

Fittings Choice 1 piece fitting or a 2 piece fitting for HPLC - HPLC Primer

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Overview

HPLC fittings must create reliable, leak-free connections under a range of pressures and solvent conditions. The choice between a 1-piece and 2-piece fitting depends on convenience, durability, and the pressure demands of the application.

Both options can perform effectively, but each offers advantages that may make it better suited for specific workflows.

1-Piece HPLC Fittings

Characteristics

- The nut and ferrule are combined into one unit.
- Designed for convenience and simple installation.

Advantages

- Quick to install and remove.
- Ideal for routine connections where ease of use is a priority.
- Reduces the number of components that can be misplaced.

Best Uses

- General HPLC setups
 - Applications operating at standard pressures
 - Situations requiring frequent disconnections or rapid instrument changes
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2-Piece HPLC Fittings

Characteristics

- The nut and ferrule are separate components.
- Offers more flexibility because the ferrule can be replaced independently.

Advantages

- Ferrule replacement extends overall fitting life.
- Compatible with higher-pressure applications.
- When paired with a double-cone ferrule, these fittings can maintain seal integrity even above 6,000 psi.

Best Uses

- High-pressure LC applications
 - Long-term setups where only the ferrule needs periodic replacement
 - Connections requiring enhanced sealing strength
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How to Choose Between Them

General Guidance

- Both fitting types can provide excellent, leak-free connections for most applications.
 - Select 1-piece fittings when simplicity and speed matter most.
 - Select 2-piece fittings when durability, component longevity, or higher pressures are considerations.
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Additional Resources

For ordering information and product details, MICROSOLV provides comprehensive fittings references. Click [HERE](#) for HPLC Fittings Ordering Information.

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