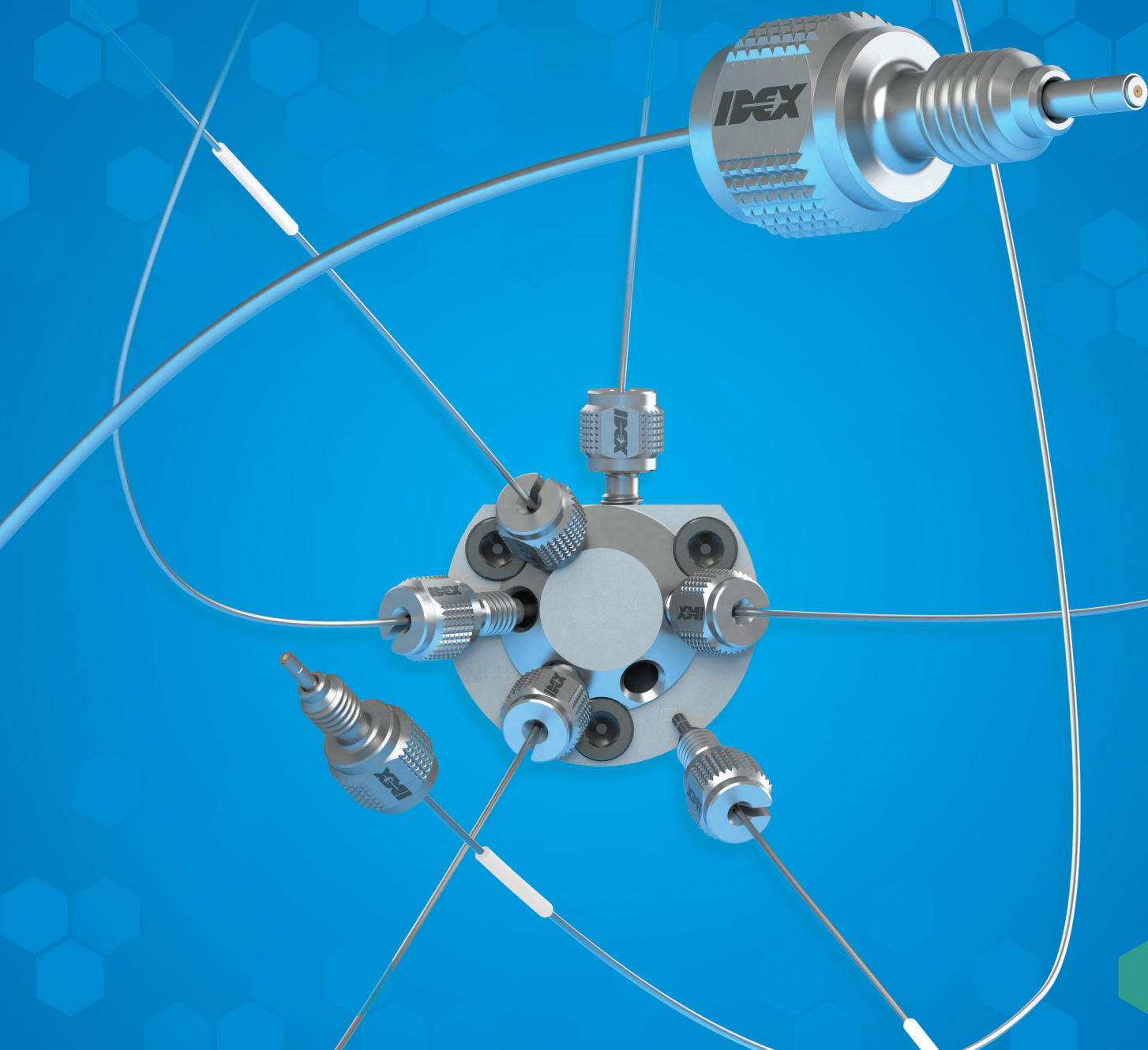




## Next Generation UHPLC Connection Technology

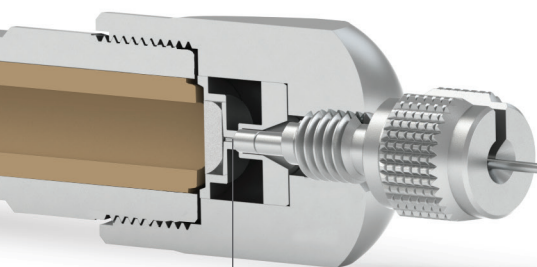


# Advance Your Fluidic Systems with Finger-Tight MarvelX™ UHPLC Connection Technology from IDEX Health & Science

MarvelX UHPLC Connection Systems have been expertly designed for easy routing throughout your instrument, while providing consistent performance and superior re-usability. Built with convenient, removable stainless steel fittings and changeable, precision-cut flexible tubing, MarvelX can be used up to 200 times! The connection system is compatible with 10-32 coned receiving ports and is absolutely

