

THREADED FITTINGS

MATERIAL CHARACTERISTICS

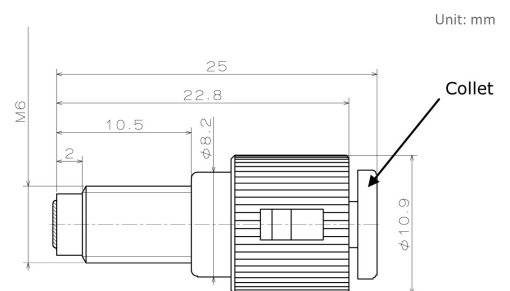
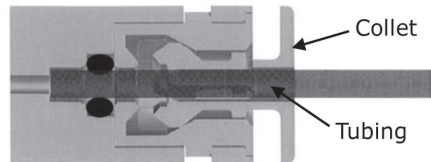
PP	Polypropylene is a polymer made by the polymerization of propylene. It is transparent and light in appearance, resistant to acids, alkalis, salts and many organic solvents below 80°. It is a UL approved material and meets FDA food contact standards. Applicable temperature range: 13°C ~ 66°C	PTFE	Polytetrafluoroethylene, with typical excellent properties of gas plastic resin. It has good tensile properties, chemical resistance and low friction. Applicable temperature range: -50°C ~ 100°C
PPS	It is a polyphenylene sulfide PPS filled with 40% glass reinforcement, which has high strength, high toughness, excellent heat and chemical resistance, good electrical properties and inherent flame retardancy, high strength and rigidity at high temperatures which ensures good load bearing properties. Applicable temperature range: -50°C~150°C	ETFE	It is a fluoropolymer with hydrolysis stability and weather resistance, excellent wear resistance and chemical resistance. Applicable temperature range: -80°C ~ 150°C
PFA	Copolymer made from a small amount of heptafluoropropyl trifluorovinyl ether and polytetrafluoroethylene. Melt bonding is improved while solution viscosity is reduced and there is no change in performance compared to polytetrafluoroethylene. Applicable temperature range: -50°C ~ 100°C	PVDF	Kynar® PVDF is a fluorinated thermoplastic homopolymer that complies with FDA and USP Class VI standard. It can be disinfected by gamma ray; the color will be changed to some extent if disinfected by high-dose gamma ray. Applicable temperature range: -27°C ~ 107°C

PUSH-IN FITTINGS

For rigid tubing O.D. 2.0 mm



- Push-In Fittings for Life-Science applications.
- Tool-free connection - simply push in the tubing onto the connector.
- Easy (re-)connecting the tube without unscrewing the fitting using the push-in connection.
- Used for standard rigid tubing OD 2.0 mm.
- Fluid temperature up to 100°C
- Working pressure up to 7.0 bar at 20°C and 4.5 bar at 100°C.
- Wetted materials: PPS & FPM
- Thread: M6.



Product No.	Thread	Tubing Size O.D.	Color	Material
PFM6-20RF PPS	M6	2.0 mm	Natural	PPS

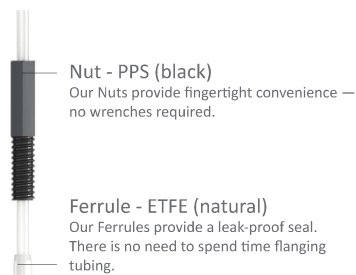
ANTI-TWIST FLANGELESS FITTINGS - TWO-PIECE SET

1/4-28 UNF flat bottom



The flangeless nut and the ferrule are a fixed product combination depending on the outside diameter of the rigid tubing. The tubing does not follow the rotation during screwing nut, which effectively eliminates the loosening of the fitting caused by the twisting of the tube.

- Need to use with special ETFE ferrule.
- Used for standard rigid tubing OD 1.6/2.0/2.5/3.0/3.2 mm.
- Thread: 1/4-28 UNF flat bottom.



Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

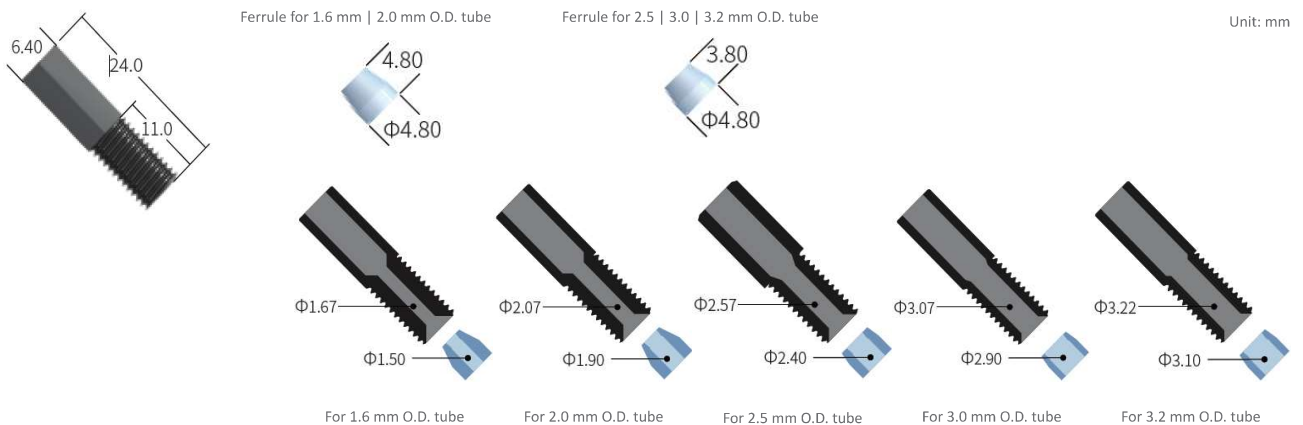
Application Note

Step 1. Slide the nut, followed by the ferrule, at least 3/16" (4.7625 mm) from the end of clean cut tubing.

Step 3. Finger tighten the fittings into the port until snug.

Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out.

Step 4. After disassembling, the ferrules should be replaced in next assembly and connection.



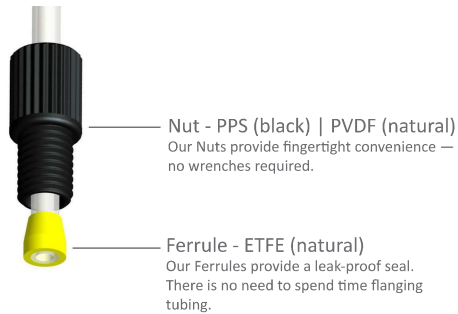
Product No.	Thread	Tubing Size O.D.	Pull-off Strength	Pressure Rating	Material
B-RA-106001	1/4-28 UNF	1.6 mm	1.58 kgf	69.7 bar (1010 psi)	PPS+ETFE
B-RA-106002	1/4-28 UNF	2.0 mm	3.06 kgf	75.7 bar (1097 psi)	PPS+ETFE
B-RA-106003	1/4-28 UNF	2.5 mm	2.52 kgf	46 bar (667 psi)	PPS+ETFE
B-RA-106004	1/4-28 UNF	3.0 mm	4.90 kgf	50.8 bar (736 psi)	PPS+ETFE
B-RA-106005	1/4-28 UNF	3.2 mm	6.15 kgf	73.2 bar (1061 psi)	PPS+ETFE

FLANGELESS FITTINGS

For rigid tubing



- Standard fittings with straight threads.
- Tool-free assembly - simply slip the nut and ferrule on the tube, screwing them into the tube.
- Need to use with ETFE ferrule.
- Long-term working temperature range: -27°C ~ +107°C (PVDF+ETFE), -50°C ~ +150°C (PPS+ETFE).
- Used for standard rigid tubing OD 1.6/2.0/2.5/3.0/3.2 mm, easy and fast installation.
- Thread: 1/4-28 UNF flat bottom.



- Make sure the locking ring is oriented correctly! The flattened end of the ring should face towards the nut with the narrow end of the ferrule towards the ring.

