



PureFlo® PTFE Capsules

PureFlo® PTFE capsules are easy-to-use filtration units, ideally suited for single-use applications in the pharmaceutical industry. The hydrophobic polytetrafluoroethylene (PTFE) membrane is chemically resistant and demonstrates exceptional thermal strength and flow performance in venting and compressed gas applications. The filter capsules are available in a complete spectrum of sizes to simplify scale-up throughout each stage of the drug development process.

Superior Flow Performance

PureFlo® PTFE capsules incorporate a sterilizing grade 0.2 µm membrane that exhibits a lower pressure drop compared to other hydrophobic membranes such as PVDF. The superior flow performance results in a light-weight, compact filter designed to promote optimal process efficiency.

Engineered Filtration Solutions

To meet the needs of an innovative and rapidly growing industry, and in addition to the standard product offering, Saint-Gobain offers a collaborative service with a dedicated team of engineers and subject matter experts to develop specialized filtration solutions that are tailored to achieve optimal performance. Please contact us for more information.

Features / Benefits



Inherently
Hydrophobic



Autoclavable



High Flow
Rate



Animal-Derived
Component Free



Chemical
Resistance



100% Integrity
Tested

Typical Applications

- Bioreactor Vent
- Moisture Barrier
- Compressed Gas
- Fermentation Tank Vent
- Bottle or Carboy Vent
- Autoclave Vent

Technical Summary

Materials

Membrane	PTFE
Support Material	Polypropylene
Molded Components (cage, core, shell, end caps)	Polypropylene
O-rings (when present)	Silicone

Membrane Configurations

Membrane	Description	Minimum Bubble Point (at 22 °C)
F020	0.2 µm	1.2 bar 17.4 psi (in 60% isopropyl alcohol, 40% water)

Measurements (nominal)

Size	Outside Diameter (mm)	Body Length Without Fittings (mm)	Filtration Area (cm ²)
Disc (D)	16 - 99	3.7 - 10	0.8 - 60
Junior (JKP)	41	41	230
Mini (MKP)	59	60	450
Mid (SKV)	71.5	52 - 257	730 - 5200
Full (L)	90	279 - 1007	7300 - 26000

Vented Connections (when present)

	Disc (D)	Junior (JKP)	Mini (MKP)	Mid (SKV)	Full (L)
Category	Luer lock w/ cap	Luer lock w/ cap	Luer lock w/ cap	Bleed valve	Bleed valve
Connection Type	Female Luer Lock	Female Luer Lock	Female Luer Lock	1/8" hose barb	1/4" hose barb

Recommended Operating Conditions (for untreated/non-sterile product)

	Disc (D)	Junior (JKP)	Mini (MKP)	Mid (SKV)	Full (L)
Maximum Temperature	80 °C	80 °C	80 °C	80 °C	80 °C
Maximum Inlet Pressure (at 22 °C)	5.5 bar 80 psi	5.5 bar 80 psi	5.5 bar 80 psi	5.5 bar 80 psi	5.5 bar 80 psi
Maximum Forward Differential Pressure (at 22 °C)	4.1 bar 60 psi	5 bar 72.5 psi	5 bar 72.5 psi	5 bar 72.5 psi	5 bar 72.5 psi
Maximum Reverse Differential Pressure (at 22 °C)	2.1 bar 30 psi	2.1 bar 30 psi	2.1 bar 30 psi	3 bar 43.5 psi	3 bar 43.5 psi

Sterilization

Autoclave	Disc: Up to 10 cycles at 125 °C for 30 minutes Junior, Mini, Mid, Full Size: Up to 20 cycles at 125 °C for 30 minutes
Ethylene Oxide	The materials of construction are generally regarded as compatible but testing is recommended.

Shelf Life

Non-sterile products have a shelf life of 3 years after the date of manufacture.

Traceability

For traceability and easy identification:

- A Certificate of Conformance is provided in each box.
- Each filter bag and box are labeled with the product part number, lot number, and identifying characteristics.
- Each Junior, Mini, Mid, and Full size capsule is engraved and labeled with the product part number, lot number, and identifying characteristics.
- Each 25 mm, 40 mm, 50 mm, 65 mm and 90 mm disc capsule is engraved with the product lot number and identifying characteristics.

