





# 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

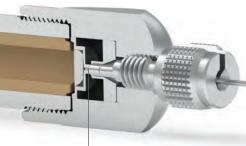
finger-tight — no tool required. MarvelX utilizes our unique next-generation patent-pending technology to auto-adjust to various port depths. This ensures zero dead volume and delivers better chromatography results with sleek, simple, and reliable functionality. In addition to our powerful Stainless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

## MarvelX Features



#### 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

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.

FINGER-TIGHT TO 19,000 PSI

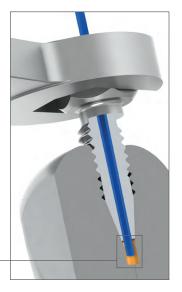
REUSABLE UP TO 200x

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.



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.



EXTRA INTERNAL VOLUME

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.



#### 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> Standard Configurations

PEEK-Line	ed Stainles	s Steel As	semblies*

	<u>Length</u>					
<u>ID</u>	070mm	150mm	250mm	350mm	500mm	600mm
25µm	UPFP-6025070	UPFP-6025150	UPFP-6025250	UPFP-6025350	UPFP-6025500	UPFP-6025600
50µm	UPFP-6050070	UPFP-6050150	UPFP-6050250	UPFP-6050350	UPFP-6050500	UPFP-6050600
75µm	UPFP-6075070	UPFP-6075150	UPFP-6075250	UPFP-6075350	UPFP-6075500	UPFP-6075600
100µm	UPFP-6100070	UPFP-6100150	UPFP-6100250	UPFP-6100350	UPFP-6100500	UPFP-6100600
150µm	UPFP-6150070	UPFP-6150150	UPFP-6150250	UPFP-6150350	UPFP-6150500	UPFP-6150600
300µm	UPFP-6300070	UPFP-6300150	UPFP-6300250	UPFP-6300350	UPFP-6300500	UPFP-6300600

#### Stainless Steel Assemblies\*

	Length					
<u>ID</u>	070mm	150mm	250mm	350mm	500mm	600mm
100µm	UPFS-6100070	UPFS-6100150	UPFS-6100250	UPFS-6100350	UPFS-6100500	UPFS-6100600
125µm	UPFS-6125070	UPFS-6125150	UPFS-6125250	UPFS-6125350	UPFS-6125500	UPFS-6125600
254µm	UPFS-6254070	UPFS-6254150	UPFS-6254250	UPFS-6254350	UPFS-6254500	UPFS-6254600

#### Replacement Tubing

Add the letter "T" as the last character to any part number above Example: UPFP-6020570T is the replacement tubing for UPFP-6020570

#### **Replacement Fittings**

UPN-61032

Note: Each UPN-61032 is a package of 3 replacement fittings

\*Product availability and lead times may vary depending on the configuration. Contact Customer Service at +1 800 426 0191 or email CustomerService.hs@idexcorp.comfor details.



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")	UPFS-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

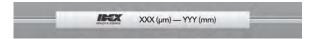
<sup>\*</sup>For other ID and length configuration requests, please contact Customer Service at +1 800 426 0191, or e-mail CustomerService.hs@idexcorp.com

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:



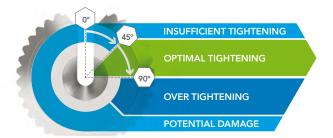
Minimum recommended bend-radius with MarvelX tubing is 1/4" (~6.35 mm).

#### **REGULATORY COMPLIANCE**

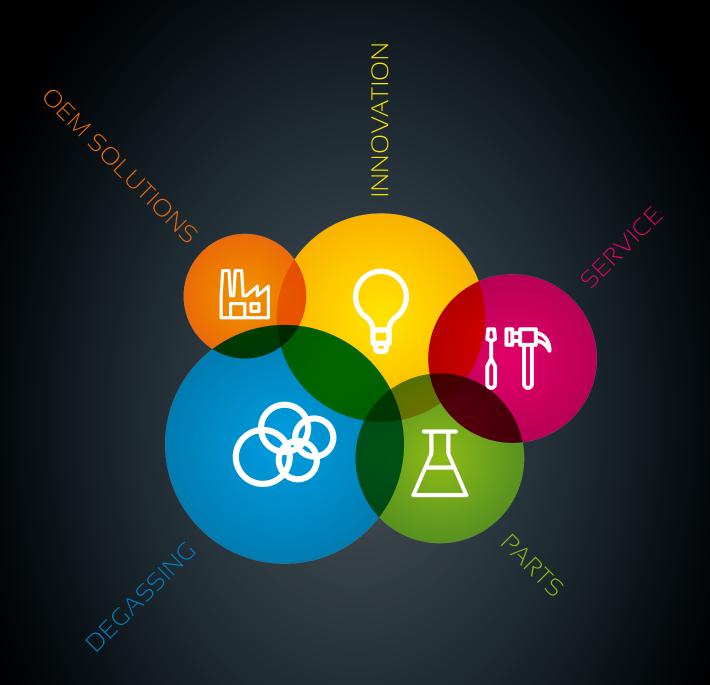
As of the date of publication, MarvelX is compliant with current RoHS and REACH regulations.  $\label{eq:complex} % \begin{subarray}{l} \end{subarray} % \begi$ 

#### **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







MARVELOUS CONNECTIONS



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INNOVATIVE PRODUCTS FOR FLUIDIC SYSTEMS



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