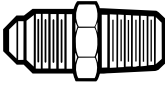
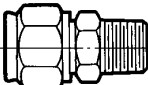
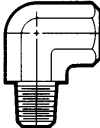




# General Information


















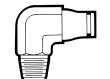
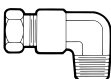
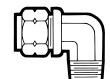
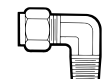
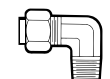
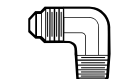
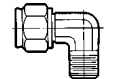

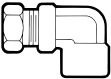
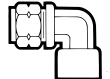
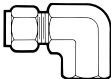
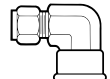
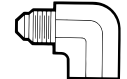
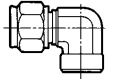
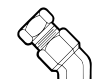
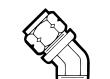
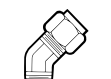
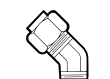

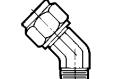

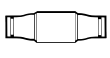
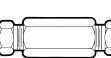

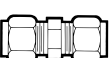
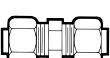
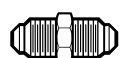



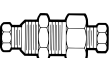

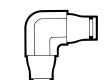
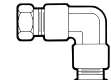
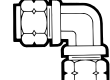
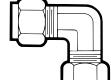
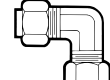
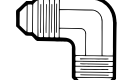
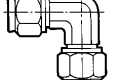

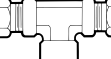
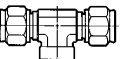
## Fitting Descriptions

Style	Working Pressure		Construction	Application	Compatible Tubing
	Maximum	Nominal			
45° Flare	2,850 PSI <sup>a</sup>	225 PSI	<ul style="list-style-type: none"> <li>• Two-piece: body and nut</li> <li>• Shapes: brass, forged SAE CA377 or equal</li> <li>• Straights: brass, SAE CA360 or equal</li> <li>• 45° flared</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile equipment piping</li> <li>• Air compressor piping</li> <li>• HVAC applications (requires forged nut)</li> <li>• Marine</li> <li>• Meets SAE J512 and J513</li> <li>• ANSI B31.1 and B70.1, ASME Boiler and Pressure Vessel Code</li> </ul>	<ul style="list-style-type: none"> <li>• Copper</li> <li>• Aluminum</li> <li>• Seamless steel</li> </ul>
					
Hi-Seal® Braze Seal®	19,250 PSI	5,000 PSI	<ul style="list-style-type: none"> <li>• 3-Piece body, Nut and Sleeve</li> <li>• Available in brass, steel and stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>• Instrumentation systems</li> <li>• Mobile farm and mobile construction equipment</li> <li>• Hydraulic and pneumatic controls</li> <li>• Process control systems</li> <li>• Laboratory equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Copper</li> <li>• Brass</li> <li>• Seamless steel</li> </ul>
					
Brass Pipe	3,000 PSI	1,000 PSI	<ul style="list-style-type: none"> <li>• Shapes: Brass, Forged SAE CA377 or equal</li> <li>• Straights: Brass, SAE CA377 or equal</li> <li>• Dryseal Threads</li> <li>• Meets all SAE Brass Pipe Fittings standards</li> </ul>	<ul style="list-style-type: none"> <li>• Air Compressor Piping</li> <li>• Water System Piping</li> <li>• Coolant Transmission Lines</li> </ul>	<ul style="list-style-type: none"> <li>• Brass Pipe</li> <li>• Iron Pipe</li> </ul>
					

<sup>a</sup>Maximum working pressure based on 1/8" O.D. dead soft copper tubing. Please contact Dayco-Imperial for additional information.

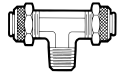
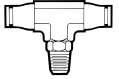
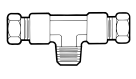
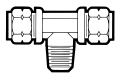
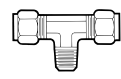
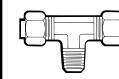
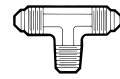
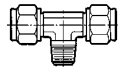
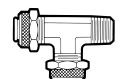
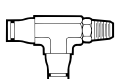
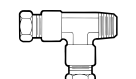
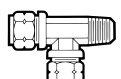
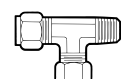
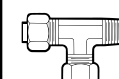
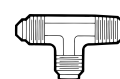
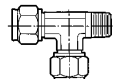
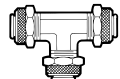
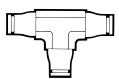
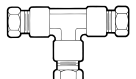
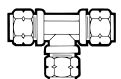
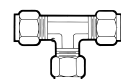
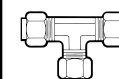
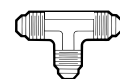
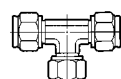












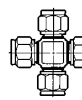




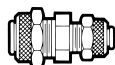



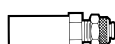
# General Information

## Fitting Identification Chart

	Poly-Flo®	OmegaFlo™	Hi-Duty®	Flex®	Compression	CompresaMatic®	45° Flare	Hi-Seal®
Male Connector	 268P	 268OF	 88LB	 68FL	 68F	 68CM	 648F	 768F
Female Connector	 266P	 266OF	 86LB	 66FL	 66F	 66CM	 646F	 766F
90° Male Elbow	 269P	 269OF	 89LB	 69FL	 69F	 69CM	 649F	 769F
90° Female Elbow	 270P		 90LB	 70FL	 70F	 70CM	 650F	 770F
45° Male Elbow			 94LB	 94FL	 74F	 74CM	 654F	 754F
Union	 262P	 262OF	 82LB	 62FL	 62F	 62CM	 642F	 762F
Bulkhead Union	 282P	 282OF	 72LB					 782F
Union Elbow		 265OF	 85LB	 65FL	 65F	 65CM	 655F	 765F
Female Branch Tee	 277P		 95LB					 777F

