

# Protect any column with ACE® Pre-column Filters for HPLC and UHPLC

Protect your UHPLC and HPLC columns from premature failure with Advanced Chromatography Technologies' high quality pre-column filters.

One of the most common causes of LC column failure is particulate material collecting on the inlet frit of the column, causing high back pressure and/or distortion of peak shape.

By one estimate, over 70% of LC column failures are caused by inlet frit plugging. UHPLC columns, especially those packed with sub-2µm size particles, are particularly vulnerable to inlet frit plugging.

Advanced Chromatography Technologies offers three different ranges of pre-column filters, each designed for column specific protection.



## ACE® UHPLC Pre-column Filter

for UHPLC and UPLC® columns

- 1000 bar (15,000 psi) pressure rating
- Eliminates poor connections
- Compatible with all UHPLC/UPLC columns
- Compatible with all UHPLC/UPLC systems including Waters Acquity®

As the name implies, ACE UHPLC pre-column filters are engineered specifically for use in fast, high efficiency UHPLC separations requiring high mobile phase velocities and ultra-high pressures. The ultra low dispersion of ACE UHPLC pre-column filters ensures that the efficiency of your UHPLC column is maintained, avoiding the loss of any critical resolution. With their simple design, ACE UHPLC pre-column filters connect to any analytical UHPLC or UPLC® column in seconds and are leak tight to 1000 bar (15,000 psi). Simply finger tighten initially, then wrench tighten an additional ¼ turn. Two UHPLC pre-column filter options are available for compatibility with all manufacturers' systems. EXL-PCF10/ACQ pre-column filters are compatible with Waters Acquity® UPLC systems. EXL-PCF10 pre-column filters are compatible with all other manufacturers' systems.

ITEM DESCRIPTION	PART NO.
ACE UHPLC Pre-column Filter for UHPLC and UPLC columns, 5/pk	EXL-PCF05
ACE UHPLC Pre-column Filter for UHPLC and UPLC columns, 10/pk	EXL-PCF10
ACE UHPLC Pre-column Filter Waters Acquity system compatible, 5/pk	EXL-PCF05/ACQ
ACE UHPLC Pre-column Filter Waters Acquity system compatible, 10/pk	EXL-PCF10/ACQ

## ACE® Microbore HPLC Pre-column Filter

for 2.1mm id HPLC columns

- 350 bar (5,000 psi) pressure rating
- Simple to install and replace
- Effective column protection for all microbore columns
- Compatible with all HPLC systems

3.5µm and 3.0µm particles are often packed in HPLC columns with smaller bores (<3.0mm i.d.) and shorter lengths (20 to 50mm). These columns facilitate faster separations and are routinely employed with mass spectrometric detection. The operating pressure of these columns is not as high as with UHPLC columns, but the need still exists for low system dispersion, since these columns typically generate peaks with small volumes. ACE Microbore HPLC pre-column filters are optimal for these types of columns. They provide effective, low-dispersion filtering at a lower cost than the ACE UHPLC pre-column filters. Although they are not recommended for ultra-high pressure applications, they can still be safely used at pressures up to 345 bar (5,000 psi). ACE Microbore HPLC pre-column filters (ACE-HP210) utilise a PEEK finger-tight design that connects directly to any 1/16" 10-32 internal thread inlet fitting port, regardless of the column manufacturer.

ITEM DESCRIPTION	PART NO.
ACE Microbore HPLC Pre-column Filter for 2.1mm id columns, 5/pk	ACE-HP205
ACE Microbore HPLC Pre-column Filter for 2.1mm id columns, 10/pk	ACE-HP210

## ACE® Analytical HPLC Pre-column Filter

for more typical standard bore (3.0 to 4.6mm id) HPLC columns

- 350 bar (5,000 psi) pressure rating
- Simple to install and replace
- Effective, low cost column protection for all HPLC columns
- Compatible with all HPLC systems

ACE Analytical HPLC pre-column filters provide economical protection for HPLC columns and are recommended for columns packed with 3µm size particles or larger and with bore sizes (internal diameters) of 3.0mm to 8.0mm. We even suggest using these pre-column filters on the inlet of guard columns to extend the life and reduce the replacement costs of these items. ACE Analytical HPLC pre-column filters are available with 0.5µm (ACE-CS210) or 2µm (ACE-CS310) filter options. These low cost PEEK design pre-column filters are simple to install and quick to replace. Simply hand tighten to achieve a pressure rating of 350 bar (5,000 psi).

ITEM DESCRIPTION	PART NO.
ACE Analytical HPLC Pre-column Filter with 0.5µm porosity stainless steel filter element, 5/pk	ACE-CS205
ACE Analytical HPLC Pre-column Filter with 0.5µm porosity stainless steel filter element, 10/pk	ACE-CS210
ACE Analytical HPLC Pre-column Filter with 2.0µm porosity stainless steel filter element, 5/pk	ACE-CS305
ACE Analytical HPLC Pre-column Filter with 2.0µm porosity stainless steel filter element, 10/pk	ACE-CS310

\*Advanced Chromatography Technologies Ltd acknowledges the registered trademarks of IDEX Health & Science and Waters Corporation.

