



Aura Inc.

“Process Control – Building the Core”

Aura Fluid Connectors



ISO 9001:2000

www.aurainc.com

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Aura designs , manufactures and provides Fluid Connectors, Needle Valves, Instrument Manifolds, RTD/Thermocouple sensors and it's associated accessories. Aura was founded in 1995 in **India** with a 100% owned subsidiary in the **United States**. Our customers range in size and scope across the globe : from upstream to down stream oil and gas, Refinery, Petrochemical complexes, Major Power and Utility companies, Biotech and Food Processing, Fertilizer and Chemicals, HVAC, Temperature and Pressure sensor OEM's. Our 100% owned **state of the art manufacturing** facilities in New Delhi – India spans 8000 square feet and uses **CNC** machines, Lathe, Traub and other special purpose machines to produce high precision products and “**custom built** “ parts and has been **ISO 9001:2000** compliant since 2001 as certified by TUV Germany.

At Aura our **mission** is clear and unequivocal: to help our clients gain and sustain competitive advantage. We accomplish this goal through a continuous process of innovation and maintaining complete control of the entire supply chain: in house manufacturing and our owned warehousing and distribution in the United States and India. Complementing this we have our extensive network of distributors in Europe, Africa and Asia which allows us to service clients on the ground.

Our products meet almost all global standards and conform to **BS 4368 Part IV**, Alberta Boiler Safety Association (**ABSA**), Technical Safety and Standards Authority (**TSSA**)- Canada to name a few.

We service more than **145 clients** in the United States and Canada since 1997 and a proud list of clients in India, Europe and Middle East. Major approvals include: EIL, NTPC, BHEL, PDIL, Emerson, Yokogawa, ABB, Honeywell, Western Gauge, Gulf Petroleum, Aramco - Al Khaliji Joint Venture, Bangladesh Gas, Siirtec Nigi, Pyromation, to name a few.

Our Good Manufacturing Practices cover quality systems for design, manufacturing, packaging, labeling, storage, installation and shipping. At Aura we follow a **100% QA** procedure in that no parts are shipped without inspection and that all raw material are 3rd party spectrographic tested for specification. With Material tracing, internal stage wise documentation, web based order tracking systems, we have automated our supply chain and the effort persists.

Our management team has built three successful enterprises. We have hundreds of years of corporate experience at ABB, Yokogawa Electric Corporation, Emerson, Jacobs, Foster Wheeler, Rockwell Automation. Internally, we respect our talented personnel and their creative spirits and love them like our own family. We've learnt that greatest successes are achieved when vision and execution work hand in hand and that **personal touch** must always take priority over procedures when it comes to **customer service**. These virtues allows us to compete and stand tall against much larger global rivals and attain yet another year of stellar performance. Our dual development approach : leveraging facilities across multiple locations and time zones helps us achieve a 24x7 solution.

AURA double ferrule compression fittings have attained an unmatched reputation as precision components that eliminate costly, hazardous leaks in Instrumentation and process tubing.

The product range includes :

TUBE TO MALE THREAD	:	Male Connector, Male Elbow, Male Run Tee, Male Branch Tee, Male Adapter.
TUBE TO FEMALE THREAD	:	Female Connector, Female Elbow, Female Run Tee, Female Branch Tee, Female Adapter.
TUBE TO TUBE	:	Straight Union, Bulkhead Union, Reducing Union, Union Elbow, Union Tee, Union Cross.
ACCESSORIES	:	Reducer, Tube End Closure, Fitting End Closure, Hex Nut, Front Ferrule, Back Ferrule.

AURA double ferrule Compression Fittings are available from 1/16" OD to 1" OD tubing and are machined from SS 316 which meet specifications of ASTM. Fittings design meets the requirement codes of :

ANSI B31.1	-	for Power Piping
ANSI B31.3	-	for Petroleum Refinery & Chemical Plants
ASME Sec VIII	-	for Boiler & Pressure Vessels

The Advantages of such fittings are :

- Facility of assembling with self aligning front and back rings.
- Low tightening torque (the nut is of non-binding design).
- Controlled tightening effect, distortion of the tube without rupture of fibers, minimum reduction of tube bore size.
- No twisting of the tube when fitting.
- Withstands high vacuum and pressure.
- Re-usable, can be assembled and taken apart several times.
- Recommended for use with thin and thick walled tube.

AURA precision tube fittings are available with NPT/BSPT/BSP/ISO/UNF Threads.

As part of the standard QA program, all Aura fittings conform to various test procedures as adapted and laid down by such standard as BS 4368 Part IV. As a standard design, the nut threads are silver plated so as to increase their resistance to seizing and galling of nuts on body.

AURA

COMPRESSION TUBE FITTINGS SPECIFICATIONS

DESCRIPTION	:	Precision double ferrule compression tube fittings
DESIGN STANDARDS	:	Meets requirement code of : <ul style="list-style-type: none">- ANSI B31.1 – for power piping- ANSI B31.3 – for petroleum refineries/chemical plants- ASME Sec. VIII – for boilers and pressure vessels.- SAE-J-514 – for wall thickness
THREADS	:	Available with : <ul style="list-style-type: none">- NPT, BSP, BSPT, ISO, UNF Threads- Pipe threads conform to ANSI B2-1- Straight threads conform to ANSI B 1-1 (unified threads clause 2A & 2B)
MATERIAL OF CONSTRUCTION	:	<ul style="list-style-type: none">- Straight Fittings – Barstock, ASTM A-276 316 SS/Brass.- Angle Fittings – Barstock, ASTM A-276 316 SS / Forgings, ASTM A-182 G F 316, Brass.- Ferrules – Barstock, ASTM-A-276 316 SS (Minimum Hardness Rockwell B – 90) / PTFE / Brass / Nylon / D
TESTING	:	Following tests are carried out at various stages of manufacture. All tests carried out are in accordance with BS-4368- Part-IV <ul style="list-style-type: none">- Visual / Dimensional check- Pneumatic Pressure Test – at 2000 psi- Hydraulic Leak Test at 10,000 psi- Pressure Impulse & Vibration test – at vibration frequency of 23-47 Hz with 5 mm amplitude and simultaneous pressure cycling at 0-3000 psi and at 30-40 CPM for a minimum of 20 million cycles.- Minimum Burst Pressure Test – at a steady rate of 3000 psi per min. up to 15,000 psi.- Make & Break Test – hydraulically tested at 6000 psi and 10,000 psi.- Temperature Cycling Test – temperature increased from ambient to 320 C in 60 min., held for 60 min., reduced to ambient, then tested hydraulically at 10,000 psi.- Vacuum Test – at 700 m bar vacuum, deterioration in vacuum not to exceed 20 m bar in 20 mins.- Helium Leak Test – at 15 psi, helium leak not to exceed 2 x 10 STD cc per sec.

TUBE PREPARATION

- Ensure that the tube being used does not have any visible patch scars within 1 1/2" of the tube ends.
- Clean tube ends and remove any foreign material.
- Use a tube cutter to cut the tube to size. If using a tube cutter is not possible, ensure that the tube is cut at a right angle and the ends are free of burrs.

TIGHTENING

- Check to ensure that all connection parts are assembled in the right order. Body, followed by the front ferrule, then the back ferrule and finally the nut.
- Insert the tube end completely through the nut, back ferrule and front ferrule until it makes contact with the body shoulder.
- Hand tighten the nut until it turns no further.
- Make a mating zero position scribe mark on the body and the nut.
- Hold the body firmly with a back up wrench and tighten the nut 1 1/4" turns from the zero point using a wrench. The fitting is now fully tightened and ready to hold the rated pressure.
- Ensure that the wrenches used are of the correct size.

RETIGHTENING AFTER DISCONNECTION

- Before reconnection, ensure that the taper surface of the body and the surface of the front ferrule are clean and free of any foreign material.
- Insert the tube end into the body and hand tighten the nut until the front ferrule is in full contact with the taper surface of the body.
- Using a wrench, tighten the nut approximately 1/4 turn.

AURA PART NUMBERING AND ORDERING INFORMATION

- Aura follows a unique part numbering system to identify each type of fitting. The part numbering system is built up as follows :-
- The first one or two digits denotes the O/D size of the fitting. '1' stands for a sixteenth of an inch. For example 2 = 1/8", 5 = 5/16", 8 = 1/2".
- In the case of metric standard O/Ds, the first one or two digits directly denotes the O/D size of the fitting. For example , 4 = 4 mm, 2=12 mm so forth. Also, in the case of metric size fittings, the first one or two digits are followed by 'm'.
- The letters following the O/D identification denote the type of fitting. For example, AMC stands for Aura Male Connector.
- The last one or two digits represent the thread size and are expressed in sixteenths of an inch. For example, 2=1/8", 8 = 1/2".
- Standard fittings have the following features:-
- Material : 316 SS, fabricated from bar stock.
- Pipe threads : NPT
- Ferrules : Double compression
- Other standards / materials to be specified while ordering.

1. VISUAL EXAMINATION :

Fittings are checked for overall finish, workmanship and dimensions. Dimensional checks are carried out using Ring / Plug step gauges (with minimum / Maximum limits) and go/no-go gauges.

2. PNEUMATIC PRESSURE TEST :

Test assemblies of suitable length are prepared with different sizes and types of fittings, tube fittings tightened 1 1/4 turn past snug. Each test assembly is then pressurized to 2000 psi pneumatic and is kept for fifteen minutes under pressure. If no leakage is found, the assembly is disassembled and inspected per paragraph 7.

3. HYDRAULIC TEST :

After the completion of pneumatic test, the test assemblies are tightened 1 1/4 turn past snug, and the loop pressurized to 10,000 psi Hydraulic / Hydrostatic pressure and kept for 15 minutes. If no leakage is found, the assembly is disassembled and inspected per paragraph 7.

