

# "S" Series Needle/Gauge Valves



Autoclave Engineer's "S" Series needle and gauge valves have been engineered to provide reliable service and versatility in meeting specific process requirements. Valve heads are installed in hard and soft seat models of various body designs to accommodate the process control, flow measurement and mounting requirements of specific applications.

Standard valve assemblies with optional stems, seals and materials are available. Standard pressure rating is 6000 psi (414 bar) and 10,000 (690 bar) designed to 4 times safety factor.

## Quality:

- ISO 9001
- 100% Pressure Tested
- Material Traceability
- Manufactured to NACE, ASME, DIN, etc.

## Features:

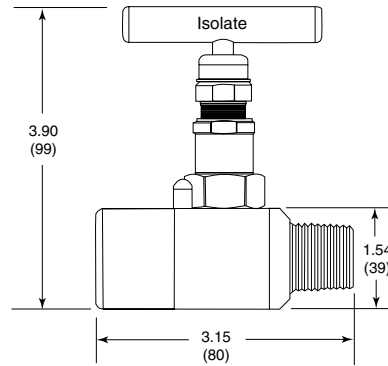
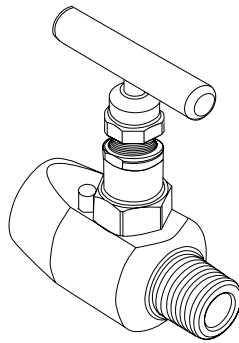
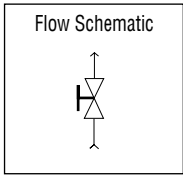
- Bar Stock Construction
- Non-rotating Ball Stem
- Hard or Soft Seat
- Anti-blowout stem
- Bubble Tight Back Seal
- PTFE or Graphite Seals
- Oxygen Service Option
- Color-coded Valve Designation
- Metering Stem Option



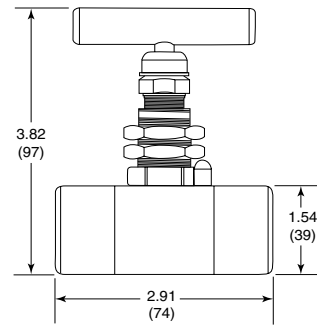
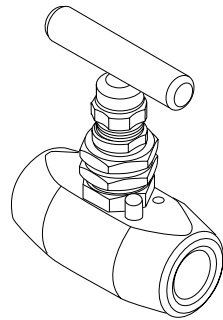
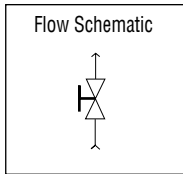
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Engineers 

[www.autoclave.com](http://www.autoclave.com)

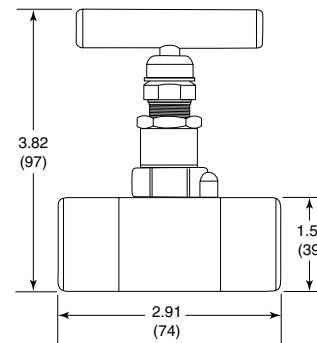
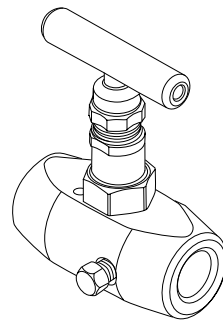
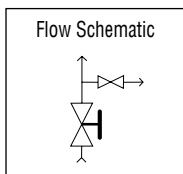
**Isolation Valve MNPT In FNPT Out**  
 Model Number SI-M4F4TXXSXS



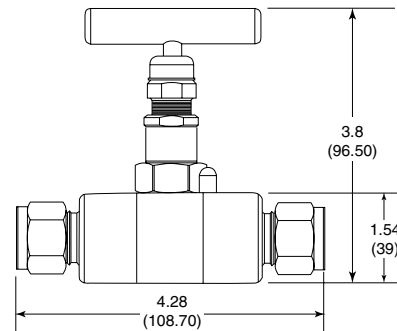
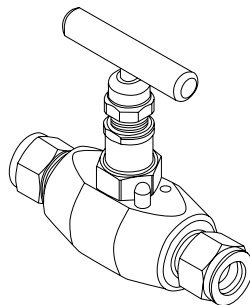
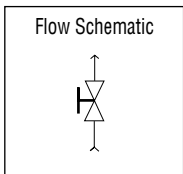
**Female Panel Mounting Needle Valve**  
 Model Number SI-F4F4TXXSXS



