered out.

Forged Needle Valves

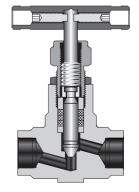
NF, NFH Series

- One-piece forged body.
- O Body materials: Carbon steel/A105, 316 SS, 316L SS, 304 SS, 304L SS, 321 SS, Duplex 2205, Alloy 400, Alloy C- 276, and brass, other material please contact with manufacture.
- Orifice (mm): 4, 6.4, 10, 15 and 18. (15 and 18 suitable for NF series only).
- Working pressure up to: NF Series—6000 psig (41.4 MPa); NFH Series—10000 psiq (69.0 MPa).
- O Working temperature: -65°F to 1200°F (-54°C to 649°C).
- © Sealing face materials: Same as body material, optional stellite available.
- O Stem tips type: blunt, ball, regulating, and soft tips (suitable for NF series only).
- O End connections type and size:

1/8" to 1", M10 to M36 thread;

1/4" to 1", 6 mm to 28 mm tube fitting;

3/8" to 1", 10 mm to 25 mm weld.



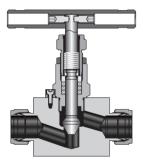
Valves / Needle

40

Bar Stock Needle Valves

NB. NBH Series

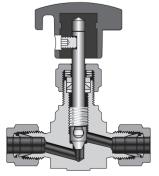
- O Cold drawn bar.
- Body materials: 316 SS, 316L SS, 304 SS, 304L SS, Duplex 2205, Alloy 400, Alloy C- 276, and brass, other material please contact with manufacture.
- Orifice (mm): 4, 6.4, 10, 15 and 18. (15 and 18 suitable for NB series only).
- O Working pressure up to: NB Series—6000 psig (41.4 MPa); NBH Series—10000 psiq (69.0 MPa).
- O Working temperature: -65°F to 1200°F (-54°C to 649°C).
- © Sealing face materials: Same as body material, optional stellite available.
- © Stem tips type: blunt, ball, regulating, and soft tips (suitable for NB series only).
- O End connections type and size: 1/8" to 1", M14 to M27 thread; 1/4" to 1", 6 mm to 25 mm tube fitting; 3/8" to 1", 10 mm to 28 mm weld.



General Purpose Needle Valves

NG, NGH Series

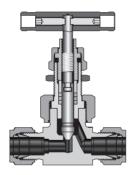
- One-piece forged body.
- O Body materials: Carbon steel/A105, 316 SS, 316L SS, 304 SS, 304L SS, Duplex 2205, Alloy 400, Alloy C- 276, and brass, other material please contact with manufacture.
- Orifice (mm): 2, 4, 6.4, 10
- O Working pressure up to: NG Series—3000 psig (20.7 Mpa); NGH Series—5000 psig (34.5 Mpa).
- O Working temperature: -65°F to 500°F (-54°C to 260°C);
- Sealing face materials: Same as body material.
- O Stem tips type: blunt, ball, regulating, and soft tips.
- O End connections type and size: 1/8" to 3/4", M14 to M27 thread; 1/4" to 3/4", 6 mm to 25 mm tube fitting.



Union Bonnet Needle Valves

NU. NUH Series

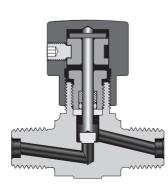
- One-piece forged body.
- Body materials: 316 SS, 316L SS, 304 SS, 304L SS, Duplex 2205, Alloy 400, Alloy C- 276, and brass, other material please contact with manufacture.
- Orifice (mm): 4, 6.4, 10
- Working pressure up to: NU Series—6000 psig (41.4 MPa); NUH Series—10000 psig (69.0 MPa).
- O Working temperature: -65°F to 1200°F (-54°C to 649°C).
- O Sealing face materials: Same as body material, optional stellite available.
- O Stem tips type: blunt, ball, regulating, and soft tips (suitable for NU series only).
- © End connections type and size: 1/8" to 1", M14 to M27 thread; 1/4" to 1", 6 mm to 25 mm tube fitting; 3/8" to 1", 10 mm to 28 mm weld.



Nonrotating-stem Needle Valves

ND Series

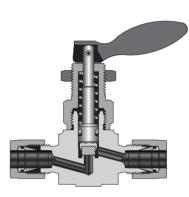
- One-piece forged body.
- O Body materials: 316 SS, 316L SS, 304 SS, 304L SS, Alloy 400 and brass, other material please contact with manufacture.
- Orifice (mm): 2, 4, 6.4
- O Working pressure up to: 3000 psig (20.7 Mpa).
- O Working temperature: -20°F to 450°F (-28°C to 232°C).
- O Designed handle to prevent contaminants from entering into the valve.
- O Non-rotating stem, soft stem tip.
- O End connections type and size: 1/8" to 1/2", M10 to M20 thread; 1/4" to 1/2", 3 mm to 12 mm tube fitting.



Toggle Valves

NT Series

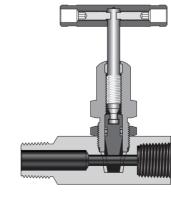
- One-piece forged body.
- O Body materials: 316 SS, 316L SS, 304 SS,304L SS, and brass, other material please contact with manufacture.
- Orifice (mm): 2, 4, 6.4
- O Working pressure up to: 300 psig (2.07 Mpa).
- O Working temperature: -20°F to 250°F (-28°C to 121°C).
- Sealing face materials: Same as body material.
- © End connections type and size: 1/8" to 1/2", M10 to M20 thread; 1/4" to 1/2", 3 mm to 12 mm tube fitting.



Rising Plug Valves

NR, NRG Series

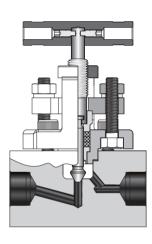
- O Cold drawn square bar.
- O Body materials: 316 SS, 316L SS, 304 SS, 304L SS, Duplex, Alloy 400, Alloy C-276, and brass, other material please contact with manufacture.
- Orifice (mm): 4, 6.4
- O Working pressure up to: 6000 psig (41.4 Mpa).
- O Working temperature: -20°F to 400°F (-28°C to 204°C).
- O Sealing face materials: soft seat design, seat material: Acetal, PEEK, PFA.
- © End connections type and size: 1/8" to 1/2". M14 to M20 thread: 1/4" to 1/2", 6 mm to 12 mm tube fitting.



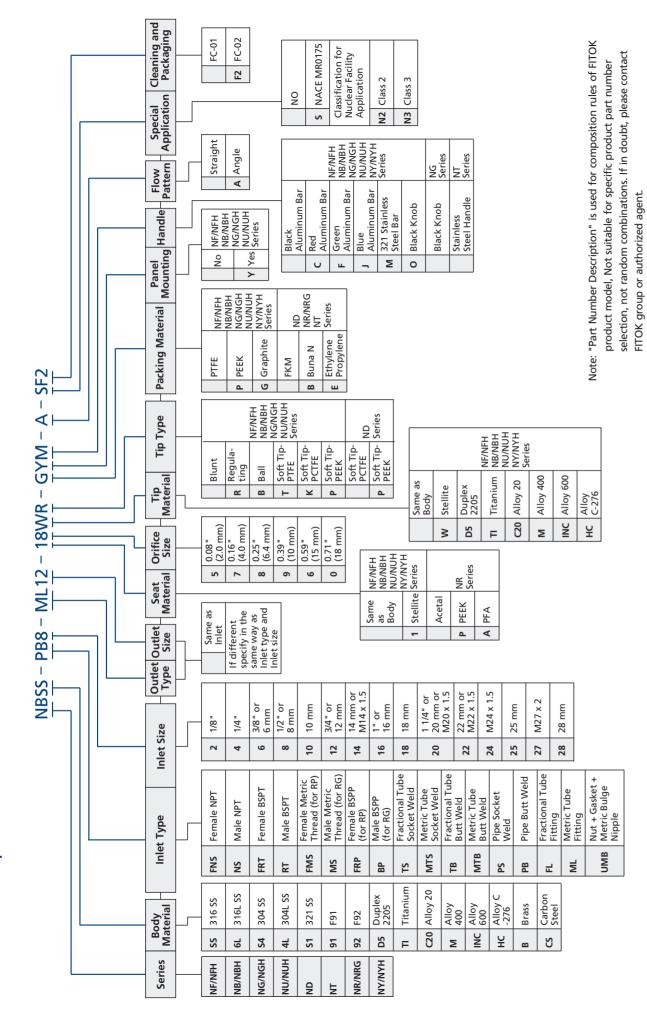
Outside Screw and Yoke (OS&Y) **Needle Valves**

NY, NYH Series

- O Cold drawn bar.
- O Body materials: Carbon steel/A105, 316 SS, 316L SS, 304 SS, 304L SS, Duplex, Alloy 400, Alloy C-276, and brass, other material please contact with manufacture.
- Orifice (mm): 4
- Working pressure up to: NY Series—6000 psig (41.4 Mpa); NYH Series—10000 psig (69.0 MPa).
- O Working temperature: -65°F to 1200°F (-54°C to 649°C).
- © Sealing face materials: Same as body material, optional stellite available.
- © Externally adjustable gland independent of spindle thread.
- © End connections type and size: 1/4" to 1/2", M10 to M20 thread; 1/4" to 1/2", 6 mm to 12 mm tube fitting; 3/8" to 1/2", 10 mm to 20 mm weld.



FITOK



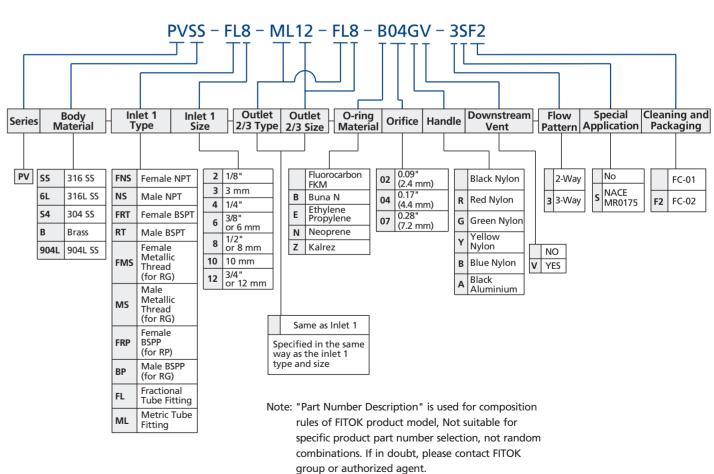
Plug Valves

PV Series

- O Working pressure up to: 3000 psig (207 bar)
- O Working temperature: -10°F to 400°F (-23°C to 204°C)
- © Size from 1/8" to 3/4" and 6 to 12 mm
- Orifice sizes: 2.4 mm, 4.4 mm, 7.2 mm
- O Body materials: 316 SS, 304 SS, and brass
- O Seal materials: Fluorocarbon FKM, Buna N, Ethylene propylene, Neoprene, and Kalrez
- © Easy to maintain and clean
- O Low operating torque
- © Replaceable plug assembly
- O Handle as indicator of flow direction
- O Handle of different colors available for option
- O Positive handle shutoff
- O Leak-tight performance testing for every valve with nitrogen at the maximum working pressure



Part Number Description



Valves / Two-Piece Forged Metal-Seated Ball Valves

44

Two-Piece Forged Metal-Seated Ball Valves

BM Series

O Size: NPS 1/2 ~ NPS 2 (DN 15 ~ DN 50)

© Classes: 150 ~ 2500

Specifications

O Design: ASME B16.34

O Testing: ASME B16.34 and API 598

Marking: MSS-SP-25

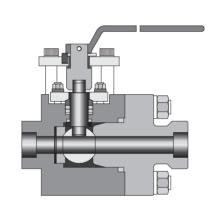
O Socket weld ends: ASME B16.11

Butt weld ends: ASME B16.25

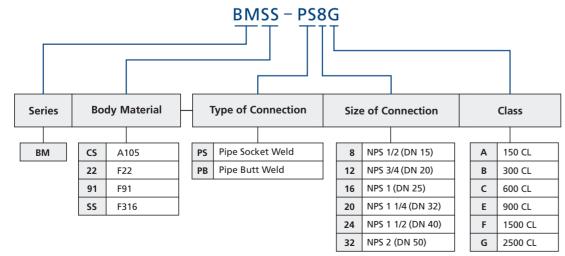
Features

- O Two-piece forged body designs.
- Ball and seats mate-lapped for 100% contact ensures
- © Free floating ball design provides seat wear compensation.
- O The ball is forced to load into the seat by a high-strength Belleville spring.
- O The ball and seat are in full constant contact, isolating the body cavity from flow to prevent build-up of solids.
- Mate-lapped ball and seat of same material and coating to match thermal expansion rates.
- O Advanced HVOF custom trim coating technology with hardness in excess of 900Hv.
- O An advanced packing chamber design and live-loading provide long lasting, maintenancefree, stem packing tightness.
- O Flow arrow forged into mounting flange visible above insulation.
- O Low operating torque.
- Blowout-proof stem.
- O Positive handle stop.





Part Number Description



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Globe Valves

SY Series

- O Size: NPS 3/8 ~ NPS 1 (DN 10 ~ DN 25)
- © Classes: 2500 and 4500

Specifications

- O Design: ASME B16.34
- O Testing: ASME B16.34 and API 598
- Marking: MSS-SP-25
- O Socket weld ends: ASME B16.11
- Butt weld ends: ASME B16.25



Features

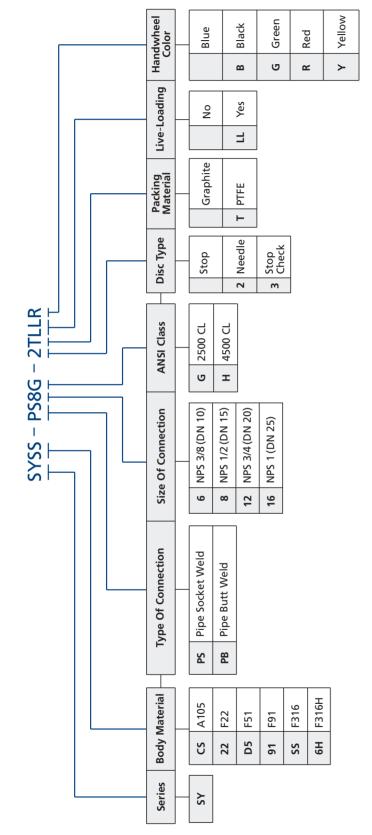
- One-piece, forged, bonnetless globe valves eliminate the potential for body-to-bonnet joint leakage, and not require cut or disassemble the bonnet for servicing.
- © 65° inclined body reduces pressure drop compared with T-type.
- O Splined bushing guides the stem allows quick and easy maintenance by removing all working parts at one time.
- The non-rotating stem hardened and polished to reduce operating torque.
- O Linearly instead of helical movement of the non-rotating stem reduces the total friction area between the packing and stem.
- Packing chamber burnished and combination graphite rings individually pre-stressed for tight seal.
- O Two-piece gland ensures gland and packing self-aligning.
- © Stellite disc, seat and backseat provide excellent long service life even in severe services.
- Fully quided disc assures seat and disc precise alignment in spite of side thrust caused by high velocity flow, and prevents stem from scoring and galling, and provides longer disc seal and body life.
- Double orifice design Protects seating faces because part of the erosive flow energy dissipates through disc.
- O Two flat slots design at the internal bottom of the disc prevent the disc from rotating, so avoid high-speed rotating disc and seat contact, damage to disc and seat.
- Backseat bevel on the stem, not on the disc, meet specifications API-602.
- O Large clearance between stem and disc allows disc to move freely.
- O Dust cover and sleeve protect stem threads from dirt, dust and sand.
- Fully enclosed stem driving lubrication system with two needle roller bearings ensures low operating torque.
- O Upper stem position indicates if valve is open or closed.
- Optional live-loading packing, disc springs keep packing tight for long periods of time without maintenance.
- O Stop, regulating, and stop check discs are available.
- Handwheel is rugged and knobbed to make sure the grip even when wearing gloves.
- Optional handwheel colors are available.



Valves / Globe

FITOK

Part Number Description



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Manifolds

Air Headers and Distribution Manifolds

- Distribution lines and drain ports with ball valves, plug valves, and needle valves.
- © Red, green, yellow, and blue handles are available.
- O Main lines: NPS2
- O Connections:

Inlet ports: 1" ASME, EN and GB flange

1 pipe thread

Outlet ports: 1/4 or 1/2 pipe thread
1/2" or 12 mm tube fitting

Drain ports: 1/4 or 1/2 pipe thread

- $\ensuremath{\, \odot \,}$ Quantity of branches: 4 to 16
- O Materials: 316 SS, 304 SS
- © Each manifold is hydraulic tested with pure water at 1.5 times the design pressure, and leak - tight tested with nitrogen at the design pressure.



Air Headers

AP Series

- O Distribution ports are BR series ball valves.
- © The main line is pipe (Sch 10).
- O Working pressure up to: 1000 psig (69.0 bar)
- Working temperature: -15°F to 450°F (-26°C to 232°C)

MP Series

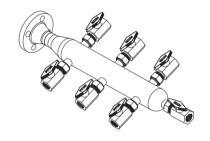
- O Distribution ports are PV series plug valves.
- O The main line is pipe (Sch 160).
- O Working pressure up to: 3000 psig (207 bar)
- Working temperature: -15°F to 450°F (-26°C to 232°C)

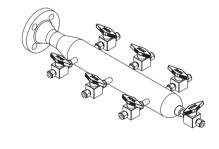
MN Series

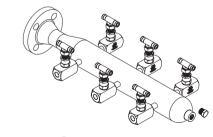
- O Distribution ports are NB or NF series needle valves.
- O The main line is pipe (Sch 160).
- O Working pressure up to: 6000 psig (414 bar)
- Working temperature: -15°F to 450°F (-26°C to 232°C)

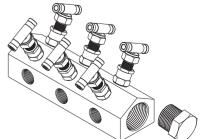
CM Series

- O Distribution ports are needle valves.
- The main line is made of pentagon bar.
- O Working pressure up to: 6000 psig (414 bar)
- © Working temperature: -15°F to 1200°F (-26°C to 649°C)



