



international polymer solutions



Proud manufacturer of high purity flow control products



www.ipolymer.com | info@ipolymer.com

ABOUT IPS

Welcome to **International Polymer Solutions Inc (IPS)**, a merger of two proud Southern California brand names providing more than a quarter-century of quality service to the marketplace. TEQCOM Industries and BECO Manufacturing now combine forces as IPS for the manufacture of High-Purity Fluid Handling Solutions for both standard and custom industrial applications.

For use in semiconductor, solar, pharmaceutical, biomedical, life science, food processing, clean-room laboratory, chemical handling and other environments, IPS high-purity fluid handling and actuation products are ideal for applications requiring engineered performance. We work with PTFE, PFA, PVDF, PVC, PEEK, Polypropylene and other specialty polymer-based materials.

We stock a standard line of high-purity products, including:

- Solenoid Valves
- Pneumatic Valves
- Manual Valves
- Air Cylinders
- Hand Spray Devices
- Fittings
- Filter Assemblies
- Process Tanks
- Fluid Handling Products

In addition, we are equipped to fabricate custom tanks, boxes, benches, cabinets and fluid-handling systems to fit your specific needs. With our extensive capability of in-house CNC Machining, Routing and Plastic Welding, we invite you to explore how IPS can deliver custom fabricated solutions to your specification.

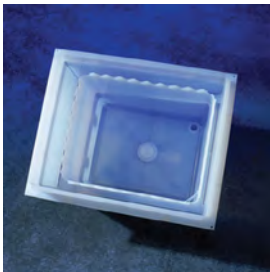


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High Purity Fittings & Connectors



FITTING MATERIALS AVAILABLE

- PTFE
- PFA
- PVDF

TUBE FITTINGS

Barbed Fitting
Bulkhead Female Connector
Bulkhead Male Connector
Bulkhead Union
Female Branch Tee
Female Connector
Female Elbow
Female Run Tee
Male Branch Tee
Male Connector
Male Elbow
Male Run Tee
Reducing Union
Tube Cap
Tube Insert
Union
Union Cross
Union Elbow
Union Elbow Reducer
Union Tee

THREE COMPRESSION NUT MATERIAL TYPES

- HA - Injection Molded PVDF Nut** (Standard Configuration)
- TA - PTFE Nut with Anodized Aluminum Support Band
- TS - PTFE Nut with Stainless Support Band

FLARED FITTINGS

Male Connector
Female Connector
Union Elbow
Union Elbow Reducer
Union Tee
Male Run Tee
Male Branch Tee
Bulkhead Union
Bulkhead Male Connector
Bulkhead Union Reducer
Union
Union Reducer
Male Elbow
Flare Caps

PIPE FITTINGS

Bushing
Coupling
Elbow
Female Reducer
Pipe Nipple
Pipe Union
Plug
Tee

SPARES

Ferrule**
Nut
Panel Nut

MINI FITTINGS

Nut
Ferrule
Insertion Tool

**All HA style fittings are standard equipped with a PTFE ferrule & Kynar Gripper.

BECO
manufacturing

TEQCOM

SPECIFICATIONS: Tube Fitting Assembly

Pressure Ratings:

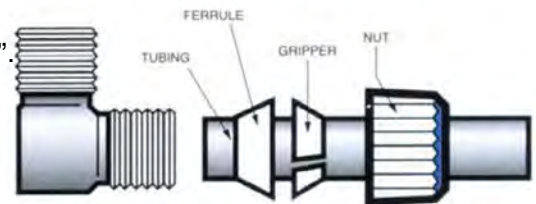
- Performance at ambient room conditions: 120 psi for 1/16" fittings linear decreasing to 80 psi for 3/4" fittings and 60 psi for fittings larger than 3/4".
- Performance at elevated temperatures up to 85°C/185°F: 90 psi for 1/16" fittings linear decreasing to 60 psi for 3/4" fittings and 40 psi for fittings larger than 3/4".
- Contact factory for pressure temperature ratings above 85°C / 185°F.

Materials of Construction

- Fittings: Machined from virgin Polytetrafluoroethylene (PTFE).
- Ferrules: Ferrules are machined from virgin Polytetrafluoroethylene (PTFE).
- Grippers: The Gripper in the two piece Ferrule-Gripper assemblies are manufactured from PVDF.
- Nuts: The "HA" style nuts are molded PVDF. The "TA" style nuts are machined from PTFE and include an external anodized aluminum band. "TS" style nuts are also machined from PTFE but include an external stainless steel band.

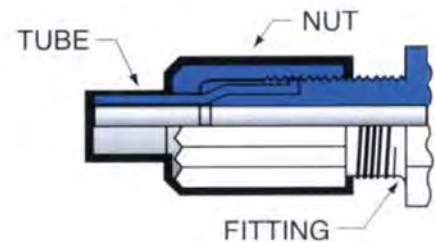
Pressure performance ratings are based on laboratory testing, industry standard material characteristics and historical data. A combination of extreme temperature and pressure may affect these products. The user is responsible for verifying the suitability of these products for their application.

FERRULE & GRIPPER STYLE



1. Cut tubing to desired length.
2. Loosen the nut, insert tube.
3. Tighten the nut finger tight.
4. The fitting is ready to use.

FLARED END STYLE



ORDERING FORMAT

MC - F - 8 6 - HA

Indicates Nut Style

(For Compression style only)

HA = Injection Molded PVDF (HA is standard / default)

TA = Teflon Nut with Outer Aluminum Anodized Band

TS = Teflon Nut with Outer Stainless Steel Band

Indicates Connection Size

Tube O.D., FNPT, MNPT, or Flared I.D

Example: 6 = 6/16" (3/8"), O.D

6 = 6mm Tube O.D

6 = 3/8 Flared I.D

Indicates Connection Size

Tube O.D., FNPT, MNPT, or Flared I.D

Example: 6 = 6/16" (3/8"), O.D

6 = 6mm Tube O.D

6 = 3/8 Flared I.D

Tube O.D or Flare O.D is Listed Before NPT Size

Indicates Fitting Category

F = Fractional Size Tube Fitting

M = Metric Size Tube Fitting

P = Pipe Fitting

FF = Fractional Flared

Indicates Type of Fitting

Example: MC-F-86-HA = Male Connector

Fractional Size to connect 1/2" O.D Tubing to 3/8" MNPT,

PVDF Nut

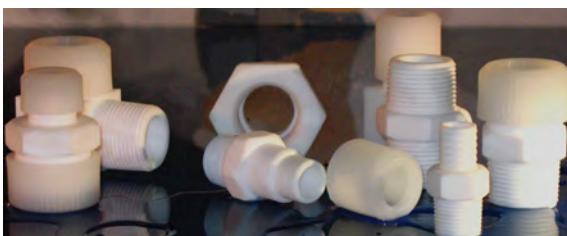
Note:

Exceptions to above ordering procedure

Barbed Fittings

Bugle Fittings

Mini Fittings

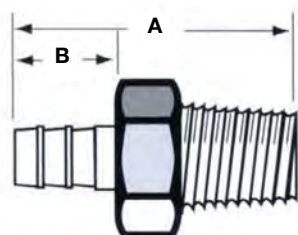


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IPS TUBE FITTINGS

Barbed Fitting

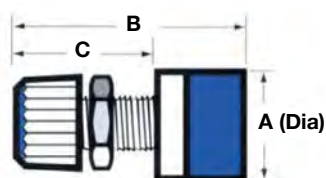
101660



Part #	Hose I.D.	Male Pipe	A Dim.	B Dim.
BF-F-12	1/16"	1/8" NPT	.99	.38
BF-F-22	1/8"	1/8" NPT	.99	.38
BF-F-32	3/16"	1/8" NPT	1.13	.50
BF-F-34	3/16"	1/4" NPT	1.44	.50
BF-F-36	3/16"	3/8" NPT	1.44	.50
BF-F-54	5/16"	1/4" NPT	1.56	.63
BF-F-56	5/16"	3/8" NPT	1.56	.63
BF-F-58	5/16"	1/2" NPT	1.88	.63
BF-F-64	3/8"	1/4" NPT	1.44	.50
BF-F-66	3/8"	3/8" NPT	1.44	.50
BF-F-68	3/8"	1/2" NPT	1.75	.50
BF-F-74	7/16"	3/8" NPT	1.69	.75
BF-F-76	7/16"	3/8" NPT	1.69	.75
BF-F-78	7/16"	1/2" NPT	2.00	.75
BF-F-712	7/16"	3/4" NPT	2.00	.75
BF-F-1112	11/16"	3/4" NPT	2.13	.88
BF-F-1116	11/16"	1" NPT	2.32	.88
BF-F-1616	1"	1" NPT	2.44	1.00

Bulkhead Female Connector

101772



Part #	Tube O.D.	FNPT (Drill Size)	Panel Hole	A Dim.	B Dim.	C Dim.
BFC-F-22-XX	1/8"	1/8" NPT	21/64	.75	1.51	.88
BFC-F-32-XX	3/16"	1/8" NPT	25/64	.75	1.51	.88
BFC-F-42-XX	1/4"	1/8" NPT	29/64	.75	1.70	.94
BFC-F-44-XX	1/4"	1/4" NPT	29/64	.84	1.88	.94
BFC-F-54-XX	5/16"	1/4" NPT	37/64	.84	1.88	.94
BFC-F-56-XX	5/16"	3/8" NPT	37/64	1.00	1.88	.94
BFC-F-66-XX	3/8"	3/8" NPT	45/64	1.00	1.94	1.00
BFC-F-88-XX	1/2"	1/2" NPT	57/64	1.25	2.44	1.19
BFC-F-1616-XX	1"	1" NPT	11/64	1.75	2.94	1.50
BFC-M-42-XX	4mm	1/8" NPT	25/64	.75	1.38	.75
BFC-M-62-XX	6mm	1/8" NPT	29/64	.75	1.70	.94
BFC-M-64-XX	6mm	1/4" NPT	29/64	.84	1.88	.94
BFC-M-84-XX	8mm	1/4" NPT	37/64	.84	1.88	.94
BFC-M-104-XX	10mm	1/4" NPT	45/64	.84	1.94	1.00
BFC-M-106-XX	10mm	3/8" NPT	45/64	1.00	1.94	1.00

Call IPS with your special application requirements.

