

# Filters for HPLC and UHPLC Columns

Provide economical protection from the harmful effects of sample and mobile phase particulates on modern UHPLC and other high resolution HPLC columns.



Direct Connect column Filters



UltraShield Pre-column



ColumnShield Precolumn



Guard Column Hardware



In-Line column Filters

**ASI**

# UltraShield HPLC/UHPLC Precolumn Filters

- Economical protection against micro-particles
- Extends column lifetime
- Negligible effect on column performance
- Universal fit, connects directly to column
- Leak tight to 15,000 PSI



UltraShield Precolumn Filter

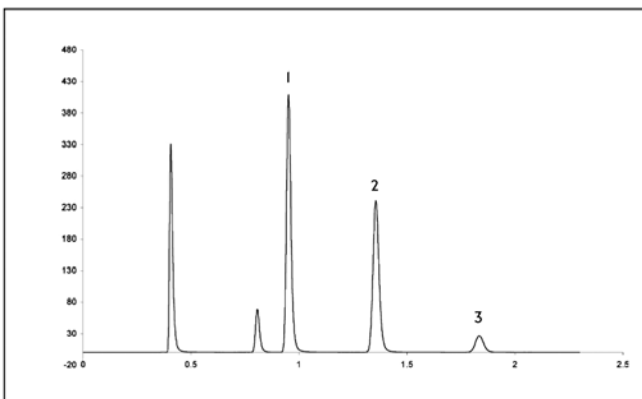
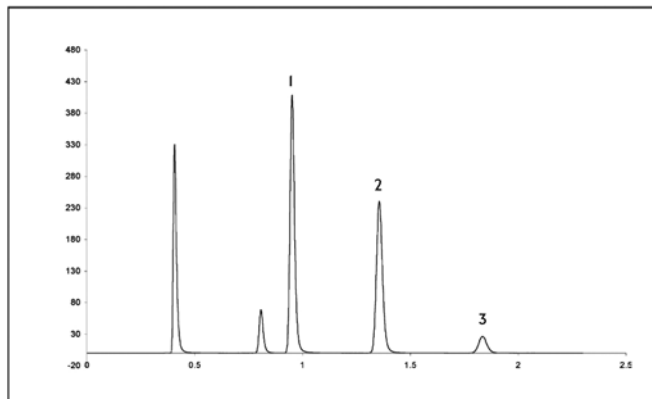
*UltraShield* direct connect precolumn filters provide economical protection from the harmful effects of sample and mobile phase particulates on modern UHPLC and other high resolution HPLC columns. *UltraShield* was engineered specifically for use in fast, high efficiency separations requiring high mobile phase velocities and ultra high pressure. *UltraShield* maintains the efficiency of these high performance columns assuring no loss of critical resolution. With its simple design, *UltraShield* installs in any analytical column in seconds and is leak tight to 15,000 PSI. Simply tighten the filter with a wrench until it is snug, followed by an additional 1/4 turn.

## Specifications

Inlet/Outlet: Female/Male 10-32  
 Port Geometry: Halo, Waters (1/16 CPI)  
 Wetted Material: SST, PEEK ferrule

Frit: 0.5 and 2 micron SST or Titanium  
 Pressure Rating: 15,000 PSI  
 Wrench Flat: 5/16"

## UltraShield Precolumn Filters Maintain Critical Resolution



As the above chromatograms illustrate, UltraShield Precolumn Filters maintain the theoretical plates, N, of very efficient UHPLC columns.  
 Column: 4.6 x 50 mm HALO<sup>®</sup> C18 Fused-Core<sup>®</sup>

	Peak 1	Peak 2	Peak 3
N w/o UltraShield	10,542	11,459	10,796
N with UltraShield	10,307	11,457	10,784
% Change	-2.2%	0%	-0.1%

Note: The above performance data applies to both UltraShield and ColumnShield Precolumn Filters