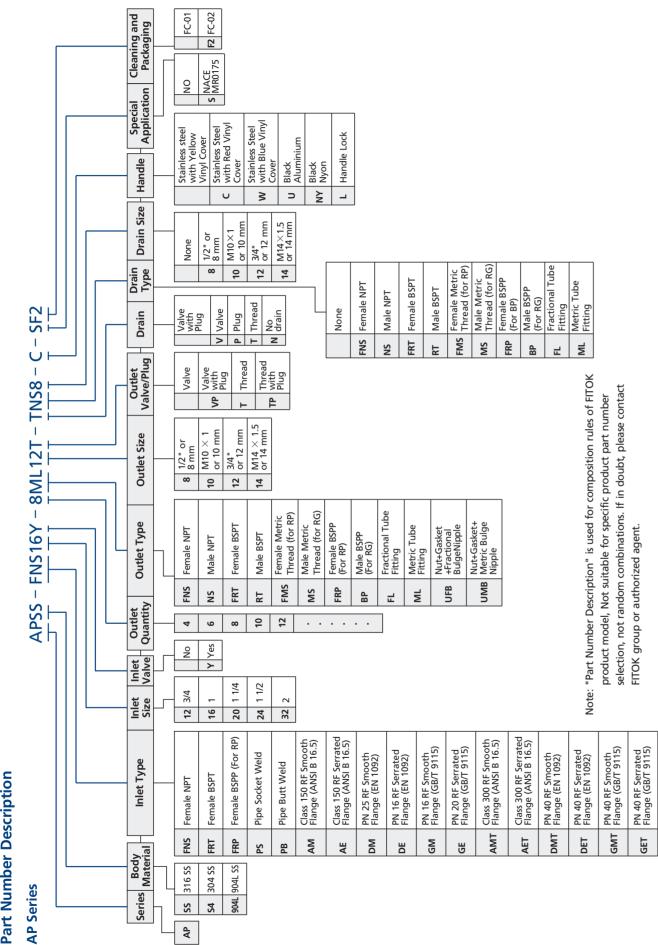






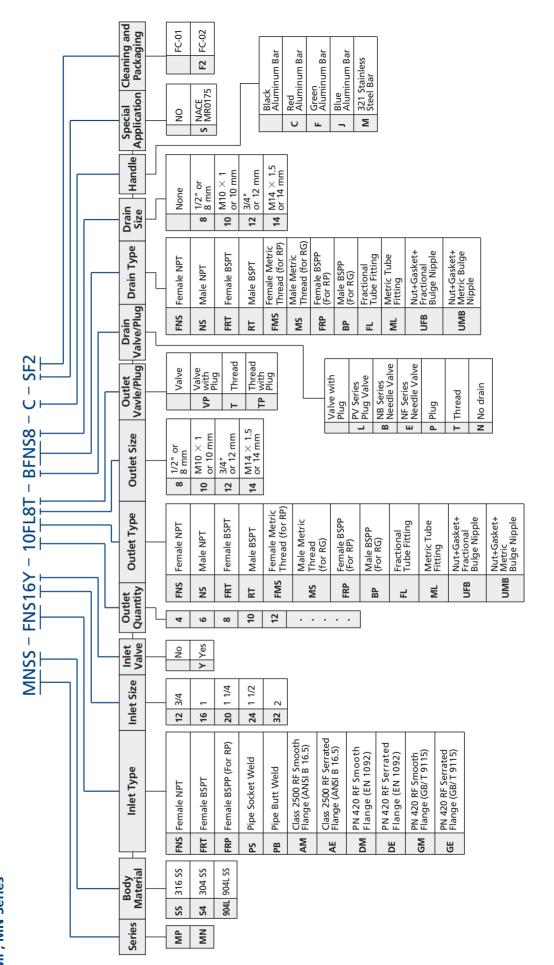
Part Number Description

AP



Part Number Description

MP, MN Series



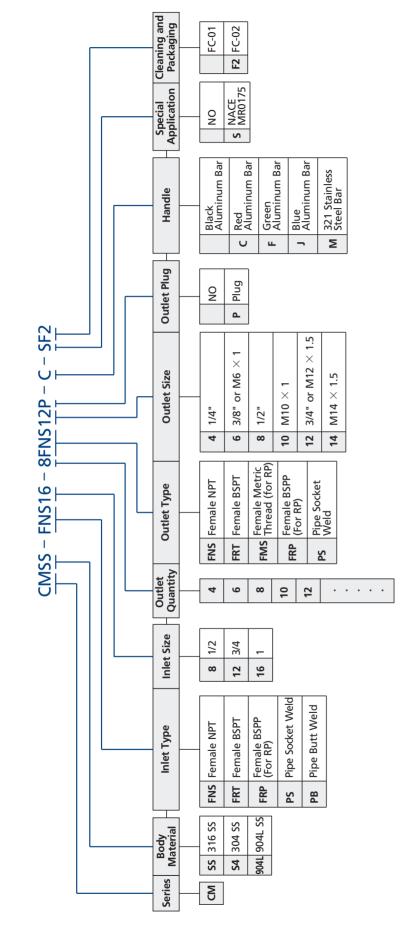
"Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent. Note:



Manifolds / Air Headers and Distribution

Part Number Description

CM Series



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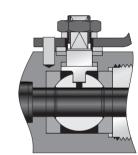
Block and Bleed Valves



Element Features

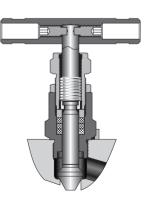
Ball Valves

- O Working pressure up to: 6000 psig (414 bar)
- Working temperature:
- PTFE: -65°F to 450°F (-54°C to 232°C) PEEK: -65°F to 450°F (-54°C to 232°C)
- © Bottom-loaded stem prevents stem blowout and enhances
- O High-strength stem bearings provide smooth actuation and eliminate galling between the valve stem and body.
- © FITOK ball valves are designed to be operated in a fully open or fully closed position.



Needle Valves

- O Working pressure up to: 6000 psig (414 bar)
- Working temperature:
- PTFE: -65°F to 450°F (-54°C to 232°C) Graphite: -65°F to 1200°F (-54°C to 649°C)
- O Two stems design. The upper stem has hardened threads, the lower stem has hardened smooth surface.
- O Upper stem thread lubricant is isolated from system media.
- O The lower stem performs vertical linear movement instead of screwing movement, significantly reducing the friction area.
- The nonrotating lower stem eliminates galling between the seat and tip.
- O Stem back seating seals in the fully open position
- O Double lock-pins enable steady and durable fastening of the handle.



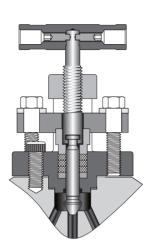
Working temperature:

PTFE: -65°F to 450°F (-54°C to 232°C) Graphite: -65°F to 1200°F (-54°C to 649°C)

surface hardened lower stem.

O Two-stem design: thread hardened upper stem and smooth

- O Upper stem thread lubricant is isolated from system fluid.
- © The nonrotating lower stem, linearly instead of helical movement, avoids galling damage to the seat and tip, as well as reduces the total friction area between the packing and the lower stem.
- Bolted bonnet enhance strength and reliability.
- O Adjustable gland flange allows easy access to the packing gland and packing adjustment for an effective stem seal.
- O Investment case yoke is formed by precision casting which enhances strength and perfect stem alignment.
- O Two handle pins make the handle fixed firmly and lastingly.



Handle colors indicate functions:

Needle and OS & Y valves: Black = Isolate/Block Red =Vent/Bleed

Ball valves: Yellow=Isolate/Block Red =Vent/Bleed

Single Block and Bleed Valves - BB Series

Instrument Single Block and Bleed Valves

BB□□-BB-FNS8-C	BB□□-BN-FNS8-V	BB□□-NN-NS8-FNS8-H
5		
Process Outlet Vent	Process Outlet Vent	Process Outlet Vent

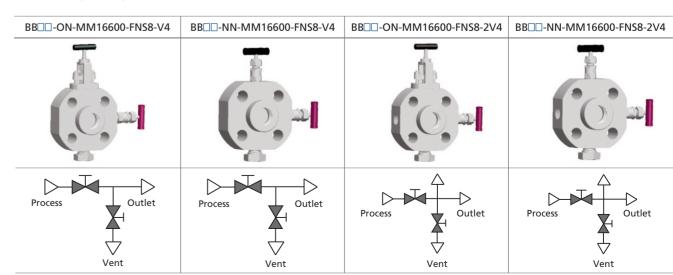
Flange Single Block and Bleed Valves

BB□□-BN-FM8300-FNS8-V8	BB□□-BB-FM8300-FNS8-V8	BB□□-BN-FM8300-V8	BB□□-BB-FM8300-V8
Process Outlet Vent	Process Outlet Vent	Process Outlet Vent	Process Outlet Vent

Root Single Block and Bleed Valves

BB□□-BN-RV8-FNS8-V8	BB□□-BO-RV8-FNS8-V8	BB□□-ON-RV8-FNS8-V8	BB□□-NN-RV8-FNS8-V8
Process Outlet Vent	Process Outlet Vent	Process Outlet Vent	Process Outlet Vent

Monoflange Single Block and Bleed Valves



Wanifolds / Block and Bleed

Monoflange Single Block Valves

SBUU-O-MM8300-FNS8	SB□□-N-MM8300-FNS8
Process Outlet	Process Outlet

Double Block and Bleed Valves - DBB Series

Instrument Double Block and Bleed Valves

DBB□□-BBB-FNS8-V4-L	DBB□□-NNN-NS8-FNS8-V4-V	DBB□□-NBN-FNS8-V4-H
Process Outlet Vent	Process Outlet Vent	Process Outlet Vent

DBB□□-BBN-FNS8-V4-V	DBB□□-BBB-FNS8-V4-C
1 TO 1	
Process Outlet Vent	Process Outlet Vent

Flange Double Block and Bleed Valves

DBB□□-BBN-FM8600-V4	DBB□□-BBN-FM8600-FNS8-V4	DBB□□-OON-FM8600-V4	DBB□□-OON-FM8600-FNS8-V4
Process Outlet Vent	Process Outlet Vent	Process Outlet Vent	Process Outlet Vent

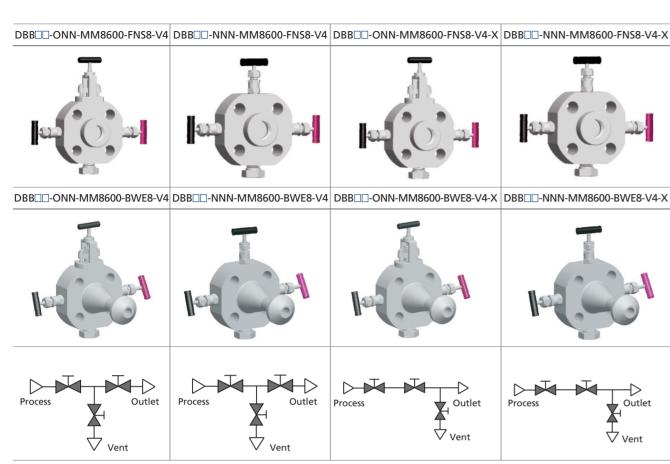
Large-Bore Bolted Double Block and Bleed Valves

DBB□□-BBN-FM16600-V4-F	DBB□□-BBN-FM16600-V4-R	
Process	Process	
Vent	Vent	

Root Double Block and Bleed Valves

DBB□□-BBN-RV8-FNS8-V8	DBB□□-BBO-RV8-FNS8-V8	DBB□□-OON-RV8-FNS8-V8	DBB□□-NNN-RV8-FNS8-V8
Process Outlet Vent	Process Outlet	Process Outlet Vent	Process Outlet Vent

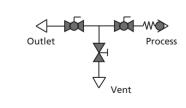
Monoflange Double Block and Bleed Valves



Injection Double Block and Bleed Valves

DBB -- BBN-FMS8-FE8150-IN

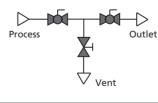




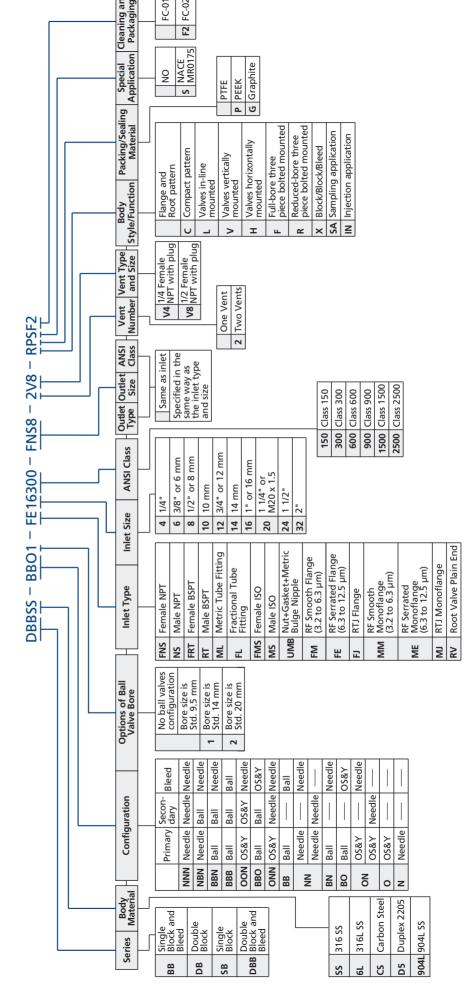
Sampling Double Block and Bleed Valves

DBBDD-BBN-FMS8-FE8150-SA





Part Number Description



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FITOK

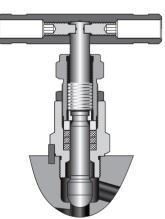
58

Gauge Valves

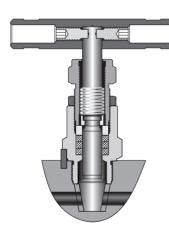
- Working pressure up to: Stainless steel: GV, GR up to 6000 psig (414 bar) GVH up to 10000 psig (690 bar)
- O GV series and GVH series working temperature: PTFE packing: -65°F to 450°F (-54°C to 232°C) Graphite packing: -65°F to 1200°F (-54°C to 649°C)
- O GR series working temperature: Acetal seat: -20°F to 250°F (-28°C to 121°C) PEEK seat: -20°F to 400°F (-28°C to 204°C) PFA seat: -20°F to 400°F (-28°C to 204°C)
- O Non-rotating lower stem, ball tip and plug tip designs
- O Variety of materials for seat and packing
- O Safety back seating seals in fully open position
- Rolled spindle operating threads
- O Lubricant for stem thread isolated from the media
- © Externally adjustable gland
- Bonnet locking pin fitted as standard
- O Low torque operating T bar handle
- Option for different colored handles
- © Steady and durable fastening of the handle by double lock-pins
- O Leak-tight performance testing for every valve with nitrogen at the maximum working pressure





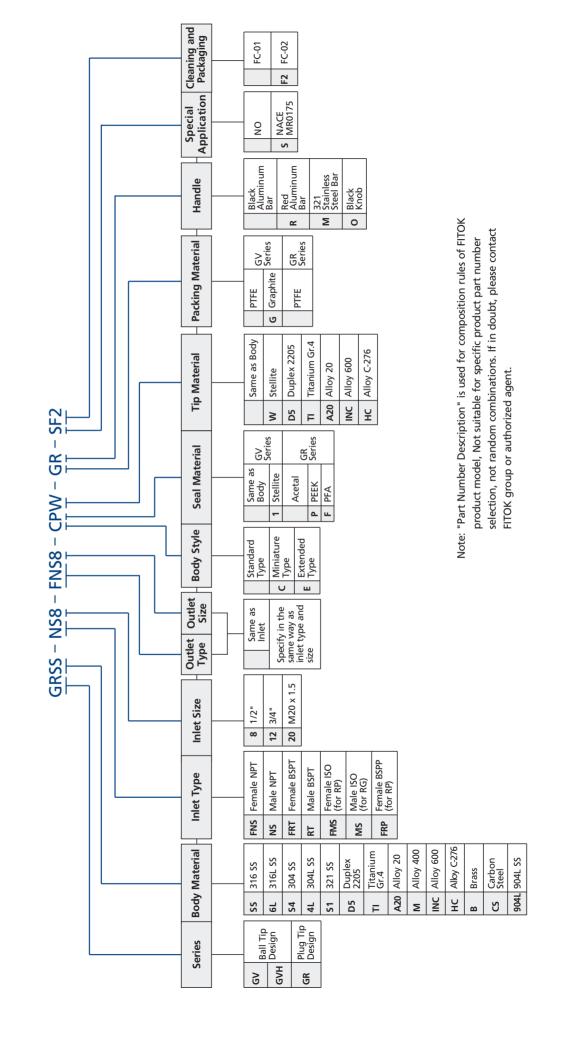


Plug Tip Design Valves (GR)



GV □□-NS8-FNS8	GV □□-NS8-FNS8-E	GV □□-NS8-FNS8-C
GVH □□-NS8-FNS8	GVH □□-NS8-FNS8-E	GVH □□ -NS8-FNS8-C
GR □□-NS8-FNS8	GR □□-NS8-FNS8-E	GR □□-NS8-FNS8-C

Part Number Description



Instrumentation Manifolds

Working pressure up to:

Stainless steel: 2D, 2R, 3D, 3R, 5D, 5R up to 6000 psig (414 bar) 2DH, 2RH, 3DH, 3RH, 5DH, 5RH up to 10000 psig (690 bar)

Alloy C-276: 2D, 2R, 3D, 3R, 5D, 5R up to 6000 psig (414 bar)

Working temperature:

PTFE packing: -65°F to 450°F (-54°C to 232°C) Graphite packing: -65°F to 1200°F (-54°C to 649°C)

- Orifice: 0.157" (4.0 mm), CV: 0.35
- O Two-stem design: thread hardened upper stem and smooth surface hardened lower stem
- O Upper stem thread lubricant isolated from system media
- O Linear instead of helical movement of the nonrotating lower stem avoids galling damage to the seat and tip, as well as reduces the total friction area between the packing and the
- O Safety back seating seals in fully open position
- © Steady and durable fastening of the handle by double lock-pins
- the maximum working pressure



Handle colors indicate functions:

Black=Isolate/Block Red=Test/Vent Green=Equalize

2-Valve Manifolds

2D□□-FNS8-A	2D□□-FNS8-L	2D□□-FNS8-H
	HE G. AL	
2R□□-FNS4-A	2R □□-FNS4-C	2R□□ -FNS8-L
	S. Care	TE. OIL



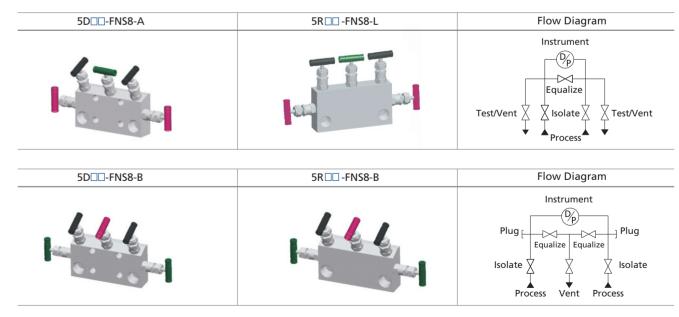
© The standard configuration of direct mount manifolds contain PTFE flange seal ring and 7/16-20 UNF × 1.75" high tensile bolts.

3-Valve Manifolds

3D□□-FNS8-A	3D□□-FNS8-L-T	
3R □□-FNS8-V	Flow Diagram	
	Plug Fqualize Isolate Process	

◎ The standard configuration of direct mount manifolds contain PTFE flange seal ring and 7/16-20 UNF × 1.75" high tensile bolts.

5-Valve Manifolds

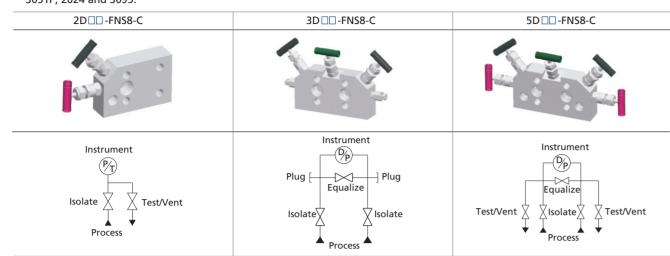


⊚ The standard configuration of direct mount manifolds contain PTFE flange seal ring and 7/16-20 UNF × 1.75" high tensile bolts.

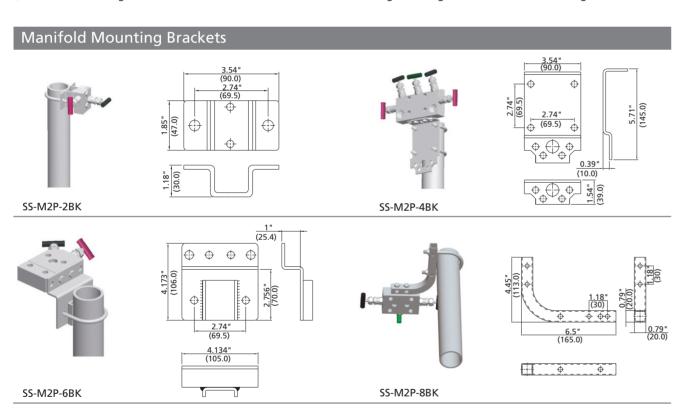
Manifolds / Instrumentation Manifolds

Instrumentation Integral Manifolds

© C Integral Manifold is specifically designed for the pressure transmitters of Rosemount ® coplanar™, including Model 3051C, 3051P, 2024 and 3095.

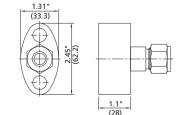


⊚ The standard configuration of direct mount manifolds contain PTFE flange seal ring and 7/16-20 UNF × 1.75" high tensile bolts.

