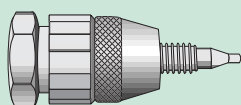




# Trident™ Direct Guard Column System

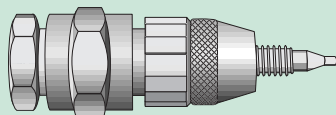
*Easy to Use, Low Dead Volume—  
The Ultimate Combination of  
Convenience and Column Protection*

**Trident™ Direct provides three levels of protection**



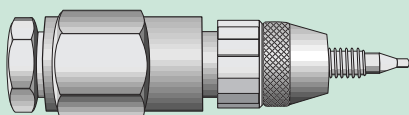
**Trident™ Direct high-pressure filter  
cat. #25082**

Protection against particulate matter.



**Trident™ Direct 1cm guard  
cartridge holder with filter  
cat.#25084**

Protection against particulate matter  
and sample impurities.



**Trident™ Direct 2cm  
guard cartridge holder with filter  
cat.#25086**

Protection against particulate matter  
and heavily contaminated samples.

Unlike other “one size fits all” guard systems the **Trident™ Direct** system gives you the power to select the right level of protection for your analysis. The system offers three levels of protection and guard cartridges that are available in four dimensions with a variety of bonded phases to match your analytical column. The economical leak-free cartridge design provides an unprecedented combination of convenience, economy, and reliability.

## Features & Benefits

Feature	Benefit
Direct connection	Easy installation that eliminates connection tubing and extra dead volume.
Three levels of protection	Provides the right protection for your needs.
Leak-free design	Smooth, reliable operation saves lab time.
Cartridge column design	Eliminates waste and saves money.

The foundation of the **Trident™ Direct** system is a reusable direct connect holder that easily attaches to any HPLC column using CPI- or Waters®-style end fittings.\* The system is available in the following configurations to match different protection level needs: in-line filter, in-line filter with holder for 1cm guard cartridge, and in-line filter with holder for 2cm guard cartridge. The guard cartridges are available in both 2.1 and 4.0mm ID's and are interchangeable with the appropriate length holder.

\*The standard PEEK® tip that comes with the **Trident™ Direct** systems is compatible with Parker®, Swagelok®, Upchurch®, Valco®, and other CPI-style fittings. To use the **Trident™ Direct** systems with Waters®-style end fittings, the tip must be replaced with cat.# 25088.

## Commonly Asked Questions

- **What level of protection do I need for my application?**

For protection against particulate matter only, use the Trident™ Direct in-line filter. For protection against particulate matter and sample impurities, use the Trident Direct 1cm holder and 1cm guard cartridges. This is the most popular configuration and is well suited for most applications. For protection against particulate matter and heavily contaminated samples, use the Trident Direct 2cm holder and 2cm guard cartridges.



## Trident™ Direct

# FAST FACTS

At-a-Glance  
Product  
Information  
from Restek

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### Application notes:

- (#59511) Improved HPLC Analysis of Analgesics
- (#59512) The Ultra IBD Column Allows HPLC Separation of Polar and Non-Polar Analytes from the Same Sample
- (#59510) HPLC Stationary Phase Selection for the Analysis of Steroids
- (#59118) Allure™ PFP Propyl HPLC Column Provides Improved LC/MS Analyses of Basic Compounds

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- **Online** [www.restekcorp.com](http://www.restekcorp.com)

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### • What internal diameter guard cartridge should I use?

If the ID of your analytical column is greater than 3.2 and less than 6mm, use a 4.0mm ID guard cartridge. If the ID of your analytical column is between 2.0 and 3.2mm, use a 2.1mm ID guard cartridge.

### • Do I need a different size holder depending on the guard cartridge ID?

No, because all Trident™ guard cartridges have the same outer diameter, the holders will function with either 2.1 or 4.0 mm ID guard cartridges. The holder needed is dependent only on the length of the guard cartridge.

### • Which guard cartridge should I use?

After you decide what level of protection and diameter guard cartridge is right for your application, you should choose the cartridge with a bonded phase that is the same or similar to your analytical column. The Allure™ and Ultra bonded phases are base-deactivated and compatible with virtually all silica-based analytical columns.

Trident™ Direct	cat.#
High-pressure filter	25082
1cm guard cartridge holder with filter	25084
2cm guard cartridge holder with filter	25086
Connection tip for Waters®-style end fittings	25088

Replacement Frits for the Trident™ Filter	qty.	cat.#
Cap Frits 4mm, 2.0µm:	5pk.	25022
Cap Frits 2mm, 2.0µm:	5pk.	25057

Guard Column Cartridges	(10 x 2.1mm) 3-pack	(10 x 4.0mm) 3-pack	(20 x 2.1mm) 2-pack	(20 x 4.0mm) 2-pack
Allure™ Acidix	916250212	916250210	916250222	916250220
Allure™ Basix	916150212	916150210	916150222	916150220
Allure™ C18	916450212	916450210	916450222	916450220
Allure™ PFP Propyl	916950212	916950210	916950222	916950220
Allure™ Silica	916050212	916050210	916050222	916050220
Ultra Amino	910750212	910750210	910750222	910750220
Ultra Aqueous C18	917850212	917850210	917850222	917850220
Ultra C1	910150212	910150210	910150222	910150220
Ultra C4	910250212	910250210	910250222	910250220
Ultra C8	910350212	910350210	910350222	910350220
Ultra C18	917450212	917450210	917450222	917450220
Ultra Cyano	910650212	910650210	910650222	910650220
Ultra IBD	917550212	917550210	917550222	917550220
Ultra PFP	917650212	917650210	917650222	917650220
Ultra Phenyl	910550212	910550210	910550222	910550220
Ultra Silica	910050212	910050210	910050222	910050220

Lit. Cat. # 59314

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