Regulatory & Stewardship

Saint-Gobain's PureFlo® PTFE Capsules were designed, manufactured, and qualified with an ISO 13485 certified Quality Management System. For more information, please refer to the product [Validation Guide and Regulatory Information Overview \(RIO\)](#).

Category	Standard or Reference Test
Cleanliness	USP <85> Bacterial Endotoxin Test
Biocompatibility	USP <88> Class VI, and/or USP <87>, and/or ISO 10993-5
Food Contact	USP 21 CFR 177 FDA Indirect Food Additive
Bacterial Retention	Quantitative retention of 10 ⁷ CFU/cm ² <i>Brevundimonas diminuta</i> per ASTM methodology
Animal-derived Components	No animal-derived material is intentionally added or used during the manufacture of PureFlo® PTFE Capsules.
RoHS	Restriction of Hazardous Substances (RoHS 3) Directive 2015/863
REACH	REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) Article 57, Regulation No. 1907/2006)

Lot Release Criteria

Each PureFlo® PTFE Disc, Junior, Mini, Mid and Full Size Capsules product lot is sampled and tested for conformity to the following criteria:

Criteria	Description
Integrity (membrane)	Each filter (100%) in a lot is integrity tested during the manufacturing process.
Integrity (housing)	A representative sample of the lot is tested to meet published burst pressure values.
USP Bacterial Endotoxins	A representative sample from the lot is tested to confirm that an aqueous extraction of the product contains <0.25 EU/mL as determined by the Limulus Amebocyte Lysate (LAL) Test.

PureFlo® PTFE Disc Capsules

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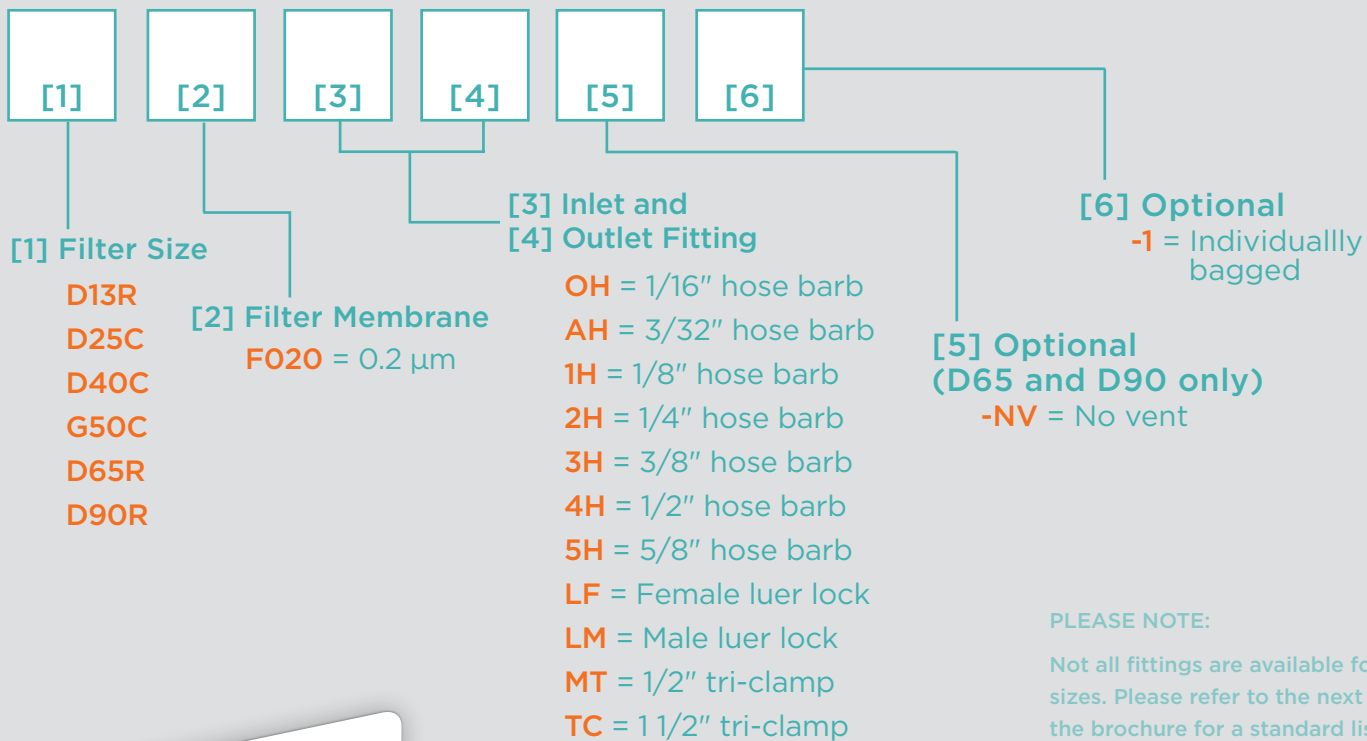
PRODUCT TECH SNAPSHOT: (Values are nominal. Please see Technical Summary for additional information)

