

VICI TEFLON™ AF PLANAR DEGASSERS MODEL 405 SERIES



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TECH SUPPORT

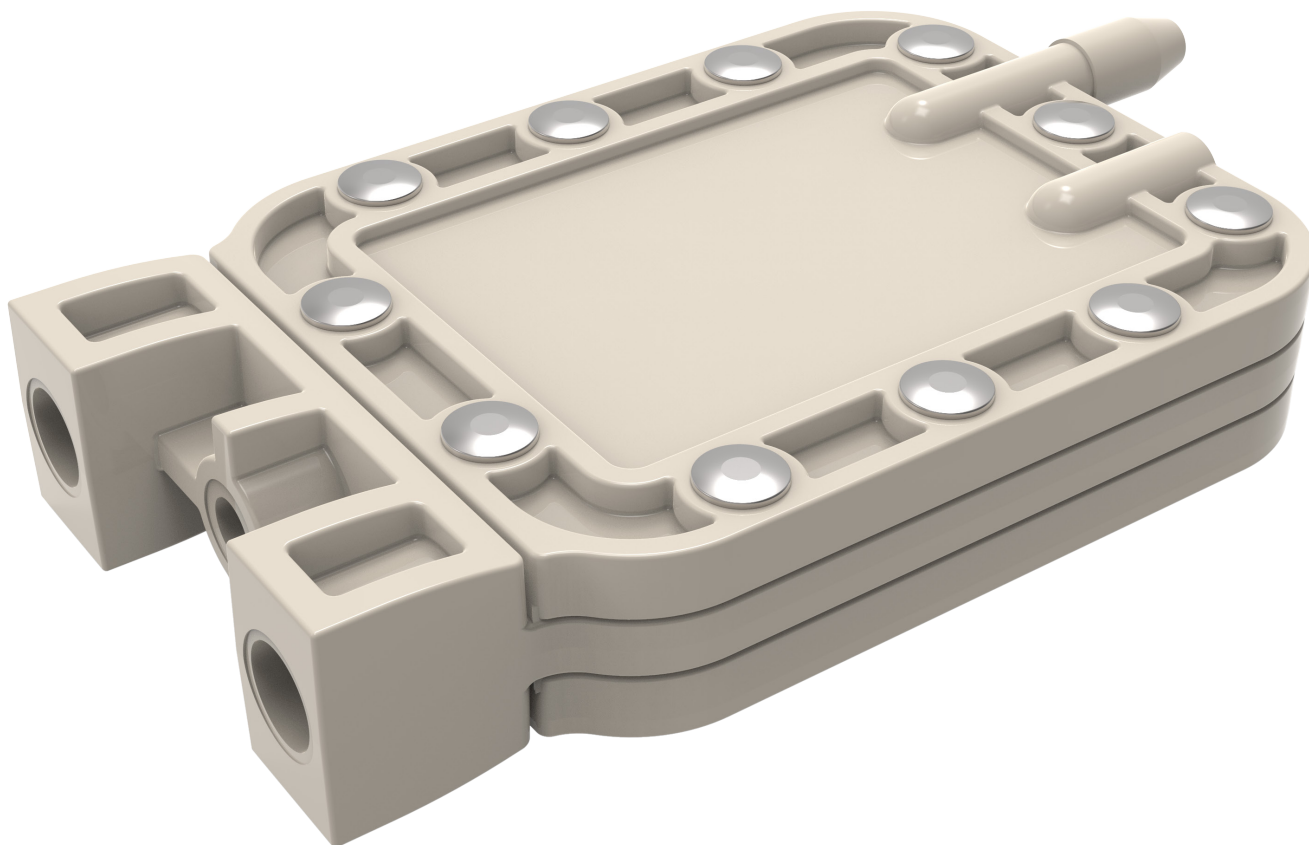
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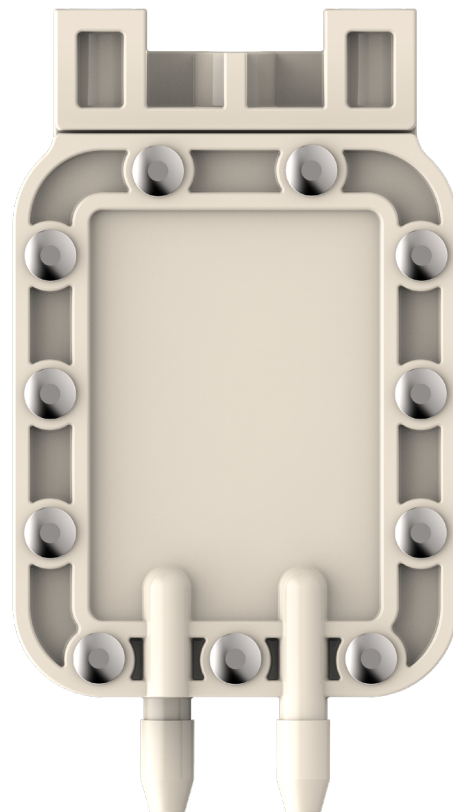
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DESCRIPTION