# UltraShield HPLC/UHPLC Precolumn Filters

## *UltraShield Precolumn Filter assembly with SST Frit*

Frit	Port Compatibility	Male Compatibility	ASI Part Number
0.5 micron x 0.062" dia. x 0.062" Th	Halo	Halo	850-1010
0.5 micron x 0.062" dia. x 0.062" Th	Halo	Waters	850-1010HW
0.5 micron x 0.062" dia. x 0.062" Th	Waters	Waters	850-1010WW
0.5 micron x 0.062" dia. x 0.062" Th	Waters	Halo	850-1010WH
2 micron x 0.062" dia. x 0.062" Th	Halo	Halo	850-1015
2 micron x 0.062" dia. x 0.062" Th	Halo	Waters	850-1015HW
2 micron x 0.062" dia. x 0.062" Th	Waters	Waters	850-1015WW
2 micron x 0.062" dia. x 0.062" Th	Waters	Halo	850-1015WH

## *UltraShield Precolumn Filter assembly with Titanium Frit*

Frit	Port Compatibility	Male Compatibility	ASI Part Number
0.5 micron x 0.062" dia. x 0.062" Th	Halo	Halo	850-1010T
0.5 micron x 0.062" dia. x 0.062" Th	Halo	Waters	850-1010HWT
0.5 micron x 0.062" dia. x 0.062" Th	Waters	Waters	850-1010WWT
0.5 micron x 0.062" dia. x 0.062" Th	Waters	Halo	850-1010WHT
2 micron x 0.062" dia. x 0.062" Th	Halo	Halo	850-1015T
2 micron x 0.062" dia. x 0.062" Th	Halo	Waters	850-1015HWT
2 micron x 0.062" dia. x 0.062" Th	Waters	Waters	850-1015WWT
2 micron x 0.062" dia. x 0.062" Th	Waters	Halo	850-1015WHT

### **Internal volume**

0.5 micron: 1 $\mu$ L  
2 micron: 1.17 $\mu$ L



# ColumnShield Precolumn Filters

**Economical protection against micro-particles**

**Extends HPLC column lifetime**

**Negligible effect on column performance**

**Universal fit, connects directly to column**

**Fingertight to 5,000 PSI**



**UltraShield Precolumn Filter**

*PrimeLine* ColumnShield precolumn filter provides economical protection from the harmful effects of sample and mobile phase particulates on modern HPLC columns. The disposable filter was engineered to maintain the efficiency of high performance columns assuring insuring no loss of critical resolution. With its simple design, the filter installs in any analytical column or guard column in seconds and is leak tight to 5,000 PSI. To install simply hand tighten the filter as you would with any fingertight fitting while holding the column stable.

Description: Titanium Filters	ASI Part Number
ColumnShield Precolumn Filter, 0.5 micron	850-1050T
ColumnShield Precolumn Filter, 0.5 micron, 5/Pack	850-1050T-05
ColumnShield Precolumn Filter, 0.5 micron, 10/Pack	850-1050T-10
ColumnShield Precolumn Filter, 2 micron	850-1051T
ColumnShield Precolumn Filter, 2 micron, 5/Pack	850-1051T-05
ColumnShield Precolumn Filter, 2 micron, 10/Pack	850-1051T-10

## ***Specifications***

Inlet/Outlet: Female/Male 10-32  
Port Geometry: Halo (1/16 CPI)  
Wetted Material: PEEK

Frit: 0.5 and 2 micron Titanium  
Pressure Rating: 5,000 PSI  
Fingertight: No wrench required

# In-Line & Direct Connect HPLC/UHPLC Column Filters

**Cost effective way to extend column lifetime**

**Replaceable filter element**

**Negligible effect on column performance**

**Universal fit, connects directly to column**

**Leak tight to 18,000 PSI**

*PrimeLine* direct connect precolumn filters provide economical protection from the harmful effects of sample and mobile phase particulates on modern HPLC and UHPLC columns. The *PrimeLine* precolumn filter was engineered specifically for use in high throughput and routine HPLC separations where mobile phase and sample contamination cause a decrease in column performance or premature column failure. The low swept volume of the *PrimeLine* filter maintains the efficiency of high performance columns assuring a negligible loss of critical resolution. With its simple design, the *PrimeLine* filter installs in any analytical column in seconds and is leak tight to 18,000 PSI. Simply finger tighten initially, then wrench tighten an additional 1/4 - 1/2 turn.