4. PRESSURE IMPULSE & VIBRATION TEST :

- After the completion of Hydraulic test, the test assemblies are tightened 1 1/4 turn past snug.
- The test assembly is subjected to vibration frequency in the range of 23-47 Hz with an amplitude of 5 mm and simultaneous pressure cycling at 0-3000 psi and at 35 ± 5 cpm with the Hydraulic / Hydrostatic media.
- This test is run for a minimum of 30,00,000 vibration cycles along with pressure impulse. No leakage will be allowed.
- On completion of test, the test pieces are disassembled and inspected per paragraph 7.

5. MAKE & BREAK HYDROSTATIC TEST

- After completion of pressure impulse and vibration test, the test assemblies are tightened 1 1/4 turn past snug.
- The test assemblies are then assembled and disassembled. This operation is repeated five times.
- The test assembly is then pressurized to 60000 psi hydraulically / hydrostatically, held under this pressure for five minutes and checked for leaks.
- If no leakage is found, the pressure is released and the “make and break” operation is repeated 25 times.

- After completing the above operation, the test assembly is subjected to 10,000 psi hydraulic / hydrostatic pressure and held for fifteen minutes. If no leakage is found the test assemblies are disassembled and inspected per paragraph 7.

6. TEMPERATURE CYCLING TEST :

After the completion of make and break hydrostatic test, the assemblies are tightened 1 1/4 turn past snug. The test assembly is then subjected to a temperature cycling test by increasing the temp. From ambient to 320° C in approximately 60 minutes and held for 60 minutes. The temperature is then gradually reduced to ambient / minimum possible temperature. This test is carried out for a total of 3 cycles, each cycle of approx...3 hours duration.

On completion of temperature cycling test, the assemblies are pressurized to 10,000 psi hydraulically / hydrostatically and held under pressure for 15 minutes. If no leakage is found, the test pieces are disassembled and inspected per Paragraph 7.

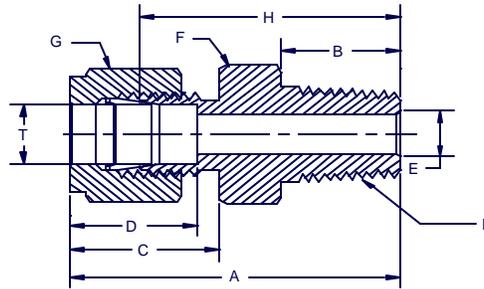
7. After each disassembly of the test pieces the components and tubing are critically examined for :
- Damage to “O” ring
 - Formation of fatigue cracks at thread roots.
 - Damage of ferrules
 - Damage to sealing faces.
 - Damage or cracking of tube (not to be counted as coupling failure, unless attributable to fitting of coupling in tube)

All above tests are carried out in-house. Random samples from large batches are periodically subjected to Helium Leak Test at an independent laboratory.

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• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	B	C	D	E	F	G	H
2AMC2	1/8"	1/8"	1.19	0.38	0.60	0.50	0.09	7/16	7/16	0.93
2AMC4	1/8"	1/4"	1.39	0.56	0.60	0.50	0.09	9/16	7/16	1.13
4AMC2	1/4"	1/8"	1.28	0.38	0.70	0.60	0.19	1/2	9/16	0.99
4AMC4	1/4"	1/4"	1.48	0.56	0.70	0.60	0.19	9/16	9/16	1.19
4AMC6	1/4"	3/8"	1.50	0.56	0.70	0.60	0.19	11/16	9/16	1.21
4AMC8	1/4"	1/2"	1.75	0.75	0.70	0.60	0.19	7/8	9/16	1.46
5AMC4	5/16"	1/4"	1.51	0.56	0.73	0.64	0.25	9/16	5/8	1.22
6AMC2	3/8"	1/8"	1.38	0.38	0.76	0.66	0.19	5/8	11/16	1.09
6AMC4	3/8"	1/4"	1.56	0.56	0.76	0.66	0.28	5/8	11/16	1.27
6AMC6	3/8"	3/8"	1.56	0.56	0.76	0.66	0.28	11/16	11/16	1.27
6AMC8	3/8"	1/2"	1.81	0.75	0.76	0.66	0.28	7/8	11/16	1.52
8AMC4	1/2"	1/4"	1.70	0.56	0.86	0.901	0.28	13/16	7/8	1.30
8AMC6	1/2"	3/8"	1.70	0.56	0.86	0.90	0.38	13/16	7/8	1.30
8AMC8	1/2"	1/2"	1.92	0.75	0.86	0.90	0.41	7/8	7/8	1.52
8AMC12	1/2"	3/4"	1.98	0.75	0.86	0.90	0.41	1-1/16	7/8	1.58
10AMC6	5/8"	3/8"	1.73	0.56	0.86	0.96	0.38	15/16	1	1.33
10AMC8	5/8"	1/2"	1.92	0.75	0.86	0.96	0.47	15/16	1	1.52
12AMC8	3/4"	1/2"	1.98	0.75	0.86	0.96	0.47	1-1/16	1-1/8	1.58
12AMC12	3/4"	3/4"	1.98	0.75	0.86	0.96	0.62	1-1/16	1-1/8	1.58
12AMC16	3/4"	1"	2.24	0.94	0.86	0.96	0.62	1-3/8	1-1/8	1.84
14AMC12	7/8"	3/4"	1.98	0.75	0.86	1.02	0.62	1-3/16	1-1/4	1.58
16AMC12	1"	3/4"	2.25	0.75	1.04	1.23	0.62	1-3/8	1-1/2	1.77
16AMC16	1"	1"	2.44	0.94	1.04	1.23	0.88	1-3/8	1-1/2	1.96

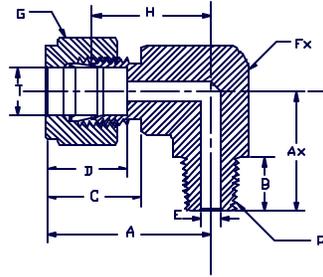
• METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	B	C	D	E	F	G	H
			~		~	~		A/F	A/F	
3m AMC2	3	1/8"	30.3	09.5	9.7	15.3	12.9	12	12	23.7
3m AMC4	3	1/4"	35.4	14.2	15.3	12.9	2.4	14	12	28.8
6m AMC2	6	1/8"	32.6	9.7	17.7	15.3	4.6	14	14	25.2
6m AMC4	6	1/4"	37.7	14.2	17.7	15.3	4.8	14	14	30.3
6m AMC6	6	3/8"	38.2	14.2	17.7	15.3	4.8	18	14	30.8
6m AMC8	6	1/2"	44.5	19.0	17.7	15.3	4.8	22	14	37.1
8m AMC4	8	1/4"	34.0	9.7	18.6	16.2	4.8	15	16	36.5
8m AMC6	8	3/8"	38.5	14.2	18.6	16.2	6.4	15	16	31.1
8m AMC8	8	1/2"	45.4	19.0	18.6	16.2	6.4	22	16	37.9
10m AMC4	10	1/4"	40.7	14.2	19.5	17.2	7.9	18	19	33.1
10m AMC6	10	3/8"	40.7	14.2	19.5	17.2	7.9	18	19	33.1
10m AMC8	10	1/2"	46.3	19.0	19.5	17.2	7.9	22	19	38.7
12m AMC4	12	1/4"	43.2	14.2	22.0	22.8	7.1	22	22	33.1
12m AMC6	12	3/8"	43.2	14.2	22.0	22.8	9.5	22	22	33.1
12m AMC8	12	1/2"	48.8	19.0	22.0	22.8	9.5	22	22	38.7
16m AMC6	16	3/8"	43.9	14.2	22.0	24.4	9.5	24	25	33.8
16m AMC8	16	1/2"	48.8	19.0	22.0	24.4	11.9	24	25	38.7
16m AMC12	16	3/4"	50.3	19.0	22.0	24.4	12.7	27	25	40.2
20m AMC12	20	3/4"	52.1	19.0	22.0	26.0	15.9	30	32	42.0
20m AMC16	20	1"	56.9	23.9	22.0	26.0	18.3	35	32	46.8
25m AMC12	25	3/4"	57.3	19.0	26.5	31.3	15.9	35	38	45.0
25m AMC16	25	1"	62.1	23.9	26.5	31.3	21.8	35	38	49.8

Male Connector



AURA		COMPETITIVE INTERCHANGE							
SIZE OD x NPT	PART NO	SWAGELOK®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®	
1/8" x 1/8"	2AMC2	200-1-2	2MSC2N		2-2FBZ	2CM2	DCT-2-2	2-1MC2	
1/8" x 1/4"	2AMC4	200-1-4	2MSC4N		2-4FBZ	2CM4	DCT-2-4	2-1MC4	
3/16" x 1/8"	3AMC2	300-1-2	3MSC2N		3-2FBZ	3CM2	DCT-3-2	3-1MC2	
1/4" x 1/8"	4AMC2	400-1-2	4MSC2N		4-2FBZ	4CM2	DCT-4-2	4-1MC2	
1/4" x 1/4"	4AMC4	400-1-4	4MSC4N		4-4FBZ	4CM4	DCT-4-4	4-1MC4	
1/4" x 3/8"	4AMC6	400-1-6	4MSC6N		4-6FBZ	4CM6	DCT-4-6	4-1MC6	
1/4" x 1/2"	4AMC8	400-1-8	4MSC8N		4-8FBZ	4CM8	DCT-4-8	4-1MC8	
5/16" x 1/8"	5AMC2	500-1-2	5MSC2N		5-2FBZ	5CM2	DCT-5-2	5-1MC2	
5/16" x 1/4"	5AMC4	500-1-4	5MSC4N		5-4FBZ	5CM4	DCT-5-4	5-1MC4	
3/8" x 1/8"	6AMC2	600-1-2	6MSC2N		6-2FBZ	6CM2	DCT-6-2	6-1MC2	
3/8" x 1/4"	6AMC4	600-1-4	6MSC4N		6-4FBZ	6CM4	DCT-6-4	6-1MC4	
3/8" x 3/8"	6AMC6	600-1-6	6MSC6N		6-6FBZ	6CM6	DCT-6-6	6-1MC6	
3/8" x 1/2"	6AMC8	600-1-8	6MSC8N		6-8FBZ	6CM8	DCT-6-8	6-1MC8	
1/2" x 1/4"	8AMC4	800-1-4	8MSC4N		8-4FBZ	8CM4	DCT-8-4	8-1MC4	
1/2" x 3/8"	8AMC6	800-1-6	8MSC6N		8-6FBZ	8CM6	DCT-8-6	8-1MC6	
1/2" x 1/2"	8AMC8	800-1-8	8MSC8N		8-8FBZ	8CM8	DCT-8-8	8-1MC8	
1/2" x 3/4"	8AMC12	800-1-12	8MSC12N		8-12FBZ	8CM12	DCT-8-12	8-1MC12	
5/8" x 3/8"	10AMC6	1010-1-6	10MSC6N		10-6FBZ	10CM6	DCT-10-6	10-1MC6	
5/8" x 1/2"	10AMC8	1010-1-8	10MSC8N		10-8FBZ	10CM8	DCT-10-8	10-1MC8	
3/4" x 1/2"	12AMC8	1210-1-8	12MSC8N		12-8FBZ	12CM8	DCT-12-8	12-1MC8	
3/4" x 3/4"	12AMC12	1210-1-12	12MSC12N		12-12FBZ	12CM12	DCT-12-12	12-1MC12	
3/4" X 1"	12AMC16	1210-1-16	12MSC16N		12-16-FBZ	12CM16	DCT-12-16	12-1MC16	
1" X 3/4"	16AMC12	1610-1-12	16MSC12N		16-12FBZ	16CM12	DCT-16-12	16-1MC12	
1" X 1"	16AMC16	1610-1-16	16MSC16N		16-16FBZ	16CM16	DCT-16-16	16-1MC16	



