

INSTRUMENTATION PRODUCTS



Tubing, Fittings, Valves & Quick Couplings



Parker Small Bore Expert Training

For Instrumentation Fitters, Technicians, & Maintenance Personnel



Enroll your Instrumentation Fitters, Technicians, & Maintenance Personnel on the Parker **SBEx** Training Programme to give them the hands-on training they need to help your organisation save time, reduce overheads and increase safety, both during and after installation

SBEx Course Content

- What are SBT systems?
- Typical Applications
- Tubing Types
- Tube Connecting Technologies
- Pipe Connecting Technologies
- Tube Fitting Installation
- Special Connections
- Pipe Fitting Installation
- Tubing Installation
- Inventory Management
- Safety at Work



A-LOK® Tube Fittings



This training programme not only explains in detail the correct assembly procedure, but also covers the following criteria:

- Technical features of the product and why they are important
- The principle of the fitting and how it works
- Tube selection and preparation
- Typical installation problems and causes
- Identification of different makes
- Practical demonstrations and test

Training available either on site or at our office in Clonmel

Contact Noel Walsh at 086 8118435 or email noel.walsh@hccl.ie

The SBEx training programme is generally in accordance with the UK Oil & Gas Operators Association (UKOOA) Guide for the management, design, installation of small bore tubing systems – EN directive number 0852932758.

Parker A-LOK Compression Fittings



Parker A-LOK® Instrumentation Tube Fittings are designed as leak-free connections for process, power and instrumentation applications. These two ferrule fittings are manufactured to the highest quality standards and are available in a broad range of sizes, materials and configurations

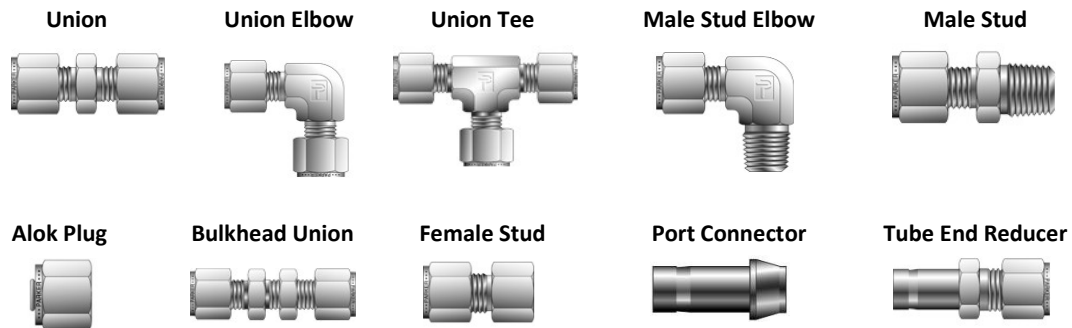
*Parker A-LOK fittings are available as standard in Heat Code Traceable SS316

*Other materials include: Brass, Aluminum, Nickel-Copper, Hastelloy C®, Alloy 600, Titanium, 6Mo, Incoloy 625 and 825

*Straight fittings are machined from cold finished bar stock

* Shaped bodies are machined from close grain forgings.

SOME OF THE COMMON SHAPES IN STOCK AT OUR CLONMEL WAREHOUSE



Sizes Stocked: 6mm OD to 12mm OD 1/8" OD to 1" OD

Thread Types: NPT, BSPT, BSPP

BENEFITS: 3.1B Material Certs available free of charge
Guaranteed Swagelok Interchange
CAD drawings available
On-site **SBEX** Training available

We also carry a full range of NPT & ISO conversion high pressure (6k) pipe fittings



Parker Instrumentation Valves



B SERIES BALL VALVE



Offering superior performance in a variety of pressure and temperature applications

HI-PRO BALL VALVE



This two-piece Hi-Pro valve offers the user full cold working pressure ratings up to 10,000 psi

PR SERIES PLUG VALVE



Positive leak tight shut-off, high flow capacity, & quarter-turn operation in a compact attractive package

C SERIES CHECK VALVE



Parker C Series Check Valves are designed for uni-directional flow control of fluids and gases.

HNV SERIES NEEDLE VALVE



Globe style barstock needle valve designed for operation with any fluid up to 6,000 psig

V SERIES NEEDLE VALVE



Positive leak tight shut-off & regulation of fluids in process, power and instrumentation applications.