**In-Line Filter**



**Direct Connect Column Filter**

## ***Specifications***

Inlet/Outlet: Female/Male 10-32

Wetted Material: SST housing and ferrule

Frit: 0.2 to 20 micron SST, Titanium is also available

Pressure Rating: 18,000 PSI

Wrench Flat: 3/8"

# In-Line HPLC/UHPLC Column Filters



Port compatibility: Halo

## *In-Line Column Filters*

Description: SST Filters	ASI Part Number	Dead Vol.
In-Line Column Filter Assembly, with 0.2 micron x 0.062" dia. filter	850-1027	1.8 µL
In-Line Column Filter Assembly, with 0.2 micron x 0.125" dia. filter	850-1027-125	3.5 µL
In-Line Column Filter Assembly, with 0.2 micron x 0.188" dia. filter	850-1027-188	7.3 µL
In-Line Column Filter Assembly, with 0.5 micron x 0.062" dia. filter	850-1025-062	1.9 µL
In-Line Column Filter Assembly, with 0.5 micron x 0.125" dia. filter	850-1025	4.1 µL
In-Line Column Filter Assembly, with 0.5 micron x 0.188" dia. filter	850-1025-188	8.7 µL
In-Line Column Filter Assembly, with 2 micron x 0.062" dia. filter	850-1026-062	2.1 µL
In-Line Column Filter Assembly, with 2 micron x 0.125" dia. filter	850-1026-125	5.2 µL
In-Line Column Filter Assembly, with 2 micron x 0.188" dia. filter	850-1026	11.3 µL

Description: Titanium Filters	ASI Part Number	Dead Vol.
In-Line Column Filter Assembly, with 0.2 micron x 0.062" dia. filter	850-1027T	1.8 µL
In-Line Column Filter Assembly, with 0.2 micron x 0.125" dia. filter	850-1027-125T	3.5 µL
In-Line Column Filter Assembly, with 0.2 micron x 0.188" dia. filter	850-1027-188T	7.3 µL
In-Line Column Filter Assembly, with 0.5 micron x 0.062" dia. filter	850-1025-062T	1.9 µL
In-Line Column Filter Assembly, with 0.5 micron x 0.125" dia. filter	850-1025T	4.1 µL
In-Line Column Filter Assembly, with 0.5 micron x 0.188" dia. filter	850-1025-188T	8.7 µL
In-Line Column Filter Assembly, with 2 micron x 0.062" dia. filter	850-1026-062T	2.1 µL
In-Line Column Filter Assembly, with 2 micron x 0.125" dia. filter	850-1026-125T	5.2 µL
In-Line Column Filter Assembly, with 2 micron x 0.188" dia. filter	850-1026T	11.3 µL

**Note:** 0.188" diameter filter assembly: Maximum Pressure is 10,000 PSI

# Direct Connect HPLC/UHPLC Column Filters

## Direct Connect Column Filters

**Description: Filter assembly with 0.2 micron SST\* frit**

Frit dia. size	Ferrule Material	Port Compatibility	Male Compatibility	ASI Part Number	Dead Vol.
0.062"	SST	Halo	Halo	850-1022-062	1.8 µL
0.062"	SST	Halo	Waters	850-1022-062HW	1.8 µL
0.125"	SST	Halo	Halo	850-1022	3.5 µL
0.125"	SST	Halo	Waters	850-1022HW	3.5 µL
0.188"	SST	Halo	Halo	850-1022-188	7.3 µL
0.188"	SST	Halo	Waters	850-1022-188HW	7.3 µL