• INCH SIZE TUBING

AURA PART NO.	T' TUBE OD	'P' NPT	A ~	B	C	D ~	E	Fx A/F	G A/F	H
2AME2	1/8"	1/8"	0.92	0.38	0.60	0.50	0.09	7/16	7/16	0.66
2AME4	1/8"	1/4"	0.96	0.56	0.60	0.50	0.09	1/2	7/16	0.70
4AME2	1/4"	1/8"	1.05	0.38	0.70	0.60	0.19	1/2	9/16	0.76
4AME4	1/4"	1/4"	1.05	0.56	0.70	0.60	0.19	1/2	9/16	0.76
4AME6	1/4"	3/8"	1.16	0.56	0.70	0.60	0.19	11/16	9/16	0.87
4AME8	1/4"	1/2"	1.24	0.75	0.70	0.60	0.19	13/16	9/16	0.95
5AME4	5/16"	1/4"	1.12	0.56	0.73	0.64	0.25	9/16	5/8	0.84
6AME4	3/8"	1/4"	1.19	0.56	0.76	0.66	0.28	5/8	11/16	0.90
6AME6	3/8"	3/8"	1.22	0.56	0.76	0.66	0.28	11/16	11/16	0.93
6AME8	3/8"	1/2"	1.30	0.75	0.76	0.66	0.28	13/16	11/16	1.01
8AME4	1/2"	1/4"	1.41	0.56	0.86	0.90	0.28	13/16	7/8	1.01
8AME6	1/2"	3/8"	1.41	0.56	0.86	0.90	0.38	13/16	7/8	1.01
8AME8	1/2"	1/2"	1.41	0.75	0.86	0.90	0.41	13/16	7/8	1.01
10AME8	5/8"	1/2"	1.49	0.75	0.86	0.96	0.47	15/16	1	1.09
12AME8	3/4"	1/2"	1.56	0.75	0.86	0.96	0.47	1-1/16	1-1/8	1.16
12AME12	3/4"	3/4"	1.56	0.75	0.86	0.96	0.62	1-1/16	1-1/8	1.16
14AME12	7/8"	3/4"	1.75	0.75	0.86	1.02	0.62	1-3/8	1-1/4	1.35
16AME12	1"	3/4"	1.92	0.75	1.04	1.23	0.62	1-3/8	1-1/2	1.44
16AME16	1"	1"	1.92	0.75	1.04	1.23	0.88	1-3/8	1-1/2	1.44

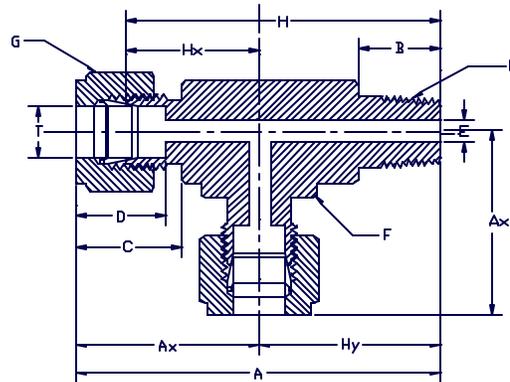
• METRIC SIZE TUBING

AURA PART NO.	T' TUBE OD	'P' NPT	A ~	B	C	D ~	E	Fx A/F	G A/F	H
3m AME2	3	1/8"	23.4	9.7	15.3	12.9	2.4	7/16	12	16.8
3m AME4	3	1/4"	24.4	14.2	15.3	12.9	2.4	1/2	12	17.8
6m AME2	6	1/8"	26.8	9.7	17.7	15.3	4.8	1/2	14	19.4
6m AME4	6	1/4"	26.8	14.2	17.7	15.3	4.8	1/2	14	19.4
6m AME6	6	3/8"	29.6	14.2	17.7	15.3	4.8	11/16	14	22.2
6m AME8	6	1/2"	31.6	19.0	17.7	15.3	4.8	13/16	14	24.2
8m AME2	8	1/8"	28.6	9.7	18.6	16.2	4.8	9/16	16	21.1
8m AME4	8	1/4"	28.6	14.2	18.6	16.2	6.4	9/16	16	21.1
8m AME6	8	3/8"	30.4	14.2	18.6	16.2	6.4	11/16	16	22.9
8m AME8	8	1/2"	32.4	19.0	18.6	16.2	6.4	13/16	16	24.9
10m AME4	10	1/4"	31.3	14.2	19.5	17.2	7.1	11/16	19	23.7
10m AME6	10	3/8"	31.3	14.2	19.5	17.2	7.9	11/16	19	23.7
10m AME8	10	1/2"	33.3	19.0	19.5	17.2	7.9	13/16	19	25.7
12m AME6	12	3/8"	35.8	14.2	22.0	22.8	9.5	13/16	22	25.7
12m AME8	12	1/2"	35.8	19.0	22.0	22.8	9.5	13/16	22	25.7
16m AME8	16	1/2"	37.8	19.0	22.0	24.4	11.9	15/16	25	27.7
20m AME12	20	3/4"	44.4	19.0	22.0	26.0	15.9	1-3/8	32	34.3
25m AME12	25	3/4"	29.9	19.0	26.5	31.3	15.9	1-3/8	38	36.8
25m AME16	25	1"	39.9	23.9	26.5	31.3	21.8	1-3/8	38	36.8

Male Elbow



AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGELOK®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AME2	200-2-2	2MESL2N		2-2 CBZ	2LM2	DLN 2-2	2-2ME-2
1/8" x 1/4"	2AME4	200-2-4	2MESL4N		2-4 CBZ	2LM4	DLN 2-4	2-2ME-4
3/16" x 1/8"	3AME2	300-2-2	3MESL2N		3-2 CBZ	3LM2	DLN 3-2	3-2ME-2
1/4" x 1/8"	4AME2	400-2-2	4MESL2N		4-2 CBZ	4LM2	DLN 4-2	4-2ME-2
1/4" x 1/4"	4AME4	400-2-4	4MESL4N		4-4 CBZ	4LM4	DLN 4-4	4-2ME-4
1/4" x 3/8"	4AME6	400-2-6	4MESL6N		4-6 CBZ	4LM6	DLN 4-6	4-2ME-6
1/4" x 1/2"	4AME8	400-2-8	4MESL8N		4-8 CBZ	4LM8	DLN 4-8	4-2ME-8
5/16" x 1/8"	5AME2	500-2-2	5MESL2N		5-2 CBZ	5LM2	DLN 5-2	5-2ME-2
5/16" x 1/4"	5AME4	500-2-4	5MESL4N		5-4 CBZ	5LM4	DLN 5-4	5-2ME-4
3/8" x 1/8"	6AME2	600-2-2	6MESL2N		6-2 CBZ	6LM2	DLN 6-2	6-2ME-2
3/8" x 1/4"	6AME4	600-2-4	6MESL4N		6-4 CBZ	6LM4	DLN 6-4	6-2ME-4
3/8" x 3/8"	6AME6	600-2-6	6MESL6N		6-6 CBZ	6LM6	DLN 6-6	6-2ME-6
3/8" x 1/2"	6AME8	600-2-8	6MESL8N		6-8 CBZ	6LM8	DLN 6-8	6-2ME-8
1/2" x 1/4"	8AME4	800-2-4	8MESL4N		8-4 CBZ	8LM4	DLN 8-4	8-2ME-4
1/2" x 3/8"	8AME6	800-2-6	8MESL6N		8-6 CBZ	8LM6	DLN 8-6	8-2ME-6
1/2" x 1/2"	8AME8	800-2-8	8MESL8N		8-8 CBZ	8LM8	DLN 8-8	8-2ME-8
1/2" x 3/4"	8AME6	800-2-6	8MESL6N		8-6 CBZ	8LM6	DLN 8-6	8-2ME-6
5/8" x 3/8"	10AME6	1010-2-6	10MESL6N		10-6 CBZ	10LM6	DLN 10-6	10-2ME-6
5/8" x 1/2"	10AME8	1010-2-8	10MESL8N		10-8 CBZ	10LM8	DLN 10-8	10-2ME-8
3/4" x 1/2"	12AME8	1210-2-8	12MESL8N		12-8 CBZ	12LM8	DLN 12-8	12-2ME-8
3/4" x 3/4"	12AME12	1210-2-12	12MESL12N		12-12 CBZ	12LM12	DLN 12-12	12-2ME-12
3/4" x 1"	12AME16	1210-2-16	12MESL16N		12-16 CBZ	12LM16	DLN 12-16	12-2ME-16
1" x 3/4"	16AME12	1610-2-12	16MESL12N		16-12 CBZ	16LM12	DLN 16-12	16-2ME-12
1" x 1"	16AME16	1610-2-16	16MESL16N		16-16 CBZ	16LM16	DLN 16-16	16-2ME-16



