

What is the Pilot Length or Dimension X Depth for End Fittings Uses to Connect HPLC Columns - FAQ

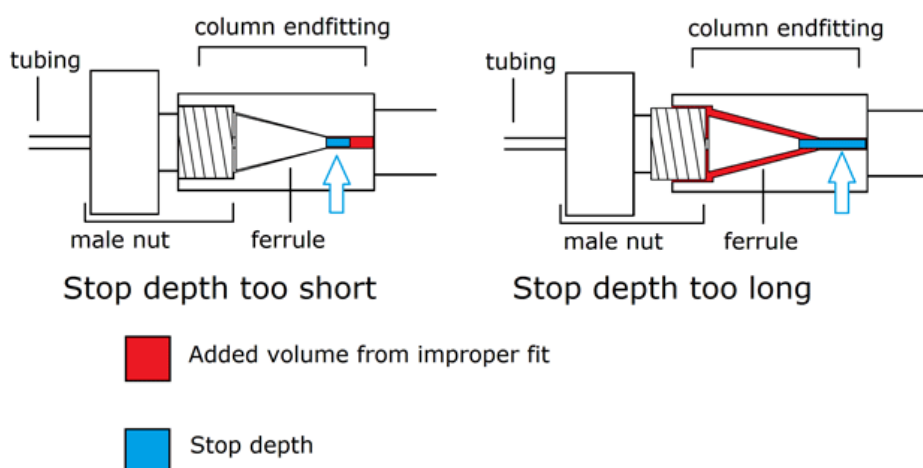
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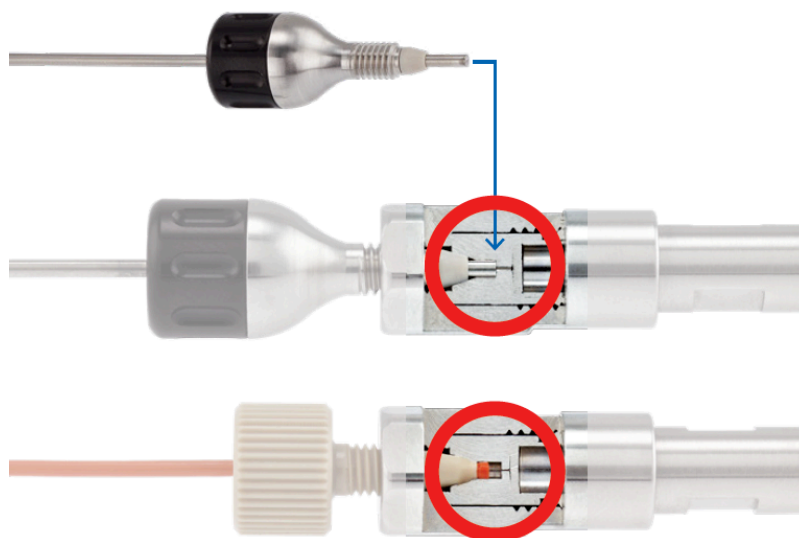
The *Stop Depth*, *Seating Depth*, *Dimension X* or *Pilot Length* are all words describing the same feature ie: the distance between the end of a ferrule and the terminus of a section of tubing. To optimally work, this tubing must match the inlet and outlet port depths of an HPLC column.

Why is optimally seating ferrules and tubing important for your chromatography? If the *Pilot Length* is too short there will be a gap between the tubing and the column inlet or outlet and if the distance is too long, the ferrule will not seat properly causing improperly aligned ports. Each of these two scenarios will result in band broadening and/or leaking as shown in the diagrams below. The extra volume contribution caused by an improper fit is shown in **red**.

With the use of adaptive fittings determining the precise *Pilot Length* to connect your HPLC columns and tubing is no longer critical. Direct Adaptive or Di-Ad™ fittings are spring-loaded and automatically adjust the *Pilot Length* to match your column's inlet and outlet. They are very convenient to use and make changing columns brands on your instrument very quick and easy.

Click [HERE](#) for more information about spring loaded Di-AD™ fittings to eliminate the need to manually adjust the *Pilot Length* each time you change columns.





Above Circle: Spring Loaded Di-Ad Adjusts to any Pilot Length Bottom Circle: Poorly Adjusted Pilot Length

HPLC Column Hardware Type	Reported Stop Depth <i>(Pilot Length)</i>
Cogent Brands	0.09 inches
Parker Type	0.09 inches
Valco	0.08 inches
Waters Brands	0.13 inches

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