

DESCRIPTION

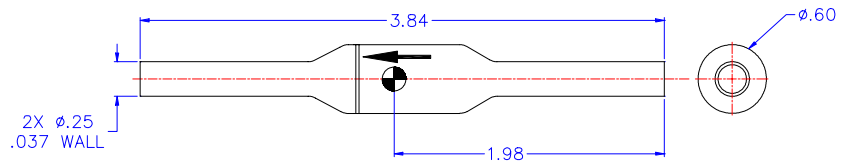
VACCO Industries maintains a product line of flight qualified etched disc filters, providing absolute filtration for satellites and spacecraft since 1961.

The etched disc filter's superior characteristics are due to several features. First, each flow path is chemically etched into metal by a high precision photochemical- etching process. Next, each disc is individually cleaned prior to assembly in a clean room. Finally, no welding is performed on the stack element assembly assuring the cleanest and most reliable filter in the industry.



FEATURES

- ⊕ Etched Disc Technology
- ⊕ Flight Qualified
- ⊕ All Titanium Construction
- ⊕ Weight – 22g/0.048 lbm
- ⊕ 25 Micron Absolute Filtration
- ⊕ 600 psig Operating Pressure



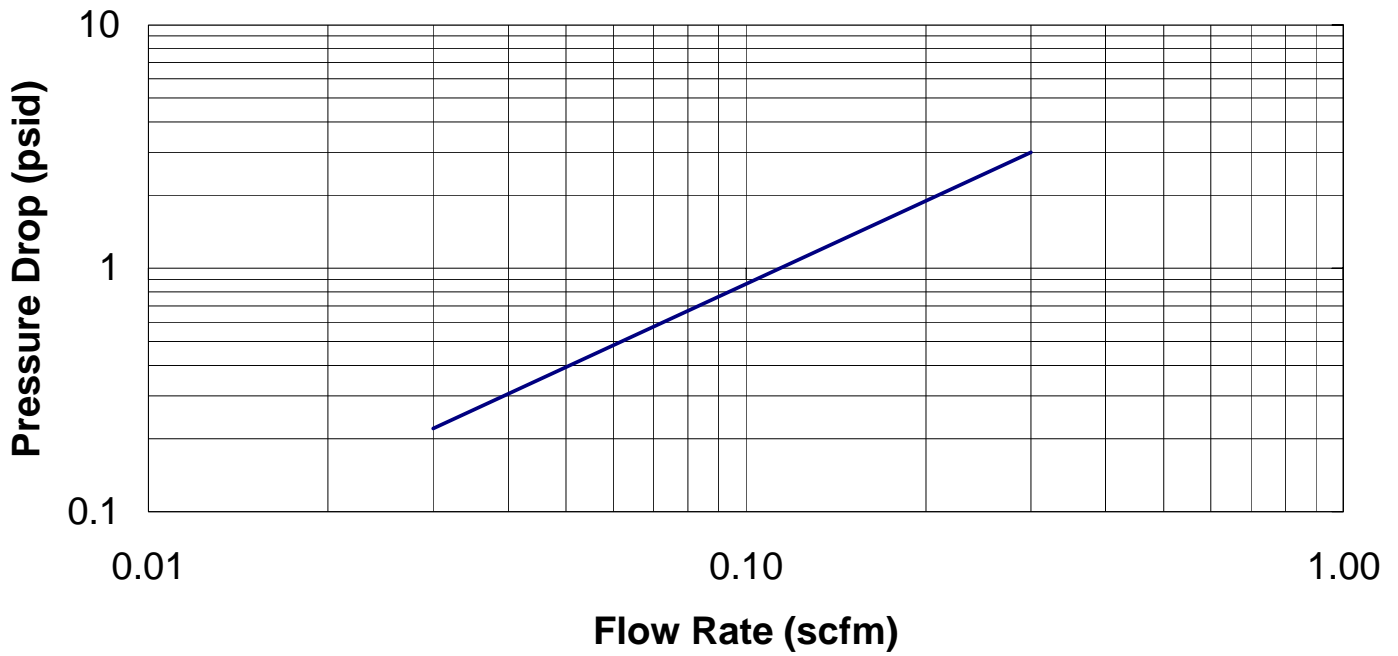
OPERATING PARAMETERS

Operating Pressure Range	600 psig	External Leakage	<1 x 10 ⁻⁶ sccs GHe
Proof Pressure	900 psig	Weight	0.048 lbm (22 grams)
Burst Pressure	2400 psig	Operating Temperature	+10° to +170° F
Flow Rate	0.06 scfm GHe	Filtration Rating	25 microns absolute
Pressure Drop (Clean)	0.5 psid max.	Random Vibration	20.34 G(rms), 3 min/axis