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	Ax	B	C	D	E	Fx	G	H	Hx	Hy
			~						A/F	A/F			
2AMRT2	1/8"	1/8"	1.61	0.93	0.38	0.60	0.50	0.09	7/16	7/16	1.35	0.66	0.92
2AMRT4	1/8"	1/4"	1.87	0.97	0.56	0.60	0.50	0.09	1/2	7/16	1.61	0.70	0.96
4AMRT2	1/4"	1/8"	1.98	1.06	0.38	0.70	0.60	0.19	1/2	9/16	1.48	0.76	1.05
4AMRT4	1/4"	1/4"	1.96	1.06	0.56	0.70	0.60	0.19	1/2	9/16	1.67	0.76	1.05
6AMRT4	3/8"	1/4"	2.18	1.20	0.56	0.76	0.66	0.28	5/8	11/16	1.89	0.90	1.19
6AMRT6	3/8"	3/8"	2.40	1.31	0.56	0.76	0.66	0.28	13/16	11/16	2.11	1.01	1.30
8AMRT6	1/2"	3/8"	2.51	1.42	0.56	0.86	0.90	0.38	13/16	7/8	2.11	1.01	1.41
8AMRT8	1/2"	1/2"	2.70	1.42	0.75	0.86	0.90	0.41	13/16	7/8	2.30	1.01	1.41
10AMRT8	5/8"	1/2"	2.86	1.50	0.75	0.86	0.96	0.47	15/16	1	2.46	1.00	1.49
12AMRT12	3/4"	3/4"	3.00	1.57	0.75	0.86	0.96	0.62	1-1/16	1-1/8	2.60	1.16	1.56

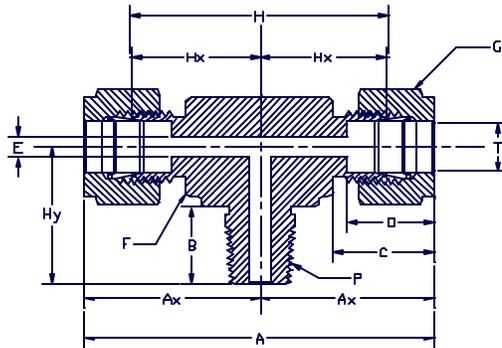
• METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	Ax	B	C	D	E	Fx	G	H	Hx	Hy
			~						A/F	A/F			
6m AMRT2	6	1/8"	44.6	26.8	9.7	17.7	15.3	4.8	1/2	14	37.2	19.4	17.8
6m AMRT4	6	1/4"	50.0	26.8	14.2	17.7	15.3	4.8	1/2	14	42.6	19.4	23.2
8m AMRT4	8	1/4"	54.9	29.7	14.2	18.6	16.2	6.4	5/8	16	47.4	22.2	25.2
12m AMRT4	12	1/4"	63.8	35.8	14.2	22.0	22.8	7.1	13/16	22	53.7	25.7	28.0
12m AMRT8	12	1/2"	68.6	35.8	19.0	22.0	22.8	9.5	13/16	22	58.5	25.7	32.8
16m AMRT8	16	1/2"	72.6	37.8	19.0	22.0	24.4	11.9	15/16	25	62.5	27.7	34.8



Male Run Tee

AURA		COMPETITIVE INTERCHANGE							
SIZE OD x NPT	PART NO	SWAGELOK®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®	
1/8" x 1/8"	2AMRT2	200-3-2 TMT	2MRT2N		2-2-2 RBZ	2TMT2	DTK 22	2-3TMT-2	
1/8" x 1/4"	2AMRT4	200-3-4 TMT	2AMRT4N		2-4-2 RBZ	2TMT4	DTK 24	2-3TMT-4	
3/16" x 1/8"	3AMRT2	300-3-2 TMT	3MRT2N		3-2-3 RBZ	3TMT2	DTK 32	3-3TMT-2	
1/4" x 1/8"	4AMRT2	400-3-2 TMT	4MRT2N		4-2-4 RBZ	4TMT2	DTK 42	4-3TMT-2	
1/4" x 1/4"	4AMRT4	400-3-4 TMT	4MRT4N		4-4-4 RBZ	4TMT4	DTK 44	4-3TMT-4	
5/16" 1/8"	5AMRT2	500-3-2 TMT	5MRT2N		5-2-5 RBZ	5TMT2	DTK 52	5-3TMT-2	
3/8" x 1/4"	6AMRT4	600-3-4 TMT	6MRT4N		6-4-6 RBZ	6TMT4	DTK6-4	6-3TMT-4	
3/8" x 3/8"	6AMRT6	600-3-6 TMT	6MRT6N		6-6-6 RBZ	6TMT6	DTK6-6	6-3TMT-6	
1/2" x 3/8"	8AMRT6	800-3-6 TMT	8MRT6N		8-6-8 RBZ	8TMT6	DTK8-6	8-3TMT-6	
1/2" x 1/2"	8AMRT8	800-3-8 TMT	8MRT8N		8-8-8 RBZ	8TMT8	DTK8-8	8-3TMT-8	
5/8" x 1/2"	10AMRT8	1010-3-8 TMT	10MRT8N		10-8-10 RBZ	10TMT8	DTK10-8	10-3TMT-8	
3/4" x 3/4"	12AMRT12	1012-3-12 TMT	12MRT12N		12-12-12 RBZ	12TMT12	DTK12-12	12-3TMT-12	
3/4" x 1/2"	12AMRT8	1210-3-8 TMT	12MRT8N		12-8-12 RBZ	12TMT8	DTK12-8	12-3TMT-8	
1" x 3/4"	16AMRT12	1610-3-12 TMT	16MRT12N		16-12-16 RBZ	16TMT12	DTK16-12	16-3TMT-12	
1" x 1"	16AMRT16	1610-3-16 TMT	16MRT16N		16-16-16 RBZ	16TMT16	DTK16-16	16-3TMT-16	



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A ~	Ax	B	C	D	E	Fx A _F /F	G A _F /F	H	Hx	Hy
2AMBT2	1/8"	1/8"	1.84	1.84	0.38	0.60	0.50	0.09	7/16	7/16	1.32	0.66	0.69
2AMBT4	1/8"	1/4"	1.92	1.92	0.56	0.60	0.50	0.09	1/2	7/16	1.40	0.70	0.91
4AMBT2	1/4"	1/8"	2.10	2.10	0.38	0.70	0.60	0.19	1/2	9/16	1.52	0.76	0.73
4AMBT4	1/4"	1/4"	2.10	2.10	0.56	0.70	0.60	0.19	1/2	9/16	1.52	0.76	0.91
6AMBT4	3/8"	1/4"	2.38	2.38	0.56	0.76	0.66	0.28	5/8	11/16	1.80	0.90	0.99
6AMBT6	3/8"	3/8"	2.60	2.60	0.56	0.76	0.66	0.28	13/16	11/16	2.02	1.01	1.10
8AMBT6	1/2"	3/8"	2.82	2.82	0.56	0.86	0.90	0.38	13/16	7/8	2.02	1.01	1.10
8AMBT8	1/2"	1/2"	2.82	2.82	0.75	0.86	0.90	0.41	13/16	7/8	2.02	1.01	1.29
10AMBT8	5/8"	1/2"	3.04	3.04	0.75	0.86	0.96	0.47	1	1	2.24	1.12	1.40
12AMBT12	3/4"	3/4"	3.12	3.12	0.75	0.86	0.96	0.62	1-1/16	1-1/8	2.32	1.16	1.44

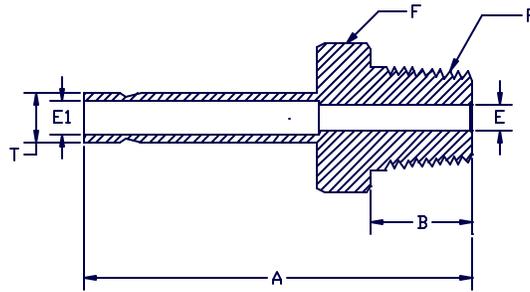
• METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A ~	Ax	B	C	D	E	Fx A _F /F	G A _F /F	H	Hx	Hy
6m AMBT2	6	1/8"	53.6	26.8	9.7	17.7	15.3	4.8	1/2	16	38.8	19.4	20.8
8m AMBT2	8	1/8"	59.4	29.7	9.7	18.6	16.2	4.8	5/8	16	44.4	22.2	20.8
10m AMBT4	10	1/4"	66.6	33.3	14.2	19.5	17.2	7.1	13/16	19	51.4	25.7	28.2
16m AMBT8	16	1/2"	77.2	38.6	19.0	22.0	24.4	11.9	1	25	57.0	28.5	35.8



