

Next Generation UHPLC Connection Technology



Fluidic Connections | Valves | Pumps | Degassers | Column Hardware | Manifolds

## Advance Your Fluidic Systems with Finger-Tight MarvelX<sup>™</sup> 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



#### 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.

#### ZERO DEAD VOLUME

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Proprietary sealing technology eliminates extra internal volume.

#### 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.



## 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.





#### SMALL & ACCESSIBLE

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



FOR ORDERING AND TECHNICAL SUPPORT, VISIT:

idex-hs.com/ MarvelX



#### **REPLACEABLE TUBING**

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

#### **REMOVABLE FITTING**

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

#### 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.



MarvelX <sup>™</sup> Technical Specifications			
Part Number	Tubing ID	Tubing Length	Replacement Tubing Part Number
PEEK-Lined Stainless Steel*			
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

Product Specifications	
Pressure Capability	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.
Installation Method	Finger-tight, 1/8 – 1/4 turn after initial resistance (~2 in-lbs)
Tubing Type	1/32" OD flexible 316 Stainless Steel with 1/16" OD rigid tube ends
Fitting Type	10-32 threaded, removable 316 Stainless Steel
Wetted Materials	PEEK-Lined versions: PEEK   Stainless Steel versions: PEEK and 316 Stainless Steel
Maximum Use Temperature	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:

XXX (µm) — YYY (mm)

> 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

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





#### For ordering and technical support, please contact:

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