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HPLC Accessories
email: sales@hichrom.co.uk  www.hichrom.co.uk
PEEK™ (polyetheretherketone) tubing is completely flexible, easily cut and suitable for a wide range of applications. 1/16" o.d. tubing (commonly 0.010" i.d.) is generally suitable for use throughout an analytical HPLC system. Alternative o.d. tubing, eg. 1/8" for high pressure semi-preparative systems and 360μm for capillary systems, is also available.

- 1/16", 1/8" and 360μm o.d. available
- Biocompatible and chemically inert to most solvents
- Pressure rating of 7000psi (for 1/16" o.d. tubing with i.d. < 1mm)
- Temperature rating of up to 100°C

### PEEK Tubing (1/16" o.d.)*

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Tubing i.d.</th>
<th>Inches</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-PEEK-05</td>
<td>0.005</td>
<td>0.13</td>
<td></td>
</tr>
<tr>
<td>16-PEEK-07</td>
<td>0.007</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>16-PEEK-10</td>
<td>0.010</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>16-PEEK-20</td>
<td>0.020</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>16-PEEK-30</td>
<td>0.030</td>
<td>0.75</td>
<td></td>
</tr>
</tbody>
</table>

*Sold per metre

Alternative o.d. PEEK tubing is also available – please enquire.

Stainless steel, fused silica, Teflon (PTFE) and PEEKsil tubing also available – please enquire.
Stainless Steel Tubing

Stainless steel tubing can be supplied in continuous coils up to 25m in length or as precut lengths.

- Precision bore 316 stainless steel
- Passivated for chemical resistance
- Square, burr-free ends
- Continuous coils or precut lengths

Stainless Steel Tubing (1/16" o.d.)*

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Tubing i.d.</th>
<th>Inches</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-SS-07</td>
<td>0.007</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>01-SS-10</td>
<td>0.010</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>01-SS-20</td>
<td>0.020</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>01-SS-30</td>
<td>0.030</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>01-SS-40</td>
<td>0.040</td>
<td>1.00</td>
<td></td>
</tr>
</tbody>
</table>

*Sold per metre

Precut Stainless Steel Tubing (1/16" o.d.)

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Tubing i.d.</th>
<th>Inches</th>
<th>mm</th>
<th>Length (cm)</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>05-SS-05</td>
<td>0.005</td>
<td>0.125</td>
<td>5</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>10-SS-05</td>
<td>0.005</td>
<td>0.125</td>
<td>10</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>20-SS-05</td>
<td>0.005</td>
<td>0.125</td>
<td>20</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>05-SS-07</td>
<td>0.007</td>
<td>0.17</td>
<td>5</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>10-SS-07</td>
<td>0.007</td>
<td>0.17</td>
<td>10</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>20-SS-07</td>
<td>0.007</td>
<td>0.17</td>
<td>20</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>05-SS-10</td>
<td>0.010</td>
<td>0.25</td>
<td>5</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>10-SS-10</td>
<td>0.010</td>
<td>0.25</td>
<td>10</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>20-SS-10</td>
<td>0.010</td>
<td>0.25</td>
<td>20</td>
<td>5</td>
<td>5/pk</td>
</tr>
<tr>
<td>25-SS-20</td>
<td>0.020</td>
<td>0.50</td>
<td>25</td>
<td>2</td>
<td>2/pk</td>
</tr>
<tr>
<td>50-SS-20</td>
<td>0.020</td>
<td>0.50</td>
<td>50</td>
<td>1</td>
<td>1/pk</td>
</tr>
</tbody>
</table>

Alternative dimensions available – please enquire.
Polymer Tubing Cutter

The polymer tubing cutter is compatible with standard rigid polymer tubing, such as PEEK and Teflon.