Male Branch Tee

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AMBT2	200-3-2 TTM	2MBT2N		2-2-2 SBZ	2TTM2	DTN 2-2	2-3-TTM-2
1/8" x 1/4"	2AMBT4	200-3-4 TTM	2MBT4N		2-4-2 SBZ	2TTM4	DTN 2-4	2-3-TTM-4
3/16" x 1/8"	3AMBT2	300-3-2 TTM	3MBT2N		3-2-3 SBZ	3TTM2	DTN 3-2	3-3-TTM-2
1/4" x 1/8"	4AMBT2	400-3-2 TTM	4MBT2N		4-2-4 SBZ	4TTM2	DTN 4-2	4-3-TTM-2
1/4" x 1/4"	4AMBT4	400-3-4 TTM	4MBT4N		4-4-4 SBZ	4TTM4	DTN 4-4	4-3-TTM-4
5/16" 1/8"	5AMBT2	500-3-2 TTM	5MBT2N		5-2-5 SBZ	5TTM2	DTN 5-2	5-3-TTM-2
3/8" x 1/4"	6AMBT4	600-3-4 TTM	6MBT4N		6-4-6 SBZ	6TTM4	DTN 6-4	6-3-TTM-4
3/8" x 3/8"	6AMBT6	600-3-6 TTM	6MBT6N		6-6-6 SBZ	6TTM6	DTN 6-6	6-3-TTM-6
1/2" x 3/8"	8AMBT6	800-3-6 TTM	8MBT6N		8-6-8 SBZ	8TTM6	DTN 8-6	8-3-TTM-6
1/2" x 1/2"	8AMBT8	800-3-8 TTM	8MBT8N		8-8-8 SBZ	8TTM8	DTN 8-8	8-3-TTM-8
5/8" x 1/2"	10AMBT8	1010-3-8 TTM	10MBT8N		10-8-10 SBZ	10TTM8	DTN 10-8	10-3-TTM-8
3/4" x 3/4"	12AMBT12	1210-3-12 TTM	12MBT12N		12-12-12 SBZ	12TTM12	DTN 12-12	12-3-TTM-12
3/4" x 1/2"	12AMBT8	1210-3-8 TTM	12MBT8N		12-8-12 SBZ	12TTM8	DTN 12-8	12-3-TTM-8
1" x 3/4"	16AMBT12	1610-3-12 TTM	16MBT12N		16-12-16 SBZ	16TTM12	DTN 16-12	12-3-TTM-16
1" x 1"	16AMBT16	1610-2-16 TTM	16MBT16N		16-16-16 SBZ	16TTM16	DTN 16-16	16-3-TTM-16



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT MALE	A	B ~	E	E1	F Hex A/F
2AMA2	1/8"	1/8"	1.15	0.38	0.19	0.09	7/16
2AMA4	1/8"	1/4"	1.36	0.56	0.28	0.09	9/16
4AMA2	1/4"	1/8"	1.24	0.38	0.19	0.19	7/16
4AMA4	1/4"	1/4"	1.45	0.56	0.19	0.19	9/16
4AMA6	1/4"	3/8"	1.48	0.56	0.19	0.19	11/16
4AMA8	1/4"	1/2"	1.70	0.75	0.19	0.19	7/8
5AMA2	5/16"	1/8"	1.28	0.38	0.19	0.25	7/16
5AMA4	5/16"	1/4"	1.49	0.56	0.25	0.25	9/16
6AMA4	3/8"	1/4"	1.52	0.56	0.28	0.28	9/16
6AMA6	3/8"	3/8"	1.55	0.56	0.28	0.28	11/16
6AMA8	3/8"	1/2"	1.77	0.75	0.28	0.28	7/8
8AMA6	1/2"	3/8"	1.77	0.56	0.39	0.39	11/16
8AMA8	1/2"	1/2"	1.99	0.75	0.39	0.39	7/8
10AMA8	5/8"	1/2"	2.05	0.75	0.47	0.50	7/8
12AMA8	3/4"	1/2"	2.05	0.75	0.47	0.59	7/8
12AMA12	3/4"	3/4"	2.05	0.75	0.59	0.59	1-11/16

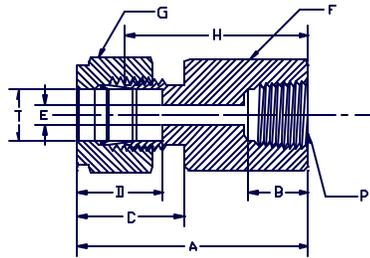
METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT MALE	A	B	E	E1	F Hex A/F
6m AMA2	6	1/8"	32.7	9.7	4.6	4.6	12
6m AMA4	6	1/4"	38.1	14.2	4.6	4.6	14
8m AMA4	8	1/4"	39.1	14.2	6.4	4.6	14
10m AMA4	10	1/4"	39.9	14.2	7.1	7.7	14
10m AMA6	10	3/8"	40.6	14.2	7.7	7.7	18
10m AMA8	10	1/2"	46.2	19.2	7.7	7.7	22



Male Adapter

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AMA2	2-TA-1-2	2MA2N		2-2T2HF	2AM2	DHA 22	2-1ATPM-2
1/8" x 1/4"	2AMA4	2-TA-1-4	2MA4N		2-4T2HF	2AM4	DHA 24	2-1ATPM-4
1/4" x 1/8"	4AMA2	4-TA-1-2	4MA2N		4-2T2HF	4AM2	DHA 42	4-1ATPM-2
1/4" x 1/4"	4AMA4	4-TA-1-4	4MA4N		4-4T2HF	4AM4	DHA 44	4-1ATPM-4
1/4" x 3/8"	4AMA6	4-TA-1-6	4MA6N		4-6T2HF	4AM6	DHA 46	4-1ATPM-6
1/4" x 1/2"	4AMA8	4-TA-1-8	4MA8N		4-8T2HF	4AM8	DHA 48	4-1ATPM-8
5/16" x 1/8"	5AMA2	5-TA-1-2	5MA2N		5-2T2HF	5AM2	DHA 52	5-1ATPM-2
5/16" x 1/4"	5AMA4	5-TA-1-4	5MA4N		5-4T2HF	5AM4	DHA 54	5-1ATPM-4
3/8" x 1/4"	6AMA4	6-TA-1-4	6MA4N		6-4T2HF	6AM4	DHA 64	6-1ATPM-4
3/8" x 3/8"	6AMA6	6-TA-1-6	6MA6N		6-6T2HF	6AM6	DHA 66	6-1ATPM-6
3/8" x 1/2"	6AMA8	6-TA-1-8	6MA8N		6-8T2HF	6AM8	DHA 68	6-1ATPM-8
5/8" x 1/2"	10AMA8	10-TA-1-8	10MA8N		10-8T2HF	10AM8	DHA 10-8	10-1ATPM-8
3/4" x 1/2"	12AMA8	12-TA-1-8	12MA8N		12-8T2HF	12AM8	DHA 12-8	12-1ATPM-8
3/4" x 3/4"	12AMA12	12-TA-1-12	12MA12N		12-12T2HF	12AM12	DHA 12-12	12-1ATPM-12
1" x 3/4"	16AMA12	16-TA-1-12	16MA12N		16-12 T2HF	16AM12	DHA 16-12	16-1ATPM-12
1" x 1"	16AMA16	16-TA-1-16	16MA16N		16-16 T2HF	16AM16	DHA 16-16	16-1ATPM-16



INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A ~	B	C ~	D ~	E	F A/F	G A/F	H
2AFC2	1/8"	1/8"	1.12	0.40	0.60	0.50	0.09	9/16	7/16	0.86
2AFC4	1/8"	1/4"	1.31	0.59	0.60	0.50	0.09	3/4	7/16	1.05
4AFC2	1/4"	1/8"	1.22	0.39	0.70	0.60	0.19	9/16	9/16	0.93
4AFC4	1/4"	1/4"	1.4	0.59	0.70	0.60	0.19	3/4	9/16	1.11
4AFC6	1/4"	3/8"	1.47	0.59	0.70	0.60	0.19	7/8	9/16	1.18
4AFC8	1/4"	1/2"	1.66	0.78	0.70	0.60	0.19	1-1/16	9/16	1.37
5AFC4	5/16"	1/4"	1.44	0.59	0.73	0.64	0.25	3/4	5/8	1.15
6AFC4	3/8"	1/4"	1.47	0.59	0.76	0.66	0.28	3/4	11/16	1.18
6AFC6	3/8"	3/8"	1.53	0.59	0.76	0.66	0.28	7/8	11/16	1.24
6AFC8	3/8"	1/2"	1.72	0.78	0.76	0.66	0.28	1-1/16	11/16	1.48
8AFC4	1/2"	1/4"	1.58	0.59	0.86	0.90	0.41	13/16	7/8	1.18
8AFC6	1/2"	3/8"	1.64	0.59	0.86	0.90	0.41	7/8	7/8	1.24
8AFC8	1/2"	1/2"	1.83	0.78	0.86	0.90	0.41	1-1/16	7/8	1.43
12AFC8	3/4"	1/2"	1.83	0.78	0.86	0.96	0.62	1-1/16	1-1/8	1.43
12AFC12	3/4"	3/4"	1.91	0.81	0.86	0.96	0.62	1-5/16	1-1/8	1.49
14AFC12	7/8"	3/4"	1.95	0.81	0.86	1.02	0.72	1-5/16	1-1/4	1.55
16AFC12	1"	3/4"	2.09	0.81	1.04	1.23	0.88	1-3/8	1-1/2	1.61
16AFC16	1"	1"	2.44	1.00	1.04	1.23	0.88	1-5/8	1-1/2	1.96