HR SERIES METERING VALVE



Provide the highest degree of precision metering for moderate pressure applications

F SERIES INLINE FILTER



Designed for protection of instrumentation systems from undesirable materials.

IR4000 SERIES REGULATOR



Offers various outlet pressure ranges with an inlet pressure up to 4,000 psig.

316L Seamless Tubes - Working Pressure Ratings

IMPERIAL TUBE - Working Pressure measured in 'psig'

Tube	Wall Thickness, inches						
O.D.	0.028	0.035	0.049	0.065	0.083	0.095	0.109
1/16	16800						
1/8	8600	10900					
3/16	5500	7000	10300				
1/4	4000	5100	7500	10300			
5/16		4100	5900	8100			
3/8		3300	4800	6600			
1/2		2600	3700	5100	6700		
5/8			3000	4000	5200	6100	
3/4			2400	3300	4300	5000	5800
7/8			2100	2800	3600	4200	4900
1				2400	3200	3700	4200

	Suitable for all services
	Suitable for all services*
	Suitable for all services**
	Not recommended for gas service
	No data

* use pre-assembly tool
 ** use 'Hyferset' pre-assembly tool

METRIC TUBE - Working Pressure measured in 'bar'

Tube	Wall Thickness, mm									
OD	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0
6	330	430	520	680						
8		310	380	490						
10		240	300	380	470					
12		200	240	310	380	430				
14		180	220	280	340	390	430			
15		170	200	260	320	360	400			
16			190	240	300	330	370	430		
18			170	210	260	290	330	380		
20			150	190	230	260	290	330	380	
22			140	170	210	230	260	300	340	
25					180	200	230	260	300	320

Pressure Ratings at Elevated Temperatures

This table lists the de-rating (DR) factor that should be applied to the allowable tube WP

°F	°C	DR Factor
300	149	1
400	204	0.97
500	260	0.9
600	315	0.85
700	371	0.82
800	426	0.8
900	482	0.78
1000	537	0.77
1100	593	0.62
1200	649	0.37

Example 316L Tube 1/2" OD x 0.049" wall

Actual service temperature: 500 deg C

De-rating factor: 0.77

Allowable working pressure @ 500 deg C is
 $3700 \times 0.77 = 2849$ psi

316L Seamless Tube

GRADE: TP 316/316L, 1.4401; 1.4404;

SPECIFICATIONS: ASTM A213/269 PED 2014/68/EU
NACE MR0175/ISO 15156-3/2015, ANSI/NACE MR0103/ISO 17945:2015

ORIGIN: ONLY WESTERN EUROPEAN MANUFACTURERS INCL.

- * Schoeller Bleckmann (Austria)
- * TPS Technitube (Germany)
- * Mannesmann (Italy)
- * Sandvik (Sweden)



ORDERING: Sold in multiples of 6m
3.1B certs available at no extra cost

FRACTIONAL SIZES:	Tube OD (in)	Tube Wall (in)	HCCL Part No.	Working Pressure		Tube OD (mm)	Tube Wall (mm)
				Psig	Bar		
	1/8	.036	1/820316	10900	750	3.18	0.91
	1/4	.036	1/420316	5100	350	6.35	0.91
	1/4	.049	1/418316	7500	515	6.35	1.25
	1/4	.065	1/416316	10300	710	6.35	1.65
	3/8	.036	3/820316	3300	228	9.53	0.91
	3/8	.049	3/818316	4800	331	9.53	1.25
	3/8	.065	3/816316	6600	455	9.53	1.65
	1/2	.036	1/220316	2600	180	12.70	0.91
	1/2	.049	1/218316	3700	255	12.70	1.25
	1/2	.065	1/216316	5100	350	12.70	1.65
	3/4	.049	3/418316	2400	165	19.05	1.25
	3/4	.065	3/416316	3300	225	19.05	1.65
	1	.065	116316	2400	165	25.40	1.65
	1	.083	114316	3200	220	25.40	2.11

METRIC SIZES	Tube OD (mm)	Tube Wall (mm)	HCCL Part No.	Working Pressure	
				Psig	Bar
	6	1.0	61316	6200	430
	8	1.0	81316	4500	310
	10	1.0	101316	3500	240
	10	1.5	101.5316	5500	380
	12	1.0	121316	2900	200
	12	1.5	121.5316	4500	310
	15	1.5	151.5316	3770	260
	16	1.5	161.5316	3500	240
	18	1.5	181.5316	3050	210
	20	1.5	201.5316	2750	190
	25	2.5	202316	2900	200