Performance characteristics are based upon customer requirements, as such, are not representative of component capabilities or limitations

PERFORMANCE CHARACTERISTICS

Pressure Drop GHe @ 600 psig



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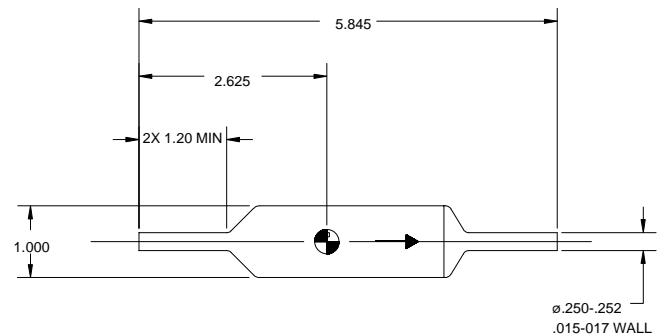
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FEATURES

- ⊕ Etched Disc Technology
- ⊕ 304L Stainless Steel Construction with a Titanium Etched Disc Assembly
- ⊕ Weight – 180g/0.40 lbm
- ⊕ 15 Micron Absolute Filtration
- ⊕ 600 psig Operating Pressure



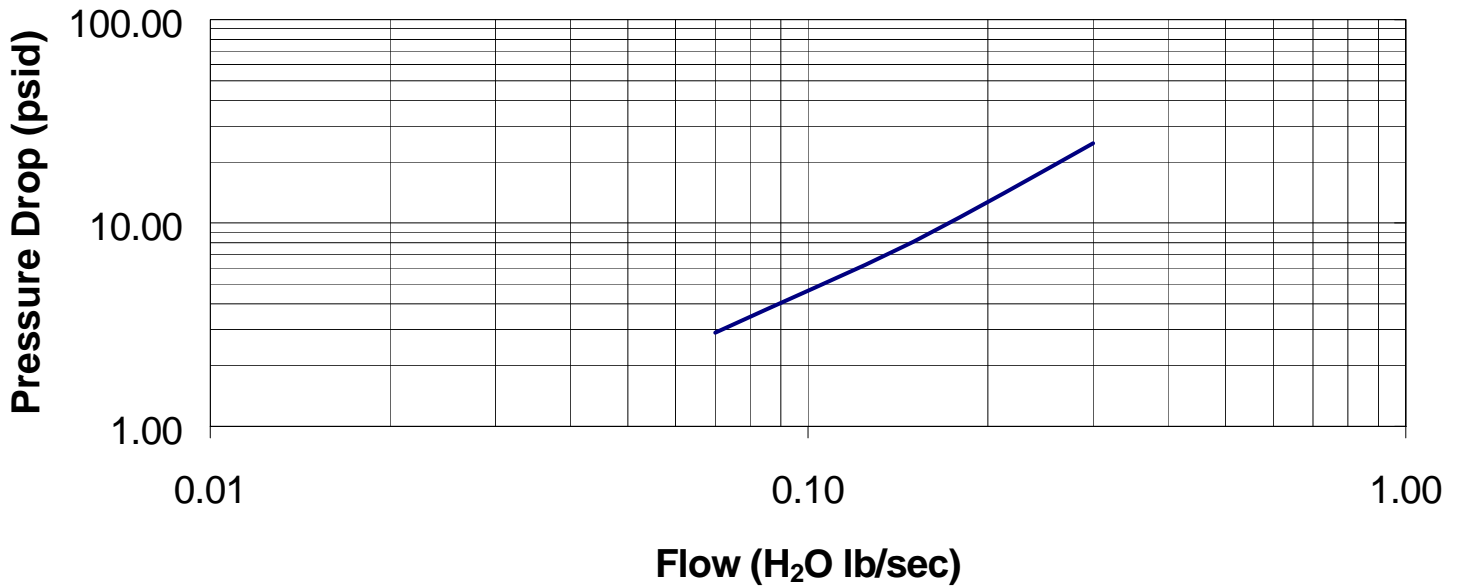
OPERATING PARAMETERS

Operating Pressure Range	600 psig	External Leakage	<1 x 10 ⁻⁶ sccs GHe
Proof Pressure	900 psig	Weight	0.40 lbm (180 grams)
Burst Pressure	1500 psig	Operating Temperature	+40° to +120° F
Flow Rate	0.15 lbm/(1.08 gpm/sec) H ₂ O	Filtration Rating	15 microns absolute
Pressure Drop (Clean)	7 psid max.	Random Vibration	36.9 G(rms), 3 min/axis
(Dirty)	15 psid max. w/250mg ACCTD	Shock	2500 G