Application Note

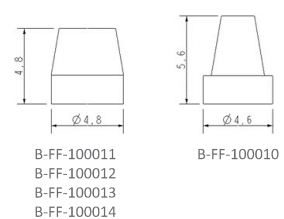
Step 1. Slide the PPS | PVDF nut, followed by the ETFE ferrule, at least 3/16" (4.7625 mm) from the end of clean cut tubing.

Step 3. Finger tighten the fittings into the port until snug.

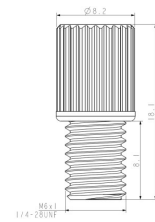
Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out.

Step 4. After several uses (especially at high pressure) the ferrules should be replaced.

Ferrule No.	Tubing Size O.D.	Material
B-FF-100010	1.6 mm	ETFE
B-FF-100011	2.0 mm	ETFE
B-FF-100012	2.5 mm	ETFE
B-FF-100013	3.0 mm	ETFE
B-FF-100014	3.2 mm	ETFE



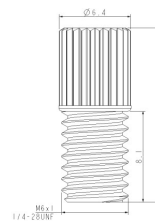
Flangeless Fitting 1/4-28 UNF



Unit: mm

Product No.	Thread	Tubing Size O.D.	Color	Material
B-FF-100001-PV-NA	1/4-28 UNF	1.6 mm	Natural	PVDF
B-FF-100001-PS-BK	1/4-28 UNF	1.6 mm	Black	PPS
B-FF-100002-PV-NA	1/4-28 UNF	2.0 mm 2.5 mm 3.0 mm 3.2 mm	Natural	PVDF
B-FF-100002-PS-BK	1/4-28 UNF	2.0 mm 2.5 mm 3.0 mm 3.2 mm	Black	PPS

Compact Flangeless Fitting 1/4-28 UNF



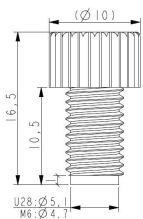
Unit: mm

Product No.	Thread	Tubing Size O.D.	Color	Material
B-FF-100004-PV-NA	1/4-28 UNF	1.6 mm	Natural	PVDF
B-FF-100004-PS-BK	1/4-28 UNF	1.6 mm	Black	PPS
B-FF-100003-PV-NA	1/4-28 UNF	2.0 mm 2.5 mm 3.0 mm 3.2 mm	Natural	PVDF
B-FF-100003-PS-BK	1/4-28 UNF	2.0 mm 2.5 mm 3.0 mm 3.2 mm	Black	PPS

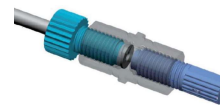
Plug Fitting 1/4-28 UNF, M6



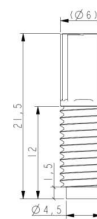
B-FP-100001



Unit: mm



B-FP-100002



Unit: mm

Product No.	Thread	Color	Material
B-FP-100001-PV-NA	1/4-28 UNF	Natural	PVDF
B-FP-100002-PS-BK	1/4-28 UNF	Black	PPS
B-FP-100003-PS-BK	M6	Black	PPS

PRE-TORQUE FLANGELESS FITTINGS

1/4-28 UNF flat bottom, M6

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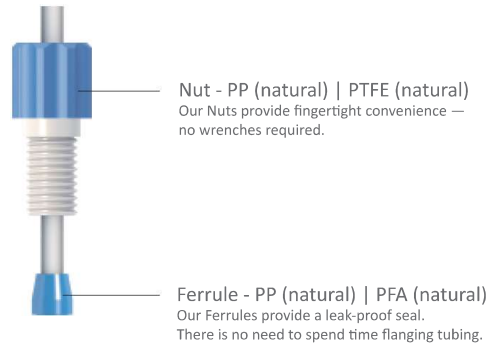
THREADED FITTINGS



Pre-torque flangeless fittings enable safe and easy installation with defined torque. As the fitting is tightened, the resistance of the cap increases until the correct torque is reached, which is noticeable when the cap clicks. This feature enables users to manually tighten the fittings without the need for tools.

These screw connections can be reused several times and consist of two parts, the threaded nut and the ferrule.