316L Seamless Tube - Cleaned for Oxygen Service (CFOS)

GRADE: TP316L, 1.4404;

SPECIFICATIONS: ASTM A269 /A270/A632, ASME SA213, EN ISO 1127 D4/T3

Cleaning to ASTM G93

PED 2014/68/EU

ORIGIN: Calamo (Sweden)

PRODUCT: CQ - Stainless Steel tube for High Purity Gas Systems / Clean Air

ORDERING: Sold in multiples of 6m
3.1B certs available at no extra cost



FRACTIONAL	Tube OD (in)	Tube Wall (in)	HCCL Part No.	Working Pressure		Tube OD (mm)	Tube Wall (mm)
				Psig	Bar		
	1/4	.036	1/420316-TCC	5100	350	6.35	0.91
	1/2	.049	1/218316-TCC	3700	255	12.70	1.25
	3/4	.065	3/416316-TCC	3300	225	19.05	1.65
	1	.065	116316-TCC	2400	165	25.40	1.65

Other sizes available

SURFACE FINISH: RA (ID) <1.0 µm

Manufacturing Process

- Cleanliness achieved through advanced surface treatment and packing technique.
- Final rinsing always using deionized water.
- Tubes are dried with nitrogen from cryo tank.
- Individual surface control of cleanliness and surfaces.
- CQ-products are sealed with polyethylene caps and packed in sealed polyethylene sleeve.

Advantages

- Tubes are cleaned to transport high purity gases without interference with the process.
- High purity tubes are protected from contamination.
- Products have full traceability from steel melt to customer.
- Material certificate according to EN 10204 3.1.
- Each sleeve is marked with a unique label that can be traced back to the certificate.
- The products fulfill the requirements according to PED 97/23/EC and AFS 1999:4.
- CQ is prepared for orbital welding.



Tube Supports



We stock a large range of RSB Tube Clamps. Our most popular clamp is the RSB Series A & B green polypropylene clamp with mounting plates and bolts ordered separately as necessary. Plates and bolts are available in either galv or SS and there many mounting options available.

Series A Single Clamp



Series B Twin Clamp



Available in sizes from
4mm to 101.8mm - for
all sizes of OD & NB
tube

Typical order configuration

Clamp	RAP212.7 (1/2" OD tube)
Top Plate	DP-A2-SS
Weld Plate	APK-A2-SS
Hex Bolts x2	SSL-A2-SS

Popular Mounting Accessories



Top Plate (DP)
Galv or SS



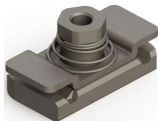
Weld Plate (APK)
Galv or SS



Weld/Screw Plate (APL)
Galv or SS



Hex Head (SSL)
Galv or SS



Unistrut adaptor (BA-A)
Galv only



Customers are seeing a benefit in using 2 no. Unistrut Adaptors instead of a Weld Plate Cheaper and faster

Material Choices



Polypropylene (RAP)
-30 / +90 °C



PA6 (RA)
-40 / +120 °C



TPE Rubber (R)
-40 / +150 °C



Aluminium (RAA)
-40 / +300 °C

Hand Tools & Accessories



TUBE CUTTERS 1/8"-11/8" OD



Part No.	Ridgid No.
PT-C	29963
Replacement wheel # PT-CS	

DEBURRING TOOL 3/16"-11/2"



Part No.	Ridgid No.
PT-D	29983

TUBE BENDERS

- Size
- 1/4"
 - 3/8"
 - 1/2"
 - 6mm
 - 8mm (5/16")
 - 10mm
 - 12mm



Part No.	Ridgid No.
PTB-4T	38033
PTB-6T	38043
PTB-8T	38048
PTB-6M	38053
PTB-8M	38038
PTB-10M	38058
PTB-12M	38063

THREAD SEALING PASTE - LOCTITE 567

Size: 250ml



Part No.
PS-L-250

GAP GAUGE



Part No.	Size
PT-GG-4	1/4" & 6mm
PT-GG-6	3/8" & 10mm
PT-GG-8	1/2" & 12mm
PT-GG-12	3/4" & 18mm
PT-GG-116	1" & 25mm

TRU-KUT VICE



Part No.
PT-V

Parker H Series Block & Bleed



With many years of manifold development and manufacture Parker Hannifin are able to offer the most comprehensive range of two, three, & five valve block and bleed manifolds to suit all types of instrumentation installations, specifications and applications.