Degassers from VICI® Metronics remove up to 92% of gas present, improving purity, quality, and the accuracy of analysis. Formerly from Random Technologies, Inc., VICI Metronics planar degassers benefit from years of development, production experience, and field use to offer customers reliable performance for even the most sensitive applications. What makes our degassers exceptionally effective is Teflon™ AF (amorphous fluoropolymer) film, which is 2 orders of magnitude higher than PTFE or other materials.

The Model 405 Series uses an AF membrane sandwiched between a flow channel and a vacuum plate. This results in far greater degassing efficiencies as the eluent flows across the large surface area of the flow plate. In the case of a dual film degasser, a second pass is made over the flow plate, providing a large interaction area and extremely efficient degassing.



FEATURES

Individually serialized for lot and batch traceability | Performance tested at stated specifications for pressure, vacuum and degassing efficiency | Compact size



BENEFITS

Superior bubble removal | Faster pull-down time | Seal that is unaffected by hexane and other normal phase solvents | Only two liquid contact materials: PEEK and Teflon™ AF | No internal fittings or connections | Extremely high purity polymer | No ghost peaks | Reduction in dead volume by up to 12 mL

ABOUT TEFLON AF

Teflon™ AF (amorphous fluoropolymer) resins have more permeability and improved mechanical properties compared to amorphous polymers. These resins also perform well over a wide range of compatible eluents and maintain outstanding chemical resistance. A unique chemical structure enhances their versatility and distinguishes this class from other fluoropolymers.

DATA COMPARISON

VICI 405 series planar degassers are a cost effective replacement for degassers which use tubular Teflon™ AF 2400. Since pump cavitation becomes more serious at higher flow rates, it is advantageous that the degassing efficiency curves of the planar degassers are flatter than those of degassers based on a tubular degassing membrane.

