



INACOM INSTRUMENTS

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**Magazine**

GREAT FLUIDIC SOLUTIONS

**In this issue you can read about:**

- **DEGASi<sup>®</sup> Film Degasser**
- **BioVersal<sup>™</sup> UHPLC Sample Loops**
- **MarvelXACT<sup>™</sup> PEEKsil<sup>™</sup>**
- **Biocompatible UHPLC Parts**

# New Products for a New Future



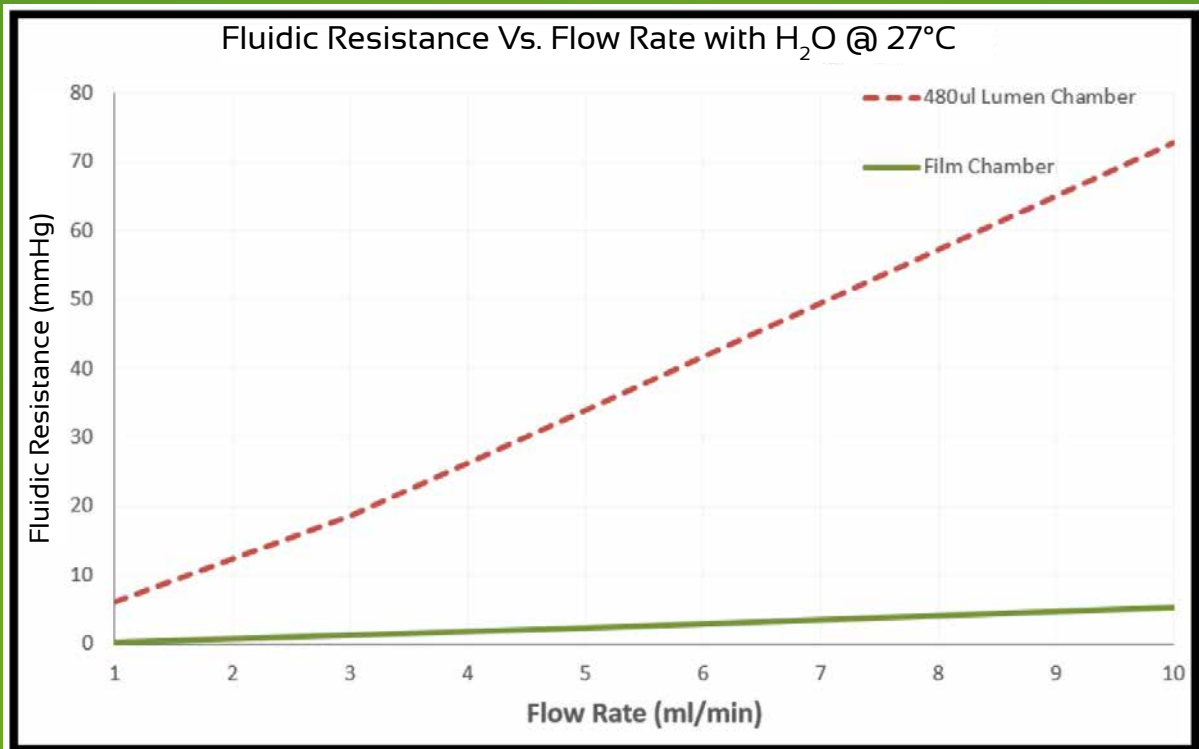
## DEGASi® HPLC Film Degasser

- Wider Flow Range & Chemical Compatibility
- Low Fluidic Resistance
- Variable Vacuum Control