**FNPT Screwed Bleeding Gauge Valve**  
 Model Number SI-F2F2TBMSXS



**Isolation Valve with Tube Connection Ends**  
 Model Number SI-T8T8TXXSXS



**Series "S"**

**Valve Type**

- I - Isolation Valve
- 2R - Remote Mount 2-Way
- IB - Isolate with Union Bonnet
- IDB - Double Isolate/Union Bonnet
- 2B - 2-Way with Union Bonnet
- IDC - Dual Channel Gauge Valve
- I2M - Inline 2-Way Manifold

**Connection Inlet**

- F - Female NPT
  - M - Male NPT
  - S - Socket Weld
  - B - Butt Weld
- Contact Factory for Weld Ends

**Connection Size**

- 2 - 1/4"
- 3 - 3/8"
- 4 - 1/2"
- 5 - 5/8"
- 6 - 3/4"

**Connection Outlet**

- F - Female NPT
  - M - Male NPT
  - S - Socket Weld
  - B - Butt Weld
- Contact Factory for Weld Ends

**Connection Size**

- 2 - 1/4"
- 3 - 3/8"
- 4 - 1/2"
- 5 - 5/8"
- 6 - 3/4"

**Options**

- 2 - Oxygen Cleanted
- PM - Panel Mount
- 316 - All 316 SS
- ST - Soft Seat PTEF
- SD - Soft Seat Delrin
- 50 - Inlet Extension Adder
- 66 - Inlet Extension Adder
- 79 - Inlet Extension Adder
- 100 - Inlet Extension Adder
- 134 - Inlet Extension Adder
- 185 - Inlet Extension Adder
- Q - 1/4" Bleed Plug in Vent Bleed Port

**Trim**

- M - Metering Tip
- 4 - Monel 400
- 7 - 17-4 PH

**Material**

- S - 316 SS
- L - 316L NACE
- C - C276
- M - Monel 400
- I - Inconel 718
- K - Carb Steel

**Pressure Rating**

- X - 6,000 psi Standard
- E - 10,000 psi Design

**Handle Type**

- S - Standard Tee
- T - Tamper Proof Isolation
- V - Tamper Proof Vent
- A - All Tamper Proof
- K - Knobs on all

**Bleed/Vent Size**

- X - No Bleed
- M - M8 Metric
- 2 - 1/4" NPT
- 4 - 1/2" NPT

**Bleed/Vent Requirement**

- X - No Bleed
- B - Single Bleed
- P - Bleed & Plug
- V - Vent

**Packing Seal**

- T - Teflon
- G - Graphite

**Note:**

1. Stems are ball stem design only
2. K option-50 piece minimum

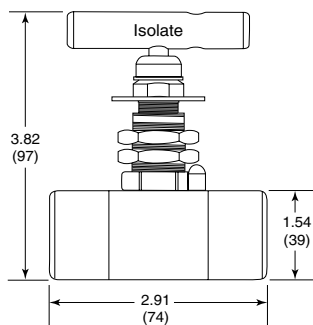
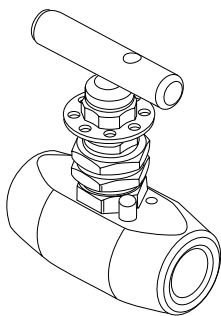
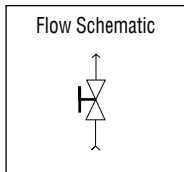
**G** after the connection size means the connection is BSP Parallel

**R** after the connection size means the connection is BSP Taper

eg: 1/2" NPT	Male/Female Valve	SI-M4F4TXXSXS
1/2" BSP Parallel	Male/Female Valve	SI-M4GF4GTXXSXS