**Description: Filter assembly with 0.5 micron SST\* frit**

Frit dia. size	Ferrule Material	Port Compatibility	Male Compatibility	ASI Part Number	Dead Vol.
0.062"	SST	Halo	Halo	850-1020-062	1.9 µL
0.062"	SST	Halo	Waters	850-1020-062HW	1.9 µL
0.125"	SST	Halo	Halo	850-1020	4.1 µL
0.125"	SST	Halo	Waters	850-1020HW	4.1 µL
0.188"	SST	Halo	Halo	850-1020-188	8.7 µL
0.188"	SST	Halo	Waters	850-1020-188HW	8.7 µL

**Description: Filter assembly with 2 micron SST\* frit**

Frit dia. size	Ferrule Material	Port Compatibility	Male Compatibility	ASI Part Number	Dead Vol.
0.062"	SST	Halo	Halo	850-1021-062	2.1 µL
0.062"	SST	Halo	Waters	850-1021-062HW	2.1 µL
0.125"	SST	Halo	Halo	850-1021	5.2 µL
0.125"	SST	Halo	Waters	850-1021HW	5.2 µL
0.188"	SST	Halo	Halo	850-1021-188	11.3 µL
0.188"	SST	Halo	Waters	850-1021-188HW	11.3 µL

**Note: 0.188" diameter filter assembly: Maximum Pressure is 10,000 PSI**

\* Titanium Frit version also available in all sizes, please simply add 'T' end of the part number.



# In-line & Direct Connect HPLC/UHPLC Column Filters

## *In-line & Direct Connect Column Replacement Filters*

**Description: Replacement Filter assembly with SST frit**

Frit size	O ring Material	Package size	ASI Part Number
0.2 micron 0.062" dia. x 0.062" Th	SST& PEEK	5/pack	850-1027-2
0.2 micron 0.125" dia. x 0.062" Th	SST& PEEK	5/pack	850-1020-2
0.2 micron 0.188" dia. x 0.062" Th	SST& PEEK	5/pack	850-1026-2
0.5 micron 0.062" dia. x 0.062" Th	SST& PEEK	5/pack	850-1027-5
0.5 micron 0.125" dia. x 0.062" Th	SST& PEEK	5/pack	850-1020-5
0.5 micron 0.188" dia. x 0.062" Th	SST& PEEK	5/pack	850-1026-5
2 micron 0.062" dia. x 0.062" Th	SST& PEEK	5/pack	850-1027-2
2 micron 0.125" dia. x 0.062" Th	SST& PEEK	5/pack	850-1020-2
2 micron 0.188" dia. x 0.062" Th	SST& PEEK	5/pack	850-1026-2

**Description: Replacement Filter assembly with Titanium frit**

Frit size	O ring Material	Package size	ASI Part Number
0.2 micron 0.062" dia. x 0.062" Th	SST& PEEK	5/pack	850-1027-.2T
0.2 micron 0.125" dia. x 0.062" Th	SST& PEEK	5/pack	850-1020-.2T
0.2 micron 0.188" dia. x 0.062" Th	SST& PEEK	5/pack	850-1026-.2T
0.5 micron 0.062" dia. x 0.062" Th	SST& PEEK	5/pack	850-1027-.5T
0.5 micron 0.125" dia. x 0.062" Th	SST& PEEK	5/pack	850-1020-.5T
0.5 micron 0.188" dia. x 0.062" Th	SST& PEEK	5/pack	850-1026-.5T
2 micron 0.062" dia. x 0.062" Th	SST& PEEK	5/pack	850-1027-2T
2 micron 0.125" dia. x 0.062" Th	SST& PEEK	5/pack	850-1020-2T
2 micron 0.188" dia. x 0.062" Th	SST& PEEK	5/pack	850-1026-2T



## High Capacity HPLC/UHPLC Filters

Placed between the pump and injector, these filters protect the injector from pump seal wear material and extend the life of the column prefilter. All filters are made from 316 stainless steel and are rated to 6,000 PSI. Filters for UHPLC are rated to 15,000 PSI. All male/female ports are compatible with 10-32 compression fittings.