- Available in PP and PTFE + PFA material combinations.
- Need to use with PP or PFA ferrule.
- Used for standard rigid tubing OD 1.6/2.0/2.5/3.0/3.2 mm
- Thread: 1/4-28 UNF flat bottom, M6.



- Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

Application Note

Step 1. Slide the nut, followed by the ferrule, at least 3/16" (4.7625mm) from the end of clean cut tubing.

Step 3. Finger tighten the fittings into the port until snug.

Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out.

Step 4. After disassembling, the ferrules should be replaced in next assembly and connection

Ferrule No.	Tubing Size O.D.	Material
B-RA-200005	1.6 mm	PP PFA
B-RA-200004	2.0 mm	PP PFA
B-RA-200003	2.5 mm	PP PFA
B-RA-200002	3.0 mm	PP PFA
B-RA-200001	3.2 mm	PP PFA



Ferrule for 1.6 mm O.D. tube

Unit: mm



Ferrule for 2.0 mm O.D. tube

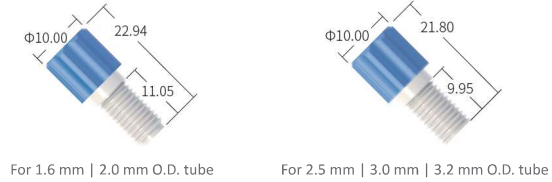


Ferrule for 2.5 mm | 3.0 mm | 3.2 mm O.D. tube

Use environment
 0.11 ~ 0.15 Nm - WT ≤ 0.5 mm at room temperature
 0.15 ~ 0.20 Nm - WT > 0.5 mm at room temperature
 0.20 ~ 0.25 Nm - Use temperature > 100°C, or pressure > 8kg



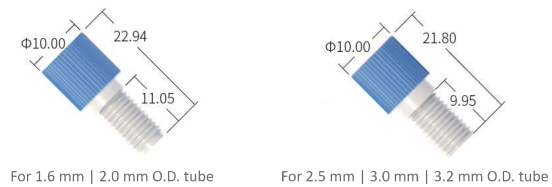
Pre-torque flangeless fittings - Waved



Unit: mm

Product No.	Thread	Tubing Size O.D.	Torque (Color)	Material
B-RA-102010	1/4-28 UNF	1.6 mm 2.0 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP
B-RA-102011	M6	1.6 mm 2.0 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE
B-RA-102004	1/4-28 UNF	2.5 mm 3.0 mm 3.2 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP
B-RA-102005	M6	2.5 mm 3.0 mm 3.2 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP

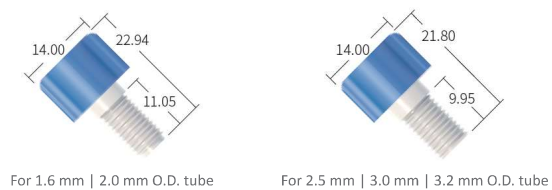
Pre-torque flangeless fittings - Knurled



Unit: mm

Product No.	Thread	Tubing Size O.D.	Torque (Color)	Material
B-RA-102006	1/4-28 UNF	1.6 mm 2.0 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP
B-RA-102007	M6	1.6 mm 2.0 mm	0.11 ~ 0.15 Nm (Blue)	PTFE PP
B-RA-102001	1/4-28 UNF	2.5 mm 3.0 mm 3.2 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP
B-RA-102002	M6	2.5 mm 3.0 mm 3.2 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP

Pre-torque flangeless fittings - Double-Winged



Unit: mm

Product No.	Thread	Tubing Size O.D.	Torque (Color)	Material
B-RA-102008	1/4-28 UNF	1.6 mm 2.0 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PP
B-RA-102009	M6	1.6 mm 2.0 mm	0.11 ~ 0.15 Nm (Blue)	PTFE
B-RA-102003	1/4-28 UNF	2.5 mm 3.0 mm 3.2 mm	0.11 ~ 0.15 Nm (Blue) 0.15 ~ 0.20 Nm (Yellow) 0.20 ~ 0.25 Nm (Red)	PTFE PP