We manufacture short-run custom machined PTFE and PVDF Fittings.

IPS Product Notes:

1. Please email Customer Service at info@ipolymer.com
2. Call us for special applications. We can manufacture our Fittings with special mounting and interface dimensions.
3. Upon request, alternate material selection from those listed will allow for expanding temperature ratings or other performance characteristics.
4. Unauthorized disassembly of this product will void the original factory one-year product warranty. For further details please contact your local Distributor or our factory directly.

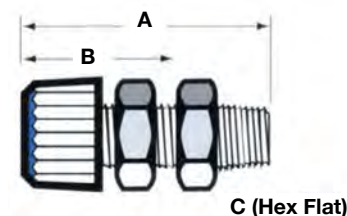
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Part #	Hose I.D.	Male Pipe	Panel Hole (Drill Size)	A Dim.	B Dim.	C Dim.
BMC-F-22-XX	1/8"	1/8 NPT	21/64	1.51	.88	.44
BMC-F-32-XX	3/16"	1/8 NPT	25/64	1.51	.88	.44
BMC-F-42-XX	1/4"	1/8 NPT	29/64	1.57	.94	.56
BMC-F-44-XX	1/4"	1/4 NPT	29/64	1.88	.94	.56
BMC-F-54-XX	5/16"	1/4 NPT	37/64	1.88	.94	.75
BMC-F-56-XX	5/16"	3/8 NPT	37/64	1.88	.94	.75
BMC-F-64-XX	3/8"	1/4 NPT	45/64	1.94	1.00	.75
BMC-F-66-XX	3/8"	3/8 NPT	45/64	1.94	1.00	.75
BMC-F-88-XX	1/2"	1/2 NPT	57/64	2.38	1.13	.94
BMC-F-1616-XX	1"	1" NPT	11/64	2.94	1.50	1.50
BMC-M-42-XX	4mm	1/8 NPT	25/64	1.51	.88	.44
BMC-M-62-XX	6mm	1/8 NPT	29/64	1.59	.94	.56
BMC-M-64-XX	6mm	1/4 NPT	29/64	1.88	.94	.56
BMC-M-84-XX	8mm	1/4 NPT	37/64	1.88	.94	.75
BMC-M-104-XX	10mm	1/4 NPT	45/64	1.94	1.00	.75
BMC-M-106-XX	10mm	3/8 NPT	45/64	1.94	1.00	.75

Bulkhead Male Connector

101788

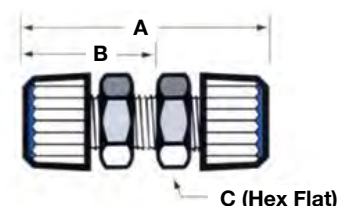


NOTE: For 1/4" max. panel thickness

Part #	Tube O.D.	Panel Hole (Drill Size)	A Dim.	B Dim.	C Dim.
BU-F-2-XX	1/8"	21/64	1.51	.88	.44
BU-F-3-XX	3/16"	25/64	1.51	.88	.44
BU-F-4-XX	1/4"	29/64	1.81	.94	.56
BU-F-5-XX	5/16"	37/64	1.81	.94	.75
BU-F-6-XX	3/8"	45/64	1.81	.94	.75
BU-F-8-XX	1/2"	57/64	2.25	1.19	.94
BU-F-10-XX	5/8"	1-1/64	2.33	1.23	1.13
BU-F-12-XX	3/4"	1-9/64	2.38	1.25	1.13
BU-F-16-XX	1"	1-25/64	2.53	1.33	1.50
BU-F-11-XX	1.1"	1-1/2	2.62	1.44	1.59
BU-M-4-XX	4mm	25/64	1.51	.88	.44
BU-M-6-XX	6mm	29/64	1.81	.94	.56
BU-M-8-XX	8mm	37/64	1.81	.94	.75
BU-M-10-XX	10mm	45/64	1.81	.94	.75
BU-M-12-XX	12mm	57/64	2.25	1.19	.94

Bulkhead Union

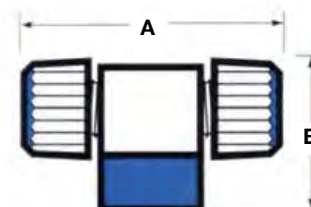
101004



Part #	Tube O.D.	Female Pipe	A Dim.	B Dim.
FBT-F-22-XX	1/8"	1/8 NPT	1.39	1.01
FBT-F-32-XX	3/16"	1/8 NPT	1.39	1.01
FBT-F-42-XX	1/4"	1/8 NPT	1.63	1.01
FBT-F-44-XX	1/4"	1/4 NPT	1.75	1.31
FBT-F-64-XX	3/8"	1/4 NPT	1.75	1.31
FBT-F-66-XX	3/8"	3/8 NPT	1.88	1.44
FBT-F-68-XX	3/8"	1/2 NPT	2.13	1.88
FBT-F-86-XX	1/2"	3/8 NPT	2.12	1.56
FBT-F-88-XX	1/2"	1/2 NPT	2.25	1.88
FBT-F-108-XX	5/8"	1/2 NPT	2.33	1.88
FBT-F-1212-XX	3/4"	3/4 NPT	2.62	2.13
FBT-F-1616-XX	1"	1" NPT	2.90	2.44
FBT-M-42-XX	4mm	1/8 NPT	1.39	1.01
FBT-M-62-XX	6mm	1/8 NPT	1.63	1.01
FBT-M-64-XX	6mm	1/4 NPT	1.75	1.31
FBT-M-84-XX	8mm	1/4 NPT	1.75	1.31
FBT-M-104-XX	10mm	1/4 NPT	1.75	1.31
FBT-M-106-XX	10mm	3/8 NPT	1.88	1.44

Female Branch Tee

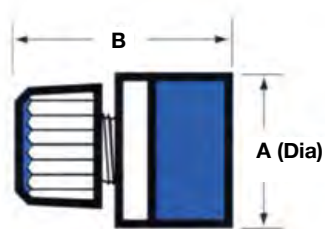
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IPS TUBE FITTINGS

Female Connector

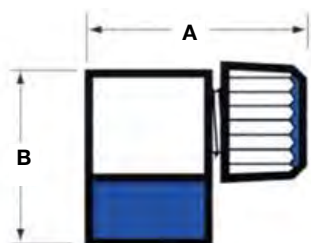
101619



Part #	Tube O.D.	Female Pipe	A Dim.	B Dim.
FC-F-22-XX	1/8"	1/8" NPT	.75	1.14
FC-F-24-XX	1/8"	1/4" NPT	.84	1.32
FC-F-32-XX	3/16"	1/8" NPT	.75	1.14
FC-F-42-XX	1/4"	1/8" NPT	.75	1.26
FC-F-44-XX	1/4"	1/4" NPT	.84	1.44
FC-F-46-XX	1/4"	3/8" NPT	1.00	1.44
FC-F-66-XX	3/8"	3/8" NPT	1.00	1.44
FC-F-84-XX	1/2"	1/4" NPT	.875	1.62
FC-F-86-XX	1/2"	3/8" NPT	1.00	1.62
FC-F-88-XX	1/2"	1/2" NPT	1.25	1.81
FC-F-124-XX	3/4"	1/4" NPT	1.13	1.68
FC-F-128-XX	3/4"	1/2" NPT	1.13	1.87
FC-F-1212-XX	3/4"	3/4" NPT	1.50	1.87
FC-F-1616-XX	1"	1" NPT	1.75	2.14
FC-M-42-XX	4mm	1/8" NPT	.75	1.14
FC-M-62-XX	6mm	1/8" NPT	.75	1.26
FC-M-64-XX	6mm	1/4" NPT	.84	1.44
FC-M-84-XX	8mm	1/4" NPT	.84	1.44
FC-M-104-XX	10mm	1/4" NPT	.84	1.44
FC-M-106-XX	10mm	3/8" NPT	1.00	1.44
FC-M-128-XX	12mm	1/2" NPT	1.25	1.81

Female Elbow

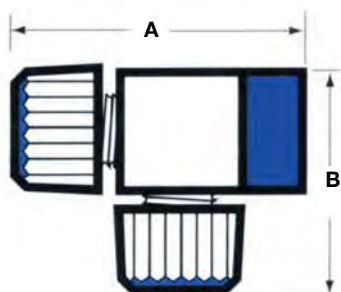
101611



Part #	Tube O.D.	Female Pipe	A Dim.	B Dim.
FE-F-22-XX	1/8"	1/8" NPT	1.01	1.01
FE-F-32-XX	3/16"	1/8" NPT	1.01	1.01
FE-F-42-XX	1/4"	1/8" NPT	1.13	1.13
FE-F-44-XX	1/4"	1/4" NPT	1.31	1.31
FE-F-64-XX	3/8"	1/4" NPT	1.31	1.31
FE-F-66-XX	3/8"	3/8" NPT	1.44	1.44
FE-F-68-XX	3/8"	1/2" NPT	1.88	1.88
FE-F-86-XX	1/2"	3/8" NPT	1.56	1.56
FE-F-88-XX	1/2"	1/2" NPT	1.88	1.88
FE-F-108-XX	5/8"	1/2" NPT	1.88	1.88
FE-F-128-XX	3/4"	1/2" NPT	2.00	2.00
FE-F-1212-XX	3/4"	3/4" NPT	2.13	2.13
FE-F-1616-XX	1"	1" NPT	2.44	2.44
FE-M-42-XX	4mm	1/8" NPT	1.01	1.01
FE-M-62-XX	6mm	1/8" NPT	1.13	1.13
FE-M-64-XX	6mm	1/4" NPT	1.31	1.31
FE-M-84-XX	8mm	1/4" NPT	1.31	1.31
FE-M-104-XX	10mm	1/4" NPT	1.31	1.31
FE-M-106-XX	10mm	3/8" NPT	1.44	1.44

