Fittings, Tubing & Nipples

High Pressure

Pressures to 150,000 psi (10342 bar)



Since 1945 Parker Autoclave Engineers has designed and built premium quality valves, fittings and tubing. This commitment to engineering and manufacturing excellence has earned Parker Autoclave Engineers a reputation for reliable, efficient product performance. Parker Autoclave Engineers has long been established as the world leader in high pressure fluid handling components for the chemical/petrochemical, research, and oil and gas, waterjet, and waterblast industries.

High Pressure Fittings, Tubing and Nipples Features:

- Coned-and-Threaded Connection.
- Available sizes are 1/4, 5/16, 3/8, 9/16, and 1".
- Fittings manufactured from 316 cold worked or high strength stainless steel.
- Tubing is manufactured from dual rated 316/316L and 304/304L cold worked stainless steel.
- Operating Temperatures from -423°F (-252°C) to 1200°F (649°C).
- Anti-vibration connection components available.
- Ultra-high pressure components.
- Autofrettaged tubing.
- High pressure high cycle tubing.

The high and ulta-high pressure series uses Parker Autoclave Engineers' high pressure connector. This coned-and-threaded connection provides dependable performance in gas or liquid service.

Parker

Autoclave Engineers

www.autoclave.com

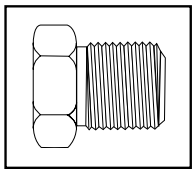
Pressures to 150,000 psi (10342 bar)



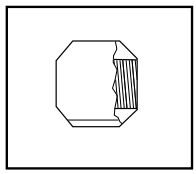
Parker Autoclave Engineers high pressure fittings Series F and SF are the industry standard for pressures to 150,000 psi (10342 bar). Utilizing Parker Autoclave Engineers high pressure coned-and-threaded connections, these fittings are correlated with Series 30SC, 43SC, 30VM, 40VM, 60VM, 100VM, and 150V valves and Parker Autoclave Engineers high pressure tubing.

Connection Components

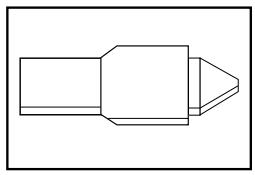
All Parker Autoclave Engineers valves and fittings are supplied complete with appropriate glands and collars. To order these components separately, use order numbers listed. When using plug, collar is not required.



Gland
AGL ( )



Collar
ACL ( )



Plug
AP ( )

Add tube size ( )
1/4" - 40
5/16" - 50
3/8" - 60
9/16" - 90
1" - 160

Example:
9/16" Gland - AGL (90)

To ensure proper fit use Parker Autoclave Engineers tubing.

Note: Special material glands may be supplied with four flats in place of standard hex.

Connection Type	Gland	Collar	Plug	Connection Components (Industry Standard)
F250C F375C F562C	AGL( )	ACL( )	AP( )	Parker Autoclave Engineer's high pressure fittings 1/4, 3/8 and 9/16 connection components to 60,000 psi (4137 bar). For use with 30VM, 40VM, 60VM valves and fittings.
F1000C43	CGLX160	CCLX160	43CP160	Parker Autoclave Engineer's high pressure 1" connection components to 43,000 psi (2965 bar) for use with 30SC, 43Y valves, and fittings.
F312C150	CGL50	CCL50	CP50	Parker Autoclave Engineer's ultra high pressure 5/16 connection components to 150,000 psi (10342 bar) for use with 100VM and 150V valve and fittings.
	100CGL40 100CGL60	100CCL40 100CCL60	100CP40 100CP60	Parker Autoclave Engineer's 100,000 psi (6895 bar) connection components utilize our 5/16" connection for 1/4" and 3/8" tubing. (See Note*)

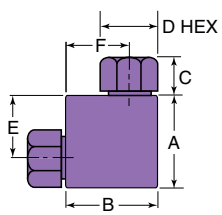
All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.