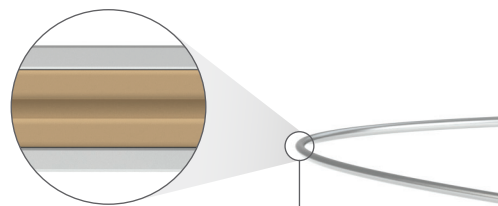
finger-tight — no tool required. MarvelX utilizes our unique next-generation patent-pending technology to auto-adjust to various port depths. This ensures zero dead volume and delivers better chromatography results with sleek, simple, and reliable functionality. In addition to our powerful Stainless Steel version, MarvelX offers a truly biocompatible option in PEEK-Lined Stainless Steel.

## MarvelX Features



### ZERO DEAD VOLUME

Proprietary sealing technology eliminates extra internal volume.



### TRUE BIOCOMPATIBILITY

System versions include Stainless Steel or biocompatible PEEK-Lined Stainless Steel (pictured above) with an ID range of 25  $\mu$ m to 508  $\mu$ m, for 10-32 coned ports.

### FLEXIBLE TUBING

Special tubing blend prevents kinking and allows considerable flexibility to route throughout your instrument. Usable in any application, and can be replaced independent of fittings.

FINGER-  
TIGHT TO  
19,000 PSI

REUSABLE  
UP TO  
200X

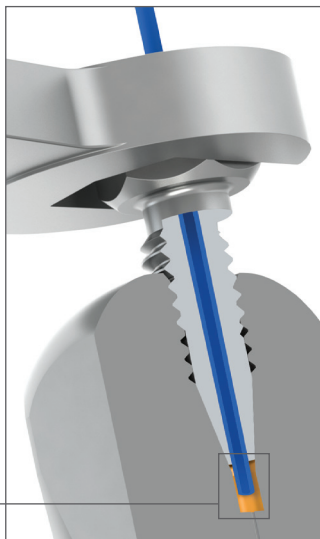
NO  
PEAK  
TAILING

HIGH  
PLATE  
EFFICIENCY

## MarvelX UHPLC Fittings vs. Conventional Coned Fittings

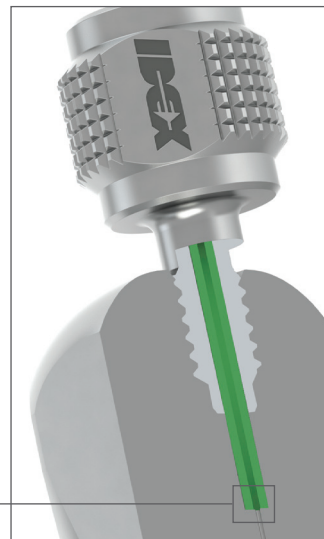
**Conventional coned fittings** require a ferrule in conjunction with a fitting for proper sealing. They depend on complex techniques, including tools, to improve sealing performance, which significantly increases probability of extra internal volume and poor chromatography results. The excessive force needed for tightening increases wear of expensive components and the likelihood of replacement, adding to overall costs.

### EXTRA INTERNAL VOLUME



**MarvelX UHPLC fittings** do not depend on ferrules. They seal at the bottom of the port, without complex techniques, which significantly reduces required torque and enables many more connects and disconnects. Furthermore, they are virtually impossible to over-tighten by hand, limiting wear and increasing product life. An enhanced proprietary tip design also ensures zero dead volume (ZDV) and better chromatography results.

### ZERO DEAD VOLUME



### SMALL & ACCESSIBLE

Fittings are small enough to fit in tight spaces, yet allow for finger-tightening at UHPLC pressures.

### REPLACEABLE TUBING

Innovative design makes it possible to replace tubing independent of fittings, which reduces waste and drives replacement costs down.

### ROBUST TIP

Enables robust structure, superior re-usability, and minimizes chances of tip damage from connecting and disconnecting.

### FINGER-TIGHT TO UHPLC

MarvelX is truly a finger-tight connection system that only requires 2 in-lbs of installation torque, and seals up to 19,000 psi (~1,310 bar) for routine use. Our combination of optimum nut dimensions and proprietary sealing design makes it virtually impossible to over-tighten by hand.