Size	Body Diameter (mm)	Body Length Without Fittings (mm)	Filtration Area (cm ²)	Typical Flow Performance* (22 °C, vent condition)
D13R	16	3.7	0.8	D13RF0201H1H - 5.7 psid at 1 L/min
D25C	33	5.45	4.6	D25CF0201H1H - 5.6 psid at 5 L/min
D40C	45.5	8	10.5	D40CF0202H2H - 2.4 psid at 5 L/min
G50C	54	8	15.9	G50CF0201H1H - 5.8 psid at 10 L/min
D65R	72	10	26	D65RF0202H2H - 1.5 psid at 10 L/min
D90R	99	10	60	D90RF0202H2H - 1.6 psid at 20 L/min

1 bar =14.5038 psi

Ordering Guide

PART NUMBER:



PLEASE NOTE:

Not all fittings are available for all filter sizes. Please refer to the next page of the brochure for a standard list of fitting available for each filter size.



Customer Service

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Don't see what you're looking for?
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* IMPORTANT:

The flow performance of a filter capsule is dependent on several variables including the process fluid characteristics, operating conditions, filter surface area, pore size and fittings. The above values are approximate for example part numbers and provided for reference only. Actual values may vary. For application guidance and flow performance information for a specific part number please contact your local Saint-Gobain representative.

PureFlo® PTFE Series Disc Capsule Ordering Guide continued)

Table A. Inlet and outlet fitting option availability

Inlet/Outlet Fitting	Description	D13R	D25C	D40C	G50C	D65R	D90R
OH	1/16" hose barb	•	^	^			
AH	3/32" hose barb	•	^				
1H	1/8" hose barb	•	•	^	•	•	
2H	1/4" hose barb		^	^	^	^	•
3H	3/8" hose barb		^	^		^	•
4H	1/2" hose barb					•	•
5H	5/8" hose barb					•	•
LF	Female luer lock	•	•	•	•	•	•
LM	Male luer lock	•	•	•	•	•	•
MT	1/2" tri-clamp						•
TC	1 1/2" tri-clamp						

Table B. Vent fitting availability (located near inlet of capsules when present)

D13R	D25C	D40C	G50C	D65R	D90R
				•	•

• = fitting is available (if it is a hose barb, it is straight)

^ = fitting is available (if it is a hose barb, it is stepped or tapered)



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PureFlo® PTFE Junior Capsules