METRIC SIZE TUBING

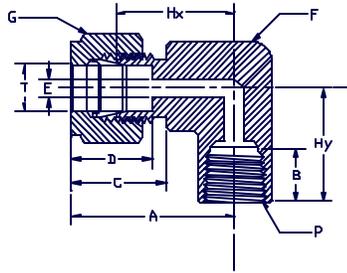
AURA PART NO.	'T' TUBE OD	'P' NPT	A ~	B	C ~	D ~	E	F A/F	G A/F	H
3m AFC2	3	1/8"	28.5	10.4	15.3	12.9	2.4	14	12	21.9
3m AFC4	3	1/4"	33.3	15.0	15.3	12.9	2.4	19	12	26.7
6m AFC2	6	1/8"	31.1	10.4	17.7	15.3	4.8	14	14	23.7
6m AFC4	6	1/4"	35.6	15.0	17.7	15.3	4.8	19	14	28.2
6m AFC6	6	3/8"	37.4	15.0	17.7	15.3	4.8	22	14	30.0
6m AFC8	6	1/2"	42.3	19.8	17.7	15.3	4.8	27	14	34.9
8m AFC4	8	1/4"	36.8	15.0	18.6	16.2	6.4	19	16	29.3
8m AFC6	8	3/8"	38.3	15.0	18.6	16.2	6.4	22	16	30.8
8m AFC8	8	1/2"	43.1	19.8	18.6	16.2	6.4	27	16	35.6
10m AFC4	10	1/4"	37.6	15.0	19.5	17.2	7.9	19	19	30.0
10m AFC6	10	3/8"	39.2	15.0	19.5	17.2	7.9	22	19	31.6
10m AFC8	10	1/2"	44.0	19.8	19.5	17.2	7.9	27	19	36.4
12m AFC4	12	1/4"	40.1	15.0	22.0	22.8	9.5	22	22	30.0
12m AFC6	12	3/8"	41.7	15.0	22.0	22.8	9.5	22	22	31.6
12m AFC8	12	1/2"	46.5	19.8	22.0	22.8	9.5	27	22	36.4
16m AFC8	16	1/2"	46.7	19.8	22.0	24.4	12.7	27	25	36.6
20m AFC12	20	3/4"	49.5	20.6	22.0	26.0	15.9	35	32	39.4
25m AFC12	25	3/4"	53.2	20.6	26.5	31.3	21.8	35	38	39.9
25m AFC16	25	1"	62.1	25.4	26.5	31.3	21.8	41	38	49.8

Female Connector



COMPETITIVE INTERCHANGE

SIZE OD x NPT	PART NO	SWAGELOK®	PARKER® A LOK	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AFC2	200-7-2	2FSC2N	2-2 GBZ	2CF2	DSA 22	2-1FC2
1/8" x 1/4"	2AFC4	200-7-4	2FSC4N	2-4 GBZ	2CF4	DSA 24	2-1FC4
3/16" x 1/8"	3AFC2	300-7-2	3FSC2N	3-2 GBZ	3CF2	DSA 32	3-1FC2
1/4" x 1/8"	4AFC2	400-7-2	4FSC2N	4-2 GBZ	4CF2	DSA 42	4-1FC2
1/4" x 1/4"	4AFC4	400-7-4	4FSC4N	4-4 GBZ	4CF4	DSA 44	4-1FC4
1/4" x 3/8"	4AFC6	400-7-6	4FSC6N	4-6 GBZ	4CF6	DSA 46	4-1FC6
1/4" x 1/2"	4AFC8	400-7-8	4FSC8N	4-8 GBZ	4CF8	DSA 48	4-1FC8
5/16" x 1/8"	5AFC2	500-7-2	5FSC2N	5-2 GBZ	5CF2	DSA 52	5-1FC2
5/16" x 1/4"	5AFC4	500-7-4	5FSC4N	5-4 GBZ	5CF4	DSA 54	5-1FC4
3/8" x 1/8"	6AFC2	600-7-2	6FSC3N	6-3 GBZ	6CF3	DSA 63	6-1FC3
3/8" x 1/4"	6AFC4	600-7-4	6FSC4N	6-4 GBZ	6CF4	DSA 64	6-1FC4
3/8" x 3/8"	6AFC6	600-7-6	6FSC6N	6-6 GBZ	6CF6	DSA 66	6-1FC6
3/8" x 1/2"	6AFC8	600-7-8	6FSC8N	6-8 GBZ	6CF8	DSA 68	6-1FC8
1/2" x 1/4"	8AFC4	800-7-4	8FSC4N	8-4 GBZ	8CF4	DSA 84	8-1FC4
1/2" x 3/8"	8AFC6	800-7-6	8FSC6N	8-6 GBZ	8CF6	DSA 86	8-1FC6
1/2" x 1/2"	8AFC8	800-7-8	8FSC8N	8-8 GBZ	8CF8	DSA 88	8-1FC8
1/2" x 3/4"	8AFC12	800-7-12	8FSC12N	8-12 GBZ	8CF12	DSA 8-12	8-1FC-12
5/8" x 3/8"	10AFC6	1010-7-6	10FSC6N	10-6 GBZ	10CF6	DSA 10-6	8-1FC6
5/8" x 1/2"	10AFC8	1010-7-8	10FSC8N	10-8 GBZ	10CF8	DSA 10-8	10-1FC8
3/4" x 1/2"	12AFC8	1210-7-8	12FSC8N	12-8 GBZ	12CF8	DSA 12-8	12-1FC8
3/4" x 3/4"	12AFC12	1210-7-12	12FSC12N	12-12 GBZ	12CF12	DSA 12-12	12-1FC-12



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A ~	B	C	D ~	E	Fx A_F	G A_F	Hx	Hy
2AFE2	1/8"	1/8"	0.96	0.41	0.60	0.50	0.09	1/2	7/16	0.71	0.74
2AFE4	1/8"	1/4"	1.07	0.59	0.60	0.50	0.09	11/16	7/16	0.81	0.87
4AFE2	1/4"	1/8"	1.05	0.41	0.70	0.60	0.19	1/2	9/16	0.76	0.74
4AFE4	1/4"	1/4"	1.16	0.59	0.70	0.60	0.19	11/16	9/16	0.87	0.87
4AFE6	1/4"	3/8"	1.24	0.59	0.70	0.60	0.19	13/16	9/16	0.95	0.87
4AFE8	1/4"	1/2"	1.35	0.78	0.70	0.60	0.19	1	9/16	1.06	1.11
5AFE4	5/16"	1/4"	1.19	0.59	0.73	0.64	0.25	11/16	5/8	0.90	0.87
6AFE4	3/8"	1/4"	1.22	0.59	0.76	0.66	0.28	11/16	11/16	0.93	0.87
6AFE6	3/8"	3/8"	1.30	0.59	0.76	0.66	0.28	13/16	11/16	1.01	0.87
6AFE8	3/8"	1/2"	1.41	0.78	0.76	0.66	0.28	1	11/16	1.12	1.11
8AFE4	1/2"	1/4"	1.41	0.59	0.86	0.90	0.41	13/16	7/8	1.01	0.87
8AFE6	1/2"	3/8"	1.41	0.59	0.86	0.90	0.41	13/16	7/8	1.01	0.87
8AFE8	1/2"	1/2"	1.52	0.78	0.86	0.90	0.41	1	7/8	1.12	1.11
10AFE8	5/8"	1/2"	1.52	0.78	0.86	0.96	0.50	1-1/16	1	1.16	1.11
12AFE8	3/4"	1/2"	1.56	0.78	0.86	0.96	0.62	1-1/16	1-1/8	1.16	1.11
12AFE12	3/4"	3/4"	1.75	0.81	0.86	0.96	0.62	1-3/8	1-1/8	1.35	1.24
14AFE12	7/8"	3/4"	1.75	0.81	0.86	1.02	0.72	1-3/8	1-1/4	1.35	1.24
16AFE12	1"	3/4"	1.92	0.81	1.04	1.23	0.88	1-3/8	1-1/2	1.44	1.24
16AFE16	1"	1"	2.10	1.00	1.04	1.23	0.88	1-11/16	1-1/2	1.62	1.49

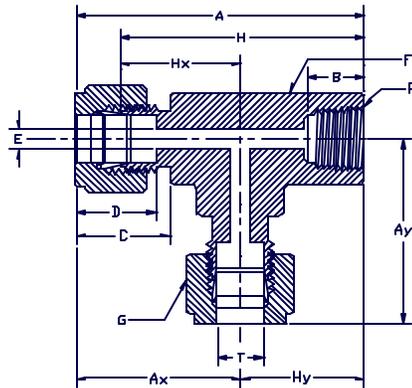
METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A ~	B	C	D ~	E	Fx A_F	G A_F	Hx	Hy
6m AFE2	6	1/8"	26.8	10.4	17.7	15.3	4.8	1/2	14	19.4	18.8
6m AFE4	6	1/4"	29.6	15.0	17.7	15.3	4.8	11/16	14	22.2	22.2
8m AFE4	8	1/4"	30.4	15.0	18.6	16.2	6.4	11/16	16	22.9	22.2
10m AFE4	10	1/4"	31.3	10.4	19.5	17.2	7.9	11/16	19	23.7	18.5
12m AFE4	12	1/4"	35.8	15.0	22.0	22.8	9.5	13/16	22	25.5	22.2
12m AFE8	12	1/2"	38.6	19.8	22.0	22.8	9.5	1	22	28.5	28.2
16m AFE8	16	1/2"	39.3	19.8	22.0	24.4	12.7	1-1/16	25	29.5	28.2