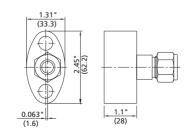


Kidney and Eccentric Flanges

Kidney Flange



Eccentric Flange



The auxiliary installation for FITOK manifolds and transmitters of different brands

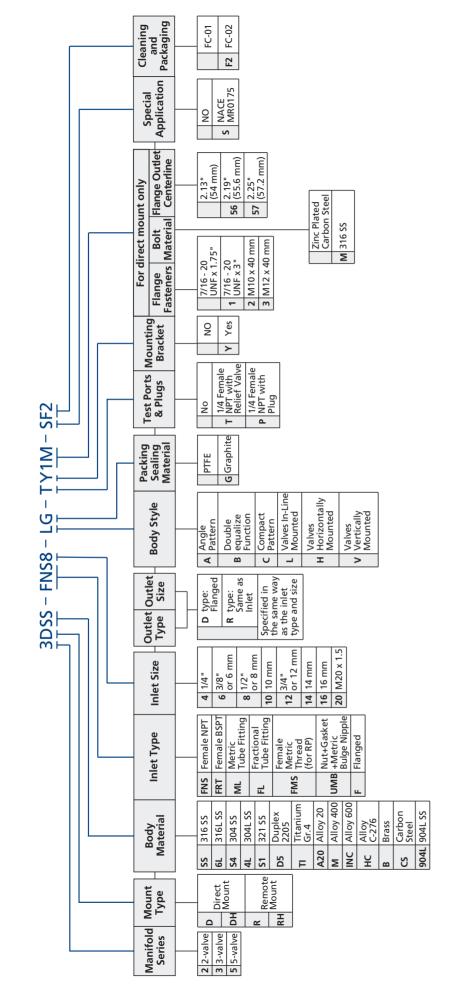
Model of FITOK Manifolds Model of Transmitters	3(5)DXX-XX-X	3(5)RXX-FXXX-X	2DXX-XXX-X	2RXX-FXXX-X
Rosemount Transmitters				
3051 CD X X 2 (3、4、5、7、8) X X X X	A4			
3051 CD X X 0 X X X X H2 (H3、H4、H7、HJ)	A1			
3051 CD X X 0 X X X X HK	A2			
3051 CD X X 0 X X X X HL	A3			
3051 CD X X X X X X X DF	A5	A		
3051 CG (CA) X X 2 (3 4 5 7 8) X X X X			A4	
3051 CG (CA) X X 0 X X X X H2 (H3 H4 H7 HJ)			A1	
3051 CG (CA) X X 0 X X X X HK			A2	
3051 CG (CA) X X 0 X X X X HL			A3	
3051 CG (CA) X X X X X X DF			A5	^
			Аэ	A
1151 D (H) P 3 (4、5) X XX XX	A1			
1151 A (G) P 3 (4 5) X XX XX			A1	
1151 D (H) P X X XX XX DF	A5	А		
EJA Transmitters				
EJA1X0A-XXX0 (5) X-XXXX	A1			
EJA1X0A-XXX1 (2、3、4) X-XXXX	A5	А		
EJA3 (4、5) X0A-XXX0 (5) X-XXXX			A1	
EJA3 (4 5) X0A-XXX1 (2 3 4) X-XXXX			A5	Α
Honeywelly Transmitters				
STDXXX-XXA-XXX	A1			
STDXXX-XXH-XXX	A5	А		
STXXXX-XXG-XXX			A5	А
STGXXX-XXA-XXX			A1	
SMXXXX-XXA-XXX	A1			
SMXXXX-XXH-XXX	A5	А		
SIEMENS Transmitters				
7MF433X-XXX0 (4) X-XXXX			A2	Α
7MF433X-XXX2 (6) X-XXXX			A1	А
7MF44 (5) 3X-XXX0 (4) X-XXXX	A2			
7MF44 (5) 3X-XXX2 (3、6、7) X-XXXX	A1			
7MF44 (5) 3X-XXX1 (5) X-XXXX	A3			

Remark:

- A: Connecting with fittings
- A1: Connecting with flange and sealing rings, using 7/16 20 x 1.75" bolts
- A2: Connecting with flange and sealing rings, using M10 x 40 mm bolts
- A3: Connecting with flange and sealing rings, using M12 x 40 mm bolts
- A4: Connecting with flange and sealing rings, using 7/16 20 x 3" bolts
- A5: Remove the kidney flanges and then connect with flange and sealing rings



Manifolds / Instrument Manifolds



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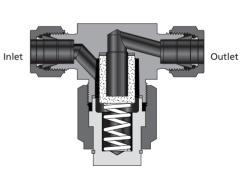
Filters



Tee-type Filters

FT Series

- O Filter element replaceable without removing body from system
- O Union bonnet design
- \odot Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80 μm
- \odot Nominal pore sizes for strainer element: 100, 150, 250 and 450 μm
- O Working pressure up to: 6000 psig (414 bar)
- © Working temperature: -20°F to 900°F (-28°C to 482°C)
- O Body materials: 316 SS, 316L SS, 304 SS, 304L SS, 904L SS and Brass
- O Variety of end connections available

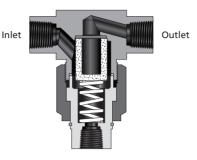


Filters

Bypass Filters

FB Series

- © Bypass port at filter bottom for the ease of sampling or purging
- O Union bonnet design
- © Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80 μm
- O Nominal pore sizes for strainer element: 100, 150, 250 and 450 μm
- O Working pressure up to: 6000 psig (414 bar)
- Working temperature: -20°F to 900°F (-28°C to 482°C)
- © Body materials: 316 SS, 316L SS, 304 SS, 304L SS, 904L SS and Brass
- O Variety of end connections available

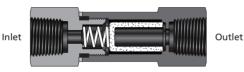


Bypass Port

In-line Filters

FI Series

- © Compact and space-saving design
- \odot Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80 μm
- \odot Nominal pore sizes for strainer element: 100, 150, 250 and 450 μm
- O Working pressure up to: 3000 psig (207 bar)
- O Working temperature: -20°F to 900°F (-28°C to 482°C)
- © Body materials: 316 SS, 316L SS, 304 SS, 304L SS, 321 SS, 904L SS and Brass
- O Variety of end connections available



All-welded In-line Filters

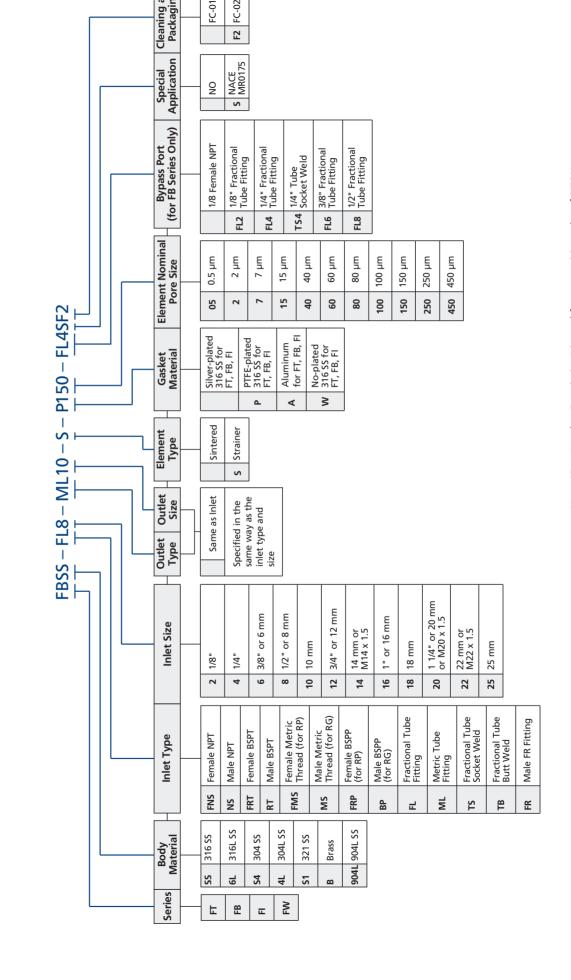
FW Series

FITOK

- O Large filtration area and high flow coefficient
- All-welded construction for elimination of leakage
- © Easy cleaning of filters by backflushing
- O Full-penetration weld between body and element
- O Nominal pore sizes for sintered element: 0.5, 2, 7, 15, 40, 60 and 80 μm
- O Working pressure up to: 6000 psig (414 bar)
- O Working temperature: -20°F to 900°F (-28°C to 482°C)
- O Body materials: 316 SS, 316L SS, 304 SS, 304L SS and 904L SS
- O Variety of end connections available



Filters Part Number Description



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Hoses

and

Connectors

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Hoses and Connectors

Metal Flexible Hose Assemblies

MH, MM Series

- O Core tube and fitting material: 316 stainless steel
- Overbraid material: 304 stainless steel
- O Working pressure up to: 3100 psig (213 bar)
- © Hose sizes: 1/4" to 2"
- © Working temperature: -325°F to 800°F (-200°C to 426°C)
- © End connections:
- 1/4 to 2 thread
- 1/4" to 2" and 6 mm to 22 mm tube fitting
- © Welded fitting-to-hose construction to ensure reliable seal
- O Standard and custom-length available



PTFE-lined, Stainless Steel Braided Hose Assemblies

PS Series

- O Lightweight construction for easy handling and installation
- © Core tube material: smooth virgin PTFE
- Overbraid material: 304 stainless steel
- Working pressure up to: 3000 psig (207 bar)
- O Hose sizes: 1/4" to 1"
- © Working temperature: -65°F to 400°F (-53°C to 204°C)
- © End connections:
- 1/8 to 1 thread
- 1/8" to 1" and 6 mm to 22 mm tube fitting
- O Standard and custom-length available



Thermoplastic Hose Assemblies

TH Series

- O Cover: polyurethane for resistance to oil, weather and abrasion
- © Reinforcement: double-braid high-strength synthetic fiber
- O Core tube: nylon
- Working pressure up to: 5000 psig (345 bar)
- O Hose sizes: 3/16" to 1"
- O Working temperature: -40°F to 200°F (-40°C to 93°C)
- © End connections:
- 1/4 to 1 thread
- 1/4" to 1" and 6 mm to 22 mm tube fitting
- © End connection materials: stainless steel, brass, and carbon steel
- O Standard and custom-length available



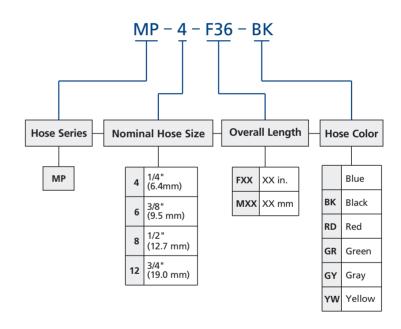
Multipurpose Push-on Hose Assemblies

MP Series

- O Cover: weather-, abrasion-, and oil-resistant synthetic rubber
- © Reinforcement: single-braid high-strength synthetic fiber woven for maximum strength and end connection retention
- © Core tube: highly oil-resistant rubber
- O Hose colors: blue, black, green, gray, red and yellow
- O Working pressure up to: 300 psig (20.7 bar)
- O Hose sizes: 1/4" to 3/4"
- O Working temperature: -40°F to 190°F (-40°C to 88°C)
- O End connections:
- 1/4 to 3/4 thread
- 1/4" to 3/4" and 6 mm to 18 mm tube fitting
- © End connection materials: stainless steel and brass
- © End connections reusable
- O Standard and custom-length assemblies



Hose Part Number Description

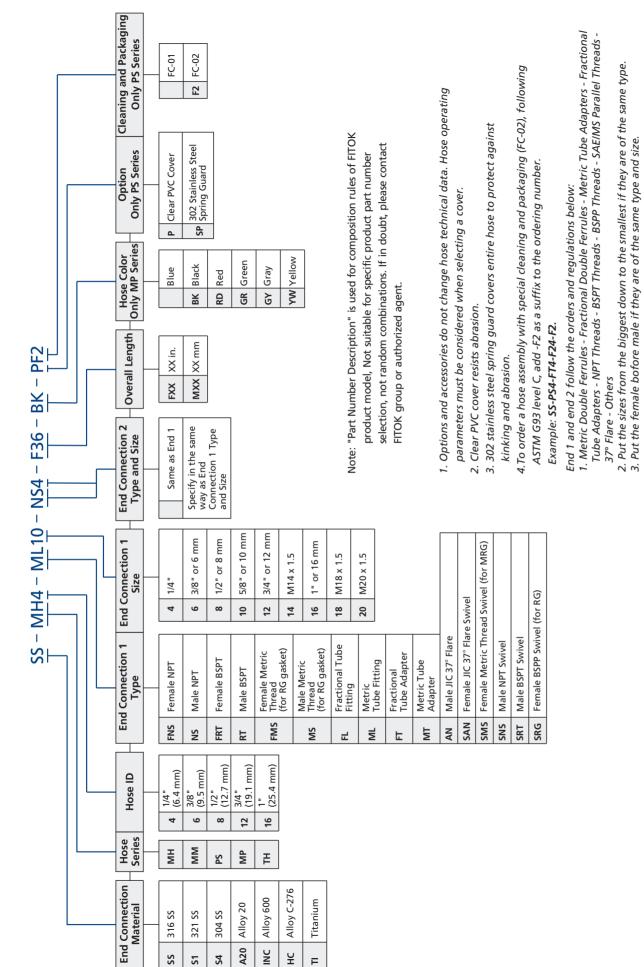


Example: MP-8-F60-BK MP: Hose series 8: Hose size is 1/2" F60: Overall length is 60" BK: Hose color is black

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Hoses and Connectors

FITOK



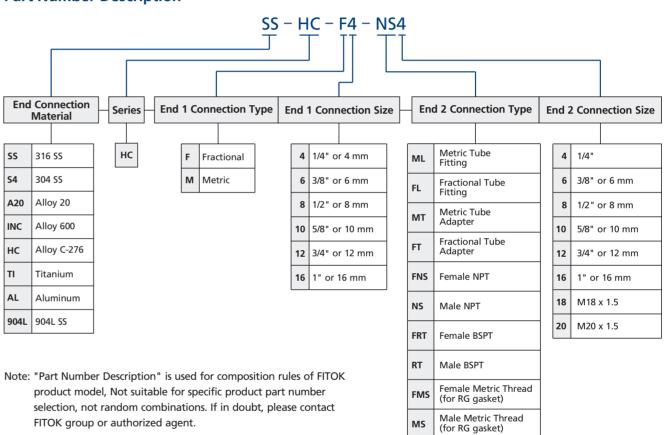
Hose Connectors, Adapters, and Sleeves

HC Series

- O For connecting with soft plastic or rubber tubing
- O Working pressure and temperature range is higher than the corresponding connecting hose.
- O Stainless steel or brass material
- © Shank design for secure holding of tubing inside diameter
- O Hose connectors reusable



Part Number Description



Quick-connects

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Quick-connects

QC Series

- O Working pressure up to: 3000 psig (207 bar)
- Working temperature:
- -10°F to 400°F (-23°C to 204°C) with Fluorocarbon FKM seal
- -10°F to 250°F (-23°C to 121°C) with Buna N seal
- Materials: stainless steel or brass
- © End connections: 1/8 to 1/2 NPT, 1/8" to 1/2" and 6 mm to 12 mm tube fitting and 1/4" to 1/2" hose connectors
- O Reliable, leak-tight O-ring seals for vacuum or pressure systems
- Mix-interchangeable with other main brands
- © Single-end shutoff, double-end shutoff and full-flow quick-connects available
- © Simple push-to-connect coupling for quick and easy operation
- © Sturdy locking mechanism with large contact area to ensure reliable stem retainment



QF Series

- Working pressure up to: 6000 psig (414 bar)
- Working temperature:
- -10°F to 400°F (-23°C to 204°C) with Fluorocarbon FKM seal -10°F to 250°F (-23°C to 121°C) with Buna N seal
- Materials: stainless steel, carbon steel and brass
- © End connections: 1/4 to 1 NPT, 1/4" to 1" and 6 mm to 12 mm tube fitting
- Full flow
- O Quick, easy operation
- © Smooth, open bores without valving on either end to minimize pressure drop and allow easy cleaning





OV Series

- O Working pressure up to: 2000 psig (137 bar)
- Working temperature:
- -10°F to 400°F (-23°C to 204°C) with Fluorocarbon FKM seal -10°F to 250°F (-23°C to 121°C) with Buna N seal
- Materials: stainless steel, carbon steel and brass
- © End connections:
- 1/8 to 1 NPT and BSPT
- O Double-end shutoff available
- O Durable ball-locking mechanism assures reliable connection
- © Simple push-to-connect coupling for quick and easy operation





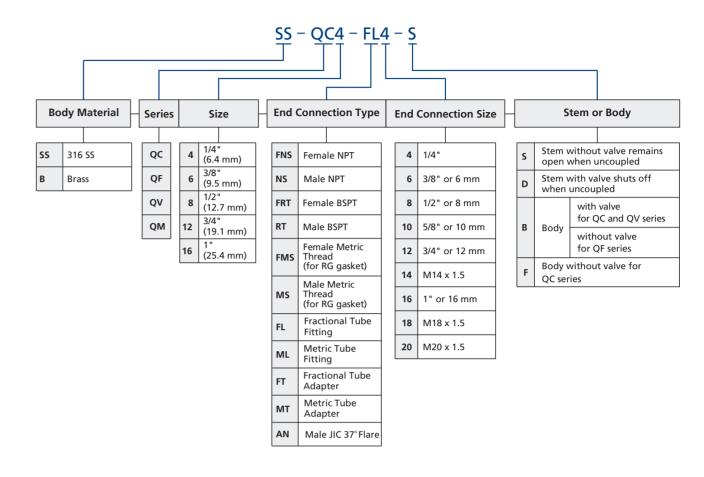
QM Series

TOK

- O Working pressure up to: 4000 psig (276 bar)
- Working temperature:
- -10°F to 400°F (-23°C to 204°C) with Fluorocarbon FKM seal -10°F to 250°F (-23°C to 121°C) with Buna N seal
- Materials: stainless steel or brass
- © Single-end shutoff, double-end shutoff and full-flow available
- O Quick, easy operation



Part Number Description



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Condensate Pots and Vessels

Condensate Pots and Vessels

Condensate Pots

CP Series

- Working pressure up to: Class 2500
- © Socket weld connection as per ANSI B16.11
- O Butt welding ends as per ANSI B16.9
- O NPT as per ANSI B1.20.1 taper pipe thread
- All chambers are factory tested fully prior to shipment
- © Standard material of construction: 316 SS, 304 SS, carbon steel
- O Pipe schedule: 40, 80, 160, XXS seamless steel
- O Variety of end connections available



Configurations

2A	2B	3A	3B	3C	4A
1 2	1 3	2	1 3	4 0 ⁵ 3	1 2

Vessels

SV Series

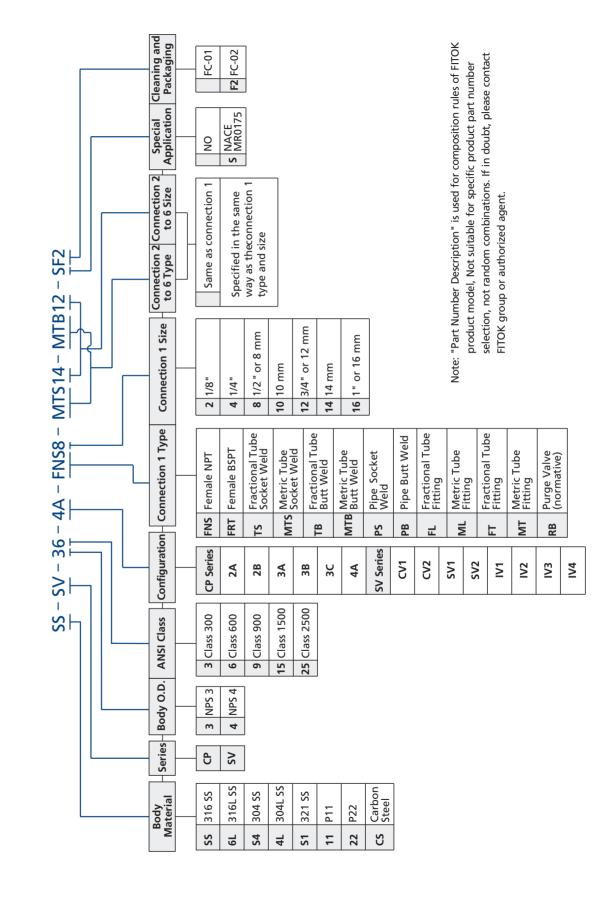
- O Pressure ratings range class 300 to 2500.
- Outside diameters: NPS 3 and NPS 4
- © Full-penetration gas tungsten arc-weld construction ensures great strength and leak-tight performance.
- O All vessels are cleaned in compliance with FITOK standard clean procedure. The connections are protected with caps or plugs.
- © Each vessels is hydraulic tested with pure water at 1.5 times the design pressure, and leak-tight tested with nitrogen at its design pressure.



