

# COLUMN SYSTEMS

- Operates at pressures up to 10,000 psi (689 bar)
- Multiple port configurations make columns easy to use with any system
- Leak-free frits improve system efficiency
- Isobore<sup>TM</sup> surface finish reduces drag at the column wall and improves column efficiency and performance by pro-viding an extremely smooth, flat, and clean surface; it also features a surface finish with typical values around 8  $\mu$ in.



# MODULAR COLUMN SYSTEMS

Modular hardware guarantees a high-pressure seal between the tubing and end fitting, as well as a proper seating of the frit. The frit is contained in a cap that slides over the column, forming a leak-free and gap-free seal. All stainless steel modular columns use our exclusive Isobore<sup> $\mathsf{TM}$ </sup> internal surface finish. Modular column hardware systems include the following components: one 316 stainless steel column body, two one-piece end fittings and two frit caps containing 316 stainless steel frits in a PEEK $^\mathsf{TM}$  cap. In addition, Modular systems are available in custom IDs and lengths — many sizes are available.

Isobore-grade surface finish reduces drag at the column wall and improves column efficiency and performance by providing an extremely smooth, flat, and clean surface; it also features a surface finish with typical values around  $8 \mu in$ .

- Operates at pressures up to 15,000 psi (1034 bar)
- Precision machined from high purity LC grade 316 stainless steel.



# ISOBAR COLUMN SYSTEMS

Ultra-high pressure liquid chromatography (UHPLC) decreases the time and costs associated with analytical separations. To consistently maintain these technology advantages, you need column hardware that ensures the speed and precision of your processes. The IsoBar column platform delivers a leak-proof, reliable, all-metal design with high strength threaded end fittings to meet critical system operating requirements.

- Rated up to 20,000 psi (1,379 bar) making IsoBar the perfect solution for UHPLC technology
- Proven format for <2 µm stationary phase</li>
- Features Isobore™ internal surface finish, which reduces the wall effect and significantly improves column efficiency

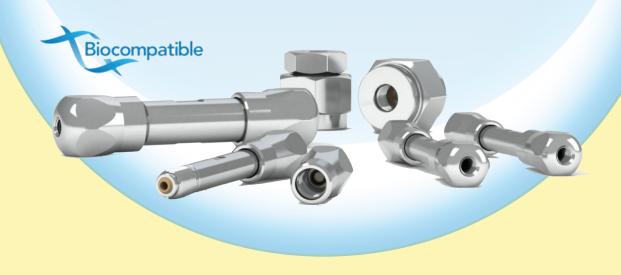


## **BIO-UHPLC COLUMN HARDWARE**

### BIOCOMPATIBLE PEEK-LINED STAINLESS STEEL

IDEX Health & Science introduces the NEW Isolation Tech-nologies® PEEK-Lined Stainless Steel (PLS) Column for bio-compatible applications. The PLS column combines the strength of our stainless steel UHPLC column (IsoBar) with the chemical inertness of PEEK polymer to ensure the integrity of biomolecules 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.

- Some suggested applications: bio-molecule analysis, low pH applications, IC, bio-inert LC, bio-purification, harsh solvents, protein characterization
- Rated to 20,000 psi (1379 bar) packing at RT/ 15,000 psi (1034 bar) operating up to 80°C
- Removable frit assemblies
- Excellent column durability over hundreds of injections
- Easy-to-pack column hardware
- Improved pressure handling capability over conventional PEEK column hardware



# **BIO-SAFE** COLUMN SYSTEMS

Bio-Safe™ columns are biocompatible and precision-machined from virgin PEEK™ (polyetheretherketone), a strong, inert polymer material, and are metal free for biotechnology and ion chromatography applications. PEEK columns are used when analytes are sensitive to the metals in stainless steel hardware. Proteins, peptides, and ions have this susceptibility. PEEK is also compatible with most mobile phases used in HPLC. While THF will cause PEEK to swell, this is limited to PEEK capillary tubing <1.0 mm ID. Bio-Safe PEEK tubing also has superior wall

thick-ness for strength and an ultra-smooth internal surface finish (10 µin Ra) for high efficiency.

- · Completely biocompatible for optimal results in sensitive applications
- Available with PEEK or Titanium frits (several size options available)
- · Convenient, strong threaded design that is stable at pressures up to 8,000 psi (552 bar)
- High efficiency connections and surface finish for optimum performance
- Bio-Safe packing adapters are available for inner diameters of 2.1 mm and 4.6 mm

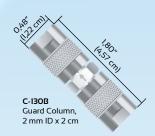


## ACCESSORIES



#### **Analytical Guard Columns**

The C-13OB is our most popular guard column. HPLC users find this column easy to pack and extremely economical. This narrow-bore short column (2.0 mm ID x 2 cm length) creates only a slight pressure increase with virtually no detectable theoretical plate loss when used with a 3 mm ID or larger column. The 2  $\mu$ m frits are easy to change, prolonging the life of the guard column. With only 62  $\mu$ L packing volume per guard column, a 3 g bottle of packing material will pack about 30 guard columns.



| C-130B Specification |                 |
|----------------------|-----------------|
| Length (cm)          | 2               |
| Thread Port Configu- | 10-32           |
| ration Coned         |                 |
| Material             | Stainless Steel |

# STAINLESS STEEL COLUMNSAVER PRECOLUMN FILTER

This filter offers similar benefits as the PEEK version, but it is especially designed for use in UHPLC applications. Manufactured with an all-stainless steel body and featuring a 2 µm stainless steel frit, the stainless steel ColumnSaver offers precolumn filtration protection in those applications where inline pressures can reach as high as 20,000 psi (1,379 bar). (Please Note: Because of the design of this product, it needs to be wrench-tightened in place.)

- PEEK version can be finger tightened to 6,000 psi (414 bar) without wrenches or other tools
- Lower dead volume than conventional filters with holders
- Universal connection compatible with all column manufacturers' fittings
- For PEEK or Stainless Steel tubing





#### **Modular Column Packing Adapters**

Isolation Technologies modular packing adapters are used to connect modular style column hardware to high pressure column packing reservoirs. The adapters feature a three-piece threaded design for safe, easy removal, and replacement of the PEEK™ sealing ring. Modular packing adapters are available for inner diameters from 2.1 mm to 21.2 mm.

#### 31021-ASY - Packing Adapter, Bio-Safe™ 11/2" OD

Packing Adapters are specifically used to connect Bio-Safe column hardware to high pressure column packing reservoirs. Our adapters feature a three-piece threaded design for safe, easy removal, and replacement of the PEEK™ sealing ring.

| 31021-ASY Specification   |                 |  |
|---------------------------|-----------------|--|
| Material                  | Stainless Steel |  |
| Pressure Rating Max (psi) | 6500            |  |
| Pressure Rating Max (bar) | 448             |  |
| Diameter (in)             | 11/2            |  |
| Inner Diameter (mm)       | 2.1             |  |



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