Catalog Number	Connection Type	Outside Diameter Tube	Pressure Rating psi (bar)*	Minimum Opening	Dimensions - inches (mm) A	B	C	D Typical	E	F	G Thickness	Block Thickness	Fitting Pattern
Elbow													
CL4400	F250C	1/4 (6.35)	60,000 (4136.79)	0.094 (2.39)	1.00 (25.40)	1.50 (38.10)	0.50 (12.70)	0.63 (15.88)	0.62 (15.75)	0.88 (22.35)		0.75 (19.05)	See Figure 1
100CL4400	F312C150	1/4 (6.35)	100,000 (6894.65)	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CL5500	F312C150	5/16 (7.94)	150,000 (10341.97)	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CL6600	F375C	3/8 (9.53)	60,000 (4136.79)	0.125 (3.18)	1.50 (38.10)	2.00 (50.80)	0.52 (13.21)	0.81 (20.62)	1.00 (25.40)	1.25 (31.75)		1.00 (25.40)	
100CL6600	F312C150	3/8 (9.53)	100,000 (6894.65)	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CL9900	F562C	9/16 (14.29)	60,000 (4136.79)	0.188 (4.78)	1.88 (47.75)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.12 (28.45)	1.88 (47.75)		1.50 (38.10)	
40CL9900	F562C40	9/16 (14.29)	40,000 (2757.86)	0.250 (6.35)	1.88 (47.775)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.12 (28.45)	1.88 (47.75)		1.50 (38.10)	
43CL16	F1000C43	1 (25.40)	43,000 (2964.70)	0.438 (11.13)	3.00 (76.20)	4.12 (104.65)	0.72 (18.29)	1.38 (35.05)	2.06 (52.32)	2.06 (52.32)		1.75 (44.45)	
Tee													
CT4440	F250C	1/4 (6.35)	60,000 (4136.79)	0.094 (2.39)	1.25 (31.75)	2.00 (50.80)	0.50 (12.70)	0.63 (15.88)	0.88 (22.35)	1.00 (25.40)		1.00 (25.40)	See Figure 2
100CT4440	F312C150	1/4 (6.35)	100,000 (6894.65)	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CT5550	F312C150	5/16 (7.94)	150,000 (10341.97)	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CT6660	F375C	3/8 (9.53)	60,000 (4136.79)	0.125 (3.18)	1.56 (39.62)	2.00 (50.80)	0.52 (13.21)	0.81 (20.62)	1.06 (26.92)	1.00 (25.40)		1.00 (25.40)	
100CT6660	F312C150	3/8 (9.53)	100,000 (6894.65)	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CT9990	F562C	9/16 (14.29)	60,000 (4136.79)	0.188 (4.78)	2.12 (53.85)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.38 (35.05)	1.31 (33.27)		1.50 (38.10)	
40CT9990	F562C40	9/16 (14.29)	40,000 (2757.86)	0.250 (6.35)	2.12 (53.85)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.38 (35.05)	1.31 (33.27)		1.50 (38.10)	
43CT16	F1000C43	1 (25.40)	43,000 (2964.70)	0.438 (11.13)	3.00 (76.20)	4.12 (104.65)	0.72 (18.29)	1.38 (35.05)	2.06 (52.32)	2.06 (52.32)		1.75 (44.45)	
Cross													
CX4444	F250C	1/4 (6.35)	60,000 (4136.79)	0.094 (2.39)	1.25 (31.75)	2.00 (50.80)	0.50 (12.70)	0.63 (15.88)	0.62 (15.75)	1.00 (25.40)		1.00 (25.40)	See Figure 3
100CX4444	F312C150	1/4 (6.35)	100,000 (6894.65)	0.094 (2.39)	3.00 (76.20)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CX5555	F312C150	5/16 (7.94)	150,000 (10341.97)	0.094 (2.39)	3.00 (76.20)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CX6666	F375C	3/8 (9.53)	60,000 (4136.79)	0.125 (3.18)	2.12 (53.85)	2.00 (50.80)	0.52 (13.21)	0.81 (20.62)	1.06 (26.92)	1.00 (25.40)		1.00 (25.40)	
100CX6666	F312C150	3/8 (9.53)	100,000 (6894.65)	0.094 (2.39)	2.12 (76.20)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.50 (38.10)		1.38 (35.05)	
CX9999	F562C	9/16 (14.29)	60,000 (4136.79)	0.188 (4.78)	2.75 (69.85)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.38 (35.05)	1.31 (33.27)		1.50 (38.10)	
40CX9999	F562C40	9/16 (14.29)	40,000 (2757.86)	0.250 (6.35)	2.75 (69.85)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.38 (35.05)	1.31 (33.27)		1.50 (38.10)	
43CX16	F1000C43	1 (25.40)	43,000 (2964.70)	0.438 (11.13)	4.12 (104.65)	4.12 (104.65)	0.72 (18.29)	1.38 (35.05)	2.06 (52.32)	2.06 (52.32)		1.75 (44.45)	