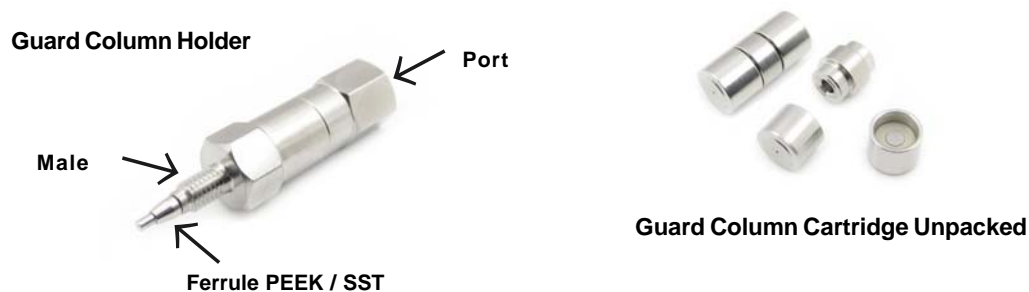
This filter features a clean-swept internal volume and a large 2.0 cm<sup>2</sup> filter area that will provide a long service life. Filter cartridges are available in 0.2 micron, 0.5 micron and 2 micron porosity, and are both interchangeable and replaceable. Total internal volume is 90 µL for 0.2 micron filter, 100 µL for 0.5 micron filter, and 120 µL for 2 micron filter.



Description	ASI Part Number
High Capacity In-Line Filter Assembly, 0.2 micron	850-1316
High Capacity In-Line Filter Assembly, 0.2 micron, High Pressure	850-1316HP
High Capacity In-Line Filter Assembly, 0.5 micron	850-1315
High Capacity In-Line Filter Assembly, 0.5 micron, High Pressure	850-1315HP
High Capacity In-Line Filter Assembly, 2 micron	850-1310
High Capacity In-Line Filter Assembly, 2 micron, High Pressure	850-1310HP
0.2 micron Replacement Filter Cartridge for HC	850-1326
0.5 micron Replacement Filter Cartridge for HC	850-1325
2 micron Replacement Filter Cartridge for HC	850-1320

