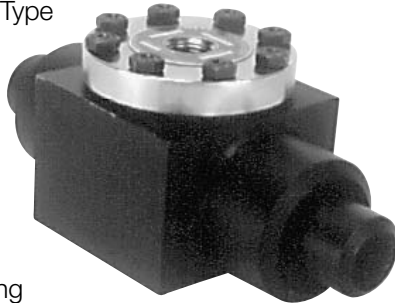


## Diaphragm Seals

# Type SMJ and SNJ Series Diaphragm Seal Elements for Jacketed Pipelines

### DESCRIPTION

Mansfield & Green Type SMJ and SNJ Series diaphragm seals are flow thru type seals designed for pressure measurement applications involving jacketed pipelines where heated process fluids are used.



The SNJ seals have slip-on flanges for ease of installation and alignment. Socket weld jacket connections are included for field installation.

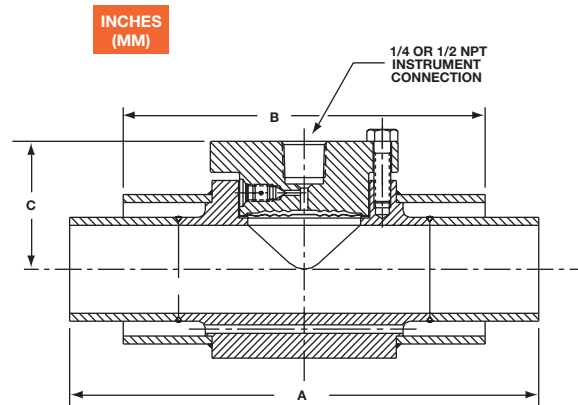
The SMJ model is similar to the SNJ seals except these seals do not include flanges. The SMJ seal is butt welded directly into the customer's jacketed pipeline.

Type SMJ and SNJ seals are continuous duty and feature a welded diaphragm seal design with the diaphragm welded directly onto the instrument housing. The interior of the diaphragm top is contoured to fit the movement of the diaphragm at maximum allowable deflection. This minimizes distortion. A filling screw is provided standard.

Type SMJ and SNJ jacketed seals are available with 316 ELC stainless steel diaphragms and exposed parts. Other materials are available. Jacket pipe, connections, and flanges are Schedule 40 carbon steel. Standard seals are furnished with ANSI Class 150 or 300 flanges. The SNJ operating pressure is flange dependent. The SMJ seal pressure rating conforms to the Schedule 40 process pipe rating of 1500 psig at 100°F (103 bar at 38°C).

### FEATURES

- Ideal for jacketed pipeline applications
  - Welded diaphragm
  - Diaphragm welded directly to instrument housing
- Continuous duty
- SNJ features slip on flanges for easy installation
  - Socket weld connections included on jacket
- SMJ butt welded directly to pipeline
- Materials available for corrosive applications
- Pressure ranges to 1500 psig (103 bar)



PROCESS ID	JACKET ID	UNIT	A	B	C
1.0	2.0	inches	8.75	6.75	2.06
		mm	222.3	171.5	52.3
1.5	2.5	inches	8.75	6.75	2.31
		mm	222.3	171.5	58.7
2.0	3.0	inches	8.75	6.75	2.56
		mm	222.3	171.5	65.0
3.0	4.0	inches	8.75	6.75	3.18
		mm	222.3	171.5	80.8
4.0	6.0	inches	8.75	6.75	3.69
		mm	222.3	171.5	93.7
6.0	8.0	inches	8.75	6.75	4.69
		mm	222.3	171.5	119.1

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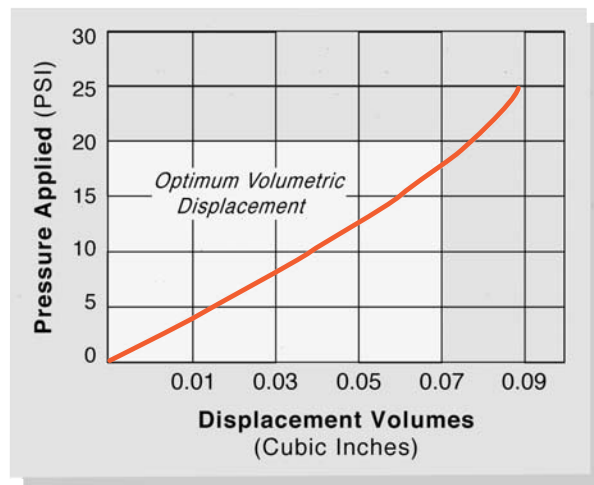


## Diaphragm Seals

# Type SMJ and SNJ Series Diaphragm Seal Elements for Jacketed Pipelines

### MODEL SMJ and SNJ SERIES SELECTION GUIDE

SEAL TYPE	SEAL MOUNTING	OPERATING TEMPERATURE	OPERATING PRESSURE	FLANGE CONNECTION	JACKET CONNECTION
SMJ	Butt Welded	100°F (38°C)	1500 psig (103 bar)	Not Included	Per Schedule Type
SNJ	Flange	100°F (38°C)	1500 psig (103 bar)	Slip On, Included	Socket Weld, Included



### Special Requests

The diaphragm seal combinations in this catalog represent AMETEK's more commonly ordered products. If you don't find a seal combination in this specification sheet, or if you are in need of a special application or material, call us. AMETEK can supply you with the safe and reliable solution for most applications.

### Pressure vs. Volumetric Displacement

Displacement curves are provided to assist in selecting a diaphragm seal with minimal full span displacement bias effects. This graph is for reference only and may not accurately represent the maximum displacement that may be used. Contact AMETEK for exact specifications.

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