*Maximum pressure rating is based on the lowest rating of any component.
Actual working pressure may be determined by tubing pressure rating, if lower.

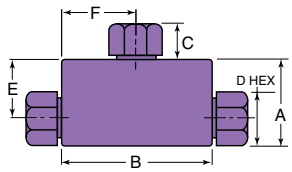
All dimensions for reference only and subject to change.
For prompt service, Parker Autoclave stocks select products. Consult your local representative.

Figure 1



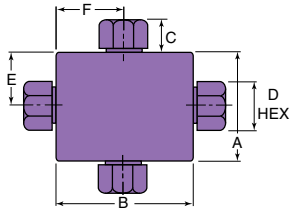
Elbow

Figure 2



Tee

Figure 3



Cross

Note: Fittings such as 45° elbows, reducer elbows, and reducer 45° elbows are available upon request. For mounting hole option add suffix PM to catalog number, consult factory for mounting hole dimensions. Contact your local sales representative for additional information.

All general terms and conditions of sale, including limitations of our liability, apply to all products and services sold.

Catalog Number	Connection Type	Outside Diameter Tube	Pressure Rating psi (bar)*	Minimum Opening	Dimensions - inches (mm)							Block Thickness	Fitting Pattern
					A	B	C	D Typical	E	F Hex	G Thickness		

Straight Coupling/Union Coupling

60F4433	F250C	1/4	60,000	0.094	0.75	1.38	0.50	0.63	Straight	See Figure 4
60UF4433		**(6.35)**	**(4136.79)**	**(2.39)**	**(19.05)**	**(35.05)**	**(12.70)**	**(15.88)**	Union	
100F4433	F312C150	1/4	100,000	0.094	1.12	2.62	0.52	0.75	Straight	
100UF4433		**(7.94)**	**(10341.97)**	**(2.39)**	**(28.45)**	**(66.55)**	**(13.21)**	**(19.05)**	Union	
150F5533	F312C150	5/16	150,000	0.094	1.12	2.62	0.52	0.75	Straight	
150UF5533		**(7.94)**	**(10341.97)**	**(2.39)**	**(28.45)**	**(66.55)**	**(13.21)**	**(19.05)**	Union	
60F6633	F375C	3/8	60,000	0.125	1.00	1.75	0.53	0.81	Straight	
60UF6633		**(9.53)**	**(4136.79)**	**(3.18)**	**(25.40)**	**(44.45)**	**(13.46)**	**(20.62)**	Union	
100F6633	F312C150	3/8	100,000	0.094	1.12	2.62	0.52	0.75	Straight	
100UF6633		**(9.53)**	**(6894.65)**	**(2.39)**	**(28.45)**	**(66.55)**	**(13.21)**	**(19.05)**	Union	
60F9933	F562C	9/16	60,000	0.188	1.38	2.19	0.81	1.19	Straight	
60UF9933		**(14.29)**	**(4136.79)**	**(4.78)**	**(35.05)**	**(55.63)**	**(20.57)**	**(30.15)**	Union	
40F9933	F562C40	9/16	40,000	0.250	1.38	2.19	0.81	1.19	Straight	
40UF9933		**(14.29)**	**(2757.86)**	**(6.35)**	**(35.05)**	**(55.63)**	**(20.57)**	**(30.15)**	Union	
43F16	F1000C43	1	43,000	0.438	1.75	3.50	0.72	1.38	Straight	
43UF16		**(25.40)**	**(2964.70)**	**(11.13)**	**(44.45)**	**(88.90)**	**(18.29)**	**(35.05)**	Union	