# General Information

## Fitting Identification Chart

Male Branch Tee	 272P	 272OFS	 92LB	 72FL	 72F	 72CM	 645F	 772F
Male Run Tee	 271P	 271OFS	 91LB	 71FL	 71F	 71CM	 651F	 771F
Union Tee	 264P	 264OF	 84LB	 64FL	 64F	 64CM	 644F 659F	 764F
Nut	 261P		 812B	 61FL	 61F	 61CM	 511GS 641F	 761F
Sleeve	 260UB			 60FL	 60F			 760F
Cross							 652F	 752F
Ball Check			 83LB		 63F	 63CM	 643F	
Reducing Union	 256P		 87LB				 656F	 756F
Reducer	 297P							

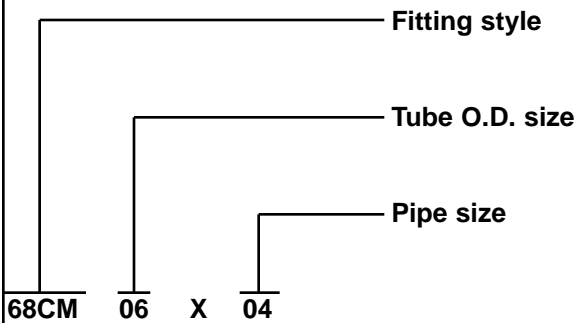
# General Information

## Part Number Designation Guide

### Part Numbers for Tube Fittings

To order Dayco-Imperial tube fittings, use the diagram below as a guide.

**Example:** CompresaMatic® fittings with 3/8" tube connection and 1/4" male pipe thread.

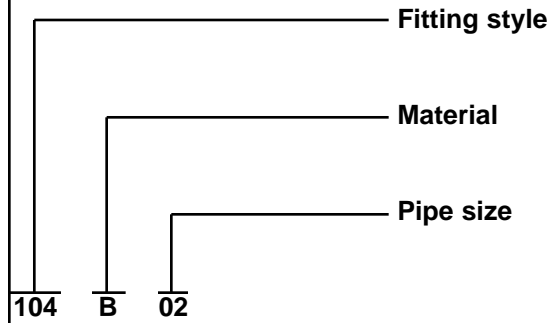


Part number = 68CM06X04

### Part Numbers for Pipe Fittings

To order Dayco-Imperial brass pipe fittings, use the diagram below as a guide.

**Example:** Brass 1/8" NPTF female union.



Part number = 104B02

## Fitting Selector Guide

FITTING STYLE	FITTING MATERIAL	MAXIMUM RECOMMENDED WORKING PRESSURE (PSI)									
		"Dash No."									
		- 02	- 03	- 04	- 05	- 06	- 08	- 10	- 12	- 14	
Hi-Duty <sup>®1</sup>	Brass	4,300	2,850	2,100	1,800	1,500	1,150	1,000	550	400	
45° Flare <sup>1</sup>	Brass		2,850	2,100	1,800	1,500	1,100	1,000	850	750	
CompresaMatic <sup>™1</sup>	Brass	4,500	2,500	1,750	1,800	1,150	950	750	1,000		
Compression <sup>1</sup>	Brass	400	400	300	300	200	200	150	100	75	
Flex <sup>®</sup> — Belled Tubing <sup>1</sup>	Brass	2,000	1,500	1,000	900	700	500	400	350	300	
Flex <sup>®</sup> — Non-Belled Tubing <sup>1</sup>	Brass	1,000	750	500	450	350	200				
OmegaFlo <sup>™</sup>	Brass	300 PSI MAXIMUM									
PolyFlo <sup>®</sup>	Brass	500 PSI MAXIMUM									
Brass Pipe Fittings	Brass	3,000 PSI MAXIMUM <sup>2</sup>					2,000 PSI MAXIMUM <sup>3</sup>				

Maximum working pressures depend on tubing material, tube O.D., wall thickness and fitting size. The pressures listed above reflect static pressures at 72°F with the following material and "Dash No." wall thickness.

<sup>1</sup>TUBING MATERIAL: Copper dead soft seamless, ASTM B75, ANSI H23.3, -02/.030, -03/.030, -04/.030, -05/.032, -06/.032, -08/.032, -10/.035, -12/.035, -14/.035

<sup>2</sup>Exceptions: 101B = 2500 PSI; 102B = 2500 PSI; 104B = 1500 PSI

<sup>3</sup>Exceptions: 102B = 1000 PSI; 104B = 625 PSI; 108B = 1500 PSI; 116B = 1500 PSI; 122B = 1500 PSI

# General Information

## Thread Size Chart

Use this chart to determine fitting thread sizes per tube O.D. size.