Female Run Tee

101003



Part #	Tube O.D.	Female Pipe	A Dim.	B Dim.
FRT-F-22-XX	1/8"	1/8" NPT	1.39	1.01
FRT-F-32-XX	3/16"	1/8" NPT	1.39	1.01
FRT-F-42-XX	1/4"	1/8" NPT	1.50	1.13
FRT-F-44-XX	1/4"	1/4" NPT	1.81	1.25
FRT-F-52-XX	5/16"	1/8" NPT	1.50	1.13
FRT-F-64-XX	3/8"	1/4" NPT	1.81	1.25
FRT-F-86-XX	1/2"	3/8" NPT	2.13	1.56
FRT-F-88-XX	1/2"	1/2" NPT	2.44	1.73
FRT-F-108-XX	5/8"	1/2" NPT	2.48	1.73
FRT-F-1212-XX	3/4"	3/4" NPT	2.75	2.00
FRT-F-1616-XX	1"	1" NPT	3.14	2.20
FRT-M-42-XX	4mm	1/8" NPT	1.38	1.00
FRT-M-62-XX	6mm	1/8" NPT	1.50	1.13
FRT-M-64-XX	6mm	1/4" NPT	1.81	1.25
FRT-M-84-XX	8mm	1/4" NPT	1.81	1.25
FRT-M-104-XX	10mm	1/4" NPT	1.81	1.25
FRT-M-106-XX	10mm	3/8" NPT	1.94	1.38

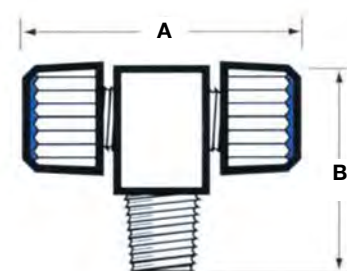
Part #	Tube O.D.	Male Pipe	A Dim.	B Dim.
MBT-F-22-XX	1/8"	1/8" NPT	1.20	1.01
MBT-F-24-XX	1/8"	1/4" NPT	1.32	1.31
MBT-F-32-XX	3/16"	1/8" NPT	1.20	1.01
MBT-F-42-XX	1/4"	1/8" NPT	1.56	1.13
MBT-F-44-XX	1/4"	1/4" NPT	1.56	1.13
MBT-F-46-XX	1/4"	3/8" NPT	1.75	1.50
MBT-F-64-XX	3/8"	1/4" NPT	1.75	1.50
MBT-F-66-XX	3/8"	3/8" NPT	1.75	1.50
MBT-F-68-XX	3/8"	1/2" NPT	2.00	1.94
MBT-F-86-XX	1/2"	3/8" NPT	2.13	1.75
MBT-F-88-XX	1/2"	1/2" NPT	2.12	1.94
MBT-F-108-XX	5/8"	1/2" NPT	2.33	2.06
MBT-F-1212-XX	3/4"	3/4" NPT	2.50	2.19
MBT-F-1616-XX	1"	1" NPT	2.90	2.75
MBT-M-42-XX	4mm	1/8" NPT	1.20	1.01
MBT-M-62-XX	6mm	1/8" NPT	1.56	1.13
MBT-M-64-XX	6mm	1/4" NPT	1.56	1.31
MBT-M-84-XX	8mm	1/4" NPT	1.75	1.50
MBT-M-104-XX	10mm	1/4" NPT	1.75	1.50
MBT-M-106-XX	10mm	3/8" NPT	1.75	1.50

Part #	Tube O.D.	Male Pipe	A Dim.	B Dim.
MC-F-12-XX	1/16"	1/8" NPT	1.01	.44
MC-F-21-XX	1/8"	1/16" NPT	1.01	.44
MC-F-22-XX	1/8"	1/8" NPT	1.01	.44
MC-F-24-XX	1/8"	1/4" NPT	1.32	.56
MC-F-32-XX	3/16"	1/8" NPT	1.01	.44
MC-F-41-XX	1/4"	1/16" NPT	1.26	.56
MC-F-42-XX	1/4"	1/8" NPT	1.26	.56
MC-F-44-XX	1/4"	1/4" NPT	1.44	.56
MC-F-46-XX	1/4"	3/8" NPT	1.44	.75
MC-F-48-XX	1/4"	1/2" NPT	1.75	.94
MC-F-52-XX	5/16"	1/8" NPT	1.26	.75
MC-F-54-XX	5/16"	1/4" NPT	1.44	.75
MC-F-56-XX	5/16"	3/8" NPT	1.44	.75
MC-F-64-XX	3/8"	1/4" NPT	1.56	.75
MC-F-66-XX	3/8"	3/8" NPT	1.56	.75
MC-F-68-XX	3/8"	1/2" NPT	1.75	.94
MC-F-84-XX	1/2"	1/4" NPT	1.62	.94
MC-F-86-XX	1/2"	3/8" NPT	1.62	.94
MC-F-88-XX	1/2"	1/2" NPT	1.81	.94
MC-F-108-XX	5/8"	1/2" NPT	1.85	1.13
MC-F-1212-XX	3/4"	3/4" NPT	1.87	1.25
MC-F-1612-XX	1"	3/4" NPT	1.95	1.50
MC-F-1616-XX	1"	1" NPT	2.14	1.50
MC-M-42-XX	4mm	1/8" NPT	1.01	.44
MC-M-62-XX	6mm	1/8" NPT	1.26	.56
MC-M-64-XX	6mm	1/4" NPT	1.44	.56
MC-M-84-XX	8mm	1/4" NPT	1.44	.75
MC-M-104-XX	10mm	1/4" NPT	1.44	.75
MC-M-106-XX	10mm	3/8" NPT	1.44	.75
MC-M-126-XX	12mm	3/8" NPT	1.62	.94
MC-M-128-XX	12mm	1/2" NPT	1.81	.94

The Bore-Through ("BT") option is available for Male Connectors #101008 and Unions #101616. This option allows the associated tube to pass completely through the fitting.

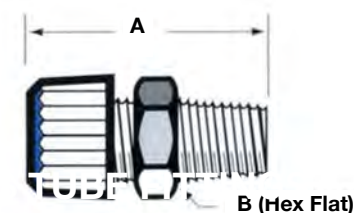
Male Branch Tee

101613



Male Connector

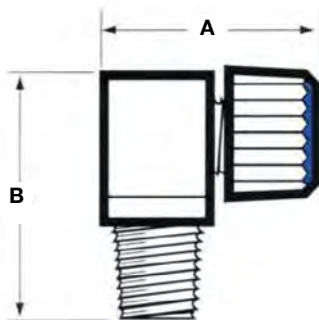
101008



IPS TUBE FITTINGS

Male Elbow

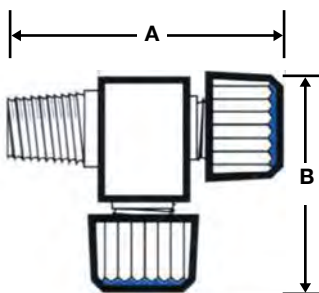
101006



Part #	Tube O.D.	Male Pipe	A Dim.	B Dim.
ME-F-22-XX	1/8"	1/8" NPT	.82	1.01
ME-F-24-XX	1/8"	1/4" NPT	1.06	1.31
ME-F-32-XX	3/16"	1/8" NPT	.82	1.01
ME-F-41-XX	1/4"	1/16" NPT	1.06	1.14
ME-F-42-XX	1/4"	1/8" NPT	1.06	1.14
ME-F-44-XX	1/4"	1/4" NPT	1.06	1.31
ME-F-46-XX	1/4"	3/8" NPT	1.25	1.50
ME-F-52-XX	5/16"	1/8" NPT	1.25	1.31
ME-F-54-XX	5/16"	1/4" NPT	1.25	1.44
ME-F-62-XX	3/8"	1/8" NPT	1.25	1.31
ME-F-64-XX	3/8"	1/4" NPT	1.25	1.50
ME-F-66-XX	3/8"	3/8" NPT	1.25	1.50
ME-F-68-XX	3/8"	1/2" NPT	1.56	1.94
ME-F-86-XX	1/2"	3/8" NPT	1.56	1.94
ME-F-88-XX	1/2"	1/2" NPT	1.56	2.06
ME-F-1212-XX	3/4"	3/4" NPT	1.88	2.31
ME-F-168-XX	1"	1/2" NPT	2.20	2.56
ME-F-1616-XX	1"	1" NPT	2.20	2.75
ME-M-42-XX	4mm	1/8" NPT	.82	1.01
ME-M-62-XX	6mm	1/8" NPT	1.06	1.31
ME-M-64-XX	6mm	1/4" NPT	1.06	1.31
ME-M-84-XX	8mm	1/4" NPT	1.25	1.44
ME-M-104-XX	10mm	1/4" NPT	1.25	1.50
ME-M-106-XX	10mm	3/8" NPT	1.25	1.50

Male Run Tee

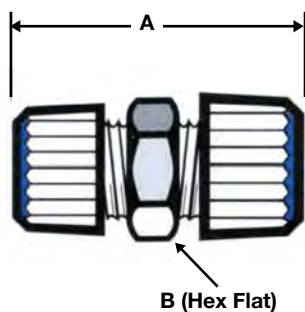
101195



Part #	Tube O.D.	Male Pipe	A Dim.	B Dim.
MRT-F-32-XX	3/16"	1/8" NPT	1.39	.82
MRT-F-41-XX	1/4"	1/16" NPT	1.63	.94
MRT-F-42-XX	1/4"	1/8" NPT	1.63	1.06
MRT-F-44-XX	1/4"	1/4" NPT	1.81	1.06
MRT-F-52-XX	5/16"	1/8" NPT	1.81	1.25
MRT-F-54-XX	5/16"	1/4" NPT	1.94	1.25
MRT-F-64-XX	3/8"	1/4" NPT	2.00	1.25
MRT-F-66-XX	3/8"	3/8" NPT	2.00	1.25
MRT-F-86-XX	1/2"	3/8" NPT	2.31	1.56
MRT-F-88-XX	1/2"	1/2" NPT	2.50	1.56
MRT-F-108-XX	5/8"	1/2" NPT	2.54	1.73
MRT-F-1012-XX	5/8"	3/4" NPT	2.67	1.73
MRT-F-1212-XX	3/4"	3/4" NPT	2.81	1.87
MRT-F-1616-XX	1"	1" NPT	3.33	2.20
MRT-M-42-XX	4mm	1/8" NPT	1.39	.82
MRT-M-62-XX	6mm	1/8" NPT	1.63	1.06
MRT-M-64-XX	6mm	1/4" NPT	1.81	1.06
MRT-M-84-XX	8mm	1/4" NPT	1.94	1.25
MRT-M-104-XX	10mm	1/4" NPT	2.00	1.25
MRT-M-106-XX	10mm	3/8" NPT	2.00	1.25