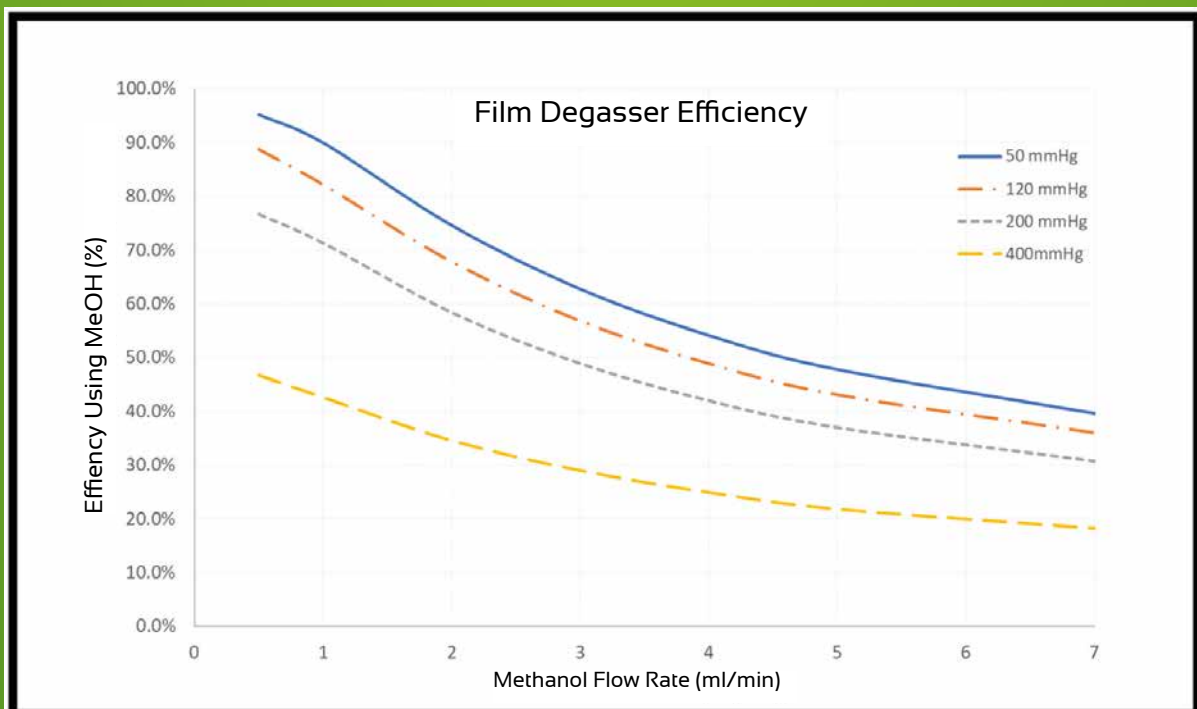


The new DEGASi® Flat Film HPLC degasser gives powerful performance control with increased solvent compatibility. Utilizing a high-efficiency membrane and unique flow channel design, it provides the lowest fluidic resistance in the industry. Based on a reinforced Teflon™ AF film, the degassing chamber has a metal-free flow path and universal solvent compatibility, which includes HFIP and Hexane. The system includes a dual stage (DST) high flow vacuum pump and a controller PCB to maintain vacuum levels. Soon available as an OEM solution or as a stand-alone version in the DEGASi series.

# DEGASi® HPLC Film Degasser



This shows the dramatic reduction in fluidic impedance, or fluidic resistance, with H<sub>2</sub>O at 27°C. There is ~0.1 PSI of resistance from 1 to 10 mL/min. This is about 5 mmHg pressure drop over the flow rate range.



A characterization of the new flat film degasser at various vacuum levels and flow rates produces a data set from which any particular performance curve can be derived. This data set allows complete control over the efficiency of the degasser, such that the degasser can be optimized for any flow rate within the vacuum range of the pump.