**For example:** Thread sizes for a Hi-Duty® 1/8" fitting, with Part No. 88LB02X02 are: .5/16-24 tube thread size x 1/8-27 pipe thread size, as below:

**PART NUMBER = 88LB02X02**

### TUBE SIZE (O.D.)

	"Dash" No.	- 02	- 03	- 04	- 05	- 06	- 07	- 08	- 10	- 12	- 14	- 16
FITTINGS	Size	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"	7/8"	1"

### TUBE END THREADS

Hi-Duty®	5/16-24	3/8-24	7/16-24	1/2-20	9/16-20		11/16-16	7/8-18	1-18	1 1/4-18	
45° Flare	5/16-24	3/8-24	7/16-20	1/2-20	5/8-18	11/16-16	3/4-16	7/8-14	1 1/16-14	1 1/4-12	
CompresaMatic®	5/16-24	3/8-24	7/16-24	1/2-24	9/16-24	5/8-24	11/16-20	13/16-18	1-18		
Compression	5/16-24	3/8-24	7/16-24	1/2-24	9/16-24	5/8-24	11/16-20	13/16-18	1-18		
Flex®	3/8-24	7/16-24	1/2-24	9/16-24	5/8-24		13/16-18	1-18	1 1/8-18		
Poly-Flo® and Kwik-Connect	5/16-24	3/8-24	3/8-24	7/16-24	1/2-24		11/16-20				

### PIPE END THREADS

Pipe Fittings	1/8-27		1/4-18		3/8-18		1/2-14		3/4-14		1-11 1/2
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# General Information

## Assembly Instructions

Fitting	To Assemble	To Reconnect
Hi-Duty® Flareless Tube Fittings	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tube squarely and cleanly, removing all burrs.</li><li>2. Grasp fitting. Do not remove nut.</li><li>3. Insert tube in fitting through nut until tube seats firmly against tube shoulder in body.</li><li>4. Grip tube firmly to prevent turning and tighten nut until a slight “give” is felt. This “give” indicates the sleeve has been sheared from the nut.</li><li>5. Continue tightening for one and one-half additional turns for a positive, leakproof seal. It is not necessary to tighten the nut all the way down.</li></ol>	<ol style="list-style-type: none"><li>1. Reinsert tubing</li><li>2. Tighten nut one eighth of a turn more than previous make-up. NOTE: The Hi-Duty® fitting can be disconnected and reconnected repeatedly and will always reconnect tightly.</li></ol>
45° Flare Tube Fittings	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tubing squarely and cleanly, removing all burrs.</li><li>2. Slide nut onto tubing with the open threaded end of the nut facing toward the end to be flared.</li><li>3. Flare tubing end with a good quality flaring tool.</li><li>4. Position the flare against the nose of the fitting body and align the tube with the fitting.</li><li>5. Assemble nut to body, tightening finger tight.</li><li>6. Tighten nut with a wrench one-quarter to one-half turn for a leakproof connection.</li></ol>	<ol style="list-style-type: none"><li>1. Tighten to original make-up position, plus an additional one-sixth turn of the nut (one flat of the hex).</li></ol>
Compression Flareless Tube Fittings	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tube squarely and cleanly, removing all burrs.</li><li>2. Insert tubing into the fitting body until it rests against the shoulder.</li><li>3. Move sleeve into position and tighten the nut. NOTE: No flaring, soldering or other special preparation of the tubing is necessary before assembly.</li></ol>	<ol style="list-style-type: none"><li>1. Tighten to original make-up position, plus an additional one-sixth turn of the nut (one flat of the hex).</li></ol>
CompresaMatic™	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tube squarely and cleanly, removing all burrs.</li><li>2. Insert the tube into fitting. Be sure the tube “bottoms” on the fitting shoulder.</li><li>3. Tighten (hand-tight), and complete the seal with <b>one</b> wrench turn on all sizes.</li></ol>	<ol style="list-style-type: none"><li>1. Tighten to original make-up position, plus an additional one sixth turn of the nut (one flat of the hex).</li></ol>
Poly-Flo® Flareless Tube Fittings	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tubing squarely and cleanly, removing all burrs.</li><li>2. Push tubing into fitting and tighten the nut. NOTE: There is no need to disassemble the fitting before assembly. When used with Poly-Flo® or PVC tubing, fitting is assembled finger tight. No wrenches needed.</li></ol>	<ol style="list-style-type: none"><li>1. Tighten nut to original make-up position, tightening finger tight.</li></ol>
Poly-Flo® Kwik-Connect Couplers	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tubing squarely and cleanly, removing all burrs.</li><li>2. Push tubing into fitting and tighten the nut. NOTE: There is no need to disassemble the fitting before assembly. When used with Poly-Flo® or PVC tubing, assembly is finger tight.</li></ol>	<ol style="list-style-type: none"><li>1. Tighten nut to original make-up position, tightening finger tight.</li></ol>
OmegaFlo™ Push-to-Connect/ Push-to-Release Pneumatic Fittings	<ol style="list-style-type: none"><li>1. Using a tube cutter, cut tubing cleanly and squarely.</li><li>2. Firmly push the tubing into the fitting until it will enter no further. A properly assembled tube cannot be pulled out by hand.</li><li>3. To disconnect, simply push back on the brass collet and release tubing.</li></ol>	<ol style="list-style-type: none"><li>1. Firmly push tubing into the fitting until it will enter no further. A properly assembled tube cannot be pulled out by hand.</li></ol>

### Fitting

Flex® Flareless  
Tube Fittings

### To Assemble

- Using a tube cutter, cut tube squarely and cleanly, removing all burrs.
- Slip nut and sleeve over tube.
- Insert tubing in fitting body as far as it will go and tighten nut until stop is reached. The elastic sleeve ordinarily will extrude slightly around the tube at the end of the nut. This extrusion further aids in isolating the tube from the nut.