Reducing Union

101620



Part #	Tube O.D.	Tube O.D.	A Dim.	B Dim.
RU-F-32-XX	3/16"	1/8"	1.01	.44
RU-F-42-XX	1/4"	1/8"	1.26	.56
RU-F-43-XX	1/4"	3/16"	1.26	.56
RU-F-52-XX	5/16"	1/8"	1.26	.75
RU-F-54-XX	5/16"	1/4"	1.38	.75
RU-F-64-XX	3/8"	1/4"	1.38	.75
RU-F-84-XX	1/2"	1/4"	1.56	.94
RU-F-86-XX	1/2"	3/8"	1.56	.94
RU-F-104-XX	5/8"	1/4"	1.60	1.13
RU-F-106-XX	5/8"	3/8"	1.60	1.13
RU-F-108-XX	5/8"	1/2"	1.66	1.13
RU-F-128-XX	3/4"	1/2"	1.68	1.25
RU-F-1210-XX	3/4"	5/8"	1.72	1.25
RU-F-166-XX	1"	3/8"	1.70	1.50
RU-F-168-XX	1"	1/2"	1.76	1.50
RU-F-1610-XX	1"	5/8"	1.80	1.50
RU-F-1612-XX	1"	3/4"	1.82	1.50
RU-M-46-XX	4mm	6mm	1.26	.56
RU-M-68-XX	6mm	8mm	1.38	.75
RU-M-610-XX	6mm	10mm	1.38	.75
RU-M-810-XX	8mm	10mm	1.38	.75
RU-M-812-XX	8mm	12mm	1.56	.94
RU-M-1012-XX	10mm	12mm	1.56	.94
RU-M-1216-XX	12mm	16mm	1.66	1.13
RU-M-1519-XX	15mm	19mm	1.72	1.25
RU-M-2012-XX	20mm	12mm	1.68	1.25
RU-M-2612-XX	26mm	12mm	1.75	1.50

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Part #	Tube O.D.	A Dim.	B Dim.
TC-F-2-XX	1/8"	.63	.44
TC-F-3-XX	3/16"	.63	.44
TC-F-4-XX	1/4"	.88	.56
TC-F-5-XX	5/16"	.88	.75
TC-F-6-XX	3/8"	.88	.75
TC-F-8-XX	1/2"	1.06	1.00
TC-F-10-XX	5/8"	1.10	1.13
TC-F-12-XX	3/4"	1.12	1.25
TC-F-16-XX	1"	1.20	1.50

Part #	Tube O.D.	Tube I.D.	A Dim.	B Dim.
TI-F-4	1/4"	3/16"	.50	.19
TI-F-5	5/16"	1/4"	.50	.25
TI-F-6	3/8"	5/16"	.55	.31
TI-F-8	1/2"	7/16"	.75	.44
TI-F-10	5/8"	9/16"	.68	.56
TI-F-12	3/4"	11/16"	.80	.69
TI-F-16	1"	7/8"	.93	.88

Part #	Tube O.D.	A Dim.	B Dim.
U-F-1-XX	1/16"	.44	1.01
U-F-2-XX	1/8"	.44	1.01
U-F-3-XX	3/16"	.44	1.01
U-F-4-XX	1/4"	.56	1.38
U-F-5-XX	5/16"	.75	1.38
U-F-6-XX	3/8"	.75	1.38
U-F-8-XX	1/2"	1.00	1.62
U-F-10-XX	5/8"	1.13	1.70
U-F-12-XX	3/4"	1.25	1.74
U-F-16-XX	1"	1.50	1.90
U-F-1.1-XX	1.1"	1.63	2.12
U-M-4-XX	4mm	.44	1.01
U-M-6-XX	6mm	.56	1.38
U-M-8-XX	8mm	.75	1.38
U-M-10-XX	10mm	.75	1.38
U-M-12-XX	12mm	1.00	1.62

Part #	Tube O.D.	A Dim.
UC-F-2-XX	1/8"	1.20
UC-F-3-XX	3/16"	1.20
UC-F-4-XX	1/4"	1.56
UC-F-5-XX	5/16"	1.75
UC-F-6-XX	3/8"	1.75
UC-F-8-XX	1/2"	2.12
UC-F-10-XX	5/8"	2.33
UC-F-12-XX	3/4"	2.49
UC-F-16-XX	1"	2.90
UC-F-1.1-XX	1.1"	3.25
UC-M-4-XX	4mm	1.20
UC-M-6-XX	6mm	1.56
UC-M-8-XX	8mm	1.75
UC-M-10-XX	10mm	1.75
UC-M-12-XX	12mm	2.12

Tube Cap

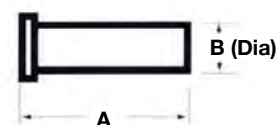
101875

B (Hex Flat)



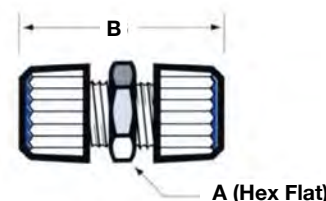
Tube Insert

100635



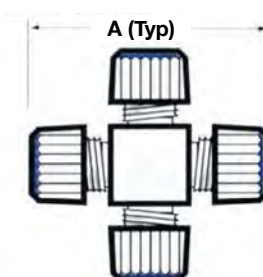
Union

101616



Union Cross

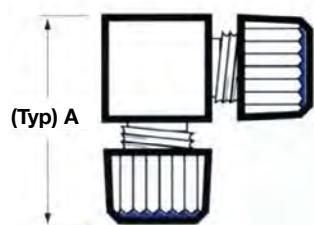
101610



IPS TUBE FITTINGS

Union Elbow

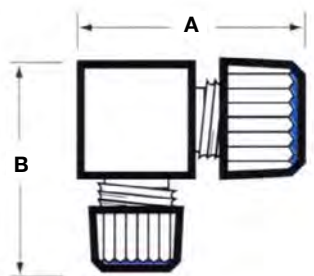
100870



Part #	Tube O.D.	A Dim.
UE-F-2-XX	1/8"	.82
UE-F-3-XX	3/16"	.82
UE-F-4-XX	1/4"	1.06
UE-F-5-XX	5/16"	1.25
UE-F-6-XX	3/8"	1.25
UE-F-8-XX	1/2"	1.56
UE-F-10-XX	5/8"	1.73
UE-F-12-XX	3/4"	1.87
UE-F-16-XX	1"	2.20
UE-F-1.1-XX	1.1"	2.44
UE-M-4-XX	4mm	.82
UE-M-6-XX	6mm	1.06
UE-M-8-XX	8mm	1.25
UE-M-10-XX	10mm	1.25
UE-M-12-XX	12mm	1.56

Union Elbow Reducer

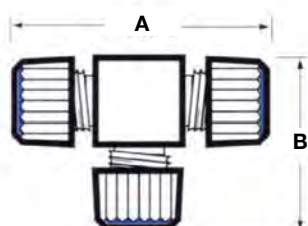
101787



Part #	Tube O.D.	Tube O.D.	A Dim.	B Dim.
UER-F-42-XX	1/4"	1/8"	1.06	1.06
UER-F-64-XX	3/8"	1/4"	1.25	1.25
UER-F-84-XX	1/2"	1/4"	1.56	1.56
UER-F-86-XX	1/2"	3/8"	1.56	1.56
UER-F-108-XX	5/8"	1/2"	1.73	1.73
UER-F-1210-XX	3/4"	5/8"	1.88	1.88
UER-F-1612-XX	1"	3/4"	2.20	2.20
UER-M-84-XX	8mm	4mm	1.25	1.25

Union Tee

101005



Part #	Tube O.D.	A Dim.	B Dim.
UT-F-2-XX	1/8"	1.20	.82
UT-F-3-XX	3/16"	1.20	.82
UT-F-4-XX	1/4"	1.56	1.06
UT-F-5-XX	5/16"	1.75	1.25
UT-F-6-XX	3/8"	1.75	1.25
UT-F-8-XX	1/2"	2.12	1.56
UT-F-10-XX	5/8"	2.33	1.73
UT-F-12-XX	3/4"	2.50	1.89
UT-F-16-XX	1"	2.90	2.20
UT-F-1.1-XX	1.1"	3.25	2.44
UT-M-4-XX	4mm	1.20	.82
UT-M-6-XX	6mm	1.56	1.06
UT-M-8-XX	8mm	1.75	1.25
UT-M-10-XX	10mm	1.75	1.25
UT-M-12-XX	12mm	2.12	1.56

Part #	Tube Size	NPT Size	Orifice	A Dim.	B Dim.
ME-FF-42	1/4"	1/8"	.13	1.56	.95
ME-FF-44	1/4"	1/4"	.13	1.56	1.13
ME-FF-46	1/4"	3/8"	.13	1.56	1.13
ME-FF-64	3/8"	1/4"	.25	1.75	1.31
ME-FF-66	3/8"	3/8"	.25	1.75	1.31
ME-FF-68	3/8"	1/2"	.25	2.10	1.56
ME-FF-86	1/2"	3/8"	.38	2.10	1.56
ME-FF-88	1/2"	1/2"	.38	2.10	1.75
ME-FF-812	1/2"	3/4"	.38	2.35	2.00
ME-FF-128	3/4"	1/2"	.63	2.50	2.00
ME-FF-1212	3/4"	3/4"	.63	2.50	2.00
ME-FF-1216	3/4"	1"	.63	2.60	2.29

Part #	Tube Size	Tube I.D.	Orifice	A Dim.	B Dim.
FE-FF-42	1/4"	1/8"	.13	1.75	1.13
FE-FF-44	1/4"	1/4"	.13	1.88	1.44
FE-FF-46	1/4"	3/8"	.13	2.00	1.56
FE-FF-64	3/8"	1/4"	.25	1.88	1.44
FE-FF-66	3/8"	3/8"	.25	2.00	1.56
FE-FF-68	3/8"	1/2"	.25	2.25	2.00
FE-FF-86	1/2"	3/8"	.38	2.10	1.56
FE-FF-88	1/2"	1/2"	.38	2.35	2.00