- Standard cutter for 1/16" and 1/8" o.d. tubing
- Flat burr-free cuts
- Guide holes to ensure precise cutting
- Includes 5 replacement blades

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-191</td>
<td>Standard polymer tubing cutter for 1/16&quot; and 1/8&quot; o.d. tubing</td>
</tr>
<tr>
<td>HI-189</td>
<td>Replacement blades for HI-191, 5/pk</td>
</tr>
</tbody>
</table>

Stainless Steel Tubing Cutter

- Ideal for cutting 1/16" stainless steel tubing
- Smooth, uniform cuts

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-192</td>
<td>Stainless steel tubing cutter</td>
</tr>
<tr>
<td>HI-193</td>
<td>Replacement cutter wheel</td>
</tr>
</tbody>
</table>
The following PEEK fingertight fittings have 10-32 threads and are designed for use with 1/16" o.d. tubing. They are convenient to use and highly recommended for most applications.

### One-Piece Fittings
- One piece design – no ferrule required
- Compatible with all end fitting types
- Use with 1/16" o.d. tubing
- Excellent chemical resistance
- Biocompatible
- Fingertight up to 6000 psi

#### One-Piece Fingertight Fittings

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-050</td>
<td>PEEK, natural, 10-32, for 1/16&quot; o.d. tubing</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-048</td>
<td>PEEK, natural, 10-32, short, for 1/16&quot; o.d. tubing</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-031</td>
<td>PEEK, natural, 10-32, long, for 1/16&quot; o.d. tubing</td>
<td>10/pk</td>
</tr>
</tbody>
</table>

#### Two-Piece Fittings
- Designed for use with 1/16" o.d. tubing
- Complete with ferrule

#### Two-Piece Fingertight Fittings

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-505</td>
<td>Double-winged PEEK nuts, natural, with HI-508 ferrules, 10-32</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-508</td>
<td>Replacement PEEK ferrules, for 1/16&quot; o.d. tubing</td>
<td>10/pk</td>
</tr>
</tbody>
</table>

Alternative ferrules for connection to other o.d. tubing also available – please enquire.
HICHROM

PEEK Fingertight Column Coupler

The PEEK one-piece fingertight column coupler is ideal for connecting two analytical columns or analytical columns to guard columns or cartridges.

- Ultra low dead volume
- Inert and biocompatible
- Withstands pressure up to 6000psi
- Female-female connector

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-081</td>
<td>PEEK fingertight column coupler</td>
<td>1/pk</td>
</tr>
</tbody>
</table>

Column End Plugs

- Extend column lifetime
- Fingertight design
- Seal column for storage
- Fits any size column

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-001</td>
<td>Column end plugs</td>
<td>10/pk</td>
</tr>
</tbody>
</table>

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Ultra-High Pressure Fittings

These ultra-high pressure fittings are designed to operate at the high pressures demanded with very small particles sizes. They are suitable for standard 10-32 coned ports.

- Pressure rated to 28,000psi (1930 bar)
- Available in $\frac{1}{16}$" and $\frac{1}{32}$" options
- Manufactured from 316 stainless steel

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-420</td>
<td>SS nut with SS ferrules for $\frac{1}{32}$&quot; tubing</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-421</td>
<td>SS ferrules for $\frac{1}{32}$&quot; tubing</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-422</td>
<td>SS nut with SS ferrules for $\frac{1}{16}$&quot; tubing</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-423</td>
<td>SS ferrules for $\frac{1}{16}$&quot; tubing</td>
<td>10/pk</td>
</tr>
</tbody>
</table>

High Temperature Fittings

- Made from PK (polyketone)
- Suitable for $\frac{1}{16}$" tubing
- Recommended for temperatures up to 200°C
- One-piece fingertight style

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-035</td>
<td>PK fingertight fitting</td>
<td>10/pk</td>
</tr>
</tbody>
</table>
SLIPFREE™ HPLC Column Connectors

SLIPFREE™ HPLC connectors offer a simple, rugged way of ensuring good column connections. They are universal for all HPLC columns and consist of a precision-cut length of $\frac{1}{16}$" (0.010" i.d.) stainless steel tubing, a Vespel ferrule and a stainless steel compression nut/locking cap assembly. Versions with 0.005" i.d. and 0.020" i.d. are also available for microbore and preparative analysis.