### To Reconnect

- Tighten to original make-up position, making sure the nut is "bottomed".

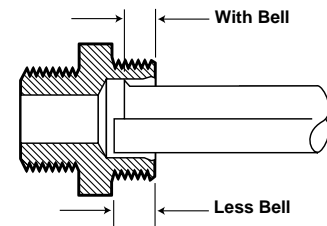
FLEX® FLARELESS TUBE FITTINGS PRESSURE CHART			
FITTING MATERIAL: BRASS		TUBING MATERIAL: ALL TYPES	
RECOMMENDED MAX WORKING PRESSURE			
MUM (PSI)			
Service Conditions	Tube O.D. (Inches)	Tubing Not Belled*	All Tubing Belled
Static Pressure	1/8	1,000	2,000
	3/16	750	1,500
Very Minor Surges	1/4	500	1,000
	5/16	450	900
Minor Line Vibration	3/8	350	700
	1/2	200	500
	5/8		400
	3/4		350
Static Pressure	7/8		300
	1/8	800	1,600
	3/16	600	1,200
	1/4	400	800
Minor Surges	5/16	325	700
	3/8	225	500
Severe Vibration	1/2	150	375
	5/8		300
	3/4		250
	7/8		200
Very Severe Vibration	1/8	600	1,200
	3/16	450	900
Minor Tube Movement	1/4	300	600
	5/16	225	500
Mechanical Shock	3/8	175	400
	1/2	100	250
	5/8		200
	3/4		150
	7/8		100

\*Where high application pressures are involved, and on all sizes larger than 1/2" O.D., the end of the tube should be slightly belled.

How to assemble for higher pressure applications:

- Consult pressure chart to determine if tubing should be belled for your particular application.
- Slip the nut and sleeve over tubing. The sleeve should be positioned near end of tubing just behind the surface to be belled.
- Bell tubing with standard 45° flaring tool or 90° punch. The size of bell should be that shown in Figure 2.

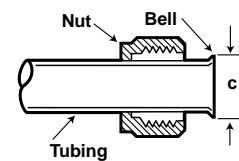
### To Assemble (Continued)



### Figure 1 Tube Length Calculator

This table shows distance tube extends beyond face of Flex® fitting body on installation with bell on tubing and without bell on tubing.

Tube O.D. (Inches)	A With Bell (Inches)	B Without Bell (Inches)
1/8	3/16	3/16
3/16	3/16	7/32
1/4	3/16	1/4
5/16	3/16	1/4
3/8	3/16	1/4
1/2	3/16	1/4
5/8	3/16	Tubing should be belled.
3/4	3/16	Tubing should be belled.
7/8	1/4	Tubing should be belled.



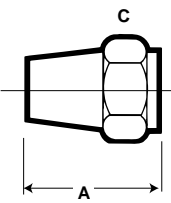
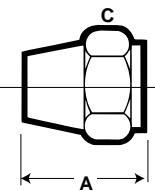

### Figure 2 Recommended Size of Bell

Tube O.D. (Inches)	C Bell Dia. (Inches)	Tube O.D. (Inches)	C Bell Dia. (Inches)
1/8	.190-.160	1/2	.569-.539
3/16	.255-.225	5/8	.694-.664
1/4	.318-.288	3/4	.819-.789
5/16	.381-.351	7/8	.944-.914
3/8	.444-.414		



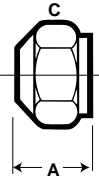
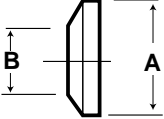
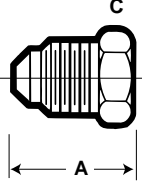
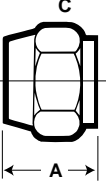
# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 41F</b> Union Nut Standard Length 	41F02	1/8			0.750		0.375
	41F03	3/16			0.810		0.437
	41F04	1/4			0.940		0.562
	41F05	5/16			1.120		0.625
	41F06	3/8			1.310		0.750
	41F08	1/2			1.620		0.875
	41F10	5/8			1.880		1.062
	41F12	3/4			2.190		1.250
<b>STYLE 41FS</b> Union Nut Short Length 	41FS02	1/8			0.500		0.375
	41FS03	3/16			0.620		0.437
	41FS04	1/4			0.750		0.562
	41FS05	5/16			0.880		0.625
	41FS06	3/8			1.000		0.750
	41FS08	1/2			1.120		0.875
	41FS10	5/8			1.310		1.062
	41FS12	3/4			1.500		1.250
<b>STYLE 64C</b> Copper Seal Cap 	64C03	3/16			0.156	0.312	
	64C04	1/4			0.218	0.359	
	64C06	3/8			0.343	0.531	
	64C08	1/2			0.406	0.640	
	64C10	5/8			0.437	0.765	