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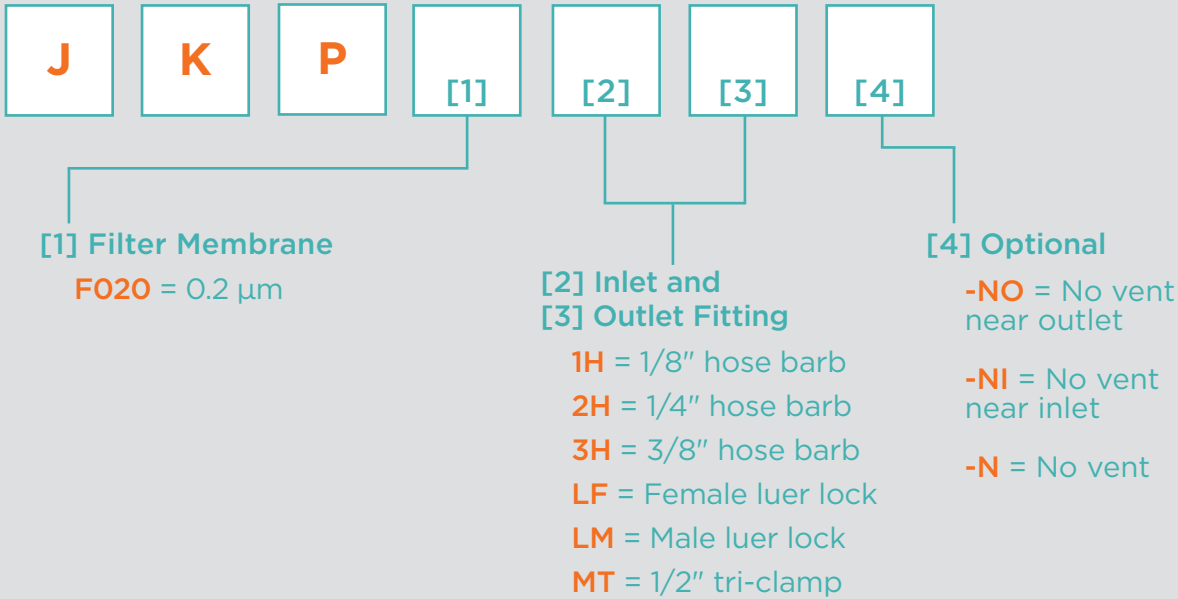
PRODUCT TECH SNAPSHOT: (Values are nominal. Please see Technical Summary for additional information)

Body Diameter (mm)	Body Length Without Fittings (mm)	Filtration Area (cm ²)	Typical Flow Performance* (22 °C, vent condition)
41	41	230	JKPF0203H3H - 1.4 psid at 40 LPM

1 bar = 14.5038 psi

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PureFlo® PTFE Mini Capsules

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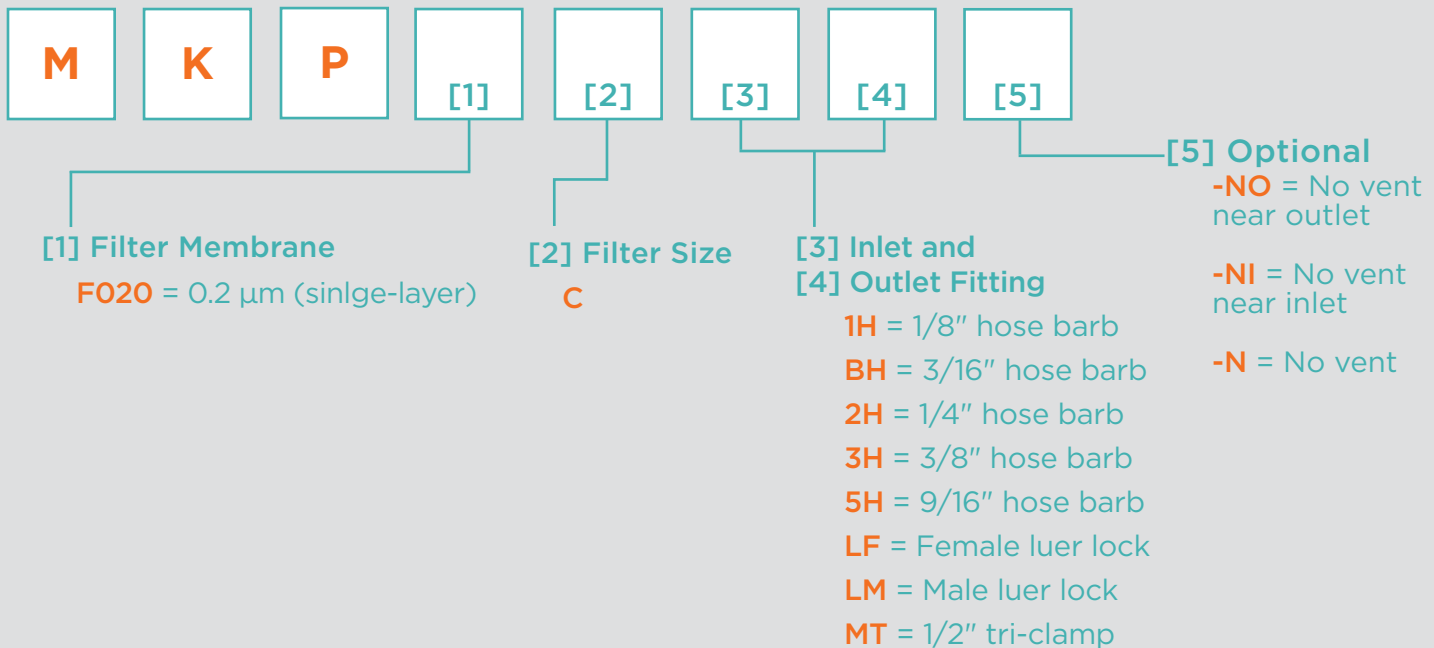
PRODUCT TECH SNAPSHOT: (Values are nominal. Please see Technical Summary for additional information)