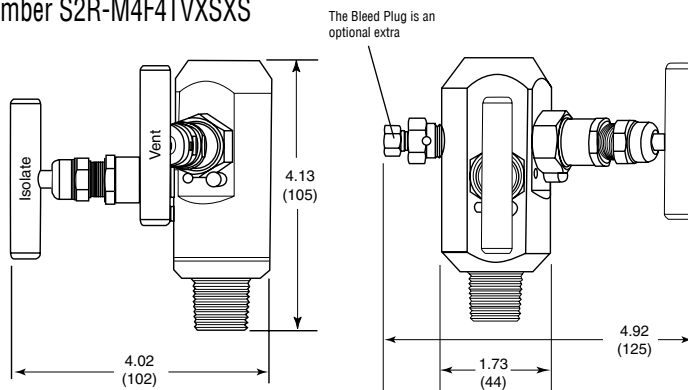
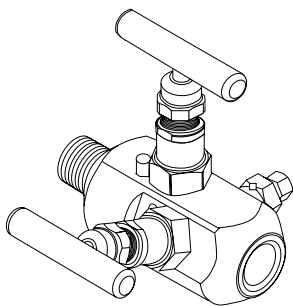
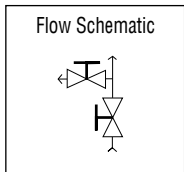
## Lockable Female Panel Mounting Needle Valve

Model Number SI-F4F4TXXSXS-PMHL



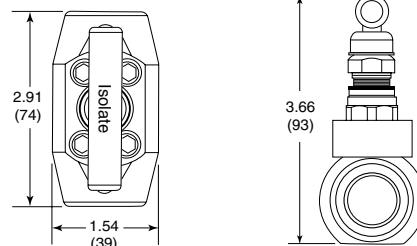
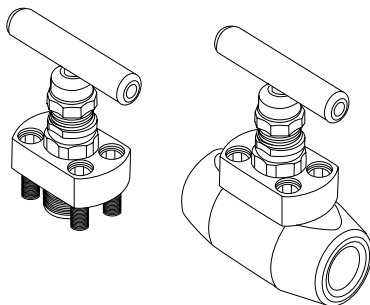
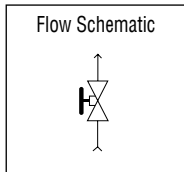
## MNPT Remote Mount 2-Way Manifold

Model Number S2R-M4F4TVXSXS



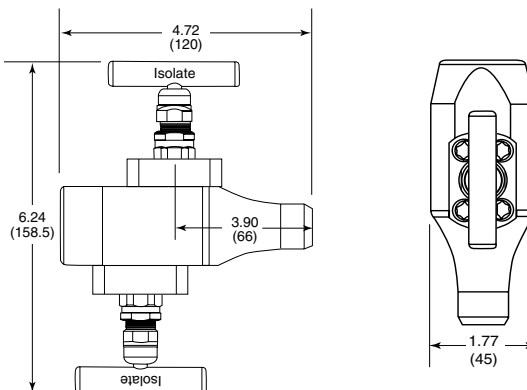
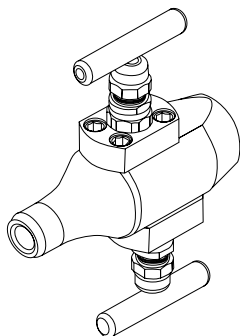
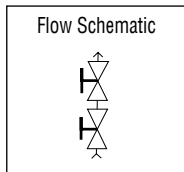
## FNPT Union Bonnet Isolation Valve