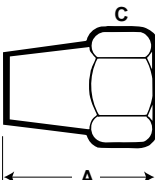
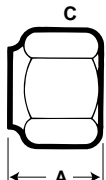
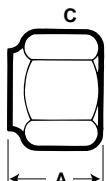
# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 511GS</b> <b>Short Nut</b> 	511GS04	1/4			0.500		0.562
	511GS06	3/8			0.687		0.750
	511GS08	1/2			0.812		0.875
	511GS10	5/8			1.000		1.062
<b>STYLE 625F</b> <b>Copper Flare Gasket</b> 	625F03	3/16			0.310	0.120	
	625F04	1/4			0.360	0.190	
	625F05	5/16			0.420	0.220	
	625F06	3/8			0.550	0.280	
	625F08	1/2			0.660	0.410	
	625F10	5/8			0.770	0.500	
	625F12	3/4			0.950	0.620	
<b>STYLE 639F</b> <b>Plug</b> 	639F03	3/16			0.590		0.375
	639F04	1/4			0.690		0.437
	639F05	5/16			0.780		0.500
	639F06	3/8			0.880		0.625
	639F08	1/2			1.060		0.750
	639F10	5/8			1.190		0.875
	639F12	3/4			1.310		1.062
<b>STYLE 640FB</b> <b>Cap Nut</b> 	640FB03	3/16			0.470		0.500
	640FB04	1/4			0.530		0.562
	640FB05	5/16			0.620		0.625
	640FB06	3/8			0.690		0.750
	640FB08	1/2			0.840		0.875
	640FB10	5/8			0.970		1.062
	640FB12	3/4			1.090		1.312

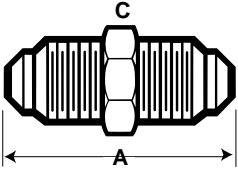
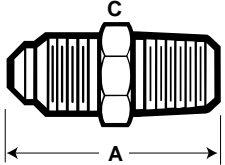
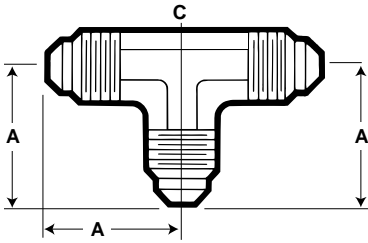
# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 641F</b> <b>Long Forged Nut</b> 	641F04	1/4			0.940		0.625
	641F05	5/16			0.940		0.687
	641F06	3/8			1.060		0.812
	641F08	1/2			1.190		0.937
	641F10	5/8			1.440		1.062
	641F12	3/4			1.750		1.312
<b>STYLE 641FS</b> <b>Short Forged Nut</b> 	641FS03	3/16			0.530		0.500
	641FS04	1/4			0.590		0.625
	641FS05	5/16			0.620		0.687
	641FS06	3/8			0.690		0.812
	641FS08	1/2			0.810		0.937
	641FS10	5/8			0.940		1.062
	641FS12	3/4			1.120		1.312
<b>STYLE 641FSH</b> <b>Heavy Short Forged Nut</b> 	641FSH04	1/4			0.594		0.750
	641FSH06	3/8			0.688		0.875
	641FSH08	1/2			0.812		1.000

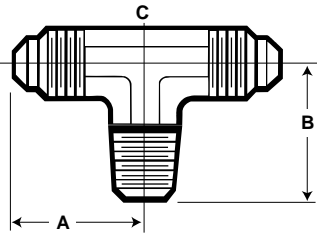
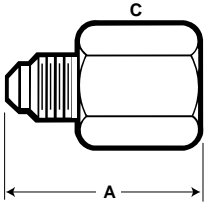
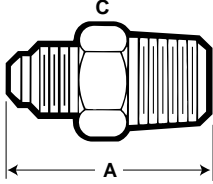
# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C	
<b>STYLE 642F</b> <b>Union</b> 	642F02	1/8		0.078	0.920		0.312	
	642F03	3/16		0.125	1.060		0.375	
	642F04	1/4		0.188	1.190		0.437	
	642F05	5/16		0.250	1.340		0.500	
	642F06	3/8		0.281	1.500		0.625	
	642F08	1/2		0.406	1.810		0.750	
	642F10	5/8		0.500	2.120		0.875	
	642F12	3/4		0.625	2.440		1.062	
	<b>STYLE 643F</b> <b>Ball Check</b> 	643F03X02	3/16	1/8	0.125	1.000		0.437
		643F04X02	1/4	1/8	0.136	1.060		0.437
643F06X04		3/8	1/4	0.187	1.440		0.625	
643F08X06		1/2	3/8	0.250	1.620		0.750	
<b>STYLE 644F</b> <b>Union Tee</b> 		644F02	1/8		0.078	0.620		0.312
	644F04	1/4		0.188	0.880		0.437	
	644F05	5/16		0.219	0.910		0.437	
	644F06	3/8		0.281	1.060		0.500	
	644F08	1/2		0.406	1.220		0.625	
	644F10	5/8		0.500	1.410		0.812	
	644F12	3/4		0.625	1.660		1.000	