Female Elbow

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGELOK®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AFE2	200-8-2	2FEL2N		2-2 DBZ	2LF2	DLF 2-2	2-2FE-2
1/8" x 1/4"	2AFE4	200-8-4	2FEL4N		2-4 DBZ	2LF4	DLF 2-4	2-2FE-4
3/16" x 1/8"	3AFE2	300-8-2	3FEL2N		3-2 DBZ	3LF2	DLF 3-2	3-2FE-2
1/4" x 1/8"	4AFE2	400-8-2	4FEL2N		4-2 DBZ	4LF2	DLF 4-2	4-2FE-2
1/4" x 1/4"	4AFE4	400-8-4	4FEL4N		4-4 DBZ	4LF4	DLF 4-4	4-2FE-4
1/4" x 3/8"	4AFE6	400-8-6	4FEL6N		4-6 DBZ	4LF6	DLF 4-6	4-2FE-6
1/4" x 1/2"	4AFE8	400-8-8	4FEL8N		4-8 DBZ	4LF8	DLF 4-8	4-2FE-8
5/16" x 1/4"	5AFE4	500-8-4	5FEL4N		5-4 DBZ	5LF4	DLF 5-4	5-2FE-4
3/8" x 1/4"	6AFE4	600-8-4	6FEL4N		6-4 DBZ	6LF4	DLF 6-4	6-2FE-4
3/8" x 3/8"	6AFE6	600-8-6	6FEL6N		6-6 DBZ	6LF6	DLF 6-6	6-2FE-6
1/2" x 1/4"	8AFE4	810-8-4	8FEL4N		8-4 DBZ	8LF4	DLF 8-4	8-2FE-4
1/2" x 3/8"	8AFE6	810-8-6	8FEL6N		8-6 DBZ	8LF6	DLF 8-6	8-2FE-6
1/2" x 1/2"	8AFE8	810-8-8	8FEL8N		8-8 DBZ	8LF8	DLF 8-8	8-2FE-8
5/8" x 1/2"	10AFE8	1010-8-8	10FEL8N		10-8 DBZ	10LF8	DLF 10-8	10-2FE-8
3/4" x 1/2"	12AFE8	1210-8-8	12FEL8N		12-8 DBZ	12LF8	DLF 12-8	12-2FE-8
3/4" x 3/4"	12AFE12	1210-8-12	12FEL12N		12-12 DBZ	12LF12	DLF 12-12	12-2FE-12
3/4" x 1"	12AFE16	1210-8-16	12FEL16N		12-16 DBZ	12LF16	DLF 12-16	12-2FE-16
1" x 3/4"	16AFE12	1610-8-12	16FEL12N		16-12 DBZ	16LF12	DLF16-12	16-2FE-12
1" x 1"	16AFE16	1610-8-16	16FEL16N		16-16 DBZ	16LF16	DLF 16-16	16-2FE-16



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	Ax	B	C	D	E	Fx	G	H	Hx	Hy
			~				~		A_F	A_F			
2AFRT2	1/8"	1/8"	1.71	0.96	0.41	0.60	0.50	0.09	1/2	7/16	1.44	0.70	0.74
4AFRT2	1/4"	1/8"	1.81	1.05	0.41	0.70	0.60	0.19	1/2	9/16	1.50	0.76	0.74
4AFRT4	1/4"	1/4"	2.05	1.16	0.59	0.70	0.60	0.19	11/16	9/16	1.79	0.87	0.87
6AFRT4	3/8"	1/4"	2.10	1.22	0.59	0.76	0.66	0.28	11/16	11/16	1.79	0.93	0.87
8AFRT6	1/2"	3/8"	2.29	1.41	0.59	0.86	0.90	0.41	13/16	7/8	1.88	1.01	0.87
8AFRT8	1/2"	1/2"	2.68	1.56	0.78	0.86	0.90	0.41	1-1/16	7/8	2.27	1.16	1.12
12AFRT12	3/4"	3/4"	3.00	1.75	0.81	0.86	0.96	0.62	1-3/8	1-1/8	2.59	1.35	1.24
16AFRT12	1"	3/4"	3.17	1.92	0.81	1.04	1.23	0.88	1-3/8	1-1/2	2.68	1.44	1.24
16AFRT16	1"	1"	3.60	2.10	1.00	1.04	1.23	0.88	1-11/16	1-1/2	3.11	1.62	1.49

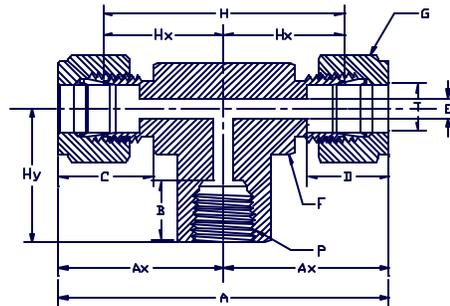
METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	Ax	B	C	D	E	Fx	G	H	Hx	Hy
			~				~		A_F	A_F			
6m AFRT2	6	1/8"	45.6	26.8	10.4	17.7	15.3	4.8	1/2	14	38.2	19.4	18.8
6m AFRT4	6	1/4"	51.8	29.6	15.0	17.7	15.3	4.8	11/16	14	44.4	22.2	22.2
8m AFRT2	8	1/8"	48.5	29.7	10.4	18.6	16.2	6.4	5/8	16	41.0	22.2	18.8
8m AFRT4	8	1/4"	52.6	30.4	15.0	18.6	16.2	6.4	11/16	16	45.1	22.9	22.2
10m AFRT4	10	1/4"	55.5	33.3	15.0	19.5	17.2	7.9	13/16	19	47.9	25.7	22.2
12m AFRT6	12	3/8"	58.0	35.8	15.0	22.0	22.8	10.3	13/16	22	47.9	25.7	22.2
12m AFRT8	12	1/2"	58.0	35.8	15.0	22.0	22.8	9.5	13/16	22	47.9	25.7	22.2
16m AFRT8	16	1/2"	67.8	39.6	19.8	22.0	24.4	12.7	1-1/16	25	57.7	29.5	28.2



Female Run Tee

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AFRT2	200-3 TFT	2FRT2N		2-2-2 MBZ	2TFT2	DTF 22	2-3TFT-2
1/8" x 1/4"	2AFRT4	200-3 TFT	2FRT4N		2-4-2 MBZ	2TFT4	DTF 24	2-3TFT-4
3/16" x 1/8"	3AFRT2	300-3 TFT	3FRT2N		3-2-3 MBZ	3TFT2	DTF 32	3-3TFT-2
1/4" x 1/8"	4AFRT2	400-3 TFT	4FRT2N		4-2-4 MBZ	4TFT2	DTF 42	4-3TFT-2
1/4" x 1/4"	4AFRT4	400-3 TFT	4FRT4N		4-4-4 MBZ	4TFT4	DTF 44	4-3TFT-4
5/16" x 1/4"	5AFRT4	500-3 TFT	5FRT4N		5-4-5 MBZ	5TFT4	DTF 54	5-3TFT-4
3/8" x 1/4"	6AFRT4	600-3 TFT	6FRT4N		6-4-6 MBZ	6TFT4	DTF 64	6-3TFT-4
3/8" x 3/8"	6AFRT6	600-3 TFT	6FRT6N		6-6-6 MBZ	6TFT6	DTF 66	6-3TFT-6
1/2" x 3/8"	8AFRT6	810-3 TFT	8FRT6N		8-6-8 MBZ	8TFT6	DTF 86	8-3TFT-6
1/2" x 1/2"	8AFRT8	810-3 TFT	8FRT8N		8-8-8 MBZ	8TFT8	DTF 88	8-3TFT-8
5/8" x 1/2"	10AFRT8	1010-3 TFT	10FRT8N		10-8-10 MBZ	10TFT8	DTF 108	10-3TFT-8
3/4" x 1/2"	12AFRT8	1210-3 TFT	12FRT8N		12-8-12 MBZ	12TFT8	DTF 128	12-3TFT-8
3/4" x 3/4"	12AFRT12	1210-3 TFT	12FRT12N		12-12-12 MBZ	12TFT12	DTF 1212	12-3TFT-12
1" x 3/4"	16AFRT12	1610-3 TFT	16FRT12N		16-12-16 MBZ	16TFT12	DTF 1612	16-3TFT-12
1" x 1"	16AFRT16	1610-3 TFT	16FRT16N		16-16-16 MBZ	16TFT16	DTF 1616	16-3TFT-16



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	Ax	B	C	D	E	Fx	G	H	Hx	Hy
			~				~		A _{/F}	A _{/F}			
2AFBT2	1/8"	1/8"	1.92	0.96	0.41	0.60	0.50	0.09	1/2	7/16	1.40	0.70	0.74
4AFBT2	1/4"	1/8"	2.10	1.05	0.41	0.70	0.60	0.19	1/2	9/16	1.52	0.76	0.74
4AFBT4	1/4"	1/4"	2.32	1.16	0.59	0.70	0.60	0.19	11/16	9/16	1.74	0.87	0.87
6AFBT4	3/8"	1/4"	2.44	1.22	0.59	0.76	0.66	0.28	11/16	11/16	1.84	0.93	0.87
6AFBT6	3/8"	3/8"	2.60	1.30	0.59	0.76	0.66	0.28	13/16	11/16	2.02	1.01	0.87
8AFBT6	1/2"	3/8"	2.82	1.41	0.59	0.86	0.90	0.41	13/16	7/8	2.02	1.01	0.87
8AFBT8	1/2"	1/2"	3.04	1.52	0.78	0.86	0.90	0.41	1	7/8	2.24	1.12	1.11
10AFBT8	5/8"	1/2"	3.04	1.52	0.78	0.86	0.96	0.50	1	1	2.24	1.12	1.11
12AFBT12	3/4"	3/4"	3.50	1.75	0.81	0.86	0.96	0.62	1-3/8	1-1/8	2.70	1.35	1.24
16AFBT12	1"	3/4"	3.84	1.92	0.81	1.04	1.23	0.88	1-3/8	1-1/2	2.88	1.44	1.24
16AFBT16	1"	1"	4.20	2.10	1.00	1.04	1.23	0.88	1-11/16	1-1/2	3.24	1.62	1.49

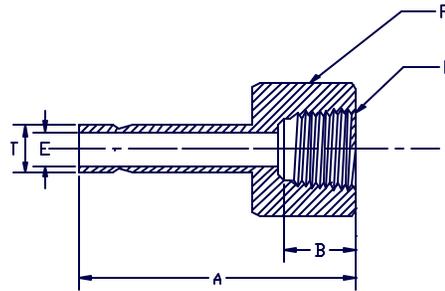
• METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT	A	Ax	B	C	D	E	Fx	G	H	Hx	Hy
			~				~		A _{/F}	A _{/F}			
6m AFBT2	6	1/8"	53.6	26.8	10.4	17.7	15.3	4.8	1/2	14	38.8	19.4	18.8
6m AFBT4	6	1/4"	59.2	29.6	15.0	17.7	15.3	4.8	11/16	14	44.4	22.2	22.2
8m AFBT2	8	1/8"	59.4	29.7	10.4	18.6	16.2	6.4	5/8	16	44.4	22.2	18.8
8m AFBT4	8	1/4"	60.8	30.4	15.0	18.6	16.2	6.4	11/16	16	45.8	22.9	22.2
10m AFBT4	10	1/4"	66.6	33.3	15.0	19.5	17.2	7.9	13/16	19	51.4	25.7	22.2
12m AFBT4	12	3/8"	71.6	35.8	15.0	22.0	22.8	9.5	13/16	22	51.4	25.7	22.2
12m AFBT6	12	1/4"	71.6	35.8	15.0	22.0	22.8	9.5	13/16	22	51.4	25.7	22.2
16m AFBT8	16	1/2"	77.2	38.6	19.8	22.0	24.4	12.7	1	25	57.0	28.5	22.2