- Void-free, leak-free connections
- Fingertight to 10,000 psi
- Compatible with all commercially available HPLC column end fittings

Single connectors are used where one connection is made frequently such as between injector and guard or analytical column, or column to detector. Double connectors are used where both connections are made frequently, such as between analytical and guard column, or column and filter. Flexible SLIPFREE connectors are designed to bend in the middle, allowing easy connections to be made at any angle.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-090</td>
<td>Single 6cm</td>
</tr>
<tr>
<td>HI-091</td>
<td>Single 10cm</td>
</tr>
<tr>
<td>HI-092</td>
<td>Single 20cm</td>
</tr>
<tr>
<td>HI-095</td>
<td>Double 6cm</td>
</tr>
<tr>
<td>HI-096</td>
<td>Double 10cm</td>
</tr>
<tr>
<td>HI-097</td>
<td>Double 20cm</td>
</tr>
<tr>
<td>HI-039</td>
<td>Flexible single 15cm</td>
</tr>
<tr>
<td>HI-040</td>
<td>Flexible single 28cm</td>
</tr>
<tr>
<td>HI-041</td>
<td>Flexible single 40cm</td>
</tr>
<tr>
<td>HI-042</td>
<td>Flexible double 15cm</td>
</tr>
<tr>
<td>HI-043</td>
<td>Flexible double 28cm</td>
</tr>
<tr>
<td>HI-044</td>
<td>Flexible double 40cm</td>
</tr>
</tbody>
</table>

* 0.005" and 0.020" available on request.

SLIPFREE is a trademark of Thermo Fisher Scientific
PEEK Unions

- Use to connect 2 pieces of 1/16" tubing
- Chemically inert and biocompatible
- Zero dead volume connection
- Pressure rated to 6000 psi
- Complete with two HI-505 fingertight fittings

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Thru-hole</th>
<th>Swept Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-059</td>
<td>PEEK ZDV union, 10-32</td>
<td>0.010&quot;</td>
<td>0.07μl</td>
</tr>
<tr>
<td>HI-055</td>
<td>PEEK ZDV union, 10-32</td>
<td>0.020&quot;</td>
<td>0.28μl</td>
</tr>
</tbody>
</table>

Stainless steel ZDV unions also available – please enquire

PEEK Tees and Crosses

- Use with 1/16" o.d. PEEK, stainless steel or titanium tubing
- Maximum operating pressure 3,500 psi (241 bar)
- Includes 3 or 4 HI-505 fingertight fittings

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Thru-hole</th>
<th>Swept Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-032</td>
<td>PEEK tee, 10-32</td>
<td>0.020&quot;</td>
<td>0.57μl</td>
</tr>
<tr>
<td>HI-034</td>
<td>PEEK cross, 10-32</td>
<td>0.020&quot;</td>
<td>0.72μl</td>
</tr>
</tbody>
</table>
Micro Flow Fittings

PEEK Union
- Use to connect 2 pieces of capillary tubing, using tubing sleeves
- True ZDV union
- Includes fittings and gauge plug

PEEK Micro Tee and Cross
- Use to connect 1/16", 1/32" and 360μm o.d. tubing
- Low swept volume
- Use tubing sleeves to connect different o.d. tubing

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Thru-hole</th>
<th>Swept Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-089</td>
<td>True ZDV union, PEEK</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HI-455</td>
<td>MicroTee (with fittings included)</td>
<td>0.006&quot;</td>
<td>29nl</td>
</tr>
<tr>
<td>HI-456</td>
<td>MicroCross (with fittings included)</td>
<td>0.006&quot;</td>
<td>38nl</td>
</tr>
</tbody>
</table>

Please enquire for details of appropriate tubing sleeves.
Filters

Inlet Filters
Solvent inlet filters are used at the low pressure inlet side of the pump to help protect check valves, injector and column from particulate contamination from the eluent. It is recommended that inlet filters are replaced at least every 6 months.