Configurations

CV1	CV2	SV1	SV2	IV1	IV2
IV3	IV4				

Part Number Description



Sample Cylinders and Accessories

Sample Cylinders and Accessories

SC Series

- O Working pressure up to: 5000 psig (345 bar).
- O Volume varies from 40 to 3785 cm³.
- © 304L and 316L and alloy 400 stainless steel materials resist intergranular corrosion.
- O Seamless tubing body provides consistent wall thickness, size and capacity.
- O Cylinder inlet ends are 1/8, 1/4 and 1/2 female NPT connections.
- © Heavy wall end connections provide strength and are flaring-resistent.
- © Full-penetration gas tungsten arc-weld construction provides leak-tight sample containment.

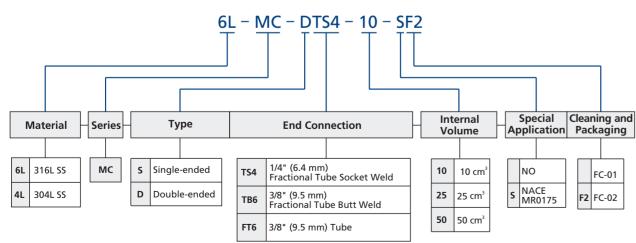


MC Series

- O Working pressure up to: 1000 psig (69.0 bar)
- © Capacity: 10, 25 and 50 cm³
- O Single-ended and double-ended designs
- © End connection: connected to 3/8" FITOK tube fittings or welded to 1/4" or 3/8" tubing
- O Corrosion-resistant stainless steel construction
- Full-penetration butt weld construction

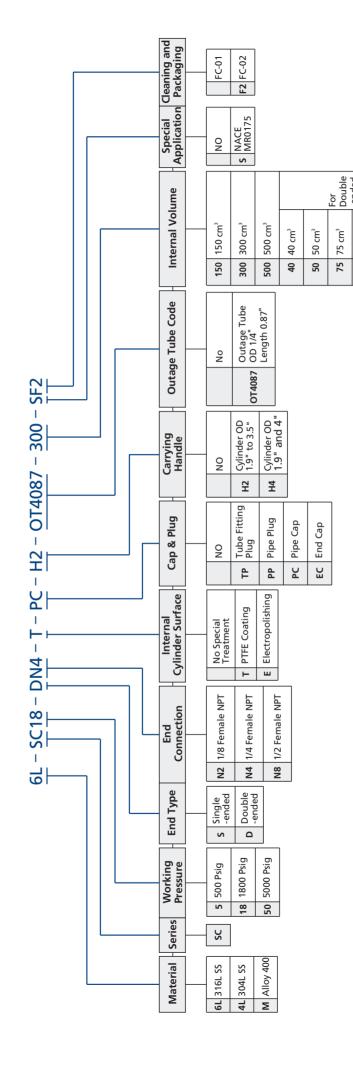


Part Number Description



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Part Number Description



400 cm³

Tubing Tools

Tubing Tools

Hand Tube Benders

HTB Series

- © Can bend stainless steel or copper tubing, the outside diameter ranges from 1/4" to 1/2" and 6 mm to 12 mm.
- Roll dies reduce bending force and tube ovality, as compared to conventional slide block design.
- © 1° to 180° bending range



Ordering Number	Tube O.D.	Bend Radius
HTB-4S	1/4"	0.56"
HTB-4	1/4"	0.75"
HTB-5	5/16"	0.94"
HTB-6	3/8"	0.94
HTB-8	1/2"	1.5"
HTB-6M	6 mm	15 mm
HTB-8M	8 mm	24 mm
HTB-10M	10 mm	24 111111
HTB-12M	12 mm	38 mm
HTB-14M-L	14 mm	56
HTB-16M-L	16 mm	56 mm

The hand tube bender can not be used for SAF 2507 tubing over 1/4" or for medium-pressure tubing.

Tube Cutters

Ordering Number: FTC-03,FTC-04,FTC-05

- © For cutting stainless steel, copper, and aluminum tubing
- ◎ For cutting 1/8" to 2 5/8" and 3 mm to 65 mm outside diameter tubing



Tube Deburring Tools

Ordering Number: TDT-01,TDT-03,TDT-05

- © For deburring tubing made from stainless steel, carbon steel, aluminium, and copper materials
- © For deburring 1/4" to 1 1/4" and 6 mm to 35 mm outside diameter tubing



Hydraulic Presetting Tools

Ordering Numbers: HPT-03 (for 1/2" to 1"and 12 mm to 25 mm tubing) HPT-05 (for 1 1/4" to 2" and 28 mm to 50 mm tubing)

- © For installation of 1/2" to 2" and 12 mm to 50 mm tube fittings
- Used to install carbon steel, stainless steel, and alloy steel tube fittings
- Manually operated hydraulic pump, without requirement for power or compressed air
- © Flexible hose connection between the pump and jig to assure easy and comfortable operation
- Sturdy plastic package for easy carrying
- O Total weight of 37.5 lbs

FITOK

Overall dimensions (without handle) of 12.6 in. x 9.8 in. x 5.9 in.

Manual Presetter Tools

MPT Series

For tube fitting installations in close quarters, the presetter tool can make installation easier when paired with the table vice.

O For 1/4" to 1" and 6 mm to 25 mm tube fittings



Gap Inspection Gauges

GIG Series

During initial installation of tube fittings, installer or inspector can use gap inspection gauge to check whether a fitting has been sufficiently tightened and eliminate the latent danger of leakage for the system.

© For all metal fittings, sizes from 1/16" to 1" and 2 mm to 25 mm







Individual Sizes



Universal Adapters Cases

- O Carefully selected adapters, hoses, and gaskets in one case for convenience
- O Customer specified adapters available

Ordering Numbers:

ZR45K-65P: 65 standard pieces inside

ZR45K-65PC: 65 customer specified pieces inside

ZR25K-30P: 30 standard pieces inside

ZR25K-30PC: 30 customer specified pieces inside



Other Elements

Other Elements

Stainless Steel Seamless Tubing



Material Standards

Grade	UNS Designation	ASTM	ASME
316/316L	S31600/S31603		
304/304L	S31400/S31403	A312	SA312
321	S32100		

Example:

Fractional: 6L-ST8-049-12-MP-A269 Metric: 6L-ST12M-1.0-2M-MP-A269

Gaskets and O-rings

Configuration	Gasket Type	Example
	RS Gasket	CSB-RS-8
	RP Gasket	CU-RP-6
	RG Gasket	CU-RG-4

Configuration	O-ring Type	Example
	70 durometer NBR	BN7-116
	90 durometer FKM	VI9-912

Syphons



- O Working pressures up to: 6000 psig (414 bar)
- O Working temperatures up to: 850°F (454°C)
- © 316 SS, 304 SS materials are available

Configuration	Туре	Example
	WS Series	SS-WS-FNS8-MTB14
	LWS Series	S4-LWS-FNS8-MTB14
	UWS Series	S1-UWS-FNS8-MTB14

Other Elements

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Pressure Gauge

All Stainless Steel Pressure Gauge

GA Series

- © 63 mm and 100 mm dial sizes are available.
- © The accuracy is according to ASME B40.1, EN 837-1, JIS B7505.
- O High pressure measurement up to 100 Mpa.
- © 14x1.5, 20x1.5 Male Metric Thread, 1/4", 1/2" Male NPT, 1/4", 3/8", 1/2", 6 mm, 10 mm, 12 mm tube adapter or other fitting types and sizes are availale.
- O The degree of protection is IP65.
- O Hermetically sealed construction.
- O Tube adapter align the dial to the desired position.
- O Lower Mount, Center-Back Mount and Lower-Back Mount are provided.
- O Design is liquid fillable.

Note: Lower-Back Mount is applied only to 100 mm dial.



Solid-Front Stainless Steel Savety Gauge

GB Series

- © 63 mm and 100 mm dial sizes are available.
- © The accuracy is according to ASME B40.1, EN 837-1, JIS B7505.
- O High pressure measurement up to 100 Mpa.
- © 14x1.5, 20x1.5 Male Metric Thread, 1/4", 1/2" Male NPT, 1/4", 3/8", 1/2", 6 mm, 10 mm, 12 mm tube adapter or other fitting types and sizes are availale.
- O The degree of protection is IP65.
- O Solid front and blowout back for serere service.
- O Tube adapter align the dial to the desired position.
- O Lower Mount and Center-Back Mount are provided.
- O Design is liquid fillable.

Stainless Steel Miniature Gauge

GC Series

- © 40 mm and 50 mm dial sizes are available.
- The accuracy is according to ASME B40.1, EN 837-1, JIS B7505.
- © 10x1, 14x1.5 Male Metric Thread, 1/8", 1/4" Male NPT, 1/4", 3/8", 6 mm, 10 mm tube adapter or other fitting types and sizes are availale.
- The degree of protection is IP65.
- Miniature size allows placement in compact spaces.
- $\ensuremath{\mathbb{O}}$ Tube adapter align the dial to the desired position.
- O Lower Mount and Center-Back Mount are provided.

Table of ranges

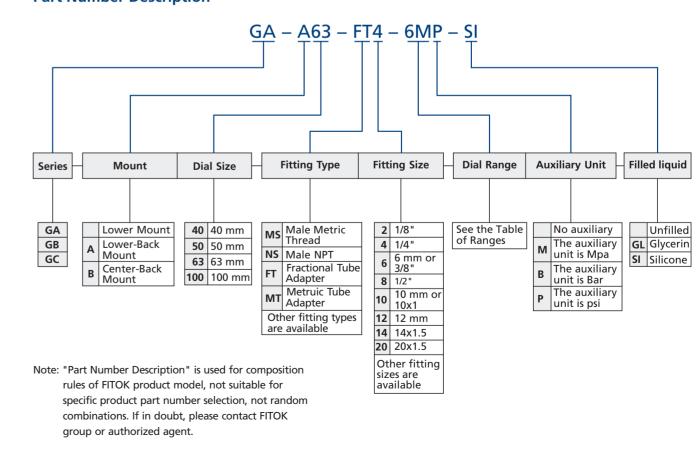
Dial Range, MPa			
Min	Max	Designator	
	0	V0M	
	0.06	V0.06M	
Vacuum -0.1MPa	0.15	V0.15M	
	0.3	V0.3M	
O. HVIII G	0.5	V0.5M	
	0.9	V0.9M	
	1.5	V1.5M	
	0.1	0.1M	
	0.16	0.16M	
	0.25	0.25M	
	0.4	0.4M	
	0.6	0.6M	
	1	1M	
	1.6	1.6M	
0	2.5	2.5M	
U	4	4M	
	6	6M	
	10	10M	
	16	16M	
	25	25M	
	40	40M	
	60	60M	
	100	100M	

	Dial Range,	
Min	Max	Designator
L	0	V0B
	0.6	V0.6B
\/	1.5	V1.5B
Vacuum -1 bar	3	V3B
	5	V5B
	9	V9B
	15	V15B
	1	1B
	1.6	1.6B
	2.5	2.5B
	4	4B
	6	6B
Γ	10	10B
	16	16B
0	25	25B
0	40	40B
	60	60B
	100	100B
	160	160B
	250	250B
	400	400B
	600	600B
	1000	1000B

Dial Range, psi			
Min	Max	Designator	
	0	V0P	
	15	V15P	
\/	30	V30P	
Vacuum -30 in.Hg	60	V60P	
Johning	100	V100P	
	160	V160P	
	200	V200P	
	15	15P	
	30	30P	
	60	60P	
	100	100P	
	160	160P	
	200	200P	
	300	300P	
0	400	400P	
0	600	600P	
	800	800P	
	1000	1000P	
	1500	1500P	
	2000	2000P	
	3000	3000P	
	5000	5000P	
	6000	6000P	
	10000	10000P	
	15000	15000P	

Note: The maximum pressure value may be restricted to the end connection

Part Number Description



Other Elements

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Thermowells and Bosses



Thermowells

- © FITOK thermowells provide reliable heat-transmission performance under high temperature, high pressure, and corrosive conditions.
- © Rugged mechanical construction ensures resistance to distortion under sharp temperature fluctuation conditions.
- O Straight, stepped, and tapered shank designs are available.
- © Standard instrument connection is 1/2" NPT; other connections are available on request.
- Materials: 316 SS, 304 SS, 321 SS, F91, F92, 316H SS, carbon steel, brass, titanium, alloy C-276 and alloy 400.

TW Series

Example: SS-TW-FNS8-NS12-ST12-4-4

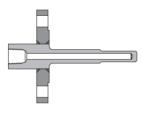
- O Process connections: 1/2" to 1" NPT; other connections available on request
- O Working pressure up to: 6000 psig (414 bar)
- Working temperature: -65°F to 1200°F (-54°C to 649°C)



TF Series

Example: SS-TF-FNS8-RF16150-SP12-4-4.5

- O Process connection: flange complying with ANSI B16.5 Flange sizes: 1" to 2" Flange ratings: class 150 to 2500 Flange types: raised face and flat face
- Welded flange-to-body construction



TS Series

Example: SS-TS-FNS8-TP-4-2.5

- O Process connection: socket weld
- Working pressure up to: 6000 psig (414 bar)
- Working temperature: -65°F to 1200°F (-54°C to 649°C)



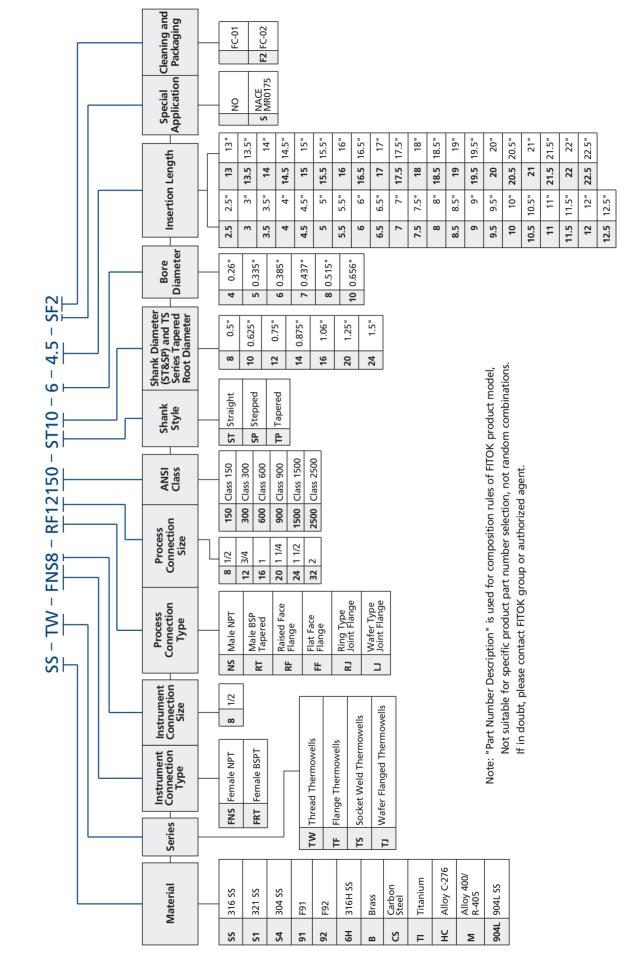
TJ Series

Example: SS-TJ-FNS8-TP-4-11.8

- O Process connection: flange
- © Flange complying with ANSI B16.5
- O Working pressure up to: 6000 psig (414 bar)
- O Working temperature: -65°F to 1200°F (-54°C to 649°C)



Part Number Description

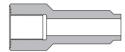


Other Elements

Bosses

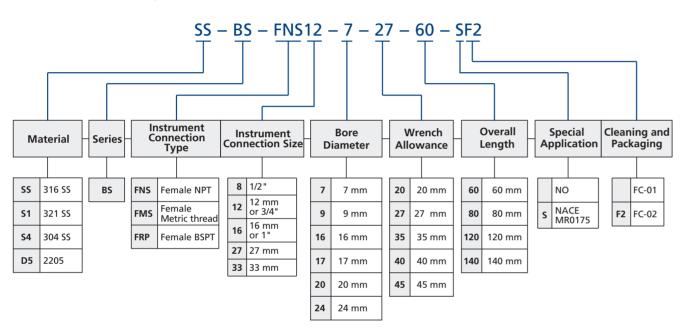
BS Series

- O Variety of process connection types and sizes available on request
- O Working pressure up to: 1500 psig (104 bar)
- ◎ Instrument connections: M12 x 1.5 to M33 x 2.0, and 1/2 to 1 thread
- Materials: 316 SS, 304 SS, 321 SS, carbon steel, brass, titanium, alloy C-276, and alloy 400/R-405



Example: SS-BS-FMS27-17-40-120

Part Number Description



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High Pressure Fittings

15 Series Tube Fittings



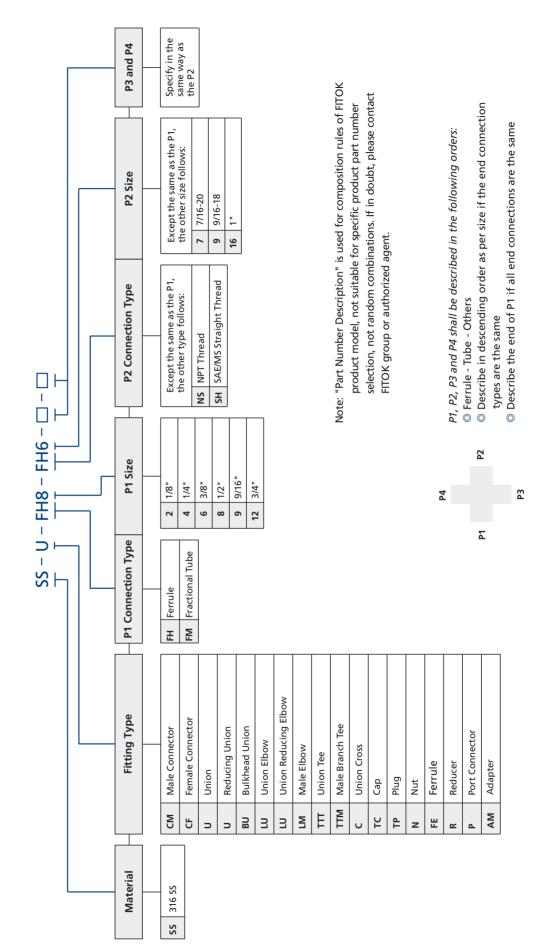
- O Pressures up to 15000 psig (1034 bar).
- O Fittings are easy to disconnect and retighten.
- © Every fitting is stamped with size, material and heat code.
- © Radius junction design with elbows provides smooth flow path.
- O Male nut threads are molybdenum disulfide-based lubricant to minimize the friction.
- O Hardened threads and smoothed surface finishes extend fitting life and prevent sticking of the matching threads.

Configuration	Fitting Type	Example
	Male Connector	SS-CM-FH4-NS8
	Female Connector	SS-CF-FH6-NS4
	Union	SS-U-FH6
	Reducing Union	SS-U-FH8-FH6

FITOK

Configuration	Fitting Type	Example
	Bulkhead Union	SS-BU-FH12
	Union Elbow	SS-LU-FH4
	Union Reducing Elbow	SS-LU-FH8-FH6
	Male Elbow	SS-LM-FH8-NS8
	Union Tee	SS-TTT-FH8
	Male Branch Tee	SS-TTM-FH12-NS12
	Union Cross	SS-C-FH4
	Cap	SS-TC-FH8
	Plug	SS-TP-FH6
	Nut	SS-N-FH2
	Ferrule	SS-FE-FH2
	Reducer	SS-R-FH6-FM8
	Port Connector	SS-P-FH8
	Adapter	SS-AM-FM8-NS4

Part Number Description



High Pressure Fittings / 60 Series

20 Series Tube Fittings

- © Pressures up to 20000 psig (1379 bar).
- © Coned-and-Threaded Connection.
- Metal-to-metal seal provides perfect leak-tight service from critical vacuum to high pressure.
- O Anti-vibration connection components available.
- Fittings are easy to disconnect and retighten.
- © Every fitting is stamped with size, material and heat code.
- O Available to NACE MR-01-75.