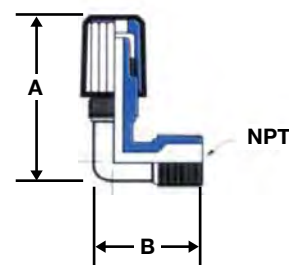
Part #	Tube Size	Orifice	A Dim.	B Dim.
U-FF-4	1/4"	.13	2.38	0.75
U-FF-6	3/8"	.25	2.38	0.88
U-FF-8	1/2"	.38	2.58	1.00
U-FF-12	3/4"	.63	2.88	1.25
U-FF-16	1"	.88	3.36	1.69

Part #	Tube Size	Tube Size	Orifice	A Dim.	B Dim.
RU-FF-64	3/8"	1/4"	.13	2.38	.75
RU-FF-86	1/2"	3/8"	.25	2.60	.94
RU-FF-128	3/4"	1/2"	.38	2.85	1.13

Part #	Tube Size	Tube Size	Orifice	A Dim.	B Dim.	C Max	D Hex
BU-FF-4	1/4"	1/4"	.13	3.02	1.65	.50	.56
BU-FF-6	3/8"	3/8"	.25	3.02	1.65	.50	.75
BU-FF-8	1/2"	1/2"	.38	3.12	1.75	.50	.94
BU-FF-12	3/4"	3/4"	.63	3.27	1.90	.50	1.13

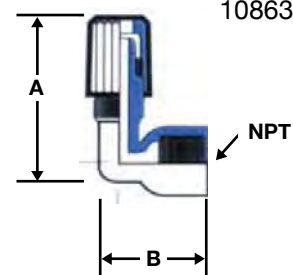
Male Elbow

104590



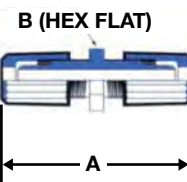
Female Elbow

108639



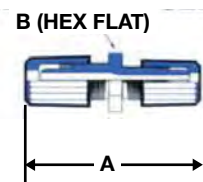
Union

101621



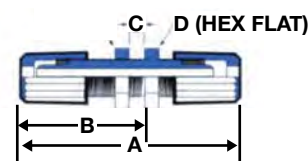
Reducing Union

106881



Bulkhead Union

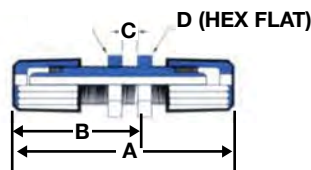
105368



IPS FLARED FITTINGS

Bulkhead Union Reducer

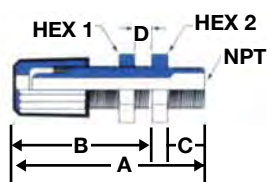
105368



Part #	Tube	Tube	Orifice	A Dim.	B Dim.	C (Max)	D Hex
BUR-FF-64	3/8"	1/4"	.13	3.02	1.65	.50	.75
BUR-FF-86	1/2"	3/8"	.25	3.02	1.75	.50	.94
BUR-FF-128	3/4"	1/2"	.38	3.88	1.90	.50	1.13

Male Connector Panel Mount

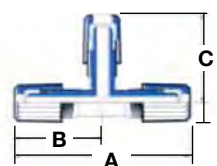
101789



Part #	Tube Size	NPT Size	Orifice	A Dim.	B Dim.	C Dim.	D (Max)	Hex 1	Hex 2
BMC-FF-42	1/4"	1/8"	.13	2.67	1.93	.55	.50	3/4	11/16
BMC-FF-44	1/4"	1/4"	.13	2.67	1.93	.55	.50	3/4	11/16
BMC-FF-46	1/4"	3/8"	.13	2.67	1.93	.55	.50	3/4	11/16
BMC-FF-64	3/8"	1/4"	.25	2.79	2.03	.55	.50	15/16	13/16
BMC-FF-66	3/8"	3/8"	.25	2.79	2.03	.55	.50	15/16	13/16
BMC-FF-68	3/8"	1/2"	.25	2.90	2.03	.66	.50	15/16	15/16
BMC-FF-86	1/2"	3/8"	.38	2.91	2.13	.55	.50	1-1/16	15/16
BMC-FF-88	1/2"	1/2"	.38	3.02	2.13	.66	.50	1-1/16	15/16
BMC-FF-812	1/2"	3/4"	.38	3.03	2.13	.67	.50	1-1/16	1-3/16
BMC-FF-128	3/4"	1/2"	.63	3.19	2.28	.66	.50	1-5/16	1-3/16
BMC-FF-1212	3/4"	3/4"	.63	3.20	2.25	.67	.50	1-5/16	1-3/16

Union Tee

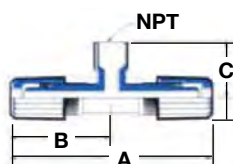
104591



Part #	Tube Size	Orifice	A Dim.	B Dim.	C Dim.
UT-FF-4	1/4"	.13	2.56	1.28	1.56
UT-FF-6	3/8"	.25	2.75	1.38	1.75
UT-FF-8	1/2"	.38	3.20	1.60	2.10
UT-FF-12	3/4"	.63	3.75	1.88	2.50

Male Branch Tee

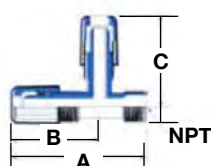
104609



Part #	Tube Size	NPT Size	Orifice	A Dim.	B Dim.	C Dim.
MBT-FF-44	1/4"	1/4"	.13	2.56	1.28	1.12
MBT-FF-66	3/8"	3/8"	.25	2.75	1.38	1.31
MBT-FF-88	1/2"	1/2"	.38	3.20	1.60	1.75
MBT-FF-1212	3/4"	3/4"	.63	3.75	1.88	2.00

Male Run Tee

101197



Part #	Tube Size	Tube Size	Orifice	A Dim.	B Dim.	C Dim.
MRT-FF-44	1/4"	1/4"	.13	2.12	1.28	1.56
MRT-FF-66	3/8"	3/8"	.25	2.31	1.38	1.75
MRT-FF-88	1/2"	1/2"	.38	2.85	1.60	2.10
MRT-FF-1212	3/4"	3/4"	.63	3.25	1.88	2.50

Part #	Tube Size	Orifice	A Dim.
UE-FF-4	1/4"	.13	1.56
UE-FF-6	3/8"	.25	1.75
UE-FF-8	1/2"	.38	2.10
UE-FF-12	3/4"	.63	2.50
UE-FF-16	1"	.88	2.99

Part #	Tube Size	Tube Size	Orifice	A Dim.	B Dim.
UER-FF-64	3/8"	1/4"	.125	1.88	1.88
UER-FF-66	3/8"	3/8"	.25	1.88	1.88
UER-FF-128	3/4"	1/2"	.38	2.50	2.35
UER-FF-1612	1"	3/4"	.63	2.99	2.75

Part #	Tube Size	NPT Size	Orifice	A Dim.	B Dim.
MC-FF-42	1/4"	1/8"	.13	1.76	.56
MC-FF-44	1/4"	1/4"	.13	1.94	.56
MC-FF-46	1/4"	3/8"	.13	2.06	.75
MC-FF-64	3/8"	1/4"	.25	1.94	.75
MC-FF-66	3/8"	3/8"	.25	1.94	.75
MC-FF-68	3/8"	1/2"	.25	2.25	.94
MC-FF-86	1/2"	3/8"	.38	2.16	.94
MC-FF-88	1/2"	1/2"	.39	2.35	.94
MC-FF-812	1/2"	3/4"	.38	2.35	1.13
MC-FF-128	3/4"	1/2"	.55	2.50	1.13
MC-FF-1212	3/4"	3/4"	.63	2.50	1.13
MC-FF-1216	3/4"	1"	.88	2.69	1.50

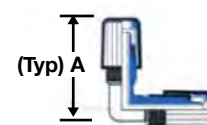
Part #	Tube Size	NPT Size	Orifice	A Dim.	B Dim.
FC-FF-42	1/4"	1/8"	.13	1.76	.75
FC-FF-44	1/4"	1/4"	.13	1.94	.84
FC-FF-46	1/4"	3/8"	.13	1.94	1.00
FC-FF-64	3/8"	1/4"	.25	1.94	.84
FC-FF-66	3/8"	3/8"	.25	1.94	1.00
FC-FF-68	3/8"	1/2"	.25	2.13	1.25
FC-FF-86	1/2"	3/8"	.38	2.04	1.00
FC-FF-88	1/2"	1/2"	.38	2.23	1.25
FC-FF-812	1/2"	3/4"	.38	2.23	1.50
FC-FF-128	3/4"	1/2"	.63	2.38	1.25
FC-FF-1212	3/4"	3/4"	.63	2.38	1.50

Part #	Tube Size	A Dim.	Orifice
N-FF-4	1/4"	1.05	.26
N-FF-6	3/8"	1.05	.38
N-FF-8	1/2"	1.13	.51
N-FF-12	3/4"	1.30	.76
N-FF-16	1"	1.50	1.01

Part #	Tube Size	A Dim.	B Dim.
FCAP-4	1/4"	1.06	0.75
FCAP-6	3/8"	1.13	0.88
FCAP-8	1/2"	1.13	1.00
FCAP-12	3/4"	1.28	1.38
FCAP-16	1"	1.51	1.75