- 10μm porosity stainless steel
- Help remove dissolved gases

Solvent Inlet Filters

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-583</td>
<td>10μm Inlet filter with stem for 1/16&quot; o.d. tubing</td>
</tr>
<tr>
<td>HI-584</td>
<td>10μm Inlet filter with stem for 1/8&quot; o.d. tubing</td>
</tr>
</tbody>
</table>

Inline Filters
Inline filters are placed between the pump and sample injection valve to trap particles released through normal piston seal wear.

- Protect injectors from particulates
- Compatible with all HPLC systems
- Stainless steel or biocompatible versions

Inline Filters

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-702</td>
<td>2μm Stainless steel inline filter assembly</td>
<td>1/pk</td>
</tr>
<tr>
<td>HI-100</td>
<td>2μm Replacement frits for HI-702</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-683</td>
<td>Fingertight Ti PEEK encased inline filter</td>
<td>1/pk</td>
</tr>
<tr>
<td></td>
<td>(complete with 5μm frit)</td>
<td></td>
</tr>
<tr>
<td>HI-684</td>
<td>Replacement Ti PEEK encased frits (5μm) for HI-683</td>
<td>5/pk</td>
</tr>
<tr>
<td>HI-674</td>
<td>Replacement Ti PEEK encased frits (2μm) for HI-683</td>
<td>5/pk</td>
</tr>
</tbody>
</table>

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Precolumn Filters

Placed immediately before the column, precolumn filters trap sample particulates. However, for samples that may irreversibly adsorb onto the column, guard cartridges are preferred.

- Protect columns from particulates
- Compatible with all HPLC columns
- Ultra low dead volume

**ColumnSaver precolumn filter**

The ColumnSaver fingertight precolumn filter is universally compatible with all column manufacturers’ endfittings. Both 2μm and 0.5μm versions are available, for the protection of 5μm and 3μm columns respectively. The ColumnSaver precolumn filter is leakproof to over 5000psi.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-685</td>
<td>2μm ColumnSaver</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-686</td>
<td>0.5μm ColumnSaver</td>
<td>10/pk</td>
</tr>
</tbody>
</table>

**Stand-alone precolumn filter**

Model HI-704 comprises a ‘stand-alone’ holder with a 2μm PEEK encapsulated stainless steel frit.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI-704</td>
<td>2μm Precolumn filter</td>
<td>1/pk</td>
</tr>
<tr>
<td></td>
<td>assembly (complete with frit)</td>
<td></td>
</tr>
<tr>
<td>HI-101</td>
<td>Replacement 2μm frits</td>
<td>10/pk</td>
</tr>
<tr>
<td>HI-102</td>
<td>Replacement 0.5μm frits</td>
<td>10/pk</td>
</tr>
</tbody>
</table>
Rheodyne® Injector Accessories

Hichrom supply the full range of Rheodyne® parts and valves. Please contact us for all parts not listed here.

Rotor seal

The rotor seal is the most commonly replaced part of Rheodyne injectors and valves. Vespel blend rotor seals have an operating pH range of 0 to 10. Tefzel blend and PEEK blend rotor seals have a pH range from 0 to 14.

Please enquire regarding an appropriate rotor seal for your injector.

Stators

Stators need replacement only if the ports or sealing surfaces become damaged. They are available in stainless steel or PEEK.

Please enquire for the appropriate part number for stators for Rheodyne injection valves and MX Series II valves.

Sample Loops

- Stainless steel or PEEK
- Supplied with unswaged fittings
- 2μl to 20ml volumes

Please enquire for ordering information.
Additional Accessories

The full Hichrom Accessory Range includes many more products. Please enquire for any accessory not listed in this brochure, including:

- Adaptors
- Back pressure regulators
- Ferrules
- Frits
- Lamps
- Rheodyne sample injectors and switching valves
- Syringes
... Hichrom products are available worldwide through our International Network of Distributors

Hichrom Limited, 1 The Markham Centre, Station Road, Theale, Reading, Berkshire, RG7 4PE, England
Tel: +44 (0)118 930 3660  Fax: +44 (0)118 932 3484
email: sales@hichrom.co.uk  www.hichrom.co.uk