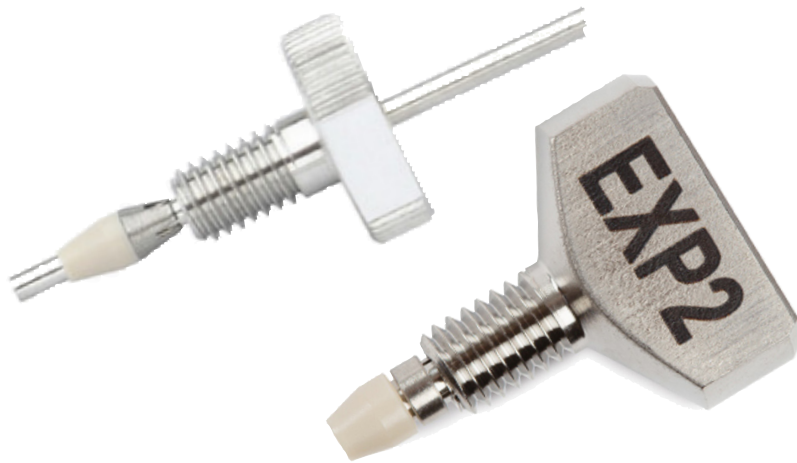


High-Pressure, Reusable Connections for (U)HPLC Applications

EXP[®] and EXP[®]2 Fittings

CoreFocus



EXP® & EXP2 Fitting Systems

High-Pressure, Reusable Connections for Demanding HPLC/UHPLC Applications
Next-Gen EXP2 Offers Hand-Tightened, High-Pressure Connections
Achieve Zero Dead Volume with Adjustable, Reusable Designs

Features

- **Applications:** High-pressure connections for 1/16" tubing in HPLC/UHPLC.
- **Material:** Titanium Hybrid Ferrule (combines strength and sealing).
- **Reusable:** Fittings avoid replacing swaged ferrules, allowing for multiple uses.
- **Zero dead volume:** Adjustable design creates tight connections without tubing deformation.
- **EXP System:** Simple and versatile, uses adjustable nut and ferrule for compression.
- **EXP2 System (Next Generation):**
 - Hand-tightened connections up to 20,000+ psi.
 - Includes EXP2 Driver for easy hand-tightening/loosening.



EXP Hand-Tight Fitting



EXP Hex-Head Fitting



EXP2 Fitting

The ultimate solution for reliable HPLC & UHPLC connections

Are you looking for a simple, reliable and reusable solution for your HPLC and UHPLC connections? EXP and EXP2 fittings are just the thing for you!

The EXP and EXP2 fittings offer an innovative design that combines the robustness of titanium with the sealing efficiency of PEEK material. This unique combination allows for repeat installation without compromising the high pressure seal.

Unlike conventional crimped connections, the EXP and EXP2 fittings are reusable. This means you don't have to cut and replace the ferrules every time you disconnect and reconnect.

The EXP and EXP2 fittings use non-crimp ferrules, giving you the freedom to use any brand of 1/16" tubing. You are not tied to a specific supplier.

The precise design of EXP and EXP2 fittings ensures a leak-free

connection with no additional volume in the flow path (ZDV). This is particularly important for applications where minimising dead volume is critical.

We offer EXP and EXP2 fittings in a variety of styles to meet individual needs. Choose between EXP (simple hand fitting) or EXP2 (integrated ferrule and driver) depending on your preference.

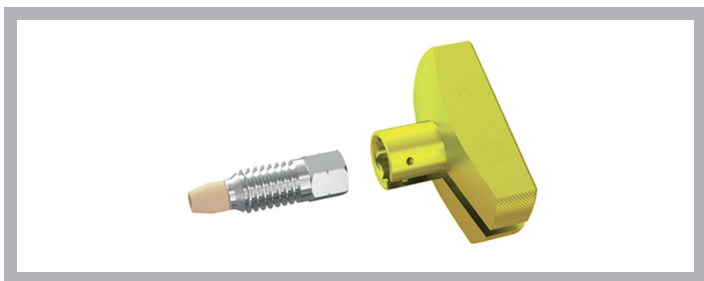
EXP and EXP2 fittings are made from high-quality materials and are characterised by their durability and high performance. They are the perfect choice for demanding HPLC and UHPLC applications.

EXP and EXP2 fittings offer a number of advantages over conventional fittings. They are reusable, universally compatible, offer zero dead volume and are available in various designs. If you are looking for a reliable and durable solution for your HPLC and UHPLC connections, the EXP and EXP2 fittings are the perfect choice.

EXP² TI-LOK™

High-Performance Fittings for Liquid Chromatography
 Simple, Hand-Tightened Connections for All LC Applications
 Achieve Zero Dead Volume with Titanium & PEEK Technology
 High-Pressure, Reusable Connections for HPLC & UHPLC

- **High pressure:** Hand-tightened connections up to 18,000 psi (1,250+ bar).
- **Ideal for:** HPLC & UHPLC connections in tight spaces (injection valves, columns, etc.).
- **Material:** Titanium nuts & PEEK ferrules (combining strength and sealing).
- **Zero dead volume:** Unique design for tight connections without tubing deformation.
- **Reusable:** Ferrules don't damage tubing, allowing for multiple uses and adjustments.
- **Compatible tubing:** PEEK, PEEKsil, Hastelloy C, stainless steel.
- **Includes:** EXP2 Driver for easy hand-tightening/loosening.