Size	Body Diameter (mm)	Body Length Without Fittings (mm)	Filtration Area (cm ²)	Typical Flow Performance* (22 °C, vent condition)
C	59	60	450	MKPF020C2H2H - 2 psid at 100 LPM

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PureFlo® PTFE Mid Size Capsules

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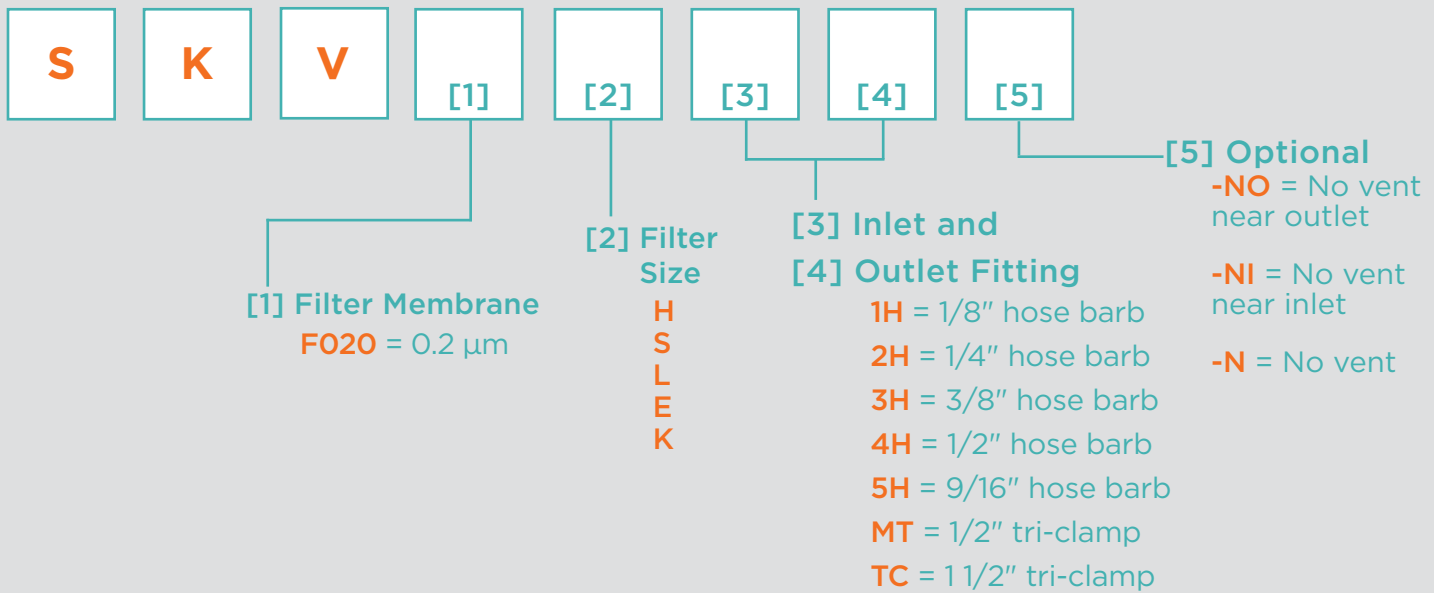
PRODUCT TECH SNAPSHOT: (Values are nominal. Please see Technical Summary for additional information)