Configuration	Fitting Type	Example
	Gland	SS-G-2FH4
	Collar	SS-CO-2FH6
	Plug	SS-TP-2FH9
	Union Coupling	SS-U-2FH12
	Reducing Union Coupling	SS-U-2FH6-2FH4
	Union Coupling (Slip Type)	SS-SU-2FH16
	Bulkhead Coupling	SS-BU-2FH6
	Сар	SS-TC-2FH6
	Elbow	SS-LU-2FH9
	Tee	SS-TTT-2FH12
	Cross	SS-C-2FH4

Configuration	Fitting Type	Example
	Anti-Vibration Gland Assembly	SS-AVGA-2FH9
	Coned and Threaded Nipple	SS-CTN-2FH6-8

60 Series Tube Fittings

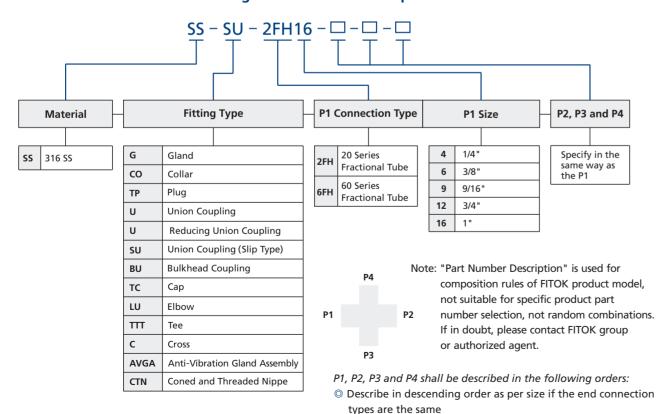
- O Pressures up to 60000 psig (4137 bar).
- O Coned-and-Threaded Connection.
- Metal-to-metal seal provides perfect leak-tight service from critical vacuum to high pressure.
- O Anti-vibration connection components available.
- © Fittings are easy to disconnect and retighten.
- © Every fitting is stamped with size, material and heat code.
- O Available to NACE MR-01-75.



Configuration	Fitting Type	Example
	Gland	SS-G-6FH4
	Collar	SS-CO-6FH6
	Plug	SS-TP-6FH9
	Union Coupling	SS-U-6FH4
	Reducing Union Coupling	SS-U-6FH6-6FH4
	Union Coupling (Slip Type)	SS-SU-6FH6
	Bulkhead Coupling	SS-BU-6FH6
	Сар	SS-TC-6FH6

Configuration	Fitting Type	Example
	Elbow	SS-LU-6FH9
	Tee	SS-TTT-6FH6
	Cross	SS-C-6FH4
	Anti-Vibration Gland Assembly	SS-AVGA-6FH9
	Coned and Threaded Nipple	SS-CTN-6FH6-10

20 Series and 60 Series Tube Fittings Part Number Description



O Describe the end of P1 if all end connections are the same

High Pressure Pipe Fittings



- O The hardened threads with smooth surface avoid galling and help to extend the fitting service life.
- © Radius junction design with elbows provides smooth flow path.
- © Every fitting is stamped with size, material, and heat code.
- © 316 stainless steel standard material. Other materials are available upon request.
- O Available to NACE MR-01-75.

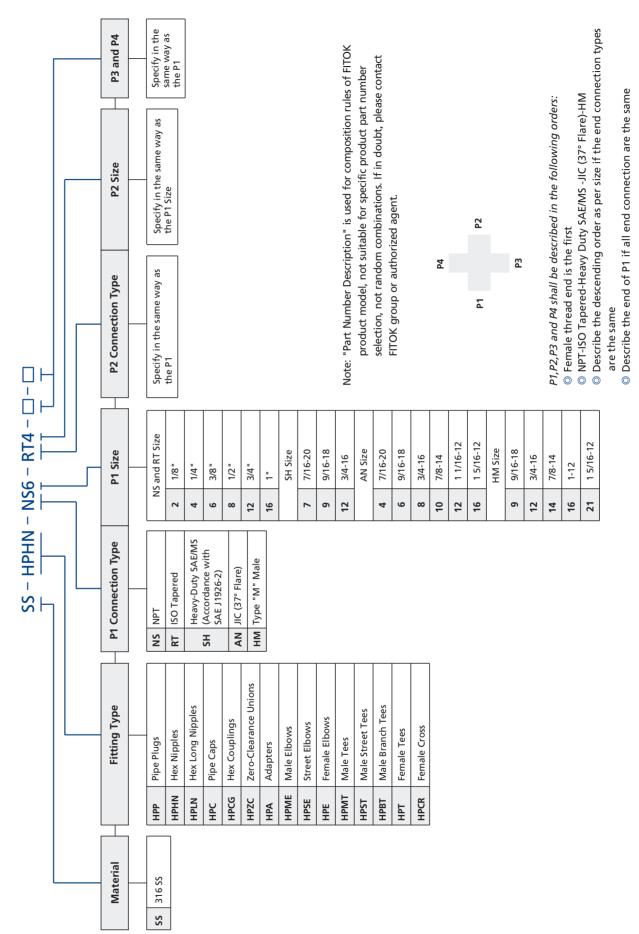
Configuration	Fitting Type	Example
	Pipe Plug	SS-HPP-NS4
	Hex Nipple	SS-HPHN-NS4
	Hex Long Nipple	SS-HPLN-NS4-50.8
	Pipe Cap	SS-HPC-NS4
	Hex Coupling	SS-HPCG-NS4

High Pressure Fittings / Pipe Fittings

Female Cross

Part Number Description

SS-HPCR-NS4









About "CP"

- © The hardened threads with smooth surface finishing avoid galling and help to extend the fitting service life.
- © Every fitting is stamped with size, material, and heat code.
- © 316 stainless steel is standard material. Other materials are available upon request.
- O Available to NACE MR-01-75.

Ordering number with designator "

CP" is for "two-piece" male to male and female to male adapters. They are identical to the "onepiece" designs in length can be ordered by substituting "CP" for "MP" to the "one-piece" adapter part numbers listed. Example: Ordering number of "one-piece": SS-MMA-6MP6-6MP4 The corresponding ordering number of "two-piece" is SS-MMA-6CP6-6CP4.

Configuration	Fitting Type	Example
	15 Series Male to 15 Series Male	SS-MMA-MP6-MP4
	15 Series Male to Male NPT Thread	SS-MMA-MP6-NS6
	15 Series Male to Male JIC	SS-MMA-MP4-AN6
	15 Series Male to Type "M" Male	SS-MMA-MP4-HM9
	20 Series Male to 15 Series Male	SS-MMA-2MP6-MP6
	20 Series Male to 20 Series Male	SS-MMA-2MP9-2MP6
	20 Series Male to Male NPT Thread	SS-MMA-2MP9-NS4

Configuration	Fitting Type	Example
	20 Series Male to Male JIC	SS-MMA-2MP9-AN6
	20 Series Male to Type "M" Male	SS-MMA-2MP6-HM9
	60 Series Male to 15 Series Male	SS-MMA-6MP6-MP4
	60 Series Male to 20 Series Male	SS-MMA-6MP6-2MP4
	60 Series Male to 60 Series Male	SS-MMA-6MP9-6MP4
	60 Series Male to Male NPT Thread	SS-MMA-6MP6-NS4
	60 Series Male to Male JIC	SS-MMA-6MP6-AN6
	60 Series Male to Type "M" Male	SS-MMA-6MP4-HM16
	Type "M" Male to 20 Series Coned and Threaded Nipples	SS-MMA-HM9-2CT6
	Type "M" Male to 60 Series Coned and Threaded Nipples	SS-MMA-HM9-6CT9
	20 Series Female to 15 Series Female	SS-FFC-2FH6-FH4
	20 Series Female to Female NPT Thread	SS-FFC-2FH6-NS4
	60 Series Female to 15 Series Female	SS-FFC-6FH4-FH8
	60 Series Female to 20 Series Female	SS-FFC-6FH6-2FH4

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High Pressure Fittings / Adapters and Couplings

Configuration

Coned and Threaded Nipples

15 Series Female to 20 Series

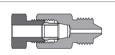
Fitting Type

NPT Thread

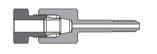
Series Male

60 Series Female to Female

15 Series Female to 15



15 Series Female to 60 Series SS-FMA-FH6-6MP4 Male



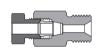
15 Series Female to 60 Series SS-FMA-FH4-6CT9 **Coned and Threaded Nipples**

Example

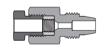
SS-FFC-6FH6-NS4

SS-FMA-FH4-MP6

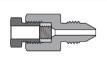
SS-FMA-FH4-2MP4



15 Series Female to Type "M" SS-FMA-FH6-HM9



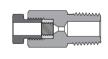
20 Series Female to 15 SS-FMA-2FH9-MP6 Series Male



20 Series Female to 20 SS-FMA-2FH6-2MP9 Series Male



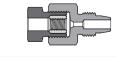
20 Series Female to 60 SS-FMA-2FH9-6MP4 Series Male



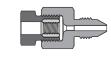
20 Series Female to Male SS-FMA-2FH9-NS4 **NPT Thread**



20 Series Female to Type "M" SS-FMA-2FH9-HM9 Male



60 Series Female to 15 SS-FMA-6FH6-MP4 Series Male



60 Series Female to 20	CC ENAN CELIO DIADA
Series Male	SS-FMA-6FH9-2MP4

Configuration	Fitting Type	Example
	60 Series Female to 60 Series Male	SS-FMA-6FH6-6MP6
	60 Series Female to Male NPT Thread	SS-FMA-6FH6-NS4
	60 Series Female to Type "M" Male	SS-FMA-6FH6-HM9
	Female NPT Thread to 15 Series Male	SS-FMA-NS4-MP6
	Female NPT Thread to 20 Series Male	SS-FMA-NS6-2MP4
	Female NPT Thread to 20 Series Coned and Threaded Nipples	SS-FMA-NS4-2CT6
	Female NPT Thread to 60 Series Male	SS-FMA-NS6-6MP4

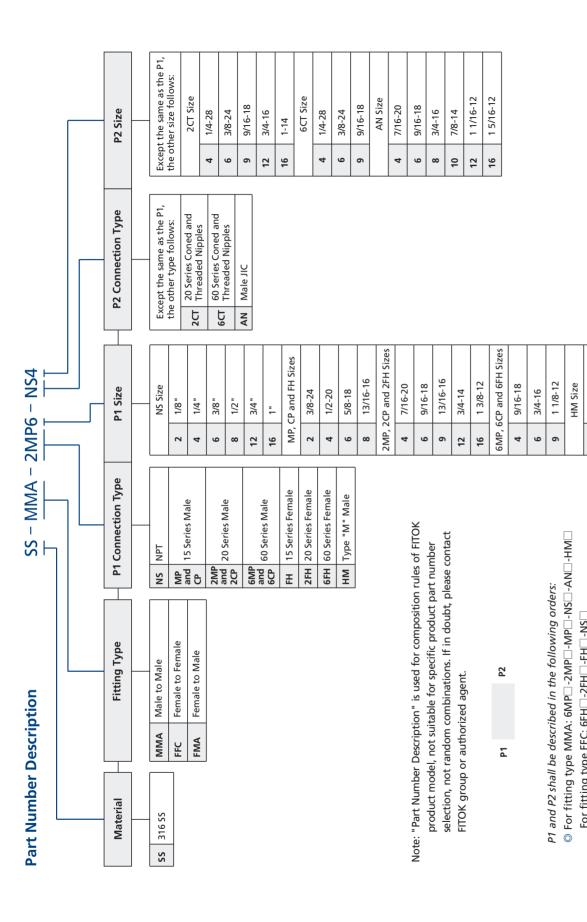
Female NPT Thread to 60

Nipples

Series Coned and Threaded

98

SS-FMA-NS6-6CT6



I High Pressure Valves

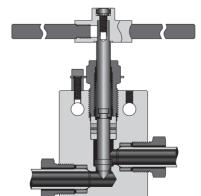
High Pressure Needle Valves



- O Non-rotating stem and bar stock body design.
- © Easy to assemble and replace packing.
- Metal-to-metal seating achieves ideal shutoff, longer stem/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles.
- O The standard packing material for 60N Series is Nylon, the other Series is PTFE. RPTFE glass, Graphite and extend stuffing box valve with Graphite are also available.
- © Extend stuffing box valve with of Graphite can be operated to 1200°F (649°C).
- O The location of packing is under the thread of upper stem.
- © The material of packing gland and lower stem have been selected to achieve reduced handle torque and extended thread cycle life.
- Options for Vee or Regulating stem tips.
- O Five flow patterns are available.
- O Available to NACE MR-01-75.

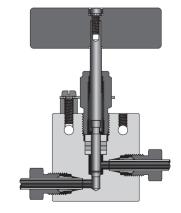
10N Series Needle Valves

- © End connections: 9/16", 3/4", 1" tube fittings and 3/4 NPT, 3/4 BSPT, 1 NPT, 1 BSPT
- O Body material: 316 SS
- Orifice sizes: 0.359", 0.516", 0.688", 0.438" and 0.562"
- O Working pressure up to: 10000 psig (690 bar)
- O Working temperature: -100°F to 1200°F (-73°C to 649°C)



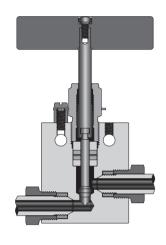
15N Series Needle Valves

- © End connections: 1/8", 1/4", 3/8", 1/2" tube fittings and 1/8 NPT, 1/8 BSPT, 1/4 NPT, 1/4 BSPT, 3/8 NPT, 3/8 BSPT, 1/2 NPT, 1/2 BSPT
- Body material: 316 SS
- Orifice sizes: 0.094", 0.188", 0.250", 0.375", 0.078", 0.203", 0.219" and 0.312"
- O Working pressure up to: 15000 psig (1034 bar)
- O Working temperature: -100°F to 800°F (-73°C to 427°C)



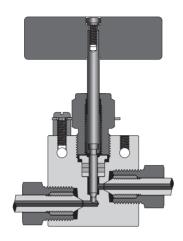
20N Series Needle Valves

- © End connections: 1/4", 3/8", 9/16", 3/4" and 1" tube fittings
- Body material: 316 SS
- Orifice sizes: 0.125", 0.219", 0.312", 0.438" and 0.562"
- Working pressure up to: 20000 psig (1379 bar)
- O Working temperature: -100°F to 1200°F (-73°C to 649°C)



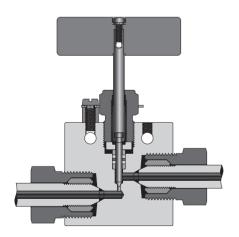
30N Series Needle Valves

- © End connections: 1/4", 3/8" and 9/16" tube fittings
- O Body material: 316 SS
- Orifice sizes: 0.094" and 0.125"
- O Working pressure up to: 30000 psig (2068 bar)
- O Working temperature: -100°F to 1200°F (-73°C to 649°C)

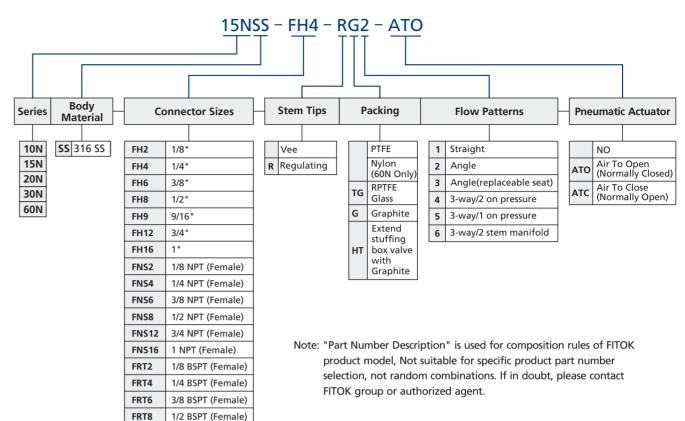


60N Series Needle Valves

- © End connections: 1/4", 3/8", 9/16" tube fittings
- O Body material: 316 SS
- Orifice sizes: 0.063" and 0.078"
- O Working pressure up to: 60000 psig (4137 bar)
- ◎ Working temperature: -100°F to 1200°F (-73°C to 649°C)



Part Number Description



3/4 BSPT (Female)

1 BSPT (Female)

FRT12

High Pressure Ball Valves

High Pressure Ball Valves



- One-piece, trunnion mounted style, ideal for severe duty applications.
- Two-way and three-way valve configurations.
- © PEEK seats offer excellent resistance to chemicals, heat, and wear/abrasion.
- © Full-port flow path minimizes pressure drop.
- Optional O-rings available for high-temperature applications.

10B Series Ball Valves

- End connections:3/4" and 1" tube fittings3/4 and 1 NPT threads
- O Body material: 316 SS
- Orifice sizes:

2-way: 0.5" 3-way: 0.5"

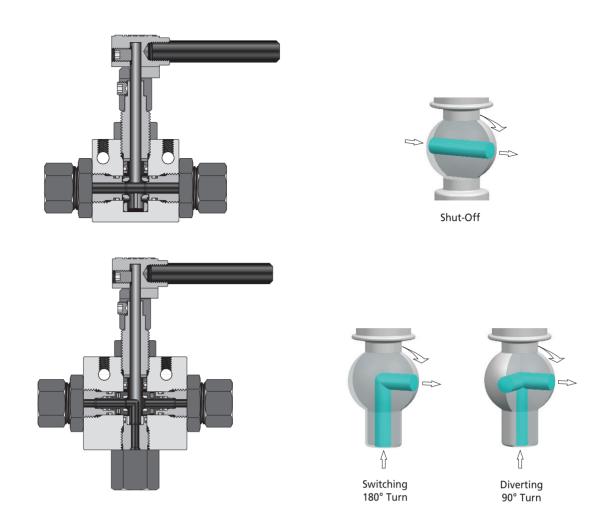
- O Working pressure up to: 10000 psig (690 bar)
- Fluorocarbon FKM O-ring working temperature: 0°F to 400°F (-17.8°C to 204°C)

20B Series Ball Valves

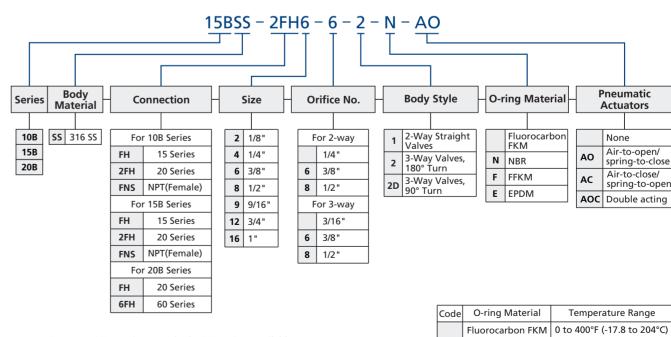
- © Body material: 316 SS
- Orifice sizes:
- 2-way: 0.094" to 0.375"
- 3-way: 0.094" to 0.19"
- O Working pressure up to: 20000 psig (1379 bar)
- Fluorocarbon FKM O-ring working temperature: 0°F to 400°F (-17.8°C to 204°C)

15B Series Ball Valves

- End connections:1/8", 1/4", 3/8", 1/2", 9/16" and 3/4" tube fittings1/8, 1/4, 3/8 and 1/2 NPT threads
- O Body material: 316 SS
- Orifice sizes:2-way: 0.094" to 0.375"3-way: 0.094" to 0.328"
- O Working pressure up to: 15000 psig (1034 bar)
- © Fluorocarbon FKM O-ring working temperature: 0°F to 400°F (-17.8°C to 204°C)



Part Number Description



Note: 1. Operators 90° rotations standard. 180° options available upon request.