Bulkhead Coupling

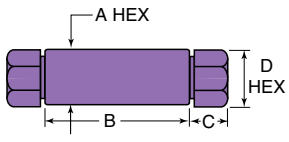
60BF4433	F250C	1/4	60,000	0.094	0.94	1.88	0.50	0.63	0.50	1.00	0.38		See Figure 5
		(6.35)	**(4136.79)**	**(2.39)**	**(23.88)**	**(47.75)**	**(12.70)**	**(15.88)**	**(12.70)**	**(25.40)**	**(9.65)**		
100BF4433	F312C150	1/4	100,000	0.094	2.12	3.25	0.52	0.75	1.38	2.00	0.38		
		(6.35)	**(6894.65)**	**(2.39)**	**(53.85)**	**(82.55)**	**(13.21)**	**(19.05)**	**(35.05)**	**(50.80)**	**(9.65)**		
150BF5533	F312C150	5/16	150,000	0.094	2.12	3.25	0.52	0.75	1.38	2.00	0.38		
		(7.94)	**(10341.97)**	**(2.39)**	**(53.85)**	**(82.55)**	**(13.21)**	**(19.05)**	**(35.05)**	**(50.80)**	**(9.65)**		
60BF6633	F375C	3/8	60,000	0.125	1.12	2.38	0.53	0.81	0.78	1.38	0.38		
		(9.53)	**(4136.79)**	**(3.18)**	**(28.45)**	**(60.45)**	**(13.46)**	**(20.62)**	**(19.81)**	**(35.05)**	**(9.65)**		
100BF6633	F312C150	3/8	100,000	0.094	2.12	3.25	0.52	0.75	1.38	2.00	0.38		
		(9.53)	**(6894.65)**	**(2.39)**	**(53.85)**	**(82.55)**	**(13.21)**	**(19.05)**	**(35.05)**	**(50.80)**	**(9.65)**		
60BF9933	F562C	9/16	60,000	0.188	1.69	2.75	0.81	1.19	1.00	1.88	0.38		
		(14.29)	**(4136.79)**	**(4.78)**	**(42.93)**	**(69.85)**	**(20.57)**	**(30.23)**	**(25.40)**	**(47.75)**	**(9.65)**		
40BF9933	F562C40	9/16	40,000	0.250	1.69	2.75	0.81	1.19	1.00	1.88	0.38		
		(14.29)	**(2757.86)**	**(6.35)**	**(42.93)**	**(69.85)**	**(20.57)**	**(30.23)**	**(25.40)**	**(47.75)**	**(9.65)**		
43BF16	F1000C43	1	43,000	0.438	1.94	3.50	0.72	1.38	1.50	2.13	0.50		
		(25.40)	**(2964.70)**	**(11.13)**	**(49.28)**	**(88.90)**	**(18.29)**	**(35.05)**	**(38.10)**	**(54.10)**	**(12.70)**		

*Maximum pressure rating is based on the lowest rating of any component.
Actual working pressure may be determined by tubing pressure rating, if lower.

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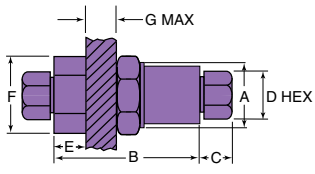
Union Couplings are designed with a removable seat insert allowing disassembly and tubing removal without the necessity of loosening other items in a line.

Figure 4



Straight Coupling / Union Coupling

Figure 5



(A=Panel hole drill size)

Bulkhead Coupling

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