Female Branch Tee

AURA			COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AFBT2	200-3 TTF	2FBT2N		2-2-2 OBZ	2TTF2	DTH 2-2	2-3TTF-2
1/8" X 1/4"	2AFBT4	200-3 TTF	2FBT4N		2-4-2 OBZ	2TTF4	DTH 2-4	2-3TTF-4
3/16" x 1/8"	3AFBT2	300-3 TTF	3FBT2N		3-2-3 OBZ	3TTF2	DTH 3-2	3-3TTF-2
1/4" x 1/8"	4AFBT2	400-3 TTF	4FBT4N		4-4-4 OBZ	4TTF4	DTH 4-4	4-3TTF-4
1/4" x 1/4"	4AFBT4	400-3 TTF	4FBT2N		4-2-4 OBZ	4TTF2	DTH 4-2	4-3TTF-2
5/16" x 1/4"	5AFBT4	500-3 TTF	5FBT4N		5-4-5 OBZ	5TTF4	DTH 5-4	5-3TTF-4
3/8" x 1/4"	6AFBT4	600-3 TTF	6FBT4N		6-4-6 OBZ	6TTF4	DTH 6-4	6-3TTF-4
3/8" x 3/8"	6AFBT6	600-3 TTF	6FBT6N		6-6-6 OBZ	6TTF6	DTH 6-6	6-3TTF-6
1/2" x 3/8"	8AFBT6	800-3 TTF	8FBT6N		8-6-8 OBZ	8TTF6	DTH 8-6	8-3TTF-6
1/2" x 1/2"	8AFBT8	810-3 TTF	8FBT8N		8-8-8 OBZ	8TTF8	DTH 8-8	8-3TTF-8
5/8" x 1/2"	10AFBT8	1010-3 TTF	10FBT8N		10-8-10 OBZ	10TTF8	DTH 10-8	10-3TTF8
3/4" x 1/2"	12AFBT8	1210-3 TTF	12FBT12N		12-12-12 OBZ	12TTF12	DTH 12-12	12-3TTF-12
3/4" x 3/4"	12AFBT12	1210-3 TTF	12FBT8N		12-8-12 OBZ	12TTF8	DTH 12-8	12-3TTF8
1" x 3/4"	16AFBT12	1610-3 TTF	16FBT12N		16-12-16 OBZ	16TTF12	DTH 16-12	16-3TTF-12
1" x 1"	16AFBT16	1610-3 TTF	16FBT16N		16-16-16 OBZ	16TTF16	DTH 16-16	16-3TTF-16



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT FEMALE	A	B	E	F Hex A/F
2AFA2	1/8"	1/8"	1.23	0.41	0.09	9/16
2AFA4	1/8"	1/4"	1.38	0.59	0.09	3/4
4AFA2	1/4"	1/8"	1.29	0.41	0.19	9/16
4AFA4	1/4"	1/4"	1.45	0.59	0.19	3/4
4AFA6	1/4"	3/8"	1.54	0.59	0.19	7/8
4AFA8	1/4"	1/2"	1.78	0.78	0.19	1-1/16
5AFA4	5/16"	1/4"	1.47	0.59	0.25	3/4
6AFA4	3/8"	1/4"	1.49	0.59	0.28	3/4
6AFA6	3/8"	3/8"	1.58	0.59	0.28	7/8
6AFA8	3/8"	1/2"	1.84	0.78	0.28	1-1/16
8AFA6	1/2"	3/8"	1.78	0.59	0.39	7/8
8AFA8	1/2"	1/2"	2.03	0.78	0.39	1-1/16
10AFA8	5/8"	1/2"	2.08	0.78	0.50	1-1/16
12AFA12	3/4"	3/4"	2.15	0.81	0.59	1-5/16
12AFA16	3/4"	1"	2.29	1.00	0.59	1-5/8

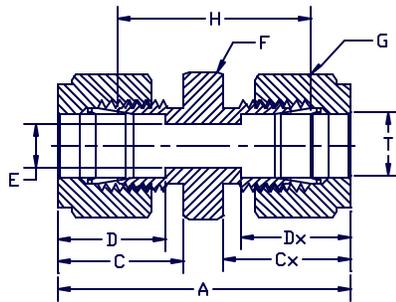
METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' NPT FEMALE	A	B	E	F Hex A/F
6m AFA2	6	1/8"	32.4	9.9	4.6	14
6m AFA4	6	1/4"	37.1	15.0	4.6	19
8m AFA4	8	1/4"	37.5	15.0	6.4	19
10m AFA4	10	1/4"	38.0	15.0	7.7	19
10m AFA6	10	3/8"	40.1	15.0	7.7	22
10m AFA8	10	1/2"	46.5	19.8	7.7	27



Female Adapter

AURA			COMPETITIVE INTERCHANGE				
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® A LOK	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AFA2	2-TA-7-2	2FA2N	2-2 T2HG	2AF2	DHC 2-2	2-1ATPF-2
1/8" x 1/4"	2AFA4	2-TA-7-4	2FA4N	2-4 T2HG	2AF4	DHC 2-4	2-1ATPF-4
1/4" x 1/8"	4AFA2	4-TA-7-2	4FA2N	4-2 T2HG	4AF2	DHC 4-2	4-1ATPF-2
1/4" x 1/4"	4AFA4	4-TA-7-4	4FA4N	4-4 T2HG	4AF4	DHC 4-4	4-1ATPF-4
1/4" x 3/8"	4AFA6	4-TA-7-6	4FA6N	4-6 T2HG	4AF6	DHC 4-6	4-1ATPF-6
1/4" x 1/2"	4AFA8	4-TA-7-8	4FA8N	4-8 T2HG	4AF8	DHC 4-8	4-1ATPF-8
5/16" x 1/8"	5AFA2	5-TA-7-2	5FA2N	5-2 T2HG	5AF2	DHC 5-2	5-1ATPF-2
5/16" x 1/4"	5AFA4	5-TA-7-4	5FA4N	5-4 T2HG	5AF4	DHC 5-4	5-1ATPF-4
3/8" x 1/4"	6AFA4	6-TA-7-4	6FA4N	6-4 T2HG	6AF4	DHC 6-4	6-1ATPF-4
3/8" x 3/8"	6AFA6	6-TA-7-6	6FA6N	6-6 T2HG	6AF6	DHC 6-6	6-1ATPF-6
3/8" x 1/2"	6AFA8	6-TA-7-8	6FA8N	6-8 T2HG	6AF8	DHC 6-8	6-1ATPF-8
5/8" x 1/2"	10AFA8	10-TA-7-8	10FA8N	10-8 T2HG	10AF8	DHC 10-8	10-1ATPF-8
3/4" x 1/2"	12AFA8	12-TA-7-8	12FA8N	12-8 T2HG	12AF8	DHC 12-8	12-1ATPF-8
3/4" x 3/4"	12AFA12	12-TA-7-12	12FA12N	12-12 T2HG	12AF12	DHC 12-12	12-1ATPF-12
1" x 3/4"	16AFA12	16-TA-7-12	16FA12N	16-12 T2HG	16AF12	DHC 16-12	16-1ATPF-12
1" x 1"	16AFA16	16-TA-7-16	16FA16N	16-16 T2HG	16AF16	DHC 16-16	16-1ATPF-16



• INCH SIZE TUBING

AURA PART NO.	TUBE OD	A	C	D	E	F	G	H
2ASU	1/8"	1.39	0.60	0.50	0.09	$\frac{7}{16}$	$\frac{7}{16}$	0.87
4ASU	1/4"	1.60	0.70	0.60	0.19	$\frac{1}{2}$	$\frac{9}{16}$	1.02
5ASU	5/16"	1.68	0.73	0.64	0.25	$\frac{9}{16}$	$\frac{5}{8}$	1.10
6ASU	3/8"	1.75	0.76	0.66	0.28	$\frac{5}{8}$	$\frac{11}{16}$	1.18
8ASU	1/2"	2.01	0.86	0.90	0.41	$\frac{13}{16}$	$\frac{7}{8}$	1.21
10ASU	5/8"	2.04	0.86	0.96	0.50	$\frac{15}{16}$	1	1.24
12ASU	3/4"	2.10	0.86	0.96	0.62	$1\text{-}1/16$	$1\text{-}1/8$	1.30
14ASU	7/8"	2.16	0.86	1.02	0.72	$1\text{-}3/16$	$1\text{-}1/4$	1.36
16ASU	1"	2.54	1.04	1.23	0.88	$1\text{-}3/8$	$1\text{-}1/2$	1.58

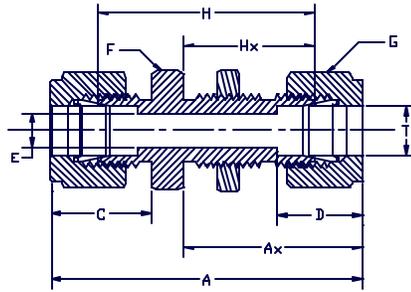
• METRIC SIZE TUBING

AURA PART NO.	TUBE OD	A	C	D	E	F	G	H
3m ASU	3	35.1	15.3	12.9	1.7	12	12	22.2
6m ASU	6	38.8	17.7	15.3	4.8	14	14	26.0
8m ASU	8	43.0	18.6	16.2	6.4	15	16	28.0
10m ASU	10	46.0	19.5	17.2	7.