EXP2 TI-LOK Fitting



EXP2 TI-LOK AIO Fitting

EXP2 TI-LOK Fittings: Hand-Tight, High-Pressure Connections for HPLC/UHPLC

The EXP2 TI-LOK fittings are designed for easy installation and reliable performance in HPLC and UHPLC applications. These fittings can be hand-tightened to an impressive 18,000+ psi, making them ideal for tight spaces like injection valves and column components.

The secret lies in a combination of innovative materials and design. The fittings utilize a precision-machined titanium nut and a built-in PEEK ferrule. This combines the strength and corrosion resistance of titanium with the superior sealing ability of PEEK.

The unique geometric design ensures a zero-dead-volume (ZDV) connection by firmly pressing the tubing against the instrument port.

Unlike traditional fittings, the ferrule doesn't permanently deform the tubing, allowing for multiple uses and adjustments for different port depths.

EXP2 TI-LOK fittings are compatible with various tubing materials like PEEK, PEEKsil, Hastelloy C, and stainless steel. They also come with a small, easy-to-use EXP2 Driver for hand-tightening and loosening the connection. This driver can be removed after use.

For situations where space isn't a major concern, we also offer the EXP2 TI-LOK AIO Fitting. This version features all the same benefits but with a permanently attached driver for even more convenience.

Features	EXP	EXP2	EXP2 Hex Head	EXP2 TI-LOK
Hand-Tight Torque	8.700 psi	20.000 psi	./.	8.700 psi
Wrench-Tight Torque	20.000 psi	20.000 psi	20.000 psi	18.000 psi
Thread Type	10-32	10-32	10-32	10-32
Ferrule design	seperate	seperate	seperate	integrated
Hose Type	1/16" Stainless Steel, Peek	1/16" Stainless Steel, Peek	1/16" Stainless Steel, Peek	1/16" Stainless Steel, PEEK PEEKsil, Hasetlloy C
Dead Volume	0	0	0	0
Reusable	Yes	Yes	Yes	Yes
Advantage	Easy handling, cost-effective	High pressure resistance, compact, tool-free, for tight spaces	High pressure resistance, compact	High pressure resistance, compact, tool-free

EXP Replacement Ferrule

1/16" Titanium Hybrid Ferrule

Description	Quantity	P/N
EXP Ferrule Titanium Hybrid	1	980-20505
	10	980-16818



EXP Fitting

1/16" Titanium Hybrid Ferrule

Description	Quantity	P/N
EXP Hand-Tight Fitting with Hybrid Ferrule	1	980-20506
	10	980-16819



EXP Coupler

1/16" Titanium Hybrid Ferrule

Description	Quantity	P/N
EXP Hand-Tight Coupler incl. 2 Hand-Tight Nuts 2 Hybrid Ferrules	1	980-20269



EXP Hex Head Fitting

1/16" Titanium Hybrid Ferrule

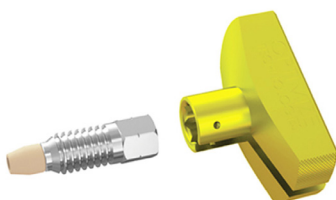
Description	Quantity	P/N
EXP Std HexHead Fitting with Hybrid Ferrule	1	980-20499
	10	980-16817
EXP Short HexHead Fitting with Hybrid Ferrule	10	980-20500
EXP Long HexHead Fitting with Hybrid Ferrule	10	980-20383



EXP®2 TI-LOK™

1/16" PEEK Ferrule

Description	Quantity	P/N
EXP2 TI-LOK Hand-Tight Fitting with Integral Ferrule incl. 1 Driver and Fittings	2	980-33018
	10	980-33019



EXP®2 Fitting

1/16" Titanium Hybrid Ferrule

Description	Quantity	P/N
EXP2 Hand-Tight Fitting with hybrid Ferrule incl. 1 Driver and Fittings	2	980-33020
	10	980-33021



EXP®2 TI-LOK™ All-in-One

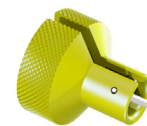
1/16" PEEK Ferrule

Description	Quantity	P/N
EXP2 TI-LOK AIO Hand-Tight Fitting with Integral Ferrule	1	980-33016
	10	980-33017



EXP®2 Driver (Driver only)

Description	Quantity	P/N
EXP2 Fitting Driver	1	980-33022



Find all products 24/7 in our Webshops
www.shimadzu.eu/shimadzu-goes-webshop



Find our full portfolio of columns and accessories
www.shimadzu.eu/columns-and-consumables



Shimadzu Europa GmbH
www.shimadzu.eu

For Research Use Only. Not for use in diagnostic procedure.

The content of this publication shall not be reproduced, altered or sold for any commercial purpose without the written approval of Shimadzu.

The information contained herein is provided to you „as is“ without warranty of any kind including without limitation warranties as to its accuracy or completeness. Shimadzu does not assume any responsibility or liability for any damage, whether direct or indirect, relating to the use of this publication. This publication is based upon the information available to Shimadzu on or before the date of publication, and subject to change without notice.

EXP® and TI-LOK™ are registered trademarks of Optimized Technologies, Inc.

Shimadzu Europa GmbH, 2024 / First Edition: July 2024