Model Number SIB-F4F4TXXSXS



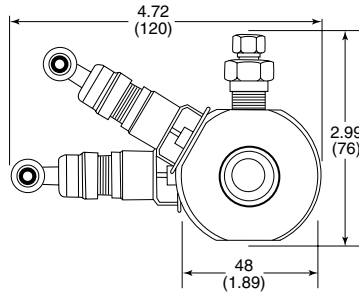
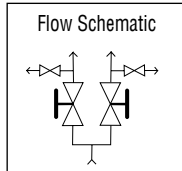
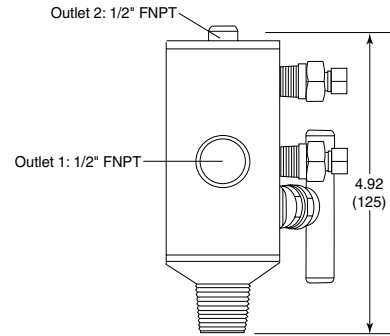
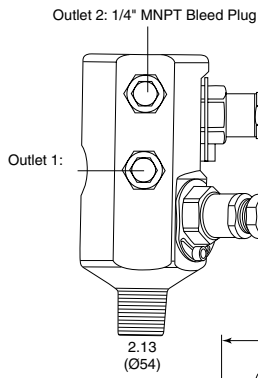
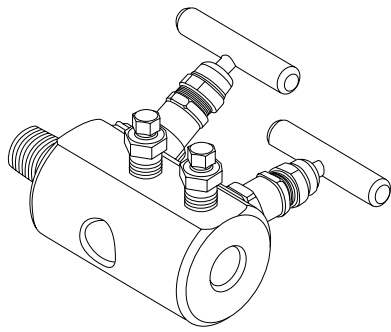
## Double Isolating Union Bonnet Needle Valve

Model Number SIDB-F4B4TXXSXS



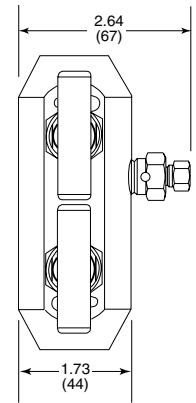
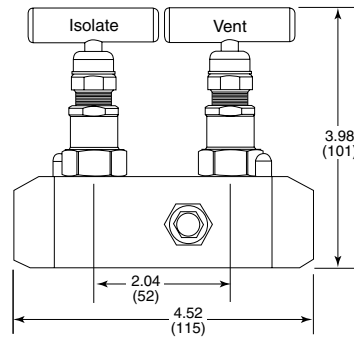
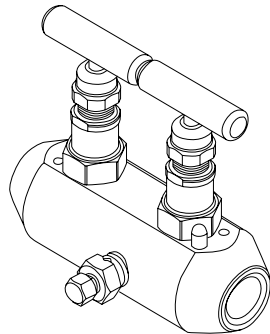
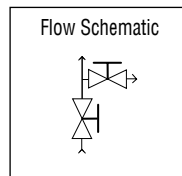
## Dual Channel Gauge Valve

Model Number SIDC-M4F4TB2SXS



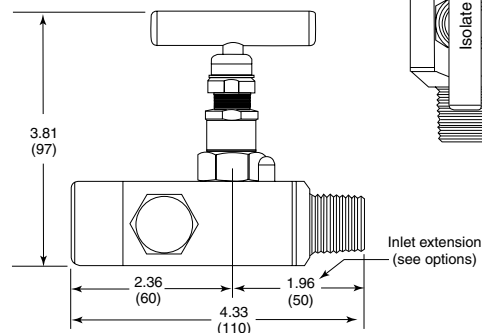
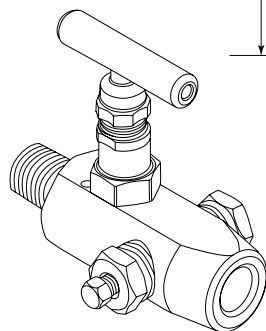
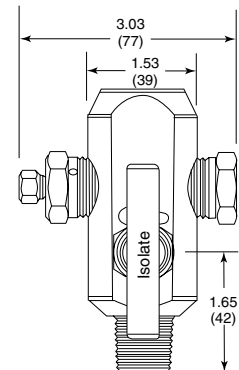
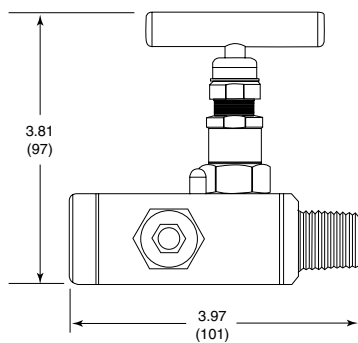
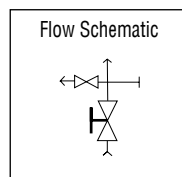
## FNPT In-Line 2-Way Manifold