Size	Body Diameter (mm)	Body Length Without Fittings (mm)	Filtration Area (cm ²)	Typical Flow Performance* (22 °C, vent condition)
H	71.5	56	730	SKVF020HTCTC - 2 psid at 200 LPM
S	71.5	84	1400	SKVF020STCTC - 1.1 psid at 200 LPM
L	71.5	141	2600	SKVF020LTCTC - 0.8 psid at 200 LPM
E	71.5	206	3900	SKVF020ETCTC - 0.6 psid at 200 LPM
K	71.5	260	5200	SKVF020KTCTC - 0.4 psid at 200 LPM

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PureFlo® PTFE ZenCap® Full Size Capsules

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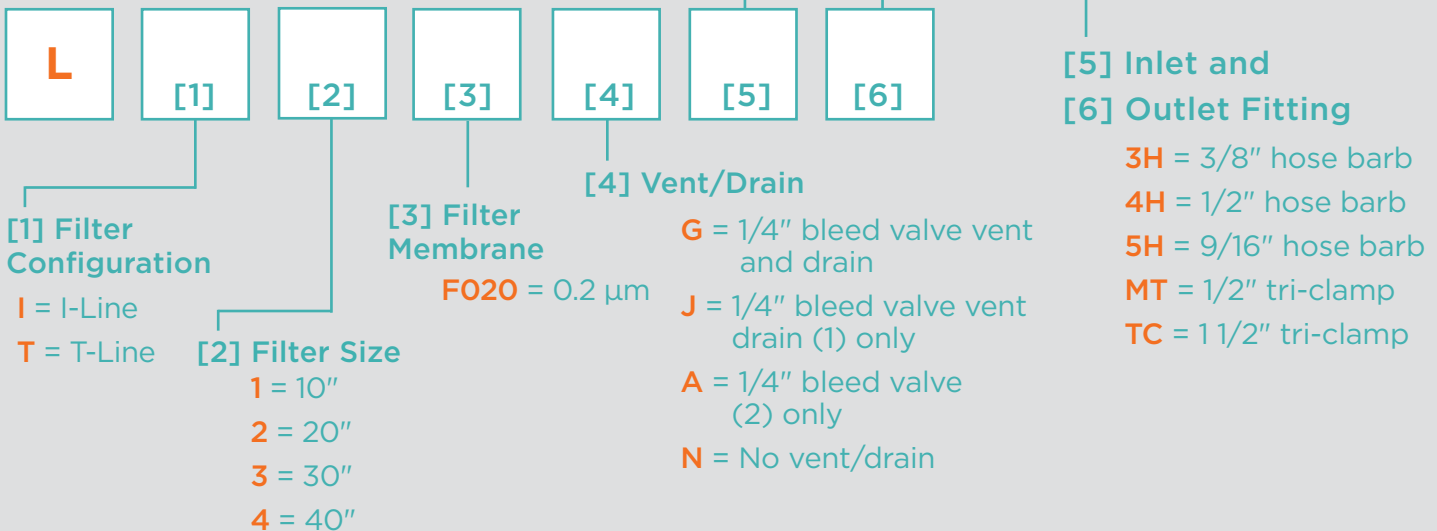
PRODUCT TECH SNAPSHOT: (Values are nominal. Please see Technical Summary for additional information)

Size	Body Diameter (mm)	Body Length Without Fittings (mm)	Filtration Area (m ²)	Typical Flow Performance* (22 °C, vent condition)
1	90	279	0.73	LIIF020GTCTC - 0.2 psid at 200 LPM
2	90	522	1.5	
3	90	765	1.9	
4	90	1007	2.6	

1 bar = 14.5038 psi

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(1) For I-line capsules, this is the valve closest to the inlet.

For T-line capsules, this is the valve at the 'top' of the capsule and farthest from the inlet/outlet fittings.

(2) For T-line capsules, this is the valve closest to the outlet. For T-line capsules this is the valve closest to the inlet/outlet fittings and is at the 'bottom' of the capsule)



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