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PERFORMANCE CHARACTERISTICS

Flow vs Pressure Drop @ 600 psi



DESCRIPTION

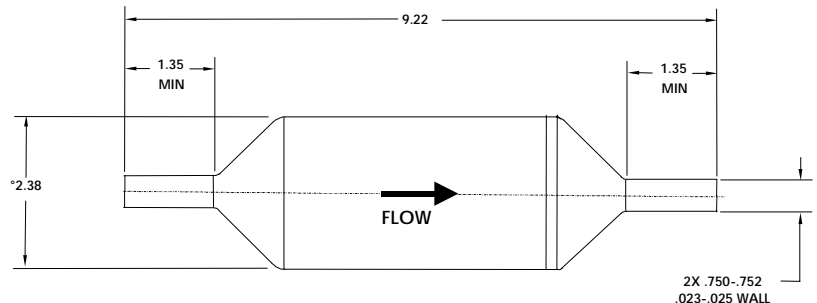
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FEATURES

- ⊕ Etched Disc Technology
- ⊕ CRES Body & Interfaces
- ⊕ Titanium Etched Disc Assembly
- ⊕ Weight – 1 Kg (2.2 lbm)
- ⊕ 15 Micron Absolute Filtration
- ⊕ 500 psig Operating Pressure

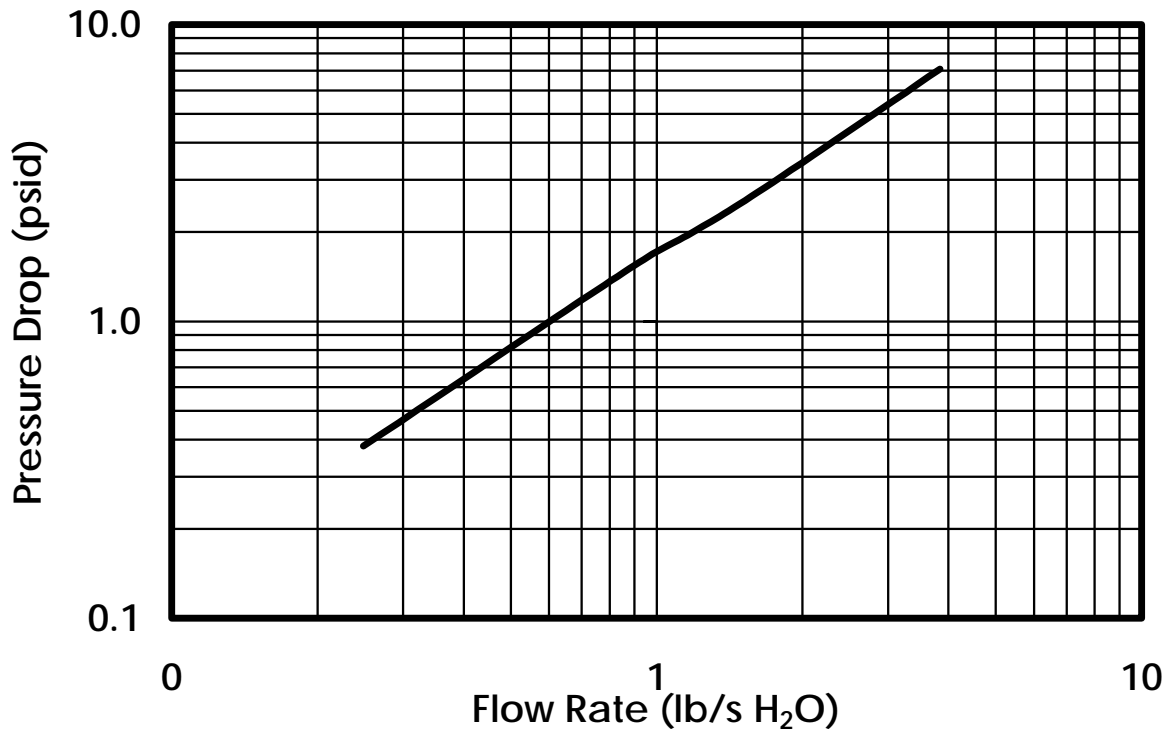


OPERATING PARAMETERS

Operating Pressure.....	500 psig	Temperature.....	+40°F to +122°F (4°C to 50°C)
Proof Pressure.....	750 psig	Weight.....	<1Kg (2.2 lb)
Burst Pressure.....	1,250 psig	Proof Pressure.....	750 psig – 5 min.