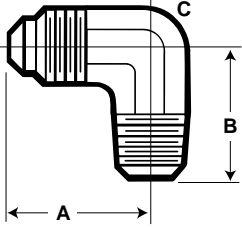
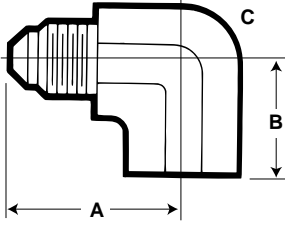
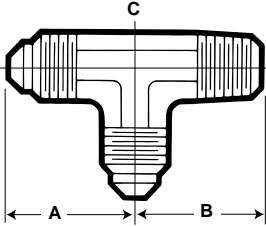
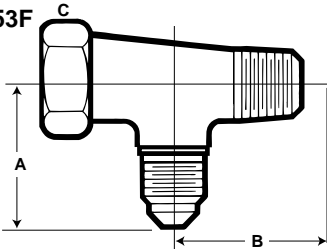
# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 645F</b> <b>Male Branch Tee</b> 	645F04X02	1/4	1/8	0.188	0.810	0.780	0.438
	645F04X04	1/4	1/4	0.188	0.910	0.940	0.437
	645F05X04	5/16	1/4	0.219	0.970	0.940	0.500
	645F06X04	3/8	1/4	0.281	1.030	1.060	0.500
	645F06X06	3/8	3/8	0.281	1.060	1.090	0.625
	645F08X04	1/2	1/4	0.312	1.220	1.190	0.625
	645F08X06	1/2	3/8	0.406	1.220	1.120	0.625
	645F08X08	1/2	1/2	0.406	1.280	1.380	0.812
	645F10X08	5/8	1/2	0.500	1.410	1.380	0.812
	645F12X08	3/4	1/2	0.562	1.620	1.500	1.000
	<b>STYLE 646F</b> <b>Female Connector</b> 	646F03X02	3/16	1/8	0.125	0.970	
646F04X02		1/4	1/8	0.188	1.030		0.562
646F04X04		1/4	1/4	0.188	1.250		0.688
646F05X02		5/16	1/8	0.219	1.060		0.562
646F05X04		5/16	1/4	0.250	1.280		0.688
646F06X02		3/8	1/8	0.275	1.620		0.620
646F06X04		3/8	1/4	0.281	1.310		0.688
646F06X06		3/8	3/8	0.281	1.380		0.812
646F06X08		3/8	1/2	0.281	1.620		1.000
646F06X12		3/8	3/4	0.281	1.660		1.250
646F08X04		1/2	1/4	0.406	1.410		0.750
646F08X06		1/2	3/8	0.406	1.500		0.812
646F08X08		1/2	1/2	0.406	1.750		1.000
646F08X12		1/2	3/4	0.406	1.810		1.250
646F10X06		5/8	3/8	0.500	1.590		0.875
646F10X08		5/8	1/2	0.500	1.810		1.000
646F10X12		5/8	3/4	0.500	1.910		1.250
646F12X12	3/4	3/4	0.625	1.970		1.250	
<b>STYLE 648F</b> <b>Male Connector</b> 	648F03X02	3/16	1/8	0.125	1.000		0.438
	648F04X02	1/4	1/8	0.188	1.060		0.438
	648F04X04	1/4	1/4	0.188	1.250		0.562
	648F04X06	1/4	3/8	0.188	1.310		0.688
	648F04X08	1/4	1/2	0.188	1.560		0.875
	648F05X02	5/16	1/8	0.219	1.160		0.500
	648F05X04	5/16	1/4	0.219	1.340		0.562
	648F05X06	5/16	3/8	0.219	1.380		0.688
	648F06X02	3/8	1/8	0.219	1.250		0.625
	648F06X04	3/8	1/4	0.281	1.440		0.625
	648F06X06	3/8	3/8	0.281	1.440		0.688
	648F06X08	3/8	1/2	0.281	1.690		0.875
	648F06X12	3/8	3/4	0.281	1.810		1.062
	648F08X02	1/2	1/8	0.219	1.440		0.750
	648F08X04	1/2	1/4	0.312	1.620		0.750
	648F08X06	1/2	3/8	0.406	1.620		0.750
	648F08X08	1/2	1/2	0.406	1.810		0.875
	648F08X12	1/2	3/4	0.406	1.940		1.062
	648F10X04	5/8	1/4	0.312	1.810		0.875
	648F10X06	5/8	3/8	0.406	1.810		0.875
	648F10X08	5/8	1/2	0.500	2.000		0.875
	648F10X12	5/8	3/4	0.500	2.060		1.062
	648F12X08	3/4	1/2	0.562	2.190		1.062
	648F12X12	3/4	3/4	0.625	2.190		1.062

