

Guard columns extend the life of analytical columns by protecting them from pressure shock, artifacts of sample prep, and impurities. Guard column cartridges are inexpensive and easily replaced.

## Guard Column Cartridge Systems for HPLC



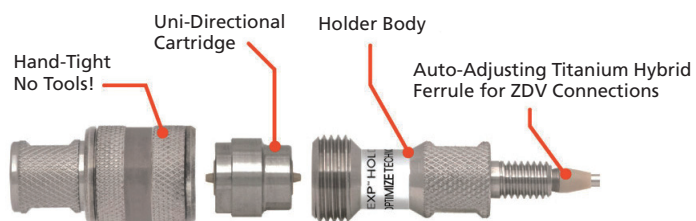
Analytical HPLC Guard Cartridge Holder shown with column cartridge.

- Ideal for HPLC columns 1.0 to 4.6 mm i.d.
- Low dead volume for all column fitting types
- Tool-free, finger-tight connection up to 6,000 psi
- Wide variety of stationary phases

YMC's Guard Column Cartridge Systems for HPLC accept cartridges of 1.0, 2.1, 3.0, or 4.0 mm inner diameters – in either 10 mm or 20 mm lengths. Cartridges are available with a comprehensive selection including all stationary phase chemistries offered by YMC, ensuring compatibility between the guard column and the analytical column (including columns by other manufacturers). Assembly is tool-free, simplifying cartridge replacement.

*See ordering information on reverse for cartridge holder and cartridge availability information.*

## Guard Column Cartridge Systems for UHPLC



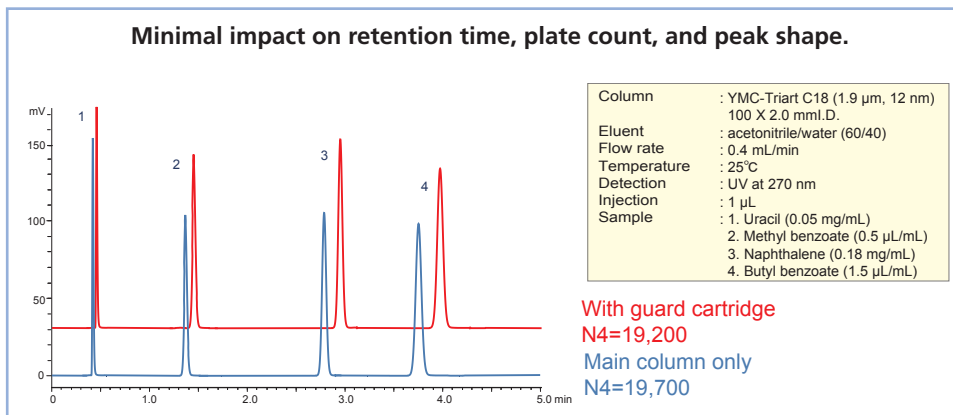
- Ideal for use with YMC and other UHPLC columns
- 1.4  $\mu$ L swept volume (excluding packed bed)
- Tool-free, finger-tight cartridge replacement
- Pressures up to 100 MPa (15,000 psi)

EXP® guard column cartridge system with low-volume, low-dispersion column minimizes the impact on separation - less than 3% decrease in theoretical plate count.

Cartridge holder design allows cartridge replacement without the need to break other fluid connections. Direct connect outlet fitting with Titanium Hybrid Ferrule is a universal fit for UHPLC column inlet fittings. Connect at inlet with a hand-tight EXP fitting and Titanium Hybrid Ferrule.

*See ordering information on reverse for cartridge holder and cartridge availability information.*

### Minimal impact on retention time, plate count, and peak shape.



## Ordering Information:

### HPLC Guard Column Cartridges

HPLC scale guard columns are available in every YMC stationary phase, two lengths (10 or 20 mm), and four i.d. sizes (1.0, 2.1, 3.0, or 4.0 mm)

1st Half of Guard Cartridge Part Number	Choose Guard Cartridge Length	Diameter of Analytical Column	Recommended Guard Cartridge i.d.	2nd Half of Guard Cartridge Part Number
Same as that of the HPLC column	10 mm standard length for most applications	1.0	1.0 mm	-0101GC
		2.0	2.1 mm	-01Q1GC
		2.1		
		3.0	3.0 mm	-0103GC
		4.0	4.0 mm	-0104GC
	4.6			
	20 mm length	1.0	1.0 mm	-0201GC
		2.0	2.1 mm	-02Q1GC
		2.1		
		3.0	3.0 mm	-0203GC
4.0		4.0 mm	-0204GC	
4.6				

Example:

Guard Column

AS12S05-01Q1GC

Analytical Column

AS12S05-1002WT

Pro C18, 120 Å Pore Size, 5 µm particle size; 100 mm long x 2 mm i.d.

For assistance with guard column selection, or if intended for use with analytical columns not manufactured by YMC, please call. See contact information below.

### HPLC Guard Column Cartridge Holders

XPGCH-Q1	Cartridge holder for 10 mm long HPLC guard column cartridges
XPGCH-Q2	Cartridge holder for 20 mm long HPLC guard column cartridges

### UHPLC Guard Column Cartridges

UHPLC Guard Column Cartridges are available packed with Triart 1.9 µm, 120 Å pore size, hybrid particles. They are offered in one length (5 mm) and two i.d. sizes (2.1 or 3.0 mm)

1st Half of Guard Cartridge Part Number	Choose Guard Cartridge Length	Diameter of Analytical Column	Recommended Guard Cartridge i.d.	2nd Half of Guard Cartridge Part Number
Same as that of the UHPLC column	5 mm length	2.0	2.1 mm	-E5Q1CC
		2.1		
		3.0	3.0 mm	-E503CC

For assistance with guard column selection, or if intended for use with UHPLC analytical columns not manufactured by YMC, please call. See contact information below.

### UHPLC Guard Column Cartridge Holders and Accessories

XPCHUHP	Cartridge holder for 5 mm long UHPLC guard column cartridges
XRHTF-01	Hand-tight EXP fitting, includes fitting and one titanium hybrid ferrule
XRHTF-05	Titanium hybrid ferrule only (5 per pack)
XRSFV-2	Sealing ferrule for UHPLC guard cartridge holder



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