Model Number SI2M-F4F4TV2SXS



## Male NPT Screwed Multiport Gauge Valve


Model Number SI-M4F4TP4SXS



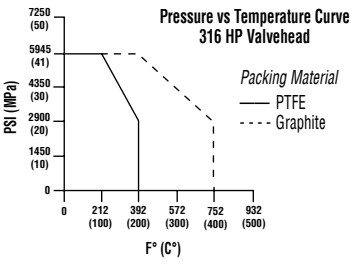
Model Number SI-M4F4TP4SXS-50

# HP Secondary Valvehead (PA/SHPXH)

**High Pressure Secondary Valvehead**  
PA/TSHPXH



**Pressure vs Temperature Curve**  
316 HP Valvehead

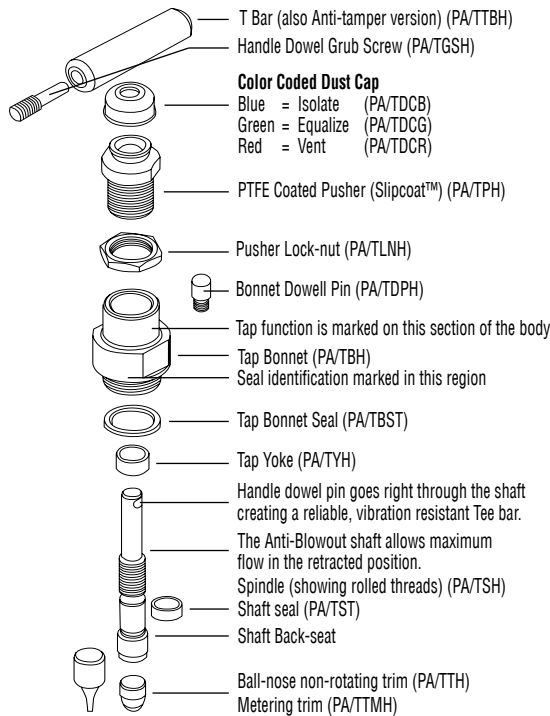


**Notes:** The stuffing box is self adjusting and requires no maintenance. In low pressure applications the pusher may need to be tightened by loosening the Locknut and turning the pusher clockwise one or two flats only, making sure that the **valve is in the open** positions.

Pressure Rating:  
 PTFE 6,000 psi (41.4 MPa) @ 212°F (100°C)  
 PTFE 6,000 psi (41.4 MPa) @ 392°F (200°C)

The High Pressure Secondary Valvehead has a safety margin of 4 times.

The S Series valve has a fully articulated, back-sealing, anti-blowout spindle whose pusher is grey in appearance because it is coated with a PTFE compound. Normally supplied with a T-Bar handle this unit is also available with a Tamper Proof drive mechanism.



PA/TGSH	Grub Screw	H = 316SS
PA/TTBH	T-Bar	H = 316SS
PA/TDCR	Dust Cap	R-Red G-Green B-Blue
PA/TPH	Pusher	H = 316SS
PA/TLNH	Lock Nut + Spacer	H = 316SS
PA/TYH	Yoke	H = 316SS
PA/TSH	Spindle	H = 316SS
PA/TST	Shaft Seal	T-PTFE G-Graphite
PA/TBH	Bonnet	H = 316SS
PA/TDPH	Dowell Pin	H = 316SS
PA/TBST	Bonnet Seal	T-PTFE G-Graphite
PA/TTH	Trim	H = 316SS

**Notes:** <sup>1</sup> The Tap Pusher is grey in appearance as it is plated Slipcoat, a PTFE lubricating coating.

The Valvehead (tap) is permanently engraved and also color coded. Details highlighted are the valve's function and the stuffing box seal material. An A number code (All element traceability or Heat Code) and the general material of construction is stamped on the main manifold body indicating wetted part materials. Information pertinent to the seals can be found in the general part number or by locating the letter T or G engraved on the Bonnet.

Flange seals will be supplied in the same material as the stuffing box seals.

## ! WARNING !

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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