2."Part Number Description" is used for composition rules of FITOK product model, Not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

Code	O-ring Material	Temperature Range
	Fluorocarbon FKM	0 to 400°F (-17.8 to 204°C)
N	NBR	-40 to 250°F (-40 to 121°C)
F	FFKM	-20 to 500°F (-29 to 260°C)
Е	EPDM	-50 to 300°F (-45 to 148°C)

High Pressure

Check Valves

FITO

High Pressure Check Valves



- O Provides unidirectional flow and tight shut-off for liquid and gas with high reliability. When differential drops below cracking pressure, valve shuts off (Not for use as relief valve).
- O Body material: 316 SS
- © Resilient O-ring seat design for noise-free closing leakage-free.
- Optional O-rings available for high-temperature applications.
- O Cracking pressure:
- 10C, 15C, 20C and 60C Series Check Valves: 14 psig~26 psig (0.966 bar~1.794 bar).
- O Available to NACE MR-01-75.

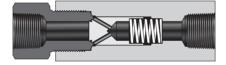
10C, 10CO Series Check Valves

- © End connections: 3/4 NPT and 1 NPT
- Orifice sizes: 0.52" and 0.69"
- O Working pressure up to: 10000 psig (690 bar)
- O Working temperature:

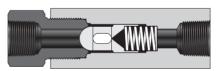
10C Series (Pipe O-ring Check Valves): -50°F to 400°F (-45°C to 204°C) 10CO Series (Ball Check Valves): -110°F to 400°F (-79°C to 204°C)

15C. 15CO Series Check Valves

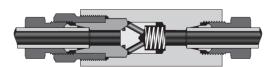
- © End connections:
- O-ring Check Valves and Ball Check Valves: 1/4", 3/8" and 1/2" tube fittings Pipe O-ring Check Valves and Pipe Ball Check Valves: 1/4 NPT. 3/8 NPT and 1/2 NPT
- Orifice sizes:
- O-ring Check Valves and Ball Check Valves:
- 0.188", 0.25" and 0.375"
- Pipe O-ring Check Valves and Pipe Ball Check Valves:
- 0.12", 0.22" and 0.36"
- O Working pressure up to: 15000 psig (1034 bar)
- Working temperature:
- 15C Series (O-ring Check Valves): -50°F to 550°F (-45°C to 288°C) 15C Series (Pipe O-ring Check Valves): -50°F to 400°F (-45°C to 204°C) 15CO Series (Ball Check Valves): -110°F to 800°F (-79°C to 427°C) 15CO Series (Pipe Ball Check Valves): -110°F to 400°F (-79°C to 204°C)



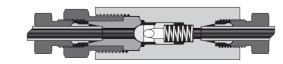
10C Series (Pipe O-ring Check Valves)



10CO Series (Pipe Ball Check Valves)



15C Series (O-ring Check Valves)



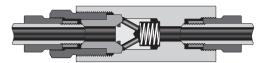
15CO Series (Ball Check Valves)

20C. 20CO Series Check Valves

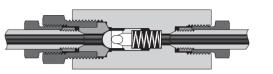
- © End connections: 1/4", 3/8", 9/16", 3/4" and 1" tube fittings
- Orifice sizes: 0.125", 0.218", 0.359", 0.516" and 0.688"
- O Working pressure up to: 20000 psig (1379 bar)
- Working temperature:
- 20C Series Check Valves (O-ring Check Valves): -50°F to 550°F (-45°C to 288°C)
- 20CO Series Check Valves (Ball Check Valves):
- -110°F to 1200°F (-79°C to 649°C)

60C, 60CO Series Check Valves

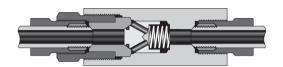
- © End connections: 1/4", 3/8" and 9/16" tube fittings
- Orifice sizes: 0.094", 0.125" and 0.187"
- O Working pressure up to: 60000 psig (4137 bar)
- Working temperature:
- 60C Series Check Valves (O-ring Check Valves):
- -50°F to 550°F (-45°C to 288°C)
- 60CO Series Check Valves (Ball Check Valves):
- -110°F to 1200°F (-79°C to 649°C)



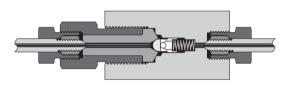
20C Series (O-ring Check Valves)



20CO Series (Ball Check Valves)

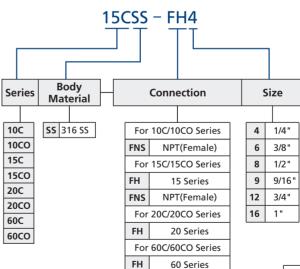


60C Series (O-ring Check Valves)



60CO Series (Ball Check Valves)

Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

Code	O-ring Material	Temperature Range
	Fluorocarbon FKM	0 to 400°F (-17.8 to 204°C)
N	NBR	-40 to 250°F (-40 to 121°C)
F	FFKM	-20 to 550°F (-29 to 288°C)
E	EPDM	-50 to 300°F (-45 to 148°C)

Options: O-ring

Fluorocarbon FKM is standard. For other materials, add a material code to the valve ordering number. Example: 20CSS-FH6-K

High Pressure Relief Valves

High Pressure Precise Metering Valves

- The design of Barrel and Thimble micrometer permits repeatable settings. Each division of barrel equal to 0.025".
- Thimble is divided into 25 divisions, each division of thimble equal to 0.001" stem travel. One revolution equal to valve stem 0.025" travel.
- O Precise Metering valves are not intended for use as shut-off valves.
- The minimum flow rate is factory set at "0" position. The valve will be damaged when the valve operated below "0" position. When shutoff is required, a correlated shutoff valve from 15B, 20B, 15N, 20N, 30N and 60N series valve should be installed series with the Precise Metering Valves.
- The location of packing is under the thread of valve stem.
- O Reliable locking device of packing gland design.
- © Extend stuffing box valve with of Graphite can be operated to 1200°F (649°C).



© End connections:

15M series: 1/8" and 1/4" tube fitting

30M series: 1/4" tube fitting

60M series: 1/4" and 3/8" tube fittings

O Body material: 316 SS

Orifice sizes: 0.062

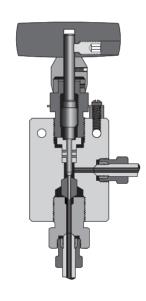
Flow coefficient (Cv): 0.04Working pressure up to:

15M series: 15000 psig (1034 bar)

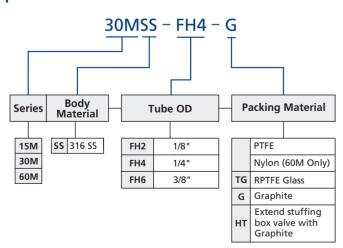
30M series: 30000 psig (2068 bar)

60M series: 60000 psig (4137 bar)

○ Working temperature: -100°F to 1200°F (-73°C to 649°C)



Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

High Pressure Relief Valves

- Maximum back pressure: 500 psig (34.5 bar).
- O Liquid or gas service.
- Pressure settings of HSR Series and HMR Series valves are made at the factory and valves are tagged accordingly.
 State the required set pressure with the order please.
- O Pressure settings of HAR Series valves are adjusted on use's own.
- O Lock wired secure cap to maintain set pressure.
- © Easily exchangeable replaceable seat.
- O Free assembly positions.



HSR Series Relief Valves

- Inlet connection:9/16" of 20 series tube fittings
- Outlet connection: 3/4 NPT thread
- O Body material: 316 SS
- Orifice sizes: 0.156" to 0.312"
- Soft seat relief valves
- Set pressure: 1500 to 20000 psig (103.4 to 1378.9 bar)
- Working temperature: 32°F to 400°F (0°C to 204°C)

HMR Series Relief Valves

- Inlet connection:9/16" of 20 series tube fittings3/8" of 60 series tube fittings
- Outlet connection: 3/4 NPT thread
- O Body material: 316 SS
- Orifice sizes: 0.078" to 0.312"
- Metal seat relief valves
- Set pressure: 3000 to 60000 psig (206.8 to 4136.8 bar)
- Working temperature:-110°F to 500°F (-79°C to 260°C)

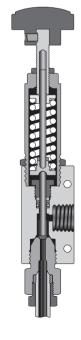
HAR Series Relief Valves

- O Inlet connection:
- 9/16" of 20 series tube fittings

 Outlet connection: 3/4 NPT thread
- O Body material: 316 SS
- Orifice sizes: 0.093" to 0.197"
- Set pressure: 3000 to 20000 psig (206.8 to 1378.9 bar)
- Working temperature:32°F to 400°F (0°C to 204°C)



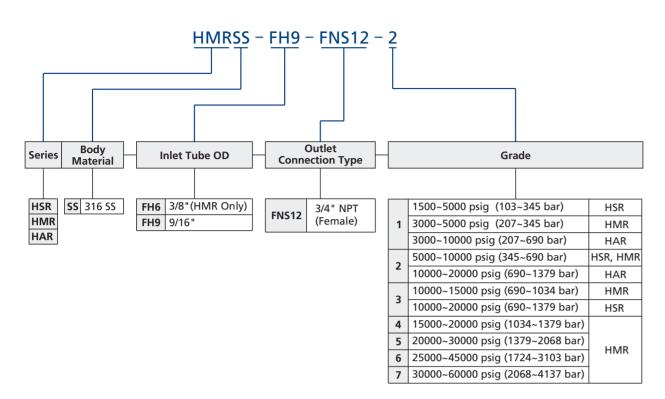






FITOK

Part Number Description



- Note: 1. Pressure settings are made at the factory and valves are tagged accordingly. State the required set pressure with the order please.
 - 2. "Part Number Description" is used for composition rules of FITOK product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

High Pressure Line Filters



Dual-disc Line Filters

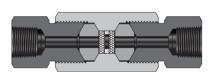
- O Dual-disc Line Filters are utilized in chemical processing, aerospace, nuclear and other applications.
- © The large contaminations particles are filtrated by upstream element. The rest of contaminations particles are filtrate by downstream element.
- O Easy to replace filter element.
- Standard size of downstream/upstream nominal pore is 5/10,10/35 and 35/65 μm.
- Other element combinations also available on special order.
- O Pressure differential not to exceed 1,000 psig (69 bar) in a flowing condition.

Cup-type Line Filters

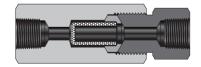
- © The filter elements can be quickly and easily replaced.
- O Cup-type Line Filters are recommended in high pressure systems requiring both maximum filter surface area and high flow rates. Cup-type Line Filters are widely used in chemical processing and industrial fields. The cup design of this filter offers about six times the effective filter area as compared to disc-type units.
- O Nominal pore sizes for filter element: 5, 35 and 65 μm.
- O Pressure differential not to exceed 1,000 psig (69 bar) in a flowing condition.

10FD, 10FC Series Line Filters

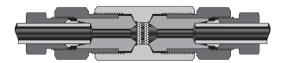
- © End connections: 3/4 NPT and 1 NPT
- O Body material: 316 SS
- Orifice sizes: 10FD Series: 0.359" and 0.563"
- 10FC Series: 0.516" and 0.688" Working pressure up to: 10000 psig (690 bar)
- O Working temperature: -60°F to 400°F (-50°C to 204°C)



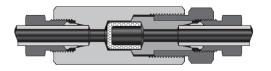
10FD Series (Dual-disc)



10FC Series (Cup-type)



15FD Series (Dual-disc)



15FC Series (Cup-type)

15FD, 15FC Series Line Filters

- © End connections: 1/8", 1/4", 3/8", 1/2" tube fittings and 1/8 NPT, 1/4 NPT, 3/8 NPT, 1/2 NPT
- O Body material: 316 SS
- Orifice sizes:
- 15FD Series: 0.094", 0.125", 0.188" and 0.312" 15FC Series: 0.125", 0.188", 0.312" and 0.438"
- O Working pressure up to: 15000 psig (1034 bar)
- Working temperature:

Tube fittings: -60°F to 660°F (-50°C to 350°C) NPT thread ends: -60°F to 400°F (-50°C to 204°C)

20FD, 20FC Series Line Filters

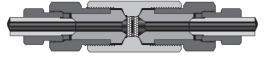
© End connections:

20FD Series: 9/16" tube fitting 20FC Series: 1/4", 3/8", 9/16", 3/4" and 1" tube fittings

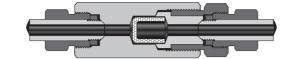
- O Body material: 316 SS
- Orifice sizes:

20FD Series: 0.312" 20FC Series: 0.125", 0.218", 0.359", 0.516" and 0.688"

- O Working pressure up to: 20000 psig (1379 bar)
- © Working temperature: -60°F to 660°F (-50°C to 350°C)



20FD Series (Dual-disc)



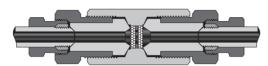
20FC Series (Cup-type)

60FD, 60FC Series Line Filters

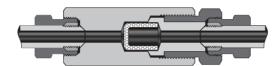
- © End connections: 1/4", 3/8" and 9/16" tube fittings
- Body material: 316 SS
- Orifice sizes:

60FD Series: 0.094", 0.125" and 0.187" 60FC Series: 0.094", 0.125" and 0.187"

- O Working pressure up to: 60000 psig (4137 bar)
- © Working temperature: -60°F to 660°F (-50°C to 350°C)

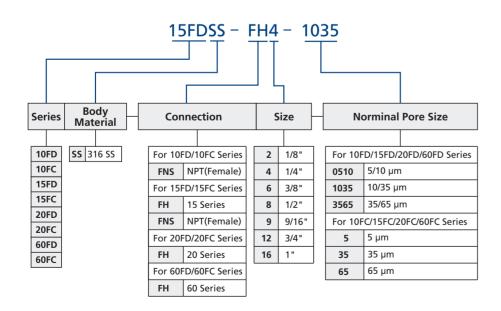


60FD Series (Dual-disc)



60FC Series (Cup-type)

Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

I High Pressure Tubings



15 Series Tubing

- O Working pressures up to 15 000 psig (1034 bar).
- © 316/316L and 304/304L stainless steel are standard materials. Other materials are available upon request.

316 SS: SS-15T4-083-6M 304 SS: S4-15T8-156-5

20 Series Tubing

- O Working pressures up to 20000 psig (1379 bar).
- © 316/316L and 304/304L stainless steel are standard materials. Other materials are available upon request.
- © Example:

316 SS: SS-MT-2FH6-10 304 SS: S4-MT-2FH9-3M

60 Series Tubing

- O Working pressures up to 60000 psig (4137 bar).
- © 316/316L and 304/304L stainless steel are standard materials. Other materials are available upon request.
- © Example:

316 SS: SS-HT-6FH4-5 304 SS: S4-HT-6FH9-3M

Tools

Coning Tools

© For preparing a "cone" on the 20 and 60 series tubing ends.

Tube O.D. x I.D. in.	Ordering Number
1/4 × 0.109	HCT-M4
3/8 × 0.203	HCT-M6
9/16 × 0.312	HCT-M9
1/4 × 0.083	HCT-H4
3/8 × 0.125	НСТ-Н6
9/16 × 0.188	НСТ-Н9



Threading Tools

© For preparing a left hand thread on the 20 and 60 series tubing ends.

Tube O.D. in.	Ordering Number	Thread Size (Left Hand)
1/4	HTT-4	1/4-28 UNF
3/8	HTT-6	3/8-24 UNF
9/16	HTT-9	9/16-18 UNF



Reseating Tools

O For repairing the damaged tube connector seats in 20 and 60 series tube fittings and valves.

Connection Size in.	Connection Type	Ordering Number
1/4	2FH4	HRT-M4
3/8	2FH6	HRT-M6
9/16	2FH9	HRT-M9
3/4	2FH12	HRT-M12
1	2FH16	HRT-M16
1/4	6FH4	HRT-H4
3/8	6FH6	HRT-H6
9/16	6FH9	HRT-H9



Manual Presetting Tool

Ordering Number	Tube O.D. in.
PST-2	1/8
PST-4	1/4
PST-6	3/8
PST-8	1/2



High Pressure Hydraulic Presetting Tools

Ordering Number	Tube O.D. in.
HPT-HF	1/2, 9/16, 3/4
HPT-H+U	Choose your needs from Die Heads. ex:HPT-H+HPT-H-FH8.



Die Heads

Ordering Number	Tube O.D. in.
HPT-H-FH8	1/2
HPT-H-FH9	9/16
HPT-H-FH12	3/4



Fittings

Butt Weld Fittings

M Series

- Sizes range from 1/8" to 1/2" and 6 mm to 12 mm.
- © 316, 316L, 316L VAR and 316L VIM/VAR stainless steel materials are available.
- O Butt weld connection allows for a smooth transition.
- © Radius junction design with elbows provides smooth flow path.
- \odot Standard wetted surface finish is average 10 $\mu in.$ (0.25 $\mu m)$ Ra.
- © Every fitting is stamped with size, material, and heat code.



Configuration	Fitting Type	Example
	Reducing Union	6LV-WU1-TB8-TB4
	90° Union Elbow	6LW-WL1-MTB10
	Reducing Union Elbow	6LW-WL1-MTB12-MTB6
	45° Union Elbow	6LW-WV1-TB4
	Tribow	6LW-WB1-TB4
	Union Tee	6LW-WT1-MTB12
	Reducing Tee	6LW-WT1-TB8-TB8-TB4
	Union Cross	6LW-WC1-TB6

L Series

- © Sizes range from 1/4" to 1" and 6 mm to 18 mm.
- © 316L stainless steel materials are standard.
- O Butt weld connection allows for a smooth transition.
- © Radius junction design with elbows provides smooth flow path.
- © Standard wetted surface finish is average 10 μin. (0.25 μm) Ra.
- © Every fitting is stamped with size, material, and heat code.

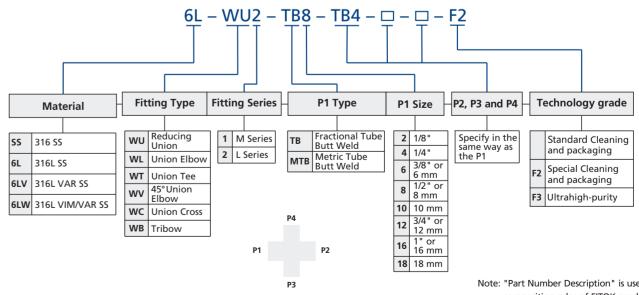


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Fittings / L Series

Configuration	Fitting Type	Example
	Reducing Union	6L-WU2-TB8-TB4
	Union Elbow	6L-WL2-MTB10
	Union Tee	6L-WT2-MTB10
	Reducing Tee	6L-WT2-TB8-TB8-TB4
	Union Cross	6L-WC2-TB8

M and L Series Butt Weld Fitting Part Number Description



- P1, P2, P3 and P4 shall be described in the following orders:
- O Describe in descending order as per size if the end connection
- O Describe the end of P1 if all end connections are the same

Note: "Part Number Description" is used for composition rules of FITOK product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

- © Sizes range from 1/16" to 1" and 6 mm to 18 mm.
- © 316, 316L, and 316L VAR stainless steel materials are available.
- Metal-to-metal seal provides perfect leak-tight service from vacuum to high pressure.
- \odot Standard wetted surface finish is average 10 $\mu in.$ (0.25 $\mu m)$ Ra.
- © Glands and bodies are stamped with size, material, and heat code.
- O All seal faces and male threads are protected with plastic caps.
- © FR female threads are silver plated.