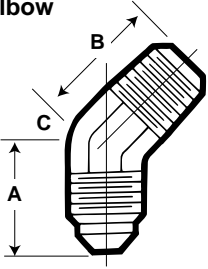
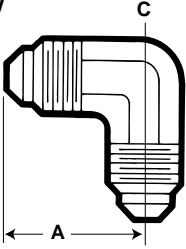
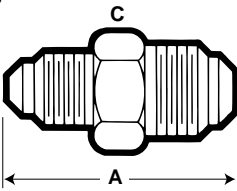
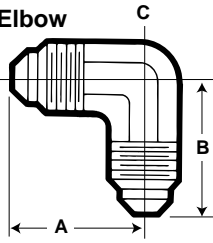
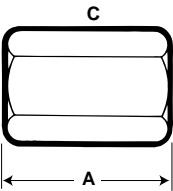
# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 649F</b> <b>Male Elbow</b> 	649F02X02	1/8	1/8	0.078	0.650	0.690	0.375
	649F03X02	3/16	1/8	0.125	0.750	0.750	0.375
	649F04X02	1/4	1/8	0.188	0.825	0.780	0.437
	649F04X04	1/4	1/4	0.188	0.910	0.940	0.500
	649F04X06	1/4	3/8	0.188	0.940	1.030	0.625
	649F05X02	5/16	1/8	0.219	0.910	0.780	0.437
	649F05X04	5/16	1/4	0.219	0.970	0.940	0.437
	649F05X06	5/16	3/8	0.219	1.000	1.030	0.562
	649F06X02	3/8	1/8	0.219	1.030	0.910	0.500
	649F06X04	3/8	1/4	0.281	1.060	1.060	0.500
	649F06X06	3/8	3/8	0.281	1.060	1.090	0.562
	649F06X08	3/8	1/2	0.281	1.160	1.280	0.687
	649F08X04	1/2	1/4	0.312	1.250	1.120	0.687
	649F08X06	1/2	3/8	0.406	1.220	1.120	0.625
	649F08X08	1/2	1/2	0.406	1.280	1.380	0.812
	649F08X12	1/2	3/4	0.406	1.410	1.410	1.000
	649F10X06	5/8	3/8	0.406	1.410	1.250	0.750
	649F10X08	5/8	1/2	0.500	1.410	1.380	0.812
649F10X12	5/8	3/4	0.500	1.470	1.500	0.937	
649F12X08	3/4	1/2	0.562	1.620	1.500	0.937	
649F12X12	3/4	3/4	0.625	1.620	1.620	1.000	
<b>STYLE 650F</b> <b>Female Elbow</b> 	650F04X02	1/4	1/8	0.188	0.880	0.470	0.562
	650F04X04	1/4	1/4	0.188	0.970	0.660	0.688
	650F04X06	1/4	3/8	0.188	1.030	0.660	0.875
	650F05X04	5/16	1/4	0.219	1.030	0.660	0.688
	650F06X04	3/8	1/4	0.281	1.090	0.690	0.688
	650F06X06	3/8	3/8	0.281	1.160	0.690	0.875
	650F06X08	3/8	1/2	0.281	1.250	0.880	1.000
	650F08X06	1/2	3/8	0.406	1.280	0.750	1.000
	650F08X08	1/2	1/2	0.406	1.380	0.940	1.000
	650F10X08	5/8	1/2	0.500	1.660	1.000	1.250
	650F10X12	5/8	3/4				
<b>STYLE 651F</b> <b>Male Run Tee</b> 	651F04X02	1/4	1/8	0.188	0.880	0.780	0.438
	651F04X04	1/4	1/4	0.188	0.910	0.940	0.438
	651F05X02	5/16	1/8	0.219	0.910	0.780	0.438
	651F06X04	3/8	1/4	0.281	1.060	1.060	0.500
	651F06X06	3/8	3/8	0.281	1.060	1.090	0.625
	651F08X06	1/2	3/8	0.406	1.220	1.120	0.625
	651F08X08	1/2	1/2	0.406	1.280	1.380	0.812
	651F10X08	5/8	1/2	0.500	1.410	1.380	0.812
<b>STYLE 653F</b> <b>Tee</b> 	653F06X04	3/8	1/4	0.281	1.120	0.840	0.750

# Tube Fittings

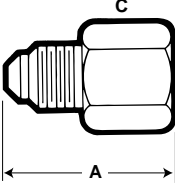
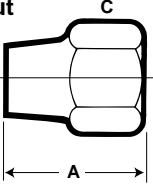
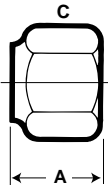
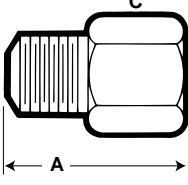
45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 654F</b> <b>45° Male Elbow</b> 	654F03X02	3/16	1/8	0.125	0.625	0.656	0.437
	654F04X02	1/4	1/8	0.187	0.687	0.656	0.437
	654F04X04	1/4	1/4	0.187	0.750	0.875	0.500
	654F05X02	5/16	1/8	0.218	0.750	0.656	0.437
	654F06X04	3/8	1/4	0.281	0.875	0.875	0.500
	654F06X06	3/8	3/8	0.281	0.875	0.875	0.625
	654F08X06	1/2	3/8	0.406	1.000	0.875	0.625
	654F10X08	5/8	1/2	0.500	1.125	1.156	0.812
	654F12X08	3/4	1/2	0.562	1.312	1.218	1.062
	654F12X12	3/4	3/4	0.625	1.312	1.218	1.062
<b>STYLE 655F</b> <b>Union Elbow</b> 	655F04	1/4		0.188	0.880		0.437
	655F05	5/16		0.219	0.940		0.437
	655F06	3/8		0.281	1.060		0.500
	655F08	1/2		0.406	1.250		0.687
	655F10	5/8		0.500	1.440		0.812
	655F12	3/4		0.625	1.690		1.000
<b>STYLE 656F</b> <b>Reducing Union</b> 	656F04X03	1/4 x 3/16		0.125	1.120		0.437
	656F05X04	5/16 x 1/4		0.188	1.280		0.500
	656F06X04	3/8 x 1/4		0.188	1.380		0.625
	656F08X04	1/2 x 1/4		0.188	1.560		0.750
	656F08X06	1/2 x 3/8		0.281	1.690		0.750
	656F10X06	5/8 x 3/8		0.281	1.880		0.875
	656F10X08	5/8 x 1/2		0.406	2.000		0.875
	656F12X08	3/4 x 1/2		0.406	2.190		1.062
<b>STYLE 657F</b> <b>Reducing Union Elbow</b> 	657F08X06	1/2 x 3/8		0.281	1.220	1.090	0.625
	657F10X08	5/8 x 1/2		0.406	1.410	1.280	0.812
<b>STYLE 660F</b> <b>Female Union</b>  <p>Part number includes gaskets.</p>	660F04	1/4		0.250	1.000		0.625
	660F06	3/8		0.375	1.250		0.812
	660F08	1/2		0.500	1.440		0.937
	660F10	5/8		0.625	1.690		1.062