# BioVersal™ UHPLC Sample Loops

## Metal-free Sample Loops for Bioinert UHPLC Applications



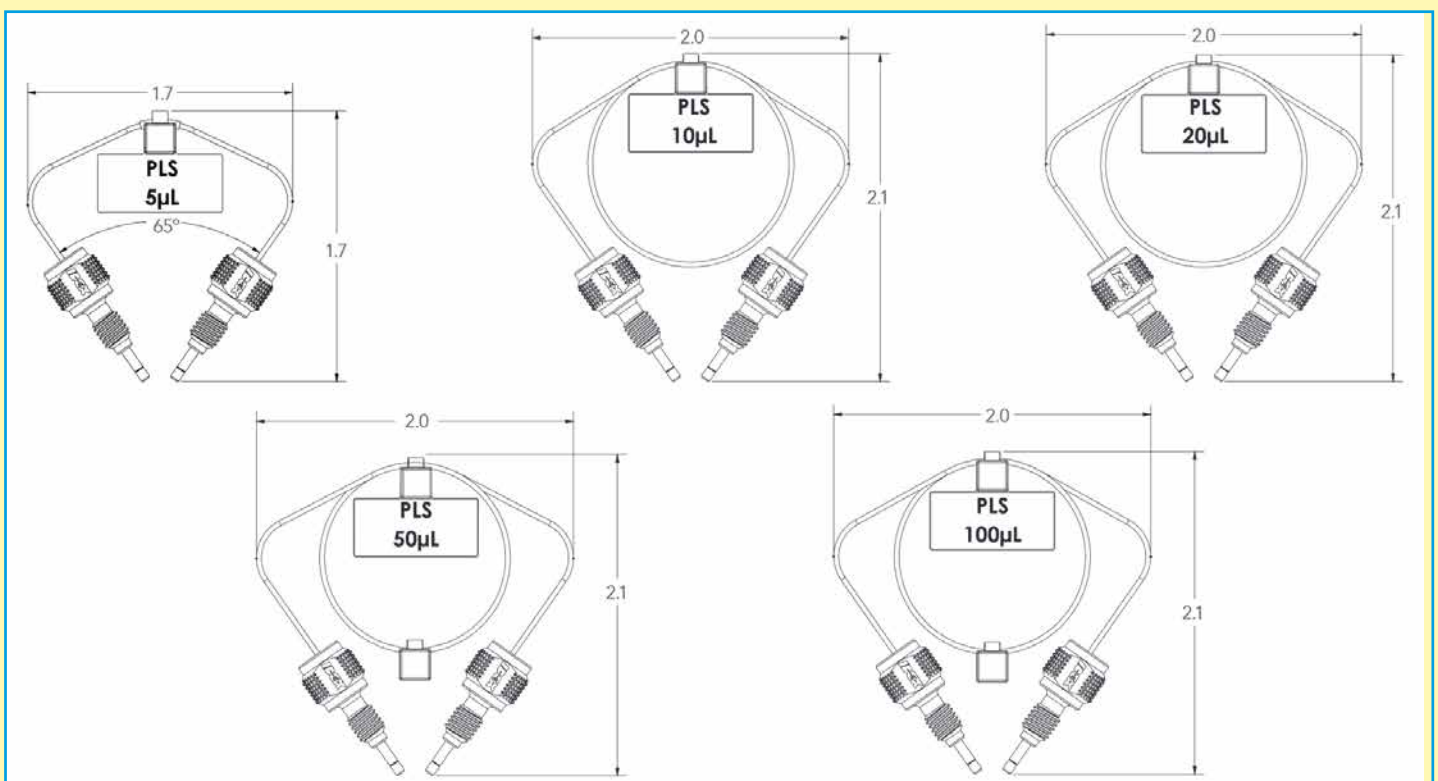
The BioVersal™ sample loops are 100% bioinert, making them ideal when injecting biological or “sticky” samples. The PEEK lining reinforced by the stainless steel gives these sample loops the strength to withstand pressures up to 1310 bar (131 MPa; 19,000 psi), and makes the sample loop inert to almost all organic solvents.

Loops are available in a variety of volumes to enhance application flexibility. No tools are required — these sample loops are supplied with two finger-tight MarvelX™ fittings which are compatible with 10-32 threaded ports.

The BioVersal sample loops utilize our unique patented MarvelX technology to auto adjust to various port depths. The outcome — zero dead volume and better chromatographic results.