2 VALVE REMOTE & DIRECT MOUNT



3 VALVE REMOTE & DIRECT MOUNT



5 VALVE REMOTE & DIRECT MOUNT



Process, instrument and vent connections can be provided in a variety of sizes and thread forms including NPT, BSPT and BSPP

Parker Quick Couplers



3.1/2.2 certification available on request
Various seal options including FDA approved seals with some ranges
Oxygen cleaned option available with some ranges
Single shut off, Double shut off and Straight Thru' options available

Please speak to us regarding your specific requirements and we will endeavour to find the correct solution

SNAPTITE 71 SERIES

Flat Face / Dry Break Coupling
1/4" to 2"
FDA seals available
3.1b material certs available



SNAPTITE H SERIES

General purpose hydraulic/pneumatic coupling
Single or Double Shut off
1/4" to 6"
Steel, Brass, Alu & SS316 options



PARKER 60 SERIES

ISO 7241 Series B interchange
Steel, Brass & Stainless options
1/8" to 2-1/2"
Different seal options



PARKER CPI SERIES

Swagelok QC Series interchange
Single or Double Shut off
1/4", 3/8" & 1/2"
Available with metric and inch compression ends



RECTUS 26 SERIES

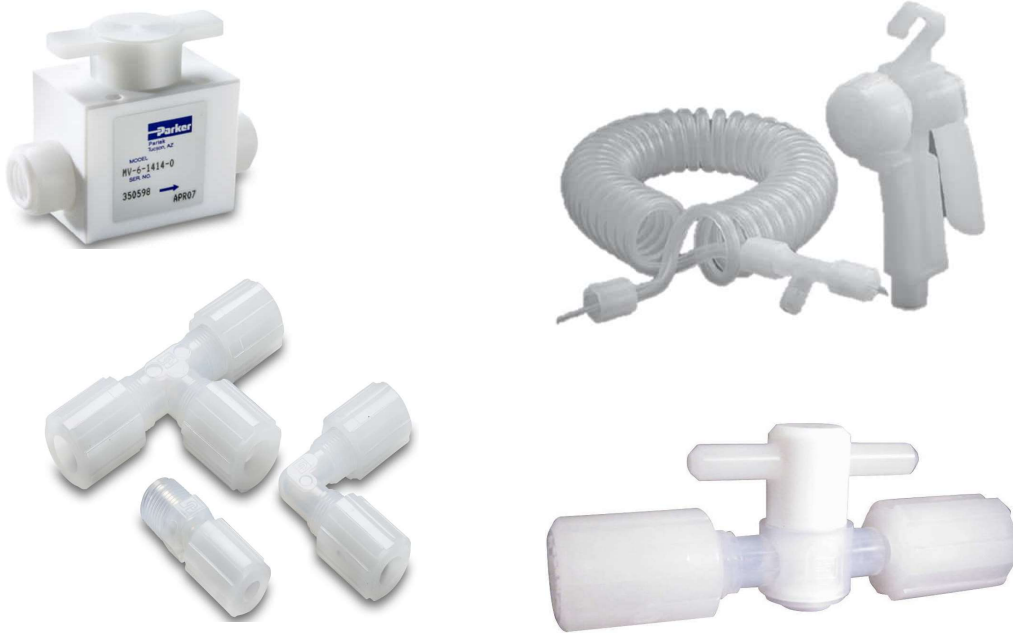
Safety coupling to ISO 4414
Self Vents during disconnection
Nickel brass/NBR coupling
Zinc plated steel plug



PTFE / PFA Tube & Fittings



Parker Partek produces a range of chemically inert PTFE/PFA fittings for ultra-high purity applications, where safeguarding media purity and corrosion protection is paramount. Flare or Gripper type fittings available. Large range of 2 & 3 way manual and pneumatic valves



We stock high purity imperial PFA tubes up to 1" manufactured by Altaflo Inc. in the USA, and metric PTFE tubes by Scantube of Sweden

