

Materials Range for Corrosion Control

Our experienced credentials in materials selection are the results of years of expertise in successful applications worldwide.

Materials Range

Parker offers the most extensive range of alloys in the market. The range varies from conventional steels to high nickel alloys and titanium for the most demanding applications. The table below depicts the standard range of materials per product family. Other alloys might be offered on request.

	A-LOK® Fittings	MPI™ Fittings	CPI™ Fittings	Phastite® Fittings	Valves	Manifolds	Flanged Products
Brass	Yes	No	Yes	No	Yes	No	No
Carbon Steel	No	No	Yes	No	Yes	No	Yes
Stainless Steel 316/316L	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Duplex Steel	No	No	No	No	Yes	Yes	Yes
Superduplex Steel	No	No	No	No	No	Yes	Yes
Super austenitic 6Mo	Yes	No	Yes	No	Yes	Yes	Yes
Monel 400	Yes	No	Yes	No	Yes	Yes	Yes
Alloy 825	Yes	No	No	No	Yes	Yes	Yes
Alloy 625	Yes	No	No	No	Yes	Yes	Yes
Alloy C-276	Yes	No	Yes	No	Yes	Yes	Yes
Titanium	Yes	No	Yes	No	Yes	Yes	Yes

Parameters To Be Considered in the Materials Selection Process

The main parameters to be considered when selecting any equipment are:

- Operating conditions, including temperature, pressure and media contained
- Environment
- Legislation and Internal Regulations
- Cost
- Availability
- Lead time
- Expected life time of the equipment
- Safety

In terms of materials, the selection criteria normally translate into some of the following parameters:

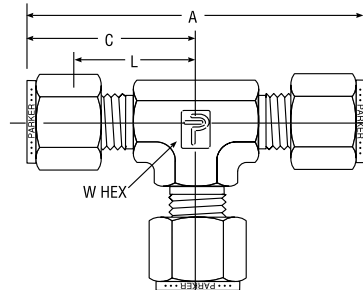
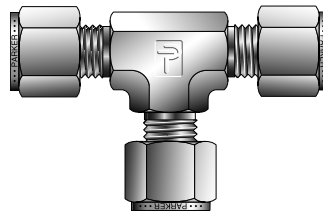
- Mechanical properties
- Corrosion resistance to media and environment
- Temperature operating range
- Cost
- Availability on request

Although the mechanism of corrosion is highly complex the actual control of the majority of corrosion reactions can be effected by the application of relatively simple concepts. Indeed, the Committee on Corrosion and Protection concluded that 'better dissemination of existing knowledge' was the most important single factor that would be fundamental in decreasing the enormous cost of corrosion in the UK.*

* Report of the Committee on Corrosion and Protection, Department of Trade and Industry, H.M.S.O. (1971)

Tube to Tube Unions

Union Tee For fractional tube



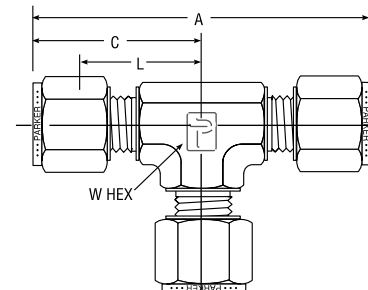
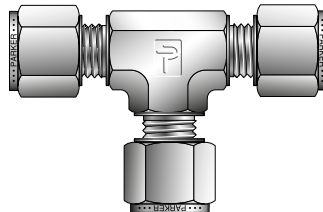
CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	INCHES				
			TUBE O.D.	A	C	L	W HEX
1-1-1 JBZ	1ET1	100-3	1/16	1.42	0.71	0.56	3/8
2-2-2 JBZ	2ET2	200-3	1/8	1.76	0.88	0.62	3/8
3-3-3 JBZ	3ET3	300-3	3/16	1.96	0.96	0.70	7/16
4-4-4 JBZ	4ET4	400-3	1/4	2.12	1.06	0.77	1/2
5-5-5 JBZ	5ET5	500-3	5/16	2.34	1.17	0.88	5/8
6-6-6 JBZ	6ET6	600-3	3/8	2.40	1.20	0.91	5/8
8-8-8 JBZ	8ET8	810-3	1/2	2.84	1.42	1.02	13/16
10-10-10 JBZ	10ET10	1010-3	5/8	3.06	1.53	1.13	1
12-12-12 JBZ	12ET12	1210-3	3/4	3.14	1.57	1.16	1-1/16
14-14-14 JBZ	14ET14	1410-3	7/8	3.52	1.76	1.36	1-3/8
16-16-16 JBZ	16ET16	1610-3	1	3.86	1.93	1.45	1-3/8
20-20-20 JBZ	20ET20	2010-3	1-1/4	5.22	2.61	1.75	1-5/8
24-24-24 JBZ	24ET24	2410-3	1-1/2	6.12	3.06	2.00	1-7/8
32-32-32 JBZ	32ET32	3210-3	2	8.44	4.22	2.75	2-13/16

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.

Sizes 20, 24, 32 require additional lubrication prior to assembly.

Union Tee For metric tube



CPI™ PART NO.	A-LOK® PART NO.	INTER- CHANGES WITH	MILLIMETERS				IN/MM
			TUBE O.D.	A	C	L	W HEX
JBZ 2-2-2	ETM2	2MO-3	2	44,7	22,3	15,7	3/8
JBZ 3-3-3	ETM3	3MO-3	3	44,7	22,3	15,7	3/8
JBZ 4-4-4	ETM4	4MO-3	4	50,8	25,4	18,8	1/2
JBZ 6-6-6	ETM6	6MO-3	6	53,9	27,0	19,6	1/2
JBZ 8-8-8	ETM8	8MO-3	8	59,7	29,9	22,4	5/8
JBZ 10-10-10	ETM10	10MO-3	10	63,0	31,5	23,9	11/16
JBZ 12-12-12	ETM12	12MO-3	12	72,0	36,0	25,9	13/16
JBZ 14-14-14	ETM14	14MO-3	14	77,6	38,8	28,7	1
JBZ 15-15-15	ETM15	15MO-3	15	77,6	38,8	28,7	1
JBZ 16-16-16	ETM16	16MO-3	16	77,6	38,8	28,7	1
JBZ 18-18-18	ETM18	18MO-3	18	79,5	38,8	29,7	1-1/16
JBZ 20-20-20	ETM20	20MO-3	20	89,3	44,6	34,5	1-3/8
JBZ 22-22-22	ETM22	22MO-3	22	89,3	44,6	34,5	1-3/8
JBZ 25-25-25	ETM25	25MO-3	25	98,3	49,1	36,8	1-3/8
	ETM28	28MO-3	28	128,0	64,0	45,7	41 mm
	ETM30	30MO-3	30	140,0	70,0	50,1	48 mm
	ETM32	32MO-3	32	145	72,3	51,3	48 mm

NOTE: A and C dimensions are typical finger-tight.

Dimensions for reference only, subject to change.