Filtration Rating.....	15 micron abs	External Leakage.....	1.4 x 10 ⁻⁸ sccs @ 500 psig
Flow Rate.....	1.65 lb/s N ₂ H ₄	Flow / Pressure Drop.....	3.2 psid @ 1.65 gpm H ₂ O
Pressure Drop (Clean).....	6 psid @ Rated Flow	Random Vibration.....	8.4 G(rms), 1 min/axis
Pressure Drop (Dirty).....	20 psid (max) with 1.4 grams ACCTD		
External Leakage.....	<1x10 ⁻⁶ sccs GHe		

PERFORMANCE CHARACTERISTICS

Actual Flow vs Pressure Drop



DESCRIPTION

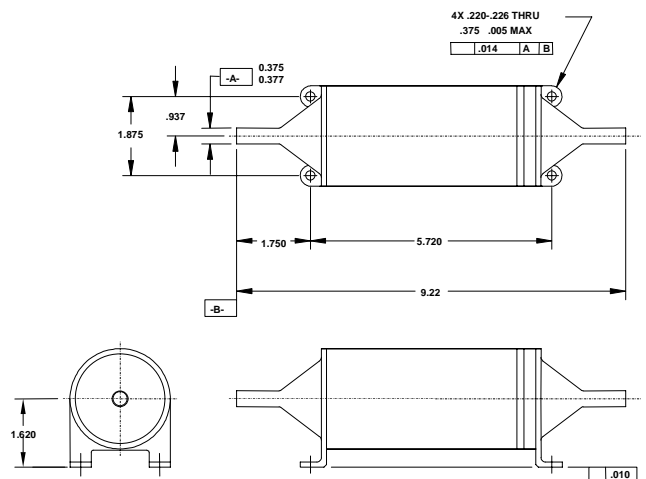
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FEATURES

- ⊕ Etched Disc Technology
- ⊕ All Titanium Construction with a Titanium Etched Disc Assembly
- ⊕ Weight – 0.91 Kg (2.00 LB)
- ⊕ 15 Micron Absolute Filtration
- ⊕ 330 psia (2275 kPa) Operating Pressure