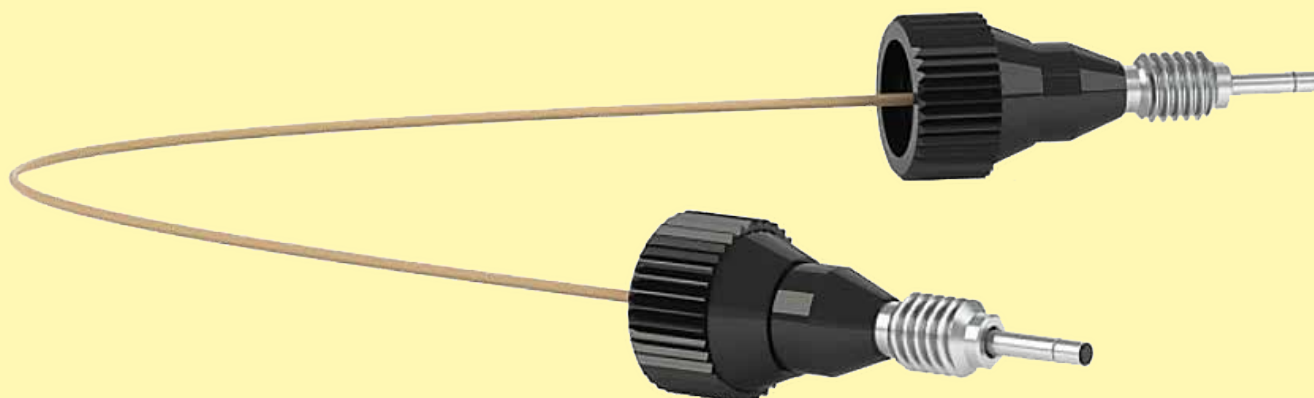
# BioVersal™ UHPLC Sample Loops

- PEEK Lined Stainless Steel
- Metal-free – 100% Bioinert
- UHPLC Applications - 1310 bar
- Volumes 5–100  $\mu$ l
- ZERO Dead Volume
- Reusable >100 times
- Finger Tight Connections
- MarvelX Fittings Technology



Part Number	Description	Pressure Rating	ID $\mu$ m	Length
UPFP-6005	5 $\mu$ L Peek Lined SST Sample Loop	1,310 bar (131 MPa, 19,000 psi)	226	125 mm (4.92")
UPFP-6010	10 $\mu$ L Peek Lined SST Sample Loop	1,310 bar (131 MPa, 19,000 psi)	226	250 mm (9.84")
UPFP-6020	20 $\mu$ L Peek Lined SST Sample Loop	1,310 bar (131 MPa, 19,000 psi)	320	250 mm (9.84")
UPFP-6050	50 $\mu$ L Peek Lined SST Sample Loop	1,310 bar (131 MPa, 19,000 psi)	320	625 mm (24.60")
UPFP-6100	100 $\mu$ L Peek Lined SST Sample Loop	1,310 bar (131 MPa, 19,000 psi)	320	1,250 mm (49.21")

# MarvelXACT™ PEEKsil™



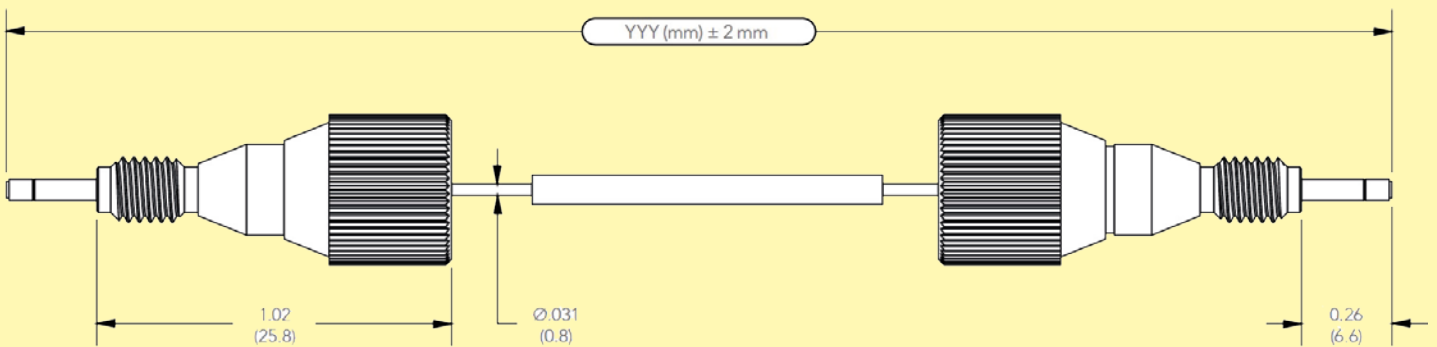
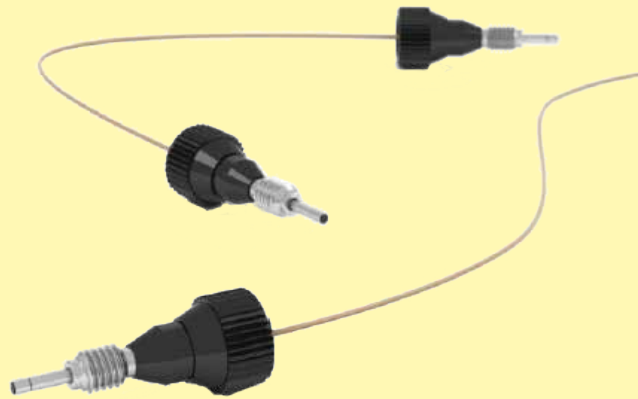
Our bioinert MarvelXACT™ PEEKsil™ connection systems utilize patented MarvelXACT™ fittings and PEEKsil™ tubing for use in the most demanding UHPLC applications. The MarvelXACT™ fitting features torque-limiting technology that is finger tight and provides a haptic “click” feedback when it reaches the optimum torque, assuring a perfect zero dead volume connection every time.