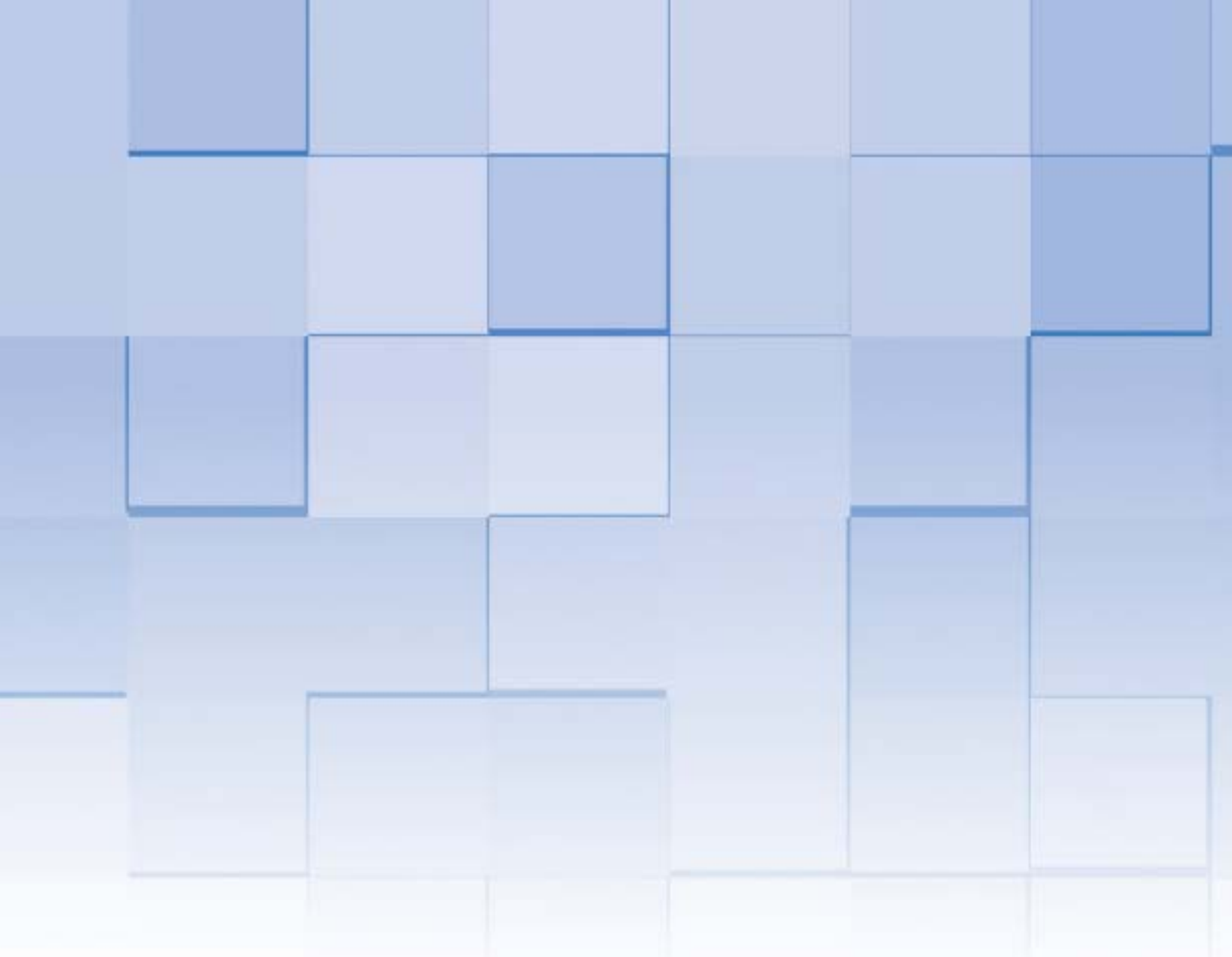
# Guard Column HPLC/UHPLC Hardware

The *PrimeLine* direct connect guard column provides economical protection from the harmful effects of sample and mobile phase particulates and soluble contaminants on modern HPLC and UHPLC columns. The low swept volume of the *PrimeLine* guard column maintains the efficiency of high performance columns assuring a negligible loss of critical resolution. With its simple design, the *PrimeLine* guard column installs in any analytical column in seconds and is leak tight to 15,000 PSI.



Description	Internal Volume	ASI Part Number
Guard Column Cartridge, Unpacked	2mm dia. x 5mm long	850-1392-04
Guard Column Cartridge, Unpacked	2mm dia. x 7mm long	850-1392-01
Guard Column Cartridge, Unpacked	2mm dia. x 10mm long	850-1392-02
Guard Column Cartridge, Unpacked	4mm dia. x 5mm long	850-1394-04
Guard Column Cartridge, Unpacked	4mm dia. x 7mm long	850-1394-01
Guard Column Cartridge, Unpacked	4mm dia. x 10mm long	850-1394-02
Guard Column Cartridge, Unpacked	4mm dia. x 20mm long	850-1394-03

Description	Port Compatibility	Male Compatibility	ASI Part Number
Guard Column Housing, 7mm long with SST Ferrule	Halo	Halo	850-1390
Guard Column Housing, 7mm long with PEEK Ferrule	Halo	Halo	850-1390HBH
Guard Column Housing, 7mm long with SST Ferrule	Halo	Waters	850-1390HW
Guard Column Housing, 7mm long with PEEK Ferrule	Halo	Waters	850-1390HBW
Guard Column Housing, 7mm long with SST Ferrule	Waters	Waters	850-1390WW
Guard Column Housing, 7mm long with PEEK Ferrule	Waters	Waters	850-1390WBW
Guard Column Housing, 7mm long with SST Ferrule	Waters	Halo	850-1390WH
Guard Column Housing, 7mm long with PEEK Ferrule	Waters	Halo	850-1390WBH
Guard Column Housing, 5mm long with SST Ferrule	Halo	Halo	850-1390-3HH
Guard Column Housing, 10mm long with SST Ferrule	Halo	Halo	850-1390-1HH
Guard Column Housing, 20mm long with SST Ferrule	Halo	Halo	850-1390-2HH



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