

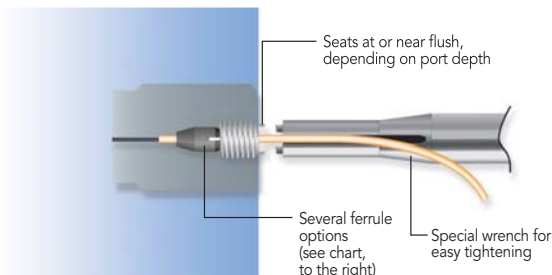
## FlushNut™ Fittings

- ▶ Tightens flush with the top of the receiving port
- ▶ Several ferrule options

Upchurch Scientific® FlushNut Fittings are designed for those tight-space applications where nut heads often interfere with each other. When coupled with an appropriate ferrule and tightened into a receiving port, the FlushNut's slotted head seats at or near flush with the top of the port. This feature allows FlushNut Fittings to reside in closer proximity than any other option on the market. All FlushNut Fittings are manufactured from 316 stainless steel, except the P-321 Plug, which is made of PEEK polymer.

Tighten or remove FlushNut Fittings with our specially designed FlushNut Wrenches, available in 10-32 or 1/4-28 versions. For more information on the FlushNut wrenches, see page 33.

### FlushNut Fittings System

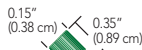


## Lee Company "MINSTAC®" Compatible Fittings

- ▶ Super Flangeless™ style ferrules designed specifically to work with 6-40 nuts in Lee MINSTAC valve ports
- ▶ For 1/16" OD tubing

Upchurch Scientific TinyTight™ Fittings are easy-to-use alternatives for Lee Company 062 MINSTAC fittings systems. These fittings consist of a TinyTight Ferrule which works with the 6-40 threaded nut on this page, M-644-03. Choose from two ferrule options, with 0.020" (0.50 mm) or 0.030" (0.75 mm) thru-holes. To use, simply slide a fitting head-first onto your tubing, followed by the ring and ferrule, and thread this assembly into the solenoid valve receiving port, while making sure the tubing is bottomed out. No collets, colletting tools, or chamfering tools required; however, if needed for easier assembly of the TinyTight fittings, the M-150 tool is available. To use, first place the tool in a vise, then tighten tubing, fitting, and ferrule into the tool as you would into any port. Once removed, the swaged ferrule will be held in place on the tubing.

The TinyTight fittings have a pressure range that depends upon the tubing used for the connection. Please contact your distributor or IDEX Health & Science for more information.



**M-644-03**  
Headless Nut  
6-40 threads



**M-647**  
TinyTight Ferrule  
for 1/16" OD tubing  
0.020" thru-hole



**M-657**  
TinyTight Ferrule  
for 1/16" OD tubing  
0.030" thru-hole

## RELATED PRODUCTS

### FlushNut Ferrule Options

FlushNut	Threads/ Port*	For Tubing OD	Ferrule Options	Page
<b>F-350</b>	10-32 C	1/16"	SealTight™ F-192	14
<b>F-354</b>	10-32 C	1/32"	LiteTouch® LT-132	16
	10-32 C	1/16"	LiteTouch LT-100	16
	10-32 C	1/16"	LiteTouch SealTight LT-135	16
<b>F-364</b>	1/4-28 C	1/8"	LiteTouch LT-200	16
	1/4-28 FB	1/8"	Super Flangeless P-350, P-352, P-359, P-360	23
<b>F-356</b>	1/4-28 FB	2.0 mm	Super Flangeless P-355	23
	1/4-28 FB	1/32"	Super Flangeless P-248	23
<b>F-356</b>	1/4-28 FB	1/16"	Super Flangeless P-250, P-259, P-260	23
	<b>XF-358</b>	1/4-28 FB	1/16"	Flangeless P-200, P-200N, P-240
<b>XF-368</b>		1/4-28 FB	1/8"	Flangeless P-300, P-300N, P-340
	1/4-28 FB	1.8 mm	Flangeless P-342	24
	1/4-28 FB	2.0 mm	Flangeless P-363R	24
	1/4-28 FB	2.5 mm	Flangeless P-353	24
	1/4-28 FB	3.0 mm	Flangeless P-343	24
<b>P-321</b>	1/4-28 FB	N/A	Plug — No ferrule required	32

\* C=Coned; FB=Flat-bottom

To order FlushNuts separately from the included ferrules, simply remove the preceding "X" from the appropriate part number — for example, order F-358 instead of XF-358.

Part No.	Description	Port	Pressure Rating	Head Style	Material	Qty.
<b>TINYTIGHT FITTINGS</b>						
<b>M-150</b>	Swaging Tool for TinyTight Fittings	6-40 MINSTAC	—	—	SST	ea.
<b>M-644-03x</b>	Super Flangeless Nut for 1/16" OD Tubing	6-40 Flat Bottom or MINSTAC	750–3,750 psi (52–259 bar)	Micro Headless	PEEK Green	10-pk
<b>M-647x</b>	TinyTight Ferrule for 1/16" OD Tubing, 0.020" Thru-Hole	6-40 MINSTAC	750–3,750 psi (52–259 bar)	—	PEEK Natural/SST	10-pk
★ <b>M-657x</b>	TinyTight Ferrule for 1/16" OD Tubing, 0.030" Thru-Hole	6-40 MINSTAC	750–3,750 psi (52–259 bar)	—	PEEK Natural/SST	10-pk