The robust PEEKsil™ tubing has smooth silica glass wetted surfaces and is chemically compatible to organic solvents. Each connection system is individually cut, polished, and manufactured to provide industry leading technology that produces superior chromatographic results.

The fitting can be connected and disconnected 100+ times. It incorporates flexible 1/32” OD tubing for easy routing throughout your instrument and the connection system is compatible with 10-32 coned receiving ports and is absolutely finger-tight — no tool required.

MarvelXACT™ PEEKsil™ connection systems are available in ID 25, 50, 75, 100  $\mu\text{m}$  and 150, 350, 600  $\mu\text{m}$  length.

# MarvelXACT™ PEEKsil™



## Product Specifications

Pressure Capability	19,000 psi (~1310 bar, 131 MPa) for Routine Use
Installation Method	Finger-Tighten Until the First “Click” Feedback is Received
Tubing Type	1/32” OD PEEK with 1/16” Rigid Tube Ends
Fitting Type	10-32 Threaded, PEEK Fittings with 316 Stainless Steel Threads
Wetted Material	PEEKsil
Max Temp	120°C (Higher Operating Temperatures May Reduce Performance)
Minimum Tubing Bend Radius	1.0” (~25 mm)
Max Receiving Port	0.020” (~0.4 mm)

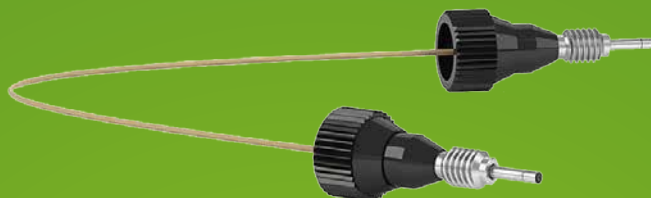
*Note: The above performance specifications apply to use with appropriately designed receiving ports under optimal conditions, using water for the testing process. If different conditions are used, the expected pressure threshold will be different.*

## Technical Specifications

Length:	150 mm	350 mm	600mm
Bio-inert MarvelXACT PEEKsil Connection Systems			
25 µm ID	UPFF-7025150	UPFF-7025350	UPFF-7025600
50 µm ID	UPFF-7050150	UPFF-7050350	UPFF-7050600
75 µm ID	UPFF-7075150	UPFF-7075350	UPFF-7075600
100 µm ID	UPFF-7100150	UPFF-7100350	UPFF-7100600

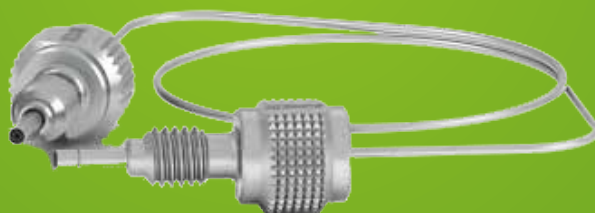
# Biocompatible UHPLC Parts

## MarvelXACT™ PEEKsil™ Connection Systems

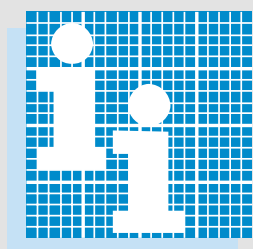


- PEEKsil™ tubing
- For bioinert UHPLC Applications
- Fingertight connections with a “click”
- ID 25–100 µm
- Length 150–600 mm

## BioVersal™ — PEEK Lined SST Sample Loop



- Metal-free sample loops
- For bioinert UHPLC Applications
- Fingertight connections
- Available volumes 5–100 µl



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