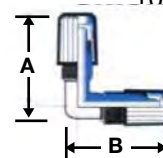
Union Elbow

108000



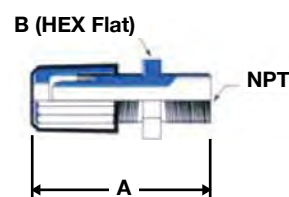
Union Elbow Reducer

108877



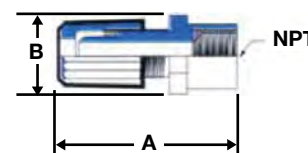
Male Connector

104950



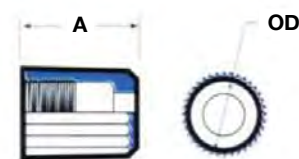
Female Connector

108586



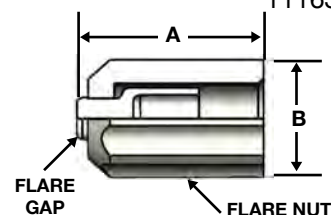
Nut

103350



Flare Cap

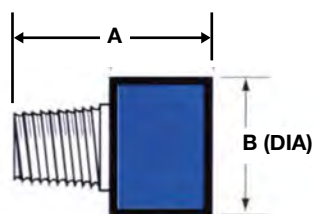
111630



IPS PIPE FITTINGS

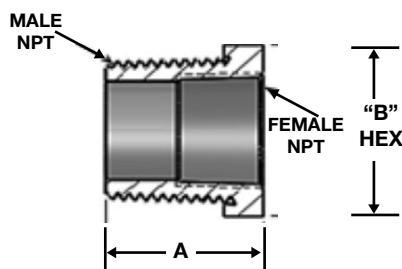
Bushing

100640



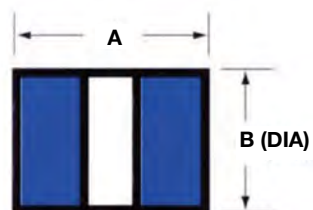
Short Bushing

103187



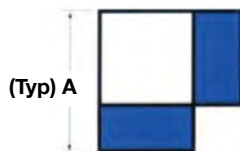
Coupling

101617



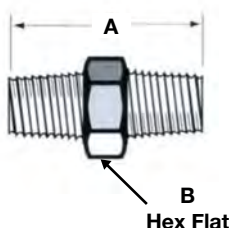
Elbow

101196



Pipe Nipple

101618



Part #	Male Pipe	Female Pipe	A Dim.	B Dim.
B-P-42-XX	1/4" NPT	1/8" NPT	1.32	.75
B-P-44-XX	1/4" NPT	1/4" NPT	1.50	.84
B-P-46-XX	1/4" NPT	3/8" NPT	1.50	1.00
B-P-64-XX	3/8" NPT	1/4" NPT	1.50	.84
B-P-68-XX	3/8" NPT	1/2" NPT	1.69	1.25
B-P-84-XX	1/2" NPT	1/4" NPT	1.81	.88
B-P-86-XX	1/2" NPT	3/8" NPT	1.81	1.00
B-P-124-XX	3/4" NPT	1/4" NPT	1.81	1.13
B-P-128-XX	3/4" NPT	1/2" NPT	2.00	1.25
B-P-1212-XX	3/4" NPT	3/4" NPT	2.00	1.50
B-P-168-XX	1" NPT	1/2" NPT	2.19	1.38
B-P-1612-XX	1" NPT	3/4" NPT	2.19	1.50

Part #	Male Pipe	Female Pipe	A Dim.	B Dim.
SB-P-42	1/4" NPT	1/8" NPT	0.94	0.63
SB-P-62	3/8" NPT	1/8" NPT	1.00	0.75
SB-P-64	3/8" NPT	1/4" NPT	1.00	0.88
SB-P-82	1/2" NPT	1/8" NPT	1.00	0.94
SB-P-84	1/2" NPT	1/4" NPT	1.00	0.94
SB-P-86	1/2" NPT	3/8" NPT	1.00	0.94
SB-P-124	3/4" NPT	1/4" NPT	1.00	1.25
SB-P-126	3/4" NPT	3/8" NPT	1.00	1.25
SB-P-128	3/4" NPT	1/2" NPT	1.26	1.25
SB-P-164	1" NPT	1/4" NPT	1.45	1.50
SB-P-166	1" NPT	3/8" NPT	1.45	1.50
SB-P-168	1" NPT	1/2" NPT	1.45	1.50
SB-P-1612	1" NPT	3/4" NPT	1.45	1.50

Part #	Female Pipe	A Dim.	B Dim.
C-P-2-XX	1/8" NPT	1.06	.75
C-P-4-XX	1/4" NPT	1.56	.84
C-P-6-XX	3/8" NPT	1.56	.88
C-P-8-XX	1/2" NPT	2.06	1.13
C-P-12-XX	3/4" NPT	2.06	1.50
C-P-16-XX	1" NPT	2.50	1.75

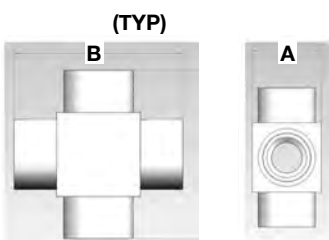
Part #	Female Pipe	A Dim.
E-P-2-XX	1/8" NPT	1.13
E-P-4-XX	1/4" NPT	1.40
E-P-6-XX	3/8" NPT	1.56
E-P-8-XX	1/2" NPT	2.00
E-P-12-XX	3/4" NPT	2.25
E-P-16-XX	1" NPT	2.69
E-P-24-XX	1.5" NPT	3.50

Part #	Male Pipe	A Dim.	B Dim.
NP-P-2	1/8" NPT	1.01	.44
NP-P-4	1/4" NPT	1.50	.56
NP-P-6	3/8" NPT	1.50	.75
NP-P-8	1/2" NPT	2.00	.94
NP-P-12	3/4" NPT	2.00	1.25
NP-P-16	1" NPT	2.38	1.50

IPS supplies custom extended length Pipe Nipples (NP-P-XX-XXX defining the overall pipe length). Custom lengths up to 18" can be supplied. These are supplied in 1/16" increments. 1" is represented as 16. 2" is represented as 32. 12" is represented as 192.

Female Pipe Cross

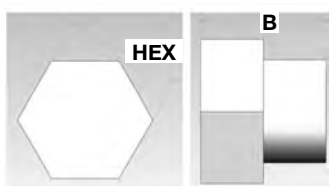
112065



Part #	Female Pipe	A Dim.	B Dim.
FPC-P-2	1/8" NPT	.75	1.51
FPC-P- 4	1/4" NPT	.85	1.94
FPC-P-6	3/8" NPT	1.00	2.12
FPC-P-8	1/2" NPT	1.25	2.75
FPC-P-12	3/4" NPT	1.50	2.95
FPC-P-16	1" NPT	1.75	3.63

Female Pipe Cap

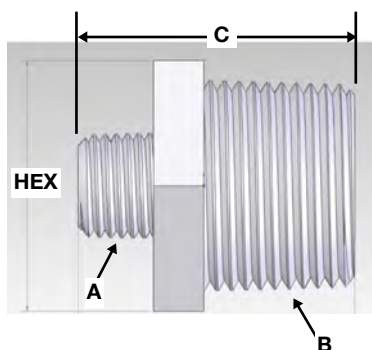
112066



Part #	Male Pipe	Hex	B DIM.
PC-P-1	1/16" NPT	3/4	.68
PC-P-2	1/8" NPT	7/8	.76
PC-P-4	1/4" NPT	1	.94
PC-P-6	3/8" NPT	1-1/8	.94
PC-P-8	1/2" NPT	1-3/8	1.25
PC-P-12	3/4" NPT	1-1/2	1.25
PC-P-16	1" NPT	1-3/4	1.44
PC-P-20	1-1/4" NPT	2-1/4	1.63
PC-P-24	1-1/2" NPT	2-3/8	1.63
PC-P-32	2" NPT	3	1.69

Nipple Pipe Reducer

112067

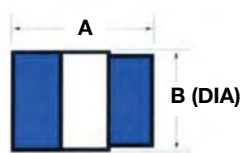


Part #	"A" Pipe	"B" Pipe	Hex	C Dim.
NPR-P-24	1/8" NPT	1/4" NPT	9/16	1.32
NPR-P-26	1/8" NPT	3/8" NPT	7/8	1.32
NPR-P-28	1/8" NPT	1/2" NPT	15/16	1.63
NPR-P-212	1/8" NPT	3/4" NPT	1-1/4	1.63
NPR-P-216	1/8" NPT	1" NPT	1-1/2	1.82
NPR-P-46	1/4" NPT	3/8" NPT	7/8	1.50
NPR-P-48	1/4" NPT	1/2" NPT	15/16	1.81
NPR-P-412	1/4" NPT	3/4" NPT	1-1/4	1.81
NPR-P-416	1/4" NPT	1" NPT	1-1/2	2.00
NPR-P-68	3/8" NPT	1/2" NPT	15/16	1.81
NPR-P-612	3/8" NPT	3/4" NPT	1-1/4	1.81
NPR-P-616	3/8" NPT	1" NPT	1-1/2	2.00
NPR-P-812	1/2" NPT	3/4" NPT	1-1/4	2.00
NPR-P-816	1/2" NPT	1" NPT	1-1/2	2.19
NPR-P-1216	3/4" NPT	1" NPT	1-1/2	2.19

IPS PIPE FITTINGS

Female Reducer

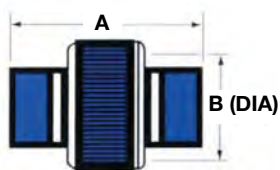
101775



Part #	FNPT Pipe	Female Pipe	A Dim.	B Dim.
FR-P-42-XX	1/4" NPT	1/8" NPT	1.32	.84
FR-P-62-XX	3/8" NPT	1/8" NPT	1.32	1.00
FR-P-64-XX	3/8" NPT	1/4" NPT	1.50	1.00
FR-P-84-XX	1/2" NPT	1/4" NPT	1.81	1.25
FR-P-86-XX	1/2" NPT	3/8" NPT	1.81	1.25
FR-P-128-XX	3/4" NPT	1/2" NPT	2.00	1.50
FR-P-168-XX	1" NPT	1/2" NPT	2.19	1.75
FR-P-1612-XX	1" NPT	3/4" NPT	2.19	1.75

Pipe Union

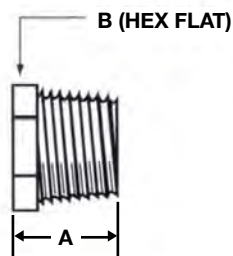
101665



Part #	Female Pipe	A Dim.	B Dim.
PU-P-2-XX	1/8 NPT	1.60	1.25
PU-P-4-XX	1/4 NPT	2.05	1.50
PU-P-6-XX	3/8 NPT	2.13	1.75
PU-P-8-XX	1/2 NPT	2.51	1.75
PU-P-12-XX	3/4 NPT	2.90	2.25
PU-P-16-XX	1" NPT	3.43	2.69

