

# BioVersal™ UHPLC Column Hardware

## Product Data Sheet



Removable frit assemblies



Excellent column durability over hundreds of injections



Recommend with MarvelX and VHP-32X series fittings



Improved pressure handling capability over conventional PEEK column



Learn more at [www.idex-hs.com](http://www.idex-hs.com)

## Bioinert PEEK-Lined Stainless Steel Column Hardware

IDEX Health & Science offers PEEK-Lined Stainless Steel (PLS) Column Hardware for bioinert applications.

The PLS column hardware combines the strength of our stainless steel UHPLC column (IsoBar) with the chemical inertness of PEEK polymer to ensure the integrity of biological samples by minimizing unwanted surface interactions while also allowing operation under harsh solvent or pH conditions. This hardware has been designed for demanding applications within the UHPLC realm.

The PLS column is available in a variety of standard lengths to accommodate various application requirements. Each column hardware design contains removable frits in Titanium and PEEK options. For custom lengths please contact us for more information.

The PLS column system is recommended for use with VHP-32X series and MarvelX fittings to prevent premature column failure and offer maximum performance.

**BioVersal™**



PACKING  
PRESSURE RATING

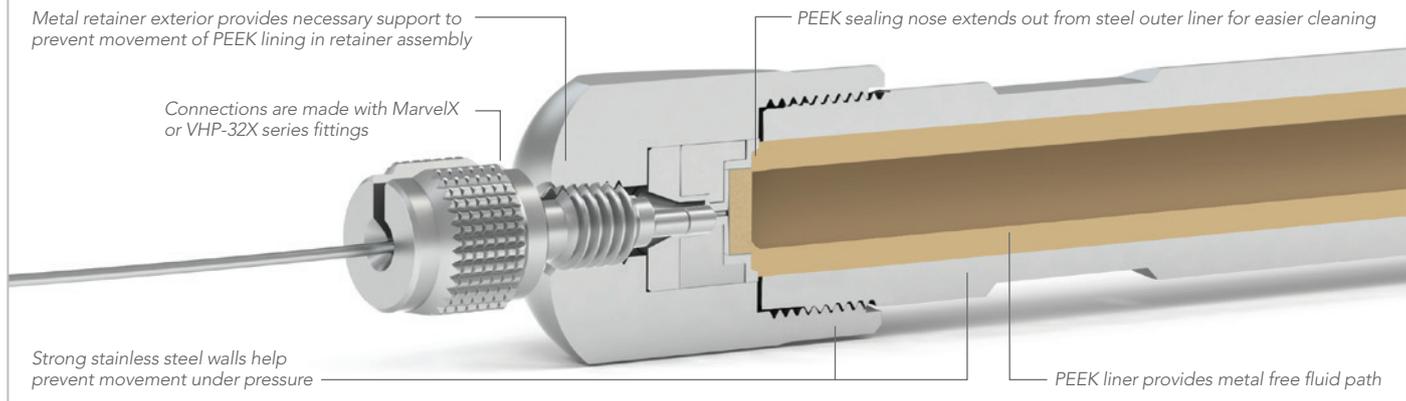
**20ksi**  
(1,379 Bar)

OPERATING  
PRESSURE RATING

**15ksi**  
(1,034 bar)

*Some suggested applications: bio-molecule analysis, low pH applications, IC, bioinert LC, bio-purification, harsh solvents, protein characterization.*

## Superior Product Features



## Application Note 1: Comparison of Phosphoprotein Sample Recovery Between a PLS Column and a Stainless Steel Column

Smaller column ID's (2.1 mm) were packed with 2.6  $\mu\text{m}$  media to study the separation of phosphoprotein and the relative recovery of a phosphoprotein in mixture. A comparison was made between our new PLS column and a conventional SST column, both of which were packed and tested under identical conditions. For these particular proteins, and under our experimental conditions, the PLS column with PEEK frits resulted in a significantly improved peak height. No pre-conditioning was required of the surfaces to achieve the improvement in protein throughput.

### Standard BioVersal™ Portfolio

2.1 mm ID x 5 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

2.1 mm ID x 10 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

2.1 mm ID x 15 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

4.6 mm ID x 5 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

4.6 mm ID x 10 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

4.6 mm ID x 15 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

4.6 mm ID x 25 cm, UHPLC Bioinert Column, 0.5  $\mu\text{m}$  Titanium/PEEK Frit

2.1 mm ID Frit Retainer Assembly, 0.5  $\mu\text{m}$  PEEK/Titanium Frit, Parker Port

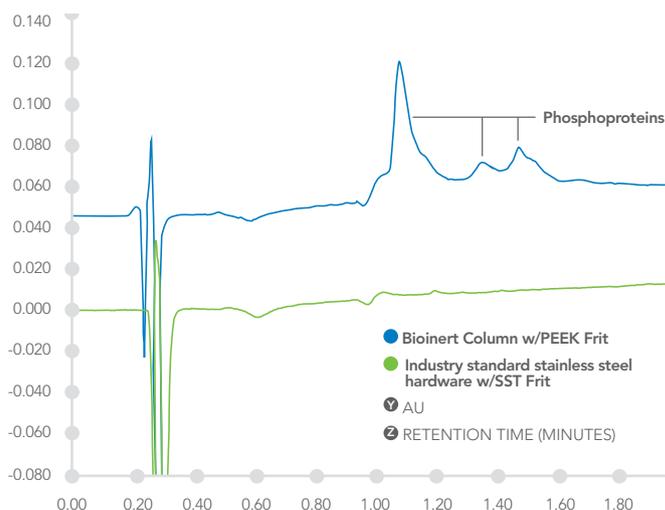
4.6 mm ID Frit Retainer Assembly, 0.5  $\mu\text{m}$  PEEK/Titanium Frit, Parker Port

2.1 mm ID Bioinert Packing Adapter

4.6 mm ID Bioinert Packing Adapter

Available in systems and individual components. Other lengths and porosities may be available. Please contact us for more information.

FIGURE 1



► Instrument: Waters Acquity UPLC

► Detector: PDA @220 nm

► Column: As designated, 2.1 x 50 mm w/ Sunshell C4-30, 300A, 2.6  $\mu\text{m}$

► Mobile Phase: A: HPLC grade Water w/0.1% TFA; B: ACN w/0.1% TFA

► Gradient: 0 to 60% in 6 min.

► Sample: Phosvitin from Egg, Approx 4 mg/ml, 4  $\mu\text{L}$  injected

## REGULATORY COMPLIANCE

As of the date of the publication, PLS hardware is compliant with current RoHS regulations.