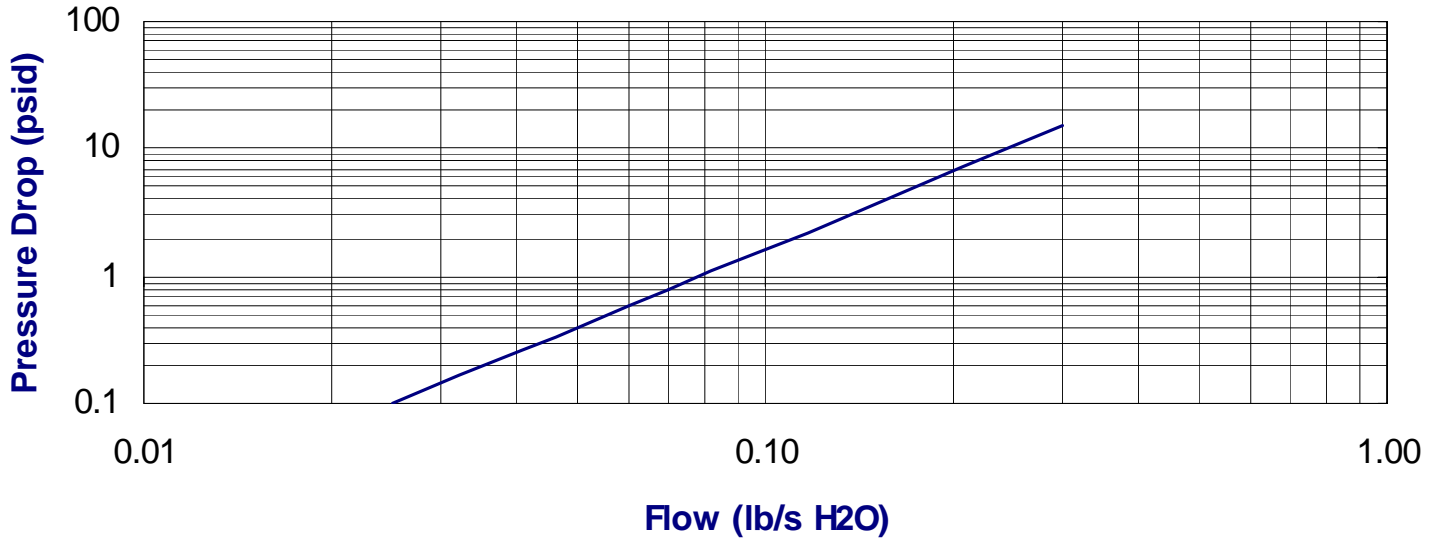
OPERATING PARAMETERS

Operating Pressure..... 330 psia (2275 kpa)
 Proof Pressure..... 2000 psig (13,790 kpa)
 Burst Pressure 4000 psig (27,580 kpa)
 Filtration Rating..... 15 micron abs
 Flow Rating >0.18 lb/s MMH & 0.29 lb/s N₂O₄
 Pressure Drop Clean (Dirty).... 2.2 psid @ 0.17 lb/s H₂O
 @ 0.17 lb/s (75 g/s) with > 1.4 grams ACCTD
 External Leakage..... <1 x 10⁻⁶ sccs GHe

Temperature..... -22°F to +185°F (-30°C to +85°C)
 Weight <0.91 Kg (2.00 lb)
 Proof Pressure 2000 psig - 5 min.

PERFORMANCE CHARACTERISTICS

Flow vs Pressure Drop



DESCRIPTION

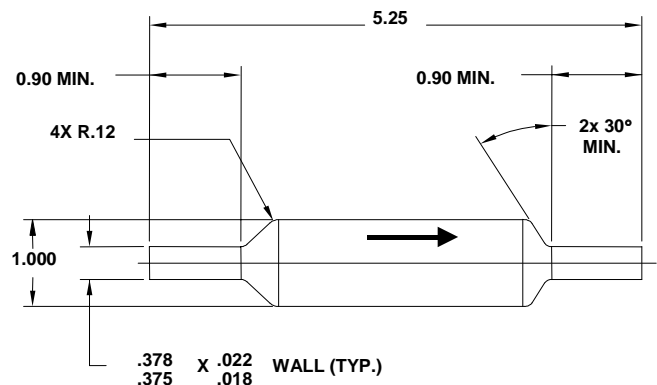
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FEATURES

- ⊕ Etched Disc Technology
- ⊕ All Titanium Construction with a Titanium Etched Disc Assembly
- ⊕ Weight – 0.08 Kg (.177 lbm)
- ⊕ 25 Micron Absolute Filtration
- ⊕ 400 psig Operating Pressure