FIGURE 1: DEGASSING EFFICIENCY IN METHANOL

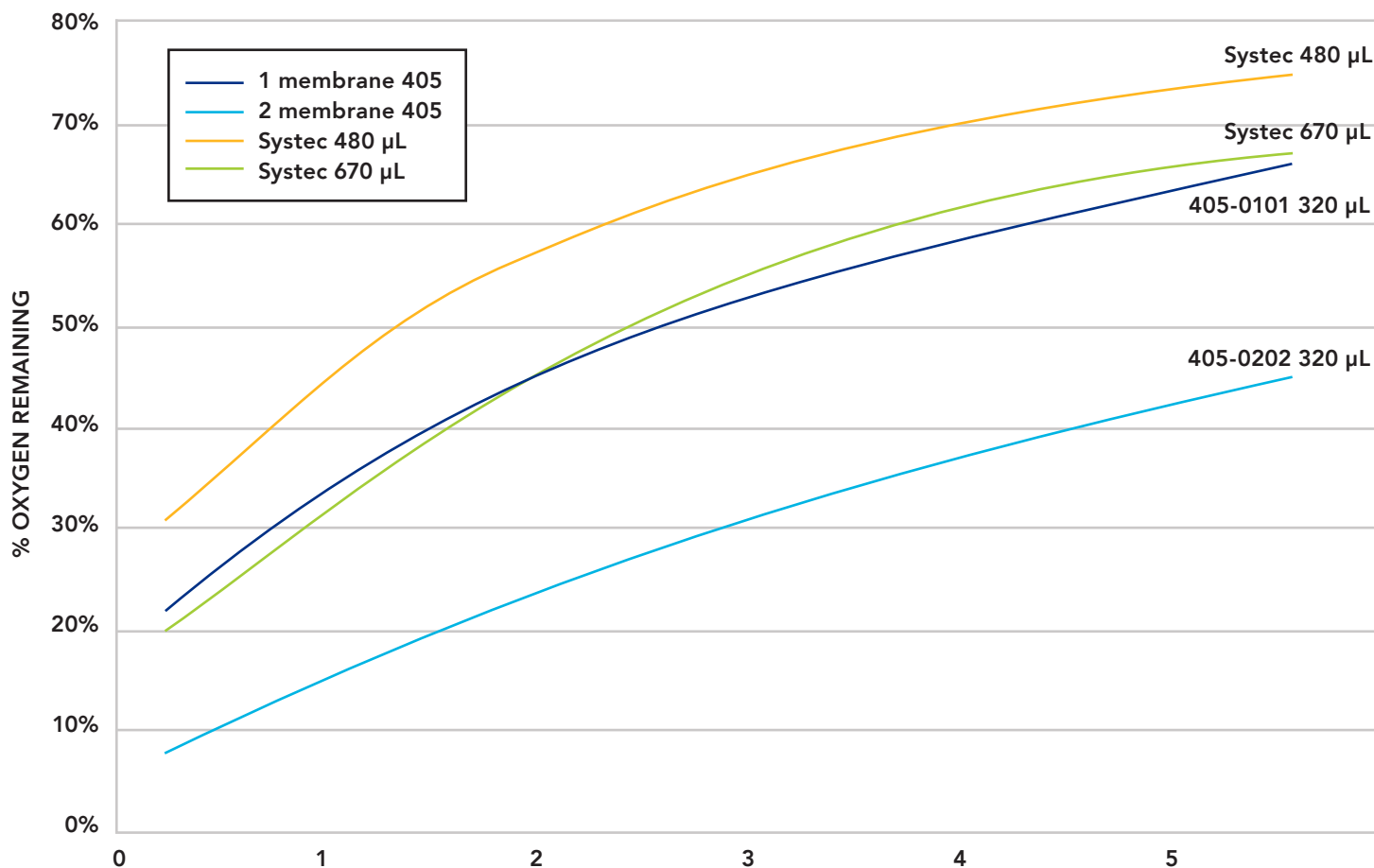
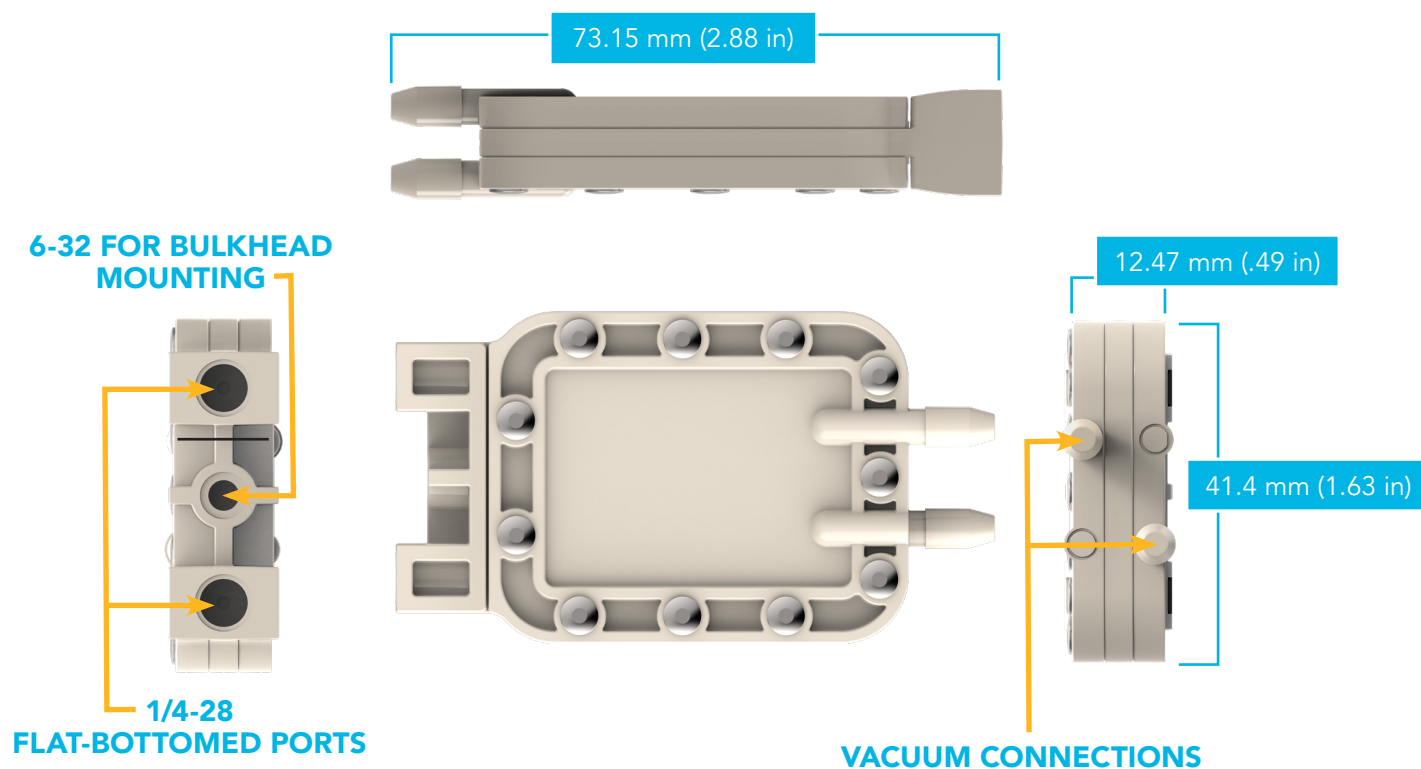