Plug

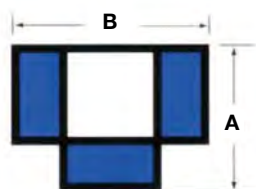
101780



Part #	MNPT Pipe	A Dim.	B Dim.
P-P-1	1/16" NPT	.63	.38
P-P-2	1/8" NPT	.63	.44
P-P-4	1/4" NPT	.94	.56
P-P-6	3/8" NPT	.94	.75
P-P-8	1/2" NPT	1.25	.94
P-P-12	3/4" NPT	1.25	1.25
P-P-16	1" NPT	1.44	1.50
P-P-24	1.5" NPT	1.50	2.00

Tee

101782

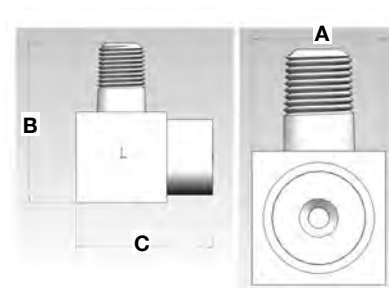


Part #	Female Pipe	A Dim.	B Dim.
T-P-2-XX	1/8" NPT	1.13	1.51
T-P-4-XX	1/4" NPT	1.44	2.00
T-P-6-XX	3/8" NPT	1.56	2.12
T-P-8-XX	1/2" NPT	2.00	2.75
T-P-12-XX	3/4" NPT	2.25	3.00
T-P-16-XX	1" NPT	2.69	3.63

Part #	Pipe Size	A Dim.	B Dim.	C Dim.
SE-P-1	1/16" NPT	.63	1.32	1.13
SE-P-2	1/8" NPT	.75	1.32	1.13
SE-P-4	1/4" NPT	.84	1.63	1.44
SE-P-6	3/8" NPT	1.00	1.94	1.56
SE-P-8	1/2" NPT	1.25	2.19	2.00
SE-P-12	3/4" NPT	1.50	2.44	2.25
SE-P-16	1" NPT	1.75	2.88	2.44

Street Elbow

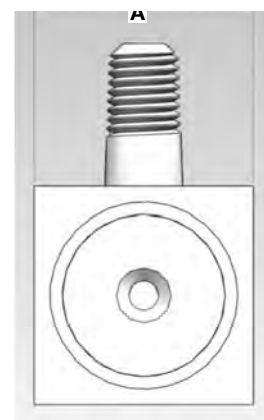
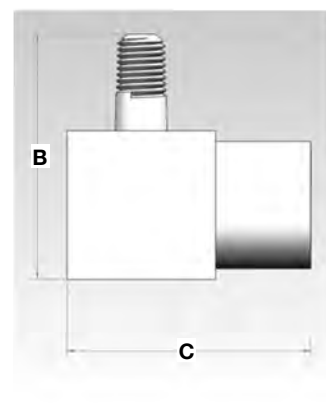
104138



Part #	Male Pipe	Female Pipe	A Dim.	B Dim.	C Dim.
SER-P-24	1/8" NPT	1/4" NPT	.88	1.45	1.44
SER-P-26	1/8" NPT	3/8" NPT	1.00	1.57	1.56
SER-P-28	1/8" NPT	1/2" NPT	1.25	1.82	2.00
SER-P-212	1/8" NPT	3/4" NPT	1.50	2.07	2.25
SER-P-216	1/8" NPT	1" NPT	1.75	2.32	2.69
SER-P-42	1/4" NPT	1/8" NPT	.75	1.50	1.13
SER-P-46	1/4" NPT	3/8" NPT	1.00	1.75	1.56
SER-P-48	1/4" NPT	1/2" NPT	1.25	2.00	2.00
SER-P-412	1/4" NPT	3/4" NPT	1.50	2.25	2.25
SER-P-416	1/4" NPT	1" NPT	1.75	2.50	2.69
SER-P-62	3/8" NPT	1/8" NPT	.75	1.50	1.13
SER-P-64	3/8" NPT	1/4" NPT	.88	1.63	1.44
SER-P-68	3/8" NPT	1/2" NPT	1.25	2.00	2.00
SER-P-612	3/8" NPT	3/4" NPT	1.50	2.25	2.25
SER-P-616	3/8" NPT	1" NPT	1.75	2.50	2.69
SER-P-82	1/2" NPT	1/8" NPT	1.00	1.94	1.38
SER-P-84	1/2" NPT	1/4" NPT	1.00	1.94	1.56
SER-P-86	1/2" NPT	3/8" NPT	1.00	1.94	1.56
SER-P-812	1/2" NPT	3/4" NPT	1.50	2.40	2.25
SER-P-816	1/2" NPT	1" NPT	1.75	2.69	2.69
SER-P-122	3/4" NPT	1/8" NPT	1.50	2.44	1.88
SER-P-124	3/4" NPT	1/4" NPT	1.50	2.44	2.06
SER-P-126	3/4" NPT	3/8" NPT	1.50	2.44	2.06
SER-P-128	3/4" NPT	1/2" NPT	1.50	2.44	2.25
SER-P-1216	3/4" NPT	1" NPT	1.75	2.69	2.69
SER-P-162	1" NPT	1/8" NPT	1.50	2.63	1.88
SER-P-164	1" NPT	1/4" NPT	1.50	2.63	2.06
SER-P-166	1" NPT	3/8" NPT	1.50	2.63	2.06
SER-P-168	1" NPT	1/2" NPT	1.50	2.63	2.25
SER-P-1612	1" NPT	3/4" NPT	1.50	2.63	2.25

Male Pipe
Elbow Reducer

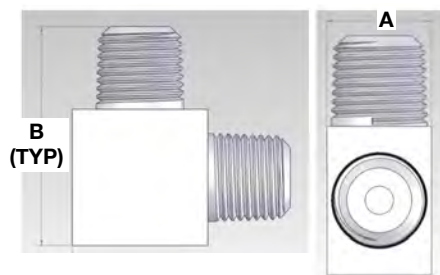
112069



IPS PIPE FITTINGS

Male Pipe Elbow

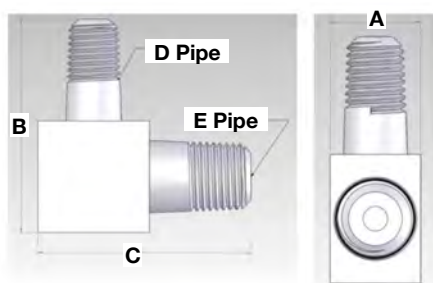
112070



Part #	Pipe Size	A Dim.	B Dim.
ME-P-1	1/16" NPT	.44	1.01
ME-P-2	1/8" NPT	.44	1.01
ME-P-4	1/4" NPT	.56	1.31
ME-P-6	3/8" NPT	.75	1.50
ME-P-8	1/2" NPT	1.00	1.94
ME-P-12	3/4" NPT	1.25	2.19
ME-P-16	1" NPT	1.50	2.63

Male Pipe Reducing Elbow

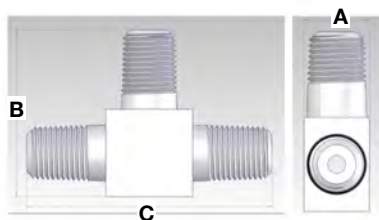
112071



Part #	"D" Pipe	"E" Pipe	A Dim.	B Dim.	C Dim.
MPRE-P-12	1/16" NPT	1/8" NPT	.44	1.01	1.01
MPRE-P-24	1/8" NPT	1/4" NPT	.56	1.13	1.31
MPRE-P-26	1/8" NPT	3/8" NPT	.75	1.32	1.50
MPRE-P-28	1/8" NPT	1/2" NPT	1.00	1.57	1.94
MPRE-P-212	1/8" NPT	3/4" NPT	1.25	1.82	2.19
MPRE-P-216	1/8" NPT	1" NPT	1.50	2.07	2.63
MPRE-P-46	1/4" NPT	3/8" NPT	.75	1.50	1.50
MPRE-P-48	1/4" NPT	1/2" NPT	1.00	1.75	1.94
MPRE-P-412	1/4" NPT	3/4" NPT	1.25	2.00	2.19
MPRE-P-416	1/4" NPT	1" NPT	1.50	2.25	2.63
MPRE-P-68	3/8" NPT	1/2" NPT	1.00	1.75	1.94
MPRE-P-612	3/8" NPT	3/4" NPT	1.25	2.00	2.19
MPRE-P-616	3/8" NPT	1" NPT	1.50	2.25	2.63
MPRE-P-812	1/2" NPT	3/4" NPT	1.25	2.19	2.19
MPRE-P-816	1/2" NPT	1" NPT	1.50	2.44	2.63
MPRE-P-1216	3/4" NPT	1" NPT	1.50	2.44	2.63

Male Pipe Tee

112068



Part #	Pipe Size	A Dim.	B Dim.	C Dim.
MPT-1	1/16" NPT	.44	1.01	1.58
MPT-2	1/8" NPT	.44	1.01	1.58
MPT-4	1/4" NPT	.56	1.31	2.06
MPT-6	3/8" NPT	.75	1.50	2.25
MPT-8	1/2" NPT	1.00	1.94	2.88
MPT-12	3/4" NPT	1.25	2.19	3.13
MPT-16	1" NPT	1.50	2.63	3.76

IPS SPARE PARTS

Plumber Ferrule P/N	Ferrule Gripper P/N	Tempress Ferrule P/N	Tube O.D.
PF-F-1	N/A	N/A	1/16"
PF-F-2	FG-F-2	N/A	1/8"
PF-F-3	FG-F-3	N/A	3/16"
PF-F-4	FG-F-4	TF-F-4	1/4"
PF-F-5	FG-F-5	TF-F-5	5/16"
PF-F-6	FG-F-6	TF-F-6	3/8"
PF-F-8	FG-F-8	TF-F-8	1/2"
PF-F-10	FG-F-10	TF-F-10	5/8"
PF-F-12	FG-F-12	TF-F-12	3/4"
PF-F-16	FG-F-16	TF-F-16	1"
PF-F-11	FG-F-11	TF-F-11	1.1"
PF-F-22	FG-F-22	TF-F-22	1-3/8"
PF-M-4	FG-M-4	TF-M-4	4mm
PF-M-6	FG-M-6	TF-M-6	6mm
PF-M-7	FG-M-7	TF-M-7	7mm
PF-M-8	FG-M-8	TF-M-8	8mm
PF-M-9	FG-M-9	TF-M-9	9mm
PF-M-10	FG-M-10	TF-M-10	10mm
PF-M-12	FG-M-12	TF-M-12	12mm
PF-M-15	FG-M-15	TF-M-15	15mm
PF-M-20	FG-M-20	TF-M-20	20mm
PF-M-26	FG-M-26	TF-M-26	26mm