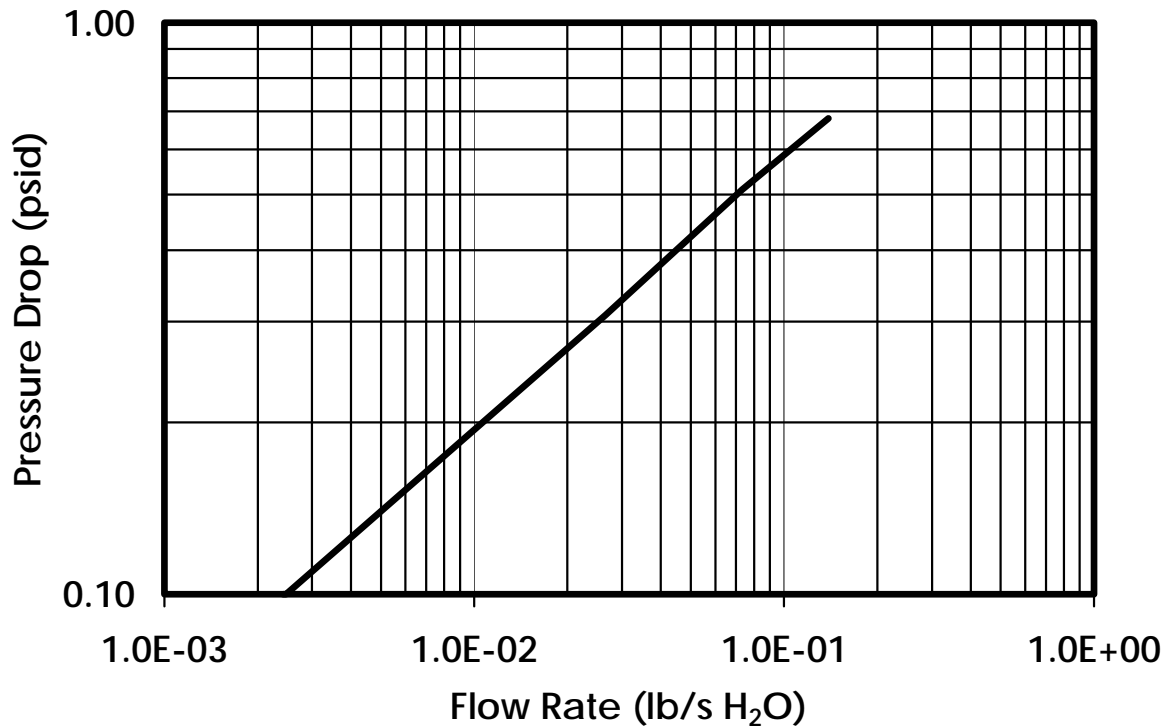
OPERATING PARAMETERS

Operating Pressure..... 400 psig
 Proof Pressure..... 600 psig
 Burst Pressure..... 1600 psig
 Filtration Rating..... 25 microns abs
 Flow Rate..... 0.134 lb/s MMH & 0.222 lb/s N₂O₄
 Pressure Drop (Clean)..... 1 psid @ rated flow
 External Leakage..... <1x10⁻⁶ sccs GHe
 Temperature..... +10°C to +77°C

Weight.....0.08 Kg (.177 lbm)
 Proof Pressure 600 psig – 5 min.
 External Leakage 4.6 x 10⁻¹⁰ sccs – 6 min.
 Flow / Pressure Drop..... 1.0 psid @ 1.0 gpm H₂O,
 @ 410 psig & 1°C
 Random Vibration.....14.40 G(rms), 1 min/axis

PERFORMANCE CHARACTERISTICS

Flow vs Pressure Drop @ 400 psig



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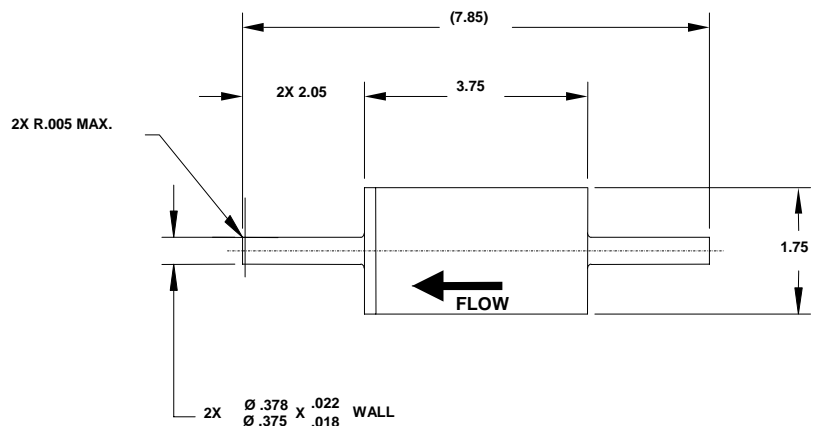
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FEATURES

- ⊕ Etched Disc Technology
- ⊕ All Titanium Construction with a Titanium Etched Disc Assembly
- ⊕ Weight – 300 grams (0.66 LB)
- ⊕ 20 Micron Absolute Filtration
- ⊕ 400 psig Operating Pressure



OPERATING PARAMETERS

Operating Pressure.....	400 psig	Temperature.....	+10°F to + 170°F (-12°C to +77°C)
Proof Pressure.....	600 psig	Weight	0.30 Kg (0.66 lb)
Burst Pressure	1600 psig	Proof Pressure	600 psig – 5 min.
Filtration Rating.....	20 microns abs	External Leakage	2.1 x 10 ⁻¹⁰ sccs – 6 min.
Flow Rate.....	>0.126 lb/s MMH & 0.182 lb/s N ₂ O ₄	Flow / Pressure Drop.....	0.9 psid @ 1.08 gpm H ₂ O, Inlet pressure: 410 psig @ ambient temperature
Pressure Drop (Clean).....	0.50 to 1.00 psid @ rated flow	Random Vibration.....	14.40 G(rms), 1 min/axis
External Leakage.....	<1x10 ⁻⁶ sccs GHe		

PERFORMANCE CHARACTERISTICS

Flow vs Pressure Drop @ 400 psig