Configuration	Fitting Type	Example
	FR Gland to Short Tube Butt Weld	6LV-G-FR8-TB8-6S
	FR Gland to long Butt Weld	6LV-G-FR8-TB8-6
	FR Gland to Male Weld	6L-G-FR8-TB4
	FR Gland to Tube Socket Weld	SS-G-FR8-TS6
	FR Gland to Short Tube Socket Weld	SS-G-FR4-TS4-0.75
	FR Gland to Tube Port	SS-G-FR8-FT6
	Short Fractional Automatic Tube Butt Weld	SS-AG-FR4-TB4-12S
	Long Fractional Automatic Tube Butt Weld	SS-AG-FR4-TB4-12
	Blind Gland	SS-G-FR8-B
	FR Welded Gland to Male NPT	SS-WG-FR8-NS6
	FR Welded Gland to Female NPT	SS-WG-FR8-FNS6
	FR Welded Gland to Tube Fitting	SS-WG-FR8-FL8

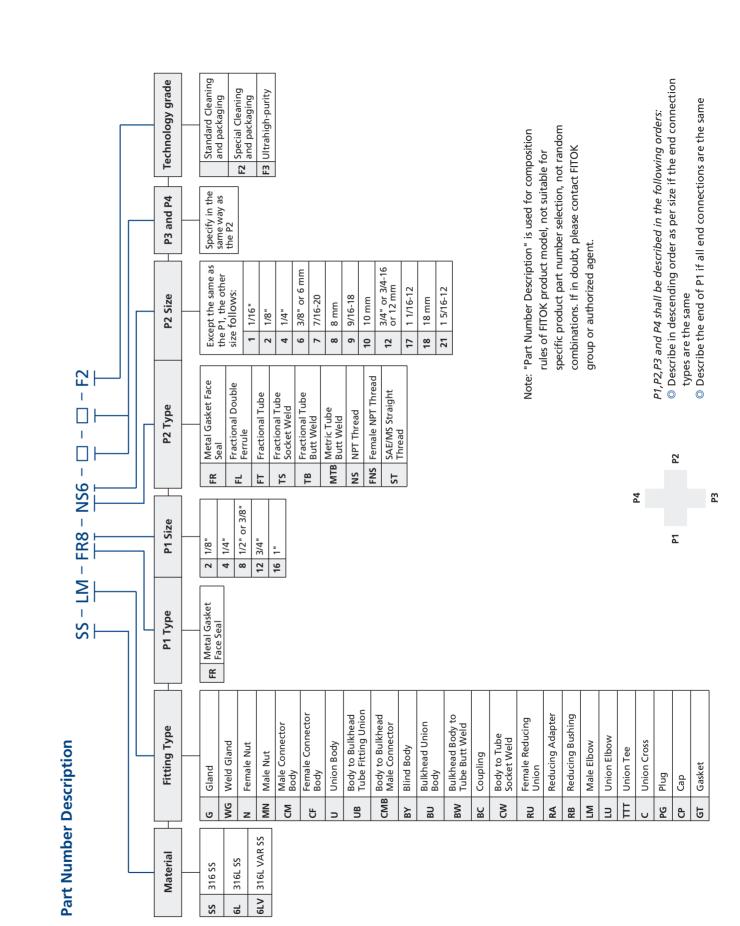
Configuration	Fitting Type	Example
	FR Welded Gland Union	SS-WG-FR4
	Female Nut	SS-N-FR4
	Male Nut	SS-MN-FR8
	FR Body to Male NPT	SS-CM-FR8-NS4
	FR Body to Female NPT	SS-CF-FR8-NS4
	FR Body to Tube Fitting	SS-U-FR8-FL6
	FR Body to Bulkhead Tube Fitting Union	SS-UB-FR8-FL8
	FR Body to Bulkhead Male Connector	SS-CMB-FR8-NS4
	Union Body	SS-U-FR8
	Bulkhead Union Body	SS-BU-FR8
	FR Bulkhead Body to Tube Butt Weld	SS-BW-FR4-TB4
	Coupling	SS-BC-FR8
	Female Reducing Union	SS-RU-FR8-FR4
	Reducing Adapter	SS-RA-FR8-FR4

Fittings / FR Series

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Configuration	Fitting Type	Example
	Reducing Bushing	SS-RB-FR8-FR4
	FR Body to Male NPT Elbow	SS-LM-FR8-NS6
	FR Body Union Elbow	SS-LU-FR8
	FR Body Union Tee	SS-TTT-FR8
	FR Body Union Cross	SS-C-FR6
	"H" Type Union Elbow	SSLUHFR4
	"H" Type Tube Butt Weld	\$SCWHFR4TB6
	"H" Type Tube Butt Weld	\$SGHFR4TB630.2
	Flow Restrictors	6LV-RFR4020
	Plug	SS-PG-FR4
	Сар	SS-CP-FR4
	Gasket	6L-GT-FR8



Fittings / FO Series

FO Series

- O Sizes range from 1/8" to 1".
- © 316 and 316L stainless steel materials are available.
- O-ring seal provides perfect leak-tight service from vacuum to high pressure.
- © Glands and bodies are stamped with size, material, and heat code.
- © Fittings are easy to install and maintain.
- © FO female threads are silver plated.



Configuration	Fitting Type	Example
	FO Gland to Tube Butt Weld	6LV-G-FO8-TB6
	FO Gland to Tube Socket Weld	6L-G-FO8-TS8
	FO Gland to Tube Port	SS-G-FO8-FT8
	FO Gland to Automatic Tube Weld	6L-G-FO4-TB4A
	FO Welded Gland to Male NPT	SS-WG-FO4-NS4
	FO Welded Gland to Female NPT	SS-WG-FO4-FNS4
	FO Welded Gland to Tube Fitting	SS-WG-FO8-FL6
	FO Welded Gland Union	SS-WG-FO4
	Female Nut	SS-N-FO8
	Blind Nut	SS-N-FO4-B
	FO Body to Male NPT	SS-CM-FO8-NS8
	FO Body to Female NPT	SS-CF-FO8-NS6

Configuration	Fitting Type	Example
	FO Body to Tube Fitting	SS-U-FO8-FL6
	FO Body to Automatic Tube Weld	6L-CW-FO4-TB4A
	FO Body to Bulkhead Tube Fitting Union	SS-UB-FO8-FL8
	Blind Body	SS-BY-FO8
	Union Body	SS-U-FO4
	Bulkhead Union Body	SS-BU-FO8
	FO Body to Tube Socket Weld	SS-CW-FO8-TS8
	FO Body to Male NPT Elbow	SS-LM-FO8-NS6
	FO Body to Tube Fitting Elbow	SS-LU-FO8-FL8
	FO Body Union Elbow	SS-LU-FO8
	FO Body Union Tee	SS-TTT-FO4

L-ring Face Seal Fittings

TFO Series

- © Sizes range from 1/4" to 1".
- Materials: Body, gland: 316L stainless steel Nut: 316 stainless steel.
- Reduced internal entrapment.
- O Lubricant-free L-ring seal.
- Tube butt end connections.
- O Controlled L-ring extrusion, no overtightening.



Configuration	Fitting Type	Example
	Gland	6L-G-TFO8-TB8
	Tube Butt Weld Body	6L-CW-TFO8-TB8
	Nut	SS-N-TFO8
	L-ring Seal	T-GT-TFO8

Valves

Diaphragm Valves

DQ Series

- © 316L VIM-VAR stainless steel body is available
- Suitable for ultrahigh-purity applications
- Elgiloy material for strength and corrosion resistance for long cycle life
- O Fully contained PCTFE seat design provides excellent resistance to swelling and contamination
- Wetted Surface Electropolished, Roughness Ra finished to an average of Ra5 µin.(0.13 µm)
- O Helium leak tested, maximum leak rate of 1x10⁻⁹ std cm³/s
- O Low-pressure and high-pressure models
- Manual or pneumatic actuation
- Aluminum piston accelerated open/close speed
- O Different handle types and colors are available
- Can be used in vacuum applications





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Valves / Diaphragm Valves

Manual Actuators

Round

- Quick, quarter-turn actuation
- O Handle with window provides visual indication of open and closed positions





Integral Lockout

- Quick, quarter-turn actuation
- O Lockable in the CLOSED position for safety
- O Handle shape and window indicator provides visual indication of OPEN and CLOSED position

Directional

- Quick, quarter-turn actuation
- O Handle shape provides visual indication of open and closed position





CLOSED

Toggle

- Spring-loaded toggle design quick actuation
- O Lockable in the CLOSED position for safety
- Handle position provides visual indication of OPEN and CLOSED positions
- Narrow handle profile allows close parallel mounting of valves
- Only for low-pressure models

Pneumatic Actuators

High-pressure Pneumatic Actuator

- O Normally open, "N.O." marked on the top of the cylinder
- O Normally close, "N.C." marked on the top of the cylinder

Low-pressure Pneumatic Actuator

- O Normally open, "N.O." marked on the top of the cylinder
- O Normally close, "N.C." marked on the top of the cylinder



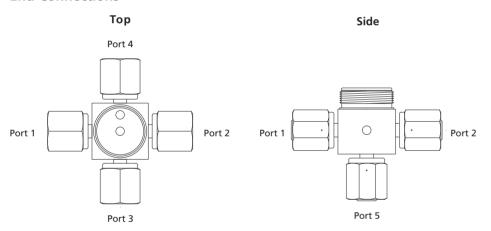


FITOK

Multiport and Elbow Valves

Designator	Schematic	Flow Path		Designator	Schematic	Flow Path	
		Closed	Open	Designator	Schematic	Closed	Open
2A	1 7	1a 3b	1a 3b	3D	1 2	1a 2b	1a 2b 3b
2В	5 0 1 2	5a © 2b	5a 2b	3E	1 2	1b 2b	1b 2b
2C	1	4b	4b	3F	1 2	1a 2a 3b	1a 2a 3b
4M	1 2	4b 1a 2a	4b 1a 2a	3G	1 2	4a 1a 2b	4a 1a 2b
4N	1 2	4b 1a 2a 3b	4b 1a 2a 3b	3K	1 2	1a 2b	1a 2b

End Connections

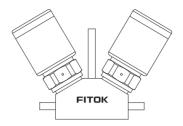


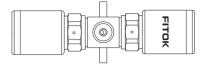
Multivalve Manifolds

FITOK

Designator	Schematic	Flow Path		
V	OUT	OUT IN		
W	OUT	OUT		
D	IN O OUT	IN OUT Side		

V and W Multivalve Manifolds





D Multivalve Manifold



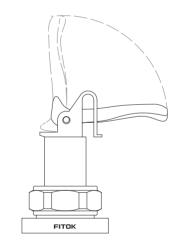


IGS Modular Suface-mount Valves

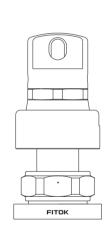
Directional and Roud Handles



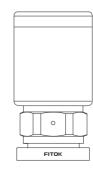




Integral Lockout Handle



Pneumatic Actuator



Technology grade 7 2 Actuator/Handle SF2 Path Flow **H3KZY** High-Pressure Valves Low-Pressure Valves MTB6 Port 2/3/4/5 Size т _ TB4 Specify in the same way as port 1 type and port 1 size TB4 Port 2/3/4/5 Type МП9ОО 1/8" 1/4" Port 1 Size Female FR Fitting Fractional Tube Butt Weld Metric Tube Butt Weld Male FR Fitting MTB FF ΤB 뚠 **Body Material** SS 9F W

Multivalve Manifolds

Modular Suface-mount

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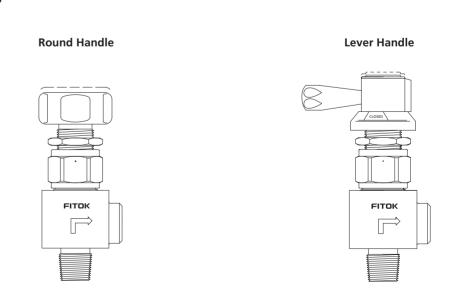
Straight Patterns



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Angle Patterns

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DM Series

- All-metal containment, packless
- O Repetitive shutoff with fully contained softseat stem tip
- O Position indicator ring for lever handle
- Manual or penumatic actuation
- O Aluminum piston accelerated open/close speed
- O Helium leak tested, maximum leak rate of 4x10° std cm³/s
- O Different handle types and colors are available
- O Can be used in vacuum applications

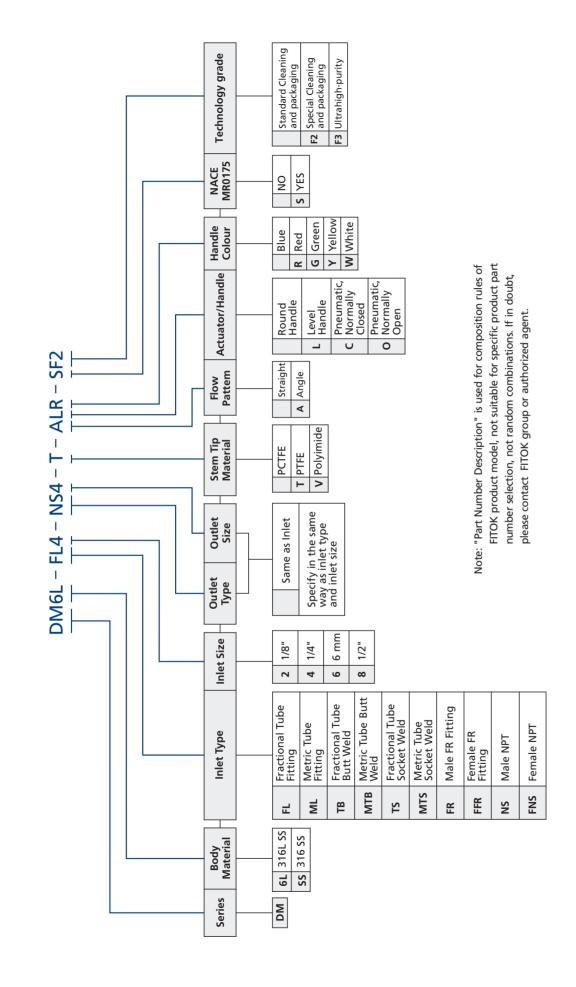


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Valves / Diaphragm Valves

Part Number Description

FITOK



Pressure Reducing Regulator



Compact Pressure Reducing Regulator

PR Series

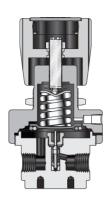
- O Maximum inlet pressure: 500, 3000 psig
- \bigcirc Outlet pressure ranges: 0~25, 0~50, 0~100, 0~250, 0~500 psig
- Flow coefficient (Cv):500 psig Inlet pressure: 0.153000 psig Inlet pressure: 0.06
- O Working temperature: -40°F~+165°F (-40°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight
- External: ≤2x10⁻⁸ atm · cc/sec He
- O Convoluted diaphragm provides accurate pressure adjustment
- Metal-to-metal diaphragm seal
- O Spring loaded pressure reducing regulator
- O A filter installed in inlet
- Panel mounting available



Extremely Sensitive Pressure Reducing Regulator

PS Series

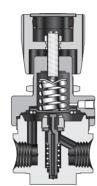
- O Maximum inlet pressure: 500, 3000 psig
- © Outlet pressure ranges: 0~25, 0~50, 0~100, 0~150, 0~200 psig
- Flow coefficient (Cv):
- 500 psig Inlet pressure: 0.15
- 3000 psig Inlet pressure: 0.06
- Working temperature: -40°F~+165°F (-40°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight
- External: ≤2x10⁻⁸ atm · cc/sec He
- O Large convoluted diaphragm for extreme sensitivity
- Metal-to-metal diaphragm seal
- © Extreme sensitivity: ±1% of outlet pressure range
- © Good repeatability
- O A filter installed in inlet
- Panel mounting available



Medium Flow Pressure Reducing Regulator

PM Series

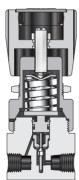
- O Maximum inlet pressure: 500, 3000 psig
- © Outlet pressure ranges: 0~25, 0~50, 0~100, 0~150, 0~200 psig
- © Flow coefficient (Cv): 1.0
- Working temperature: -40°F~+140°F (-40°C~+60°C)
- O Leak rate:
- Internal: Bubble-tight
- External: ≤2x10⁻⁸ atm · cc/sec He
- O Large diameter convoluted diaphragm for increased pressure sensitivity
- Metal-to-metal diaphragm seal
- O Large flow, minimal droop
- O Panel mounting available



General High Pressure Reducing Regulator

PH Series

- O Maximum inlet pressure: 3000, 6000 psig
- Outlet pressure ranges: 0~250, 0~500, 0~1500, 0~2500 psig
- © Flow coefficient (Cv):
- Non-vent: 0.06
- Vent: 0.1
- Working temperature: -15°F~+165°F (-26°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight
- External: Bubble-tight
- Robust piston sensed design
- O A filter installed in inlet
- Venting model optional
- Panel mounting available



Two Stage Pressure Reducing Regulator

PD Series

- O Maximum inlet pressure: 3000 psig
- Outlet pressure ranges: 0~25, 0~50, 0~100, 0~150, 0~250 psig
- © Flow coefficient (Cv):0.05
- Working temperature: -40°F~+165°F (-40°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight
- External: ≤2x10⁻⁸ atm · cc/sec He
- Accurate and stable outlet pressure
- Two-stage pressure reducing construction
- O Diaphragms are convoluted for greater accuracy and sensitivity
- Filter installed in inlet
- O Panel mounting available



PL Series

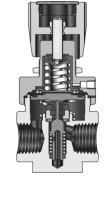
- Maximum inlet pressure: 500 psig
- Outlet pressure ranges: 0~15, 0~30, 0~75, 0~150 psig
- © Flow coefficient (Cv): 1.8
- Working temperature: -40°F~+165°F (-40°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight
- External: ≤2x10⁻⁸ atm · cc/sec He
- © Large diameter convoluted diaphragm for increased pressure sensitivity
- Metal-to-metal diaphragm seal
- O Large flow, minimal droop
- O Panel mounting available

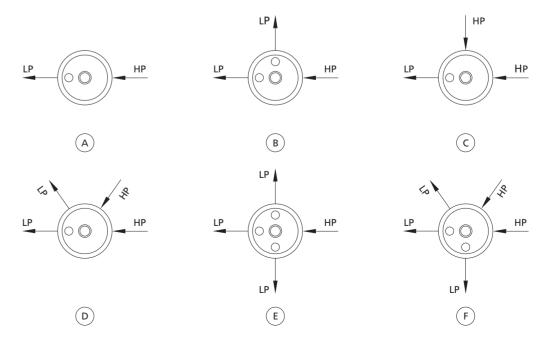


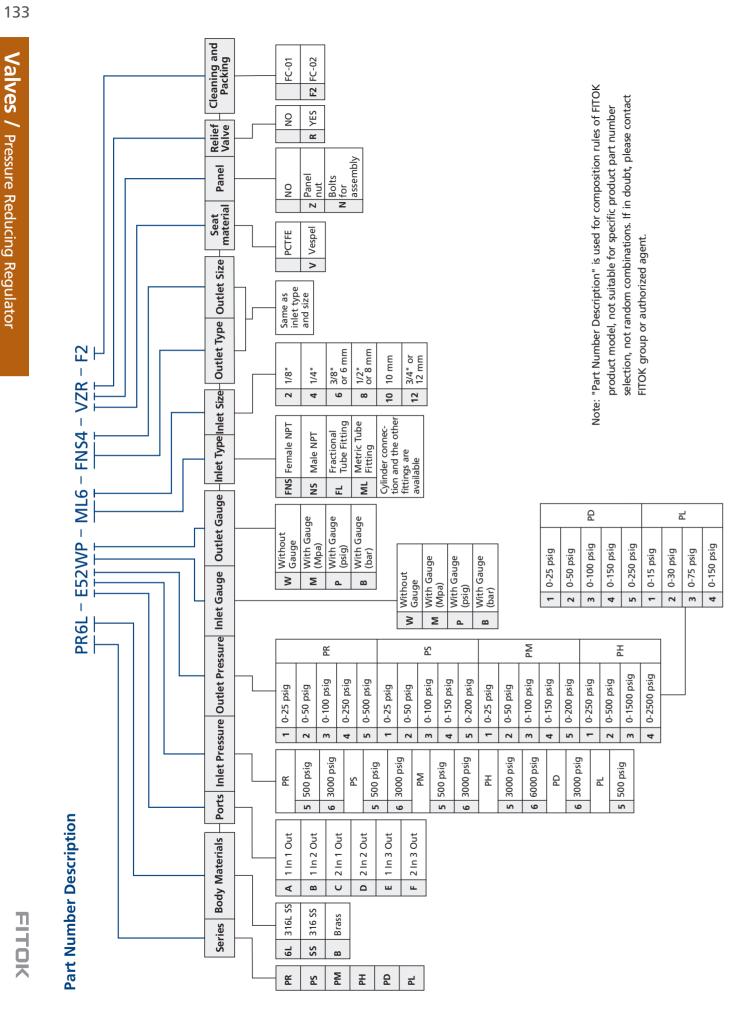
6 Types: A, B, C, D, E, F, all ports are 1/4" Female NPT. LP: Low pressure outlet