Figure 1 shows the range of degassing efficiencies available from a series of VICI 405 series planar degassers. All of these results are from the same degasser body having a dead volume of 320 microliters. The different efficiencies result from changes in the membrane configuration and do not involve any change in backpressure or pressure drop across the degasser. The curves are labeled with each model's part number.

- P/N 405-0202 dual membrane degasser removes up to 92% of gas at a flow rate of 1mL/min
- P/N 405-0202 dual membrane degasser removes up to 55% of gas at a flow rate of 5 mL/min
- P/N 405-0201 single membrane degasser removes up to 78% of gas at a flow rate of 1 mL/min
- P/N 405-0201 single membrane degasser removes up to 34% of gas at a flow rate of 5 mL/min

DIMENSIONS



SPECIFICATIONS

PLANAR DEGASSERS

Wetted Materials	PEEK®, Teflon™ AF 2400
Maximum Working Pressure	3.45 barg (50 psig)
Liquid Connections	1/4-28 flat bottom ports
Vacuum Connections	Hose barb for 3mm (1/8 in) ID tube
Dead Volume	320 µL
Size	72 mm x 40 mm x 11 mm (2.84 in x 1.57 in x .43 in)
Vacuum Seal	<34 mbar (3.3 kPa) leak in 10 min
Pressure Test	335 kPa internal pressure, 95 kPa applied vacuum
Actual Pressure Drop (average) at 1 mL/min water	<3 mbar (274 Pa) with vacuum applied

ADDITIONAL INFORMATION

Typical molding temperatures for Teflon™ AF 2400 is from 340-360°C (644-680°F). VICI Metronics also fabricates custom Teflon™ AF 2400 Products. **Contact sales@vicimetronics.com to request products and components made from Teflon AF.**