FOR ORDERING  
AND TECHNICAL  
SUPPORT, VISIT:

[idex-hs.com/  
MarvelX](http://idex-hs.com/MarvelX)

### REMOVABLE FITTING

Facilitates easy routing of tubing in the instrument, which reduces time and effort during installation and instrument maintenance.



## MarvelX™ Technical Specifications

| Part Number                        | Tubing ID       | Tubing Length  | Replacement Tubing Part Number |
|------------------------------------|-----------------|----------------|--------------------------------|
| <b>PEEK-Lined Stainless Steel*</b> |                 |                |                                |
| UPFP-6025150                       | 25 µm (0.001")  | 150 mm (5.9")  | UPFP-6025150T                  |
| UPFP-6025350                       | 25 µm (0.001")  | 350 mm (13.8") | UPFP-6025350T                  |
| UPFP-6100150                       | 100 µm (0.004") | 150 mm (5.9")  | UPFP-6100150T                  |
| UPFP-6100350                       | 100 µm (0.004") | 350 mm (13.8") | UPFP-6100350T                  |

## Stainless Steel\*

|              |                 |                |               |
|--------------|-----------------|----------------|---------------|
| UPFS-6125150 | 125 µm (0.005") | 150 mm (5.9")  | UPFS-6125150T |
| UPFS-6125350 | 125 µm (0.005") | 350 mm (13.8") | UPFS-6125350T |
| UPFS-6254150 | 254 µm (0.010") | 150 mm (5.9")  | UPFS-6254150T |
| UPFS-6254350 | 254 µm (0.010") | 350 mm (13.8") | UPFS-6254350T |

\*For other ID and length configuration requests, please contact Customer Service at +1 800 426 0191, or e-mail [CustomerService.hs@idexcorp.com](mailto:CustomerService.hs@idexcorp.com)

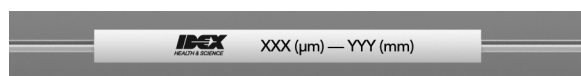
## Product Specifications

|                                |                                                                                                                                                                       |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pressure Capability</b>     | 19,000 psi (~1,310 bar) for routine use; up to 23,000 psi max over pressure for PEEK-Lined versions; up to 29,000 psi max over pressure for Stainless Steel versions. |
| <b>Installation Method</b>     | Finger-tight, 1/8 – 1/4 turn after initial resistance (~2 in-lbs)                                                                                                     |
| <b>Tubing Type</b>             | 1/32" OD flexible 316 Stainless Steel with 1/16" OD rigid tube ends                                                                                                   |
| <b>Fitting Type</b>            | 10-32 threaded, removable 316 Stainless Steel                                                                                                                         |
| <b>Wetted Materials</b>        | <b>PEEK-Lined versions:</b> PEEK   <b>Stainless Steel versions:</b> PEEK and 316 Stainless Steel                                                                      |
| <b>Maximum Use Temperature</b> | 120 °C                                                                                                                                                                |

NOTE: The above performance specifications apply to use with appropriately-designed receiving ports under optimal conditions, using water at up to 120 °C for the testing process. If different conditions are used, the expected pressure threshold will be different.

## IMPORTANT NOTES

- MarvelX tubing includes a sleeve that assists in product identification, with ID and length information, as shown here:



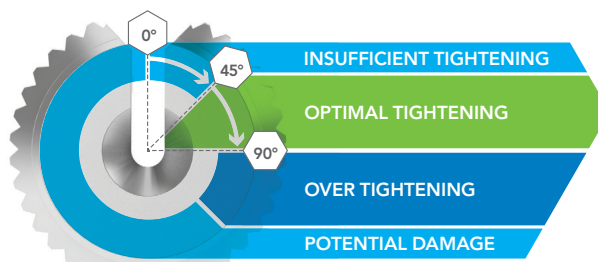
- Minimum recommended bend-radius with MarvelX tubing is 1/4" (~6.35 mm).

## REGULATORY COMPLIANCE

As of the date of publication, MarvelX is compliant with current RoHS and REACH regulations.

## INSTRUCTIONS FOR TIGHTENING

- Route tubing to the target port.
- Slide fitting onto the tubing end via slot.
- Slowly finger-tighten to first resistance; continue tightening 1/8-turn minimum, to 1/4-turn maximum.
- Learn more at [www.idex-hs.com/MarvelX](http://www.idex-hs.com/MarvelX)



## For ordering and technical support, please contact:

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