# Tube Fittings

45° Flare

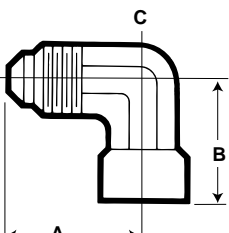
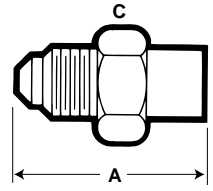
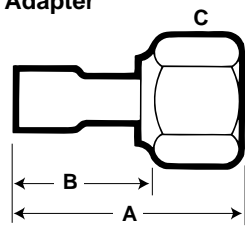
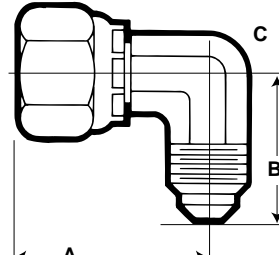
Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 661FA</b> <b>Reducer</b> 	661FA04X06	1/4 x 3/8		0.250	1.120		0.625
	661FA04X08	1/4 x 1/2		0.250	1.250		0.750
	661FA05X04	5/16 x 1/4		0.188	1.120		0.687
	661FA05X06	5/16 x 3/8		0.281	1.190		0.687
	661FA06X04	3/4 x 1/4		0.188	1.220		0.812
	661FA06X05	3/8 x 5/16		0.219	1.250		0.812
	661FA06X08	3/8 x 1/2		0.375	1.410		0.812
	661FA08X04	1/2 x 1/4		0.188	1.380		0.937
	661FA08X06	1/2 x 3/8		0.281	1.440		0.937
	661FA08X10	1/2 x 5/8		0.500	1.620		0.937
	661FA08X12	1/2 x 3/4		0.500	1.690		1.062
	661FA10X08	5/8 x 1/2		0.406	1.690		1.062
	661FA12X10	3/4 x 5/8		0.500	1.970		1.312
	<b>STYLE 662F</b> <b>Long Forged Reducing Nut</b>  Part Number includes Gaskets	662F06X04	3/8 x 1/4			1.060	
662F08X06		1/2 x 3/8			1.190		0.937
<b>STYLE 662FS</b> <b>Short Forged Reducing Nut</b> 	662FS06X04	3/8 x 1/4			0.690		0.812
	662FS06X05	3/8 x 5/16			0.690		0.812
	662FS08X06	1/2 x 3/8			0.810		0.937
	662FS10X08	5/8 x 1/2			0.940		1.062
<b>STYLE 664F</b> <b>Female Coupling</b>  Includes Gasket	664F04X02	1/4	1/8	0.219	0.910		0.625
	664F04X04	1/4	1/4	0.250	1.030		0.625
	664F06X04	3/8	1/4	0.344	1.280		0.812



# Tube Fittings

45° Flare Material: Brass

Style	Part No.	Tube O.D.	Pipe Thread	Min. Orifice Size	A	B	Wrench Pad/Hex C
<b>STYLE 669F</b> <b>Female Flare Elbow</b>  Part Number includes Gaskets	669F04X04	1/4 x 1/4		0.188	0.940	0.780	0.500
<b>STYLE 672FS</b> <b>Flare to Solder Union</b> 	672FS04X04 672FS04X06 672FS06X06 672FS08X08 672FS10X10	1/4 1/4 3/8 1/2 5/8	1/4 3/8 3/8 1/2 5/8	0.188 0.188 0.281 0.406 0.500	1.000 1.000 1.190 1.440 1.750		0.437 0.500 0.625 0.750 0.875
<b>STYLE 673FS</b> <b>Swivel Flare Nut to Solder Adapter</b>  Adapts hard drawn tubing to a flare.	673FS04 673FS06 673FS08 673FS10	1/4 3/8 1/2 5/8			1.250 1.437 1.562 1.812	0.937 1.000 1.062 1.188	0.625 0.812 0.937 1.062
<b>STYLE 679F</b> <b>Female Swivel Elbow</b> 	679F06 679F08	3/8 1/2		0.281 0.406	1.265 1.437	1.000 1.218	0.500 0.625



INSTRUMENTATION & FILTRATION