HP: High pressure inlet









Back Pressure Regulator



General Purpose Back Pressure Regulator

BPR Series

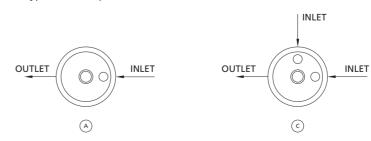
- Maximum control pressure: 250 psig
- O Controlled pressure ranges: 0~25, 0~50, 0~100, 0~250 psig
- © Flow coefficient (Cv): 0.3
- Working temperature: -15°F~+165°F (-26°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight
- External: ≤2x10⁻⁸ atm · cc/sec He
- O Convoluted diaphragm provides accurate pressure adjustment
- Metal to metal diaphragm seal
- O Panel mounting available

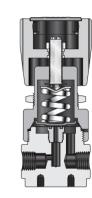
BPH Series

- O Maximum control pressure: 300 psig
- O Controlled pressure ranges: 0~50, 0~100, 0~300 psig
- © Flow coefficient (Cv): 0.3
- Working temperature: -15°F~+200°F (-26°C~+93°C)
- O Leak rate: Bubble-tight
- Robust piston sensed design
- O Low hand knob torque
- O Panel mounting available

Porting configurations

2 Types: A, C, all ports are 1/4" Female NPT.



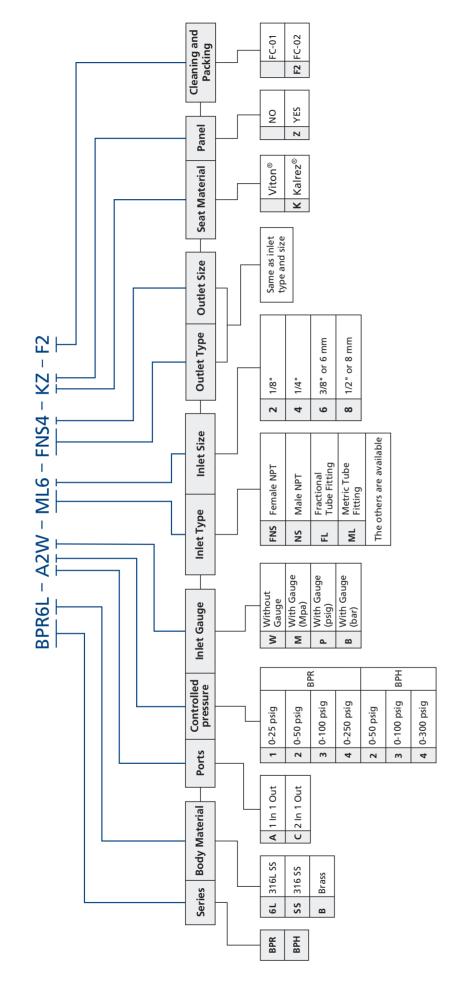




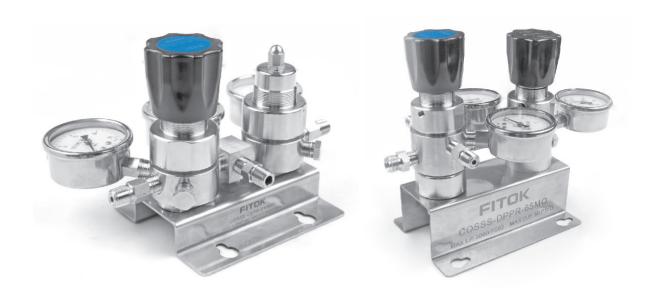


Changeover System

Part Number Description



Changeover System

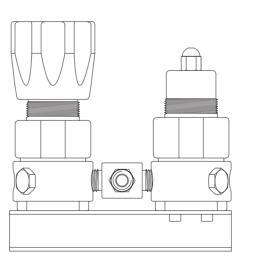


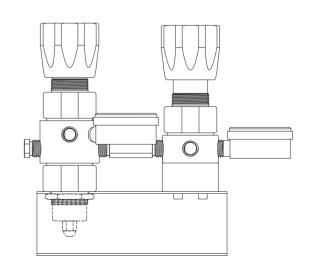
CEPR Series

- O Maximum inlet pressure: 3000 psig
- Outlet pressure ranges: 85~115, 135~165, 185~215, 235~265 psig
- O Flow coefficient (Cv): 0.06
- O Working Temperature: -40°F~+165°F (-40°C~+74°C)
- O Leak rate:
- Internal: Bubble-tight External: ≤2x10⁸ atm·cc/sec He
- O Based on FITOK's PR series regulator
- Mounting bracket standard

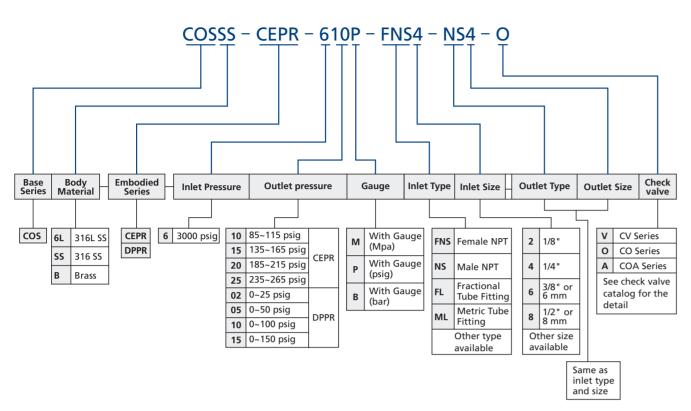
DPPR Series

- O Maximum inlet pressure: 3000 psig
- © Outlet pressure ranges: 0~25, 0~50, 0~100, 0~150 psig
- O Flow coefficient (Cv): 0.06
- Working temperature: -40°F~+165°F (-40°C~+74°C)
- O Leak rate: Internal: Bubble-tight External: $\leq 2x10^{-8}$ atm \cdot cc/sec He
- O Based on FITOK's PR series regulator
- Mounting bracket standard





Part Number Description



Note: "Part Number Description" is used for composition rules of FITOK product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact FITOK group or authorized agent.

Closed-loop Sampling System

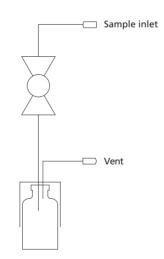
- © Two kinds of optional sampling containers: Bottles and Cylinders.
- O System main body material: 316 SS, 316L SS, 304L SS etc (Can be customized)
- O Connection: 1/4" Tube fitting, 1/2" NPT Thread or NPS 1/2" Flange (Can be customized).
- O Working pressure up to: 0 to 1450 psig (0 to 100 bar)
- © Working temperature: 0°F to 450°F (-18°C to -232°C)
- O Applicable working conditions: High temperature, high pressure, high viscosity, strong corrosive, strong toxicity and hazardous liquid bane to the environment.
- O Various mounting way.

B-Bottle Configuration Sampling System

L Series-Liquid Sampling

SBLA1-On-off Configuration

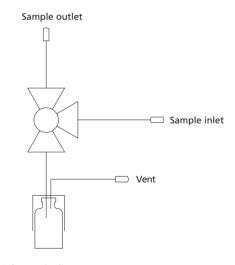
- © Sampling directly from process or system, low pressure application
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling



Schematic diagram

SBLA2-Circulation Configuration

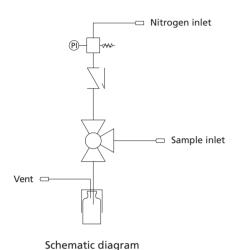
- O Sampling directly from process or system, low pressure application
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- O Closed sampling
- Sample circulation
- Representative sample



Schematic diagram

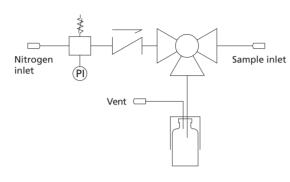
SBLA3-Back Flow Configuration

- O Sampling directly from process or system, low pressure application
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling
- Back flow
- Representative sample



SBLA4-Air Replaced and System Purge **Configuration** I

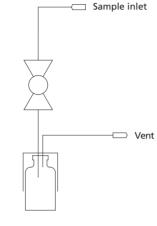
- © Sampling directly from process or system, low pressure application
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling
- System purge
- Bottle air replaced
- Representative sample



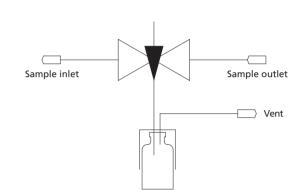
Schematic diagram

SBLB1-Flange On-off Configuration

- O Applicable for sampling from process and container
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- O Closed sampling
- Representative sample
- Sampling directly from process and container



Schematic diagram



SBLB2-In Line and Circulation

O Pressure range: 0 to 145 psig (0 to 10 bar)

O Suitable for viscous liquid or liquid with few solid

Configuration

In line sampling

O Closed sampling

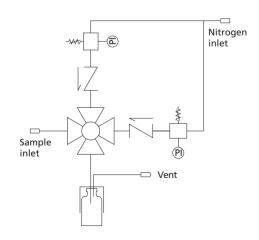
particles

Sample circulation

Schematic diagram

SBLA5-Back Flow, Air Replaced and **System Purge Configuration**

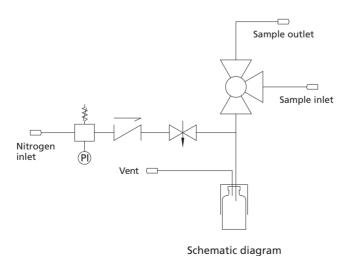
- O Sampling directly from process or system, low pressure application
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling
- System purge
- O Back flow and bottle air replaced
- Representative sample



Schematic diagram

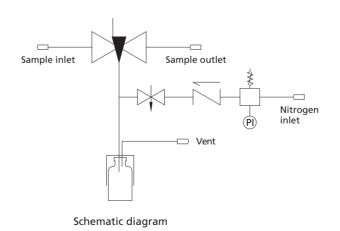
SBLA6-Air Replaced, Circulation and **Needle Purge Configuration**

- O Sampling directly from process or system, low pressure application
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling
- O Needle purge
- O Sample circulation and bottle air replaced
- Representative sample



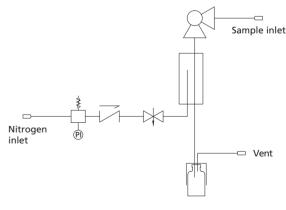
SBLB3-In Line, Air Replaced and Needle **Purge Configuration**

- In line sampling
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- O Closed sampling
- O Bottle air replaced
- Representative sample
- O Suitable for viscous liquid or liquid with few solid particles
- Needle purge



SBLC1-Air Replaced and System Purge Configuration II

- Sampling directly from process or system
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling
- System purge
- O Bottle air replaced
- Representative sample
- O Suitable for high viscous liquid



Schematic diagram

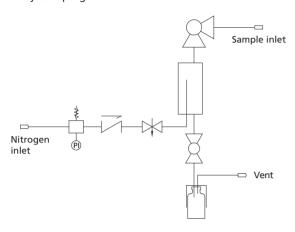
140

Closed-loop Sampling System

NOTI

SBLC2-Fixed Volume, Air Replaced and System Purge Configuration

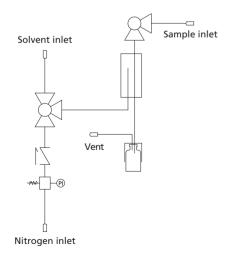
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- O Closed sampling
- Bottle air replaced
- © Fixed volume
- Representative sample
- O Suitable for high viscous liquid
- System purge



SBLC4-Solvent Purge, Air Replaced and System Purge Configuration

Schematic diagram

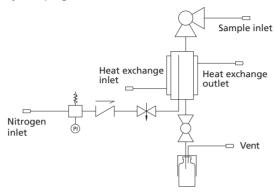
- Sampling directly from process or system
- O Pressure range: 0 to 145 psig (0 to 10 bar)
- Closed sampling
- Bottle air replaced and solvent purge
- Representative sample
- Suitable for high viscous liquid
- Solvent purge and system purge function



Schematic diagram

SBLC3-Heating/cooling, Fixed Volume, Air **Replaced and System Purge Configuration**

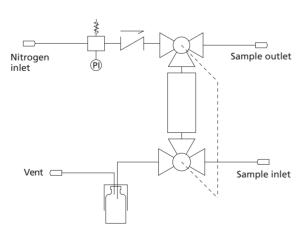
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- O Closed sampling
- O Bottle air replaced
- © Fixed volume
- Representative sample
- O Suitable for high viscous liquid
- O Heating/Cooling jacket ensures sampling at the required temperature
- System purge



Schematic diagram

SBLD1-Fixed Volume, Circulation and **System Purge Configuration**

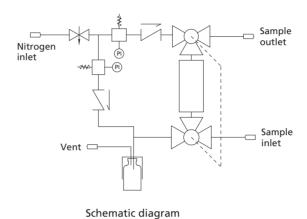
- O Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- O Closed sampling
- O Fixed volume
- Sample circulation
- System purge
- Representative sample
- O Linkage ball valve design, easy operation



Schematic diagram

SBLD2-Fixed Volume, Circulation, Air Replaced and System Purge Configuration

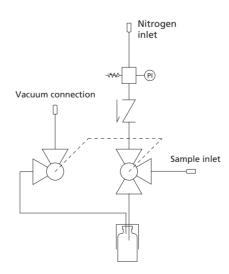
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- O Fixed volume
- Bottle air replaced
- System purge
- Representative sample
- O Linkage ball valve design, easy operation
- Sample circulation



SBLE1-Back Flow and Vacuum

Configuration

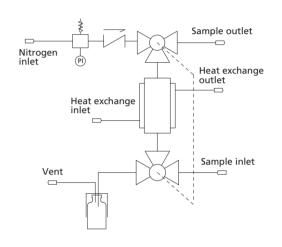
- Sampling directly from process or system
- O Applicable for zero-pressure or vacuum process
- O Closed sampling
- Back flow
- © Representative sample
- O Linkage ball valve design, easy operation



Schematic diagram

SBLD3-Heating/Cooling, Circulation, Fixed **Volume and System Purge Configuration**

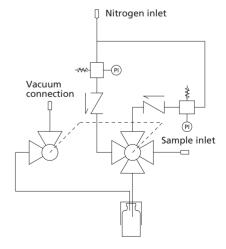
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- O Closed sampling
- © Fixed volume
- Sample circulation
- System purge
- Representative sample
- O Heating/Cooling jacket ensures sampling at the required temperature
- Linkage ball valve design, easy operation



Schematic diagram

SBLE2-Back Flow, Air Replaced, Vacuum and System Purge Configuration

- Sampling directly from process or system
- O Applicable for zero-pressure or vacuum process
- Closed sampling
- Back flow and bottle air replaced
- Representative sample
- O Linkage ball valve design, easy operation
- System purge



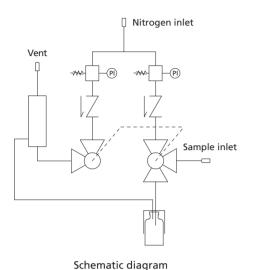
Schematic diagram

Closed sampling

Back flow

Representative sample

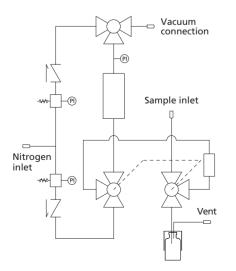
O Linkage ball valve design, easy operation



SBLE5-Vacuum, Overflow, Fixed Volume,

Back Flow and System Purge Configuration

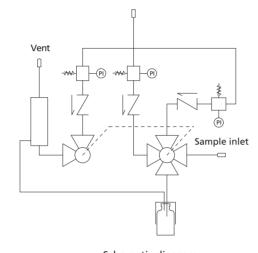
- Sampling directly from process or system
- O Applicable for zero-pressure or vacuum process
- Closed sampling
- © Fixed volume
- Back flow and overflow
- Representative sample
- O Linkage ball valve design, easy operation
- System purge



Schematic diagram

SBLE4-Back Flow, Air Replaced, Venturi and System Purge Configuration

- Sampling directly from process or system
- O Applicable for zero-pressure or vacuum process
- O Closed sampling
- Back flow and bottle air replaced
- Representative sample
- O Linkage ball valve design, easy operation
- System purge



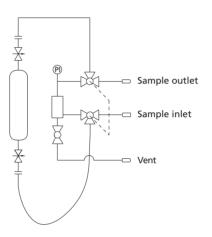
Schematic diagram

C-Cylinder Configuration Sampling System S Series-Liquefied Gas Sampling

SCSF1-Expansion Chamber Configuration

Sampling directly from process or system

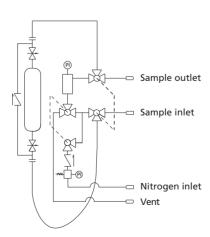
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Representative sample
- Sample circularion
- © Equipped with pressure relief system, safer for sampling
- O Linkage ball valve design, easy operation



Schematic diagram

SCSF3-Expansion Chamber, Bypass and **System Purge Configuration**

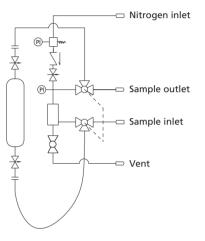
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Representative sample
- Sample circulation and system purge
- © Equipped with pressure relief system, safer for sampling
- O Linkage ball valve design, easy operation



Schematic diagram

SCSF2-Expansion Chamber Purge Configuration

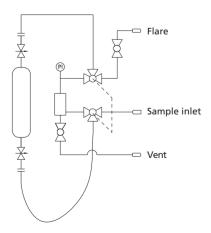
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Sample circulation and expansion chamber purge
- © Equipped with pressure relief system, safer for sampling
- O Linkage ball valve design, easy operation



Schematic diagram

SCSF4-Expansion Chamber and Outlet to Flare Configuration

- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- O Closed sampling
- Representative sample
- O Applicable for sampling from process or system without process out connection
- © Equipped with pressure relief system, safer for sampling
- O Linkage ball valve design, easy operation



Schematic diagram

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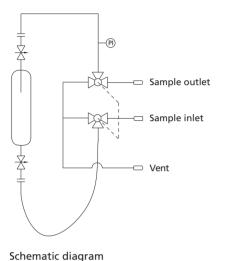
Closed-loop Sampling

System

FITOK

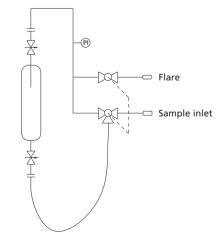
SCSF5-Outage Tube Configuration

- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Representative sample
- Sample circulation
- Outage tube within cylinder keep the cylinder safe
- O Linkage ball valve design, easy operation



SCSF7-Outage Tube and Outlet to Flare Configuration

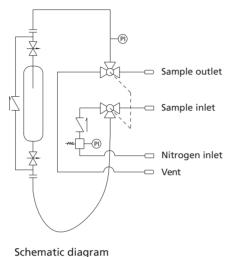
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Representative sample
- O Applicable for sampling from process or system without process out connection
- Outage tube within cylinder keep the cylinder safe
- O Linkage ball valve design, easy operation



Schematic diagram

SCSF6-Outage Tube, Bypass and System **Purge Configuration**

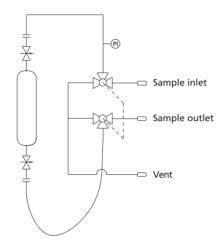
- O Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Representative sample
- O Sample circulation and system purge
- Outage tube within cylinder keep the cylinder safe
- O Linkage ball valve design, easy operation



G Series-Gas Sampling

SCGG1-Circulation Configuration

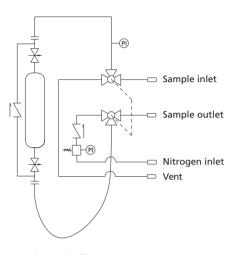
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Sample circulation
- Representative sample
- O Linkage ball valve design, easy operation



Schematic diagram

SCGG2-Bypass and System Purge Configuration

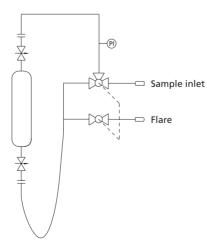
- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- O Closed sampling
- Representative sample
- Sample circulation and system purge
- O Linkage ball valve design, easy operation



Schematic diagram

SCGG3-Outlet to Flare Configuration

- Sampling directly from process or system
- O Pressure range: 0 to 1450 psig (0 to 100 bar)
- Closed sampling
- Representative sample
- O Applicable for sampling from process or system without process out connection
- O Linkage ball valve design, easy operation



Schematic diagram