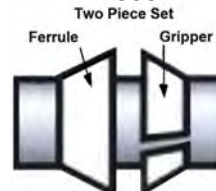
Plumber Ferrule (PF)

100426



Ferrule Gripper (FG)

112090



Tempress Ferrule (TF)

101661

One Piece Snap-In Type.
for use with -TA & -TS
Teflon Nuts Only

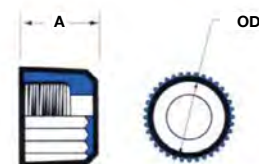


Part #	Tube O.D.	Thread Size	A Dim. (Max)	B Dim. (Max)
N-F-1-XX	1/16"	1/4-28	.61	.50
N-F-2-XX	1/8"	5/16-24	.61	.50
N-F-3-XX	3/16"	3/8-24	.61	.59
N-F-4-XX	1/4"	7/16-20	.61	.68
N-F-5-XX	5/16"	9/16-18	.64	.78
N-F-6-XX	3/8"	1-1/16-16	.64	.88
N-F-8-XX	1/2"	7/8-14	.73	1.25
N-F-10-XX	5/8"	1-12	.77	1.38
N-F-12-XX	3/4"	1-1/8-12	.82	1.50
N-F-16-XX	.1"	1-3/8-12	.90	1.75
N-F-1.1-XX	1.1"	1-1/2-12	1.04	1.88
N-F-22-XX	1-3/8"	1-3/4-12	1.29	2.25
N-M-4-XX	4mm	3/8-24	.61	.59
N-M-6-XX	6mm	7/16-20	.61	.66
N-M-7-XX	7mm	7/16-20	.61	.66
N-M-8-XX	8mm	9/16-18	.64	.88
N-M-9-XX	9mm	11/16-16	.64	.88
N-M-10-XX	10mm	11/16-16	.64	.91
N-M-12-XX	12mm	7/8-14	.73	1.16
N-M-15-XX	15mm	1-12	.77	1.38
N-M-20-XX	20mm	1-1/8-12	.82	1.50
N-M-26-XX	26mm	1-1/2-12	1.04	1.88

Part #	Thread Size	A Dim.	B Dim.
PN-F-1	5/16-24	.50	.25
PN-F-2	3/8-24	.56	.25
PN-F-3	7/16-20	.69	.25
PN-F-4	9/16-18	.88	.25
PN-F-5	1-1/16-16	.94	.28
PN-F-6	7/8-14	1.31	.31
PN-F-7	1-12	1.25	.31
PN-F-8	1-1/8-12	1.38	.31
PN-F-9	1-3/8-12	1.75	.31
PN-F-10	1-1/2-12	2.00	.31
PN-F-11	1-5/8-12	2.12	.31
PN-F-12	1-3/4-12	2.25	.31
PN-F-18	1-7/8-12	2.38	.31

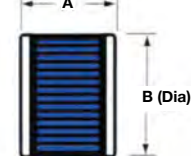
Tube Nut

101966 / 111722 / 103202



TA & TS PTFE Tube Nut Style

101615

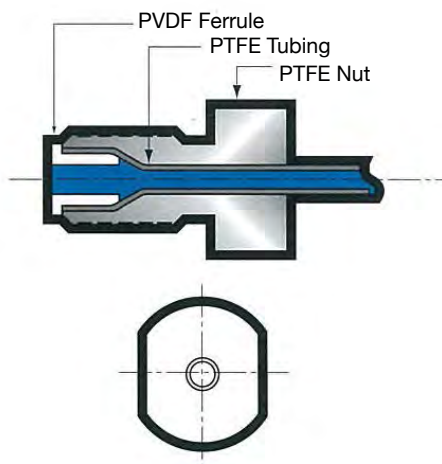


Panel Nut

100162

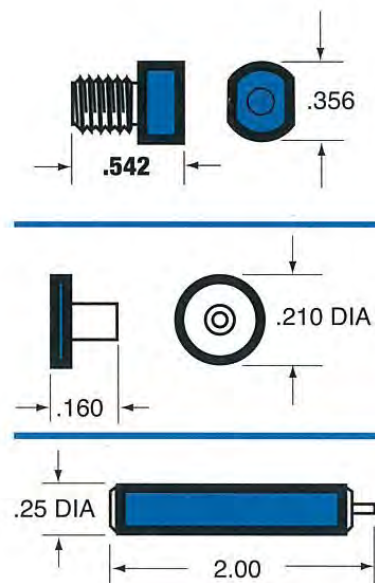


112091



Part #	Tube O.D.	Tube I.D.	Tube Wall	Recommended Tubing	Thread Size
TN062016	.063"	.031"	.016"	FEP-062-016 or FT-062-016	1/4" - 28
TN125016	.125"	.093"	.016"	FEP-125-016 or FT-125-016	1/4" - 28
TN125030	.125"	.065"	.030"	FEP-125-030 or FT-125-030	1/4" - 28
KF062016	.063"	.031"	.016"	FEP-062-016 or FT-062-016	n/a
KF125016	.125"	.093"	.016"	FEP-125-016 or FT-125-016	n/a
KF125030	.125"	.065"	.030"	FEP-125-030 or FT-125-030	n/a

Part #	Tube O.D.	Tube I.D.	Tube Wall	Construction
ITMTF-A		.031"		1 pc metal
ITMTF-B		.093"		1 pc metal
ITMTF-C		.065"		1 pc metal

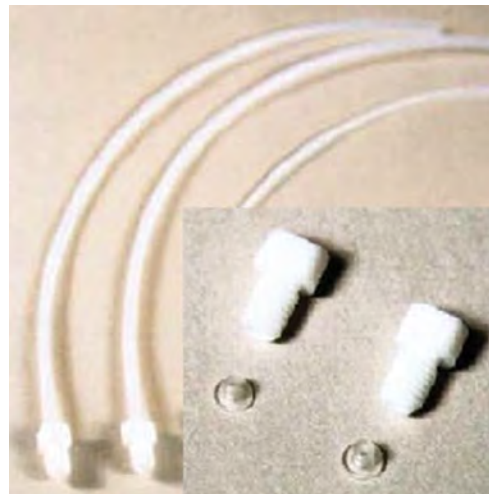


These small High-Purity PTFE Fittings are designed to mate with 1/32", 2/32" and 3/32" I.D. precision tube.

Common Applications:

- Gas & Liquid Analysis
- Precision Chemical Dosing
- Chromatography Stations
- Analytical Reagenting Blending
- Calibration Standard Sampling

Call us with your Special Applications.



Free flowing orifices through fittings and valve ports are defined by the standard port connection callout.

Female NPT (FNPT) & Male NPT (MNPT) ports flow with a maximum orifice equal to the port callout.

Compression Tube and Flared Connections have smaller flow orifices as listed in the table to the right.

For custom solutions, smaller orifices are available on request.

Typical Orifice Per Port Size & Type

Port Size	Pipe Port	Tube Port	Flare Port
1/16"	0.062	0.031	-
1/8"	0.125	0.063	-
1/4"	0.250	0.188	0.125
3/8"	0.375	0.312	0.250
1/2"	0.500	0.436	0.375
3/4"	0.750	0.688	0.592
1"	1.000	0.938	0.875

For standard PTFE Fittings & Connectors and Schedule 80 Pipe, the curves to the right represent working pressure versus media temperature (at soaked steady state).

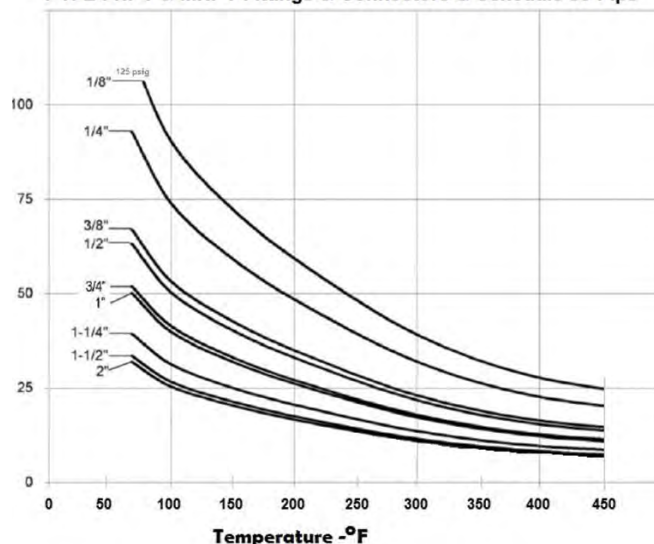
Pressure:

100 psi = 6.89 bar
75 psi = 5.17 bar
50 psi = 3.44 bar
25 psi = 1.72 bar

Temperature:

70°F = 21.1°C
100°F = 37.8°C
200°F = 93.3°C
300°F = 148.9°C
400°F = 204.4°C

IPS Pressure Ratings
PTFE FNPT & MNPT Fittings & Connectors & Schedule 80 Pipe



Polytetrafluoroethylene; PTFE Tape (also known as Teflon Tape, Thread Seal Tape or Plumber's Tape) is recommended for all NPT Connections. This thin film of tape is wrapped around the pipe threads per the manufacturer's specifications. The tape is sold cut to specific widths and wound on a spool.



Polytetrafluoroethylene (PTFE) Fittings & Connectors are commonly used for Ultra Purity or Highly Caustic Media. While exceptionally inert, excellent with numerous chemistries and temperature extremes, PTFE is a relatively soft fluoropolymer material.

Care must be taken not to over tighten and strip threaded PTFE Connections. PTFE Tape will help reduce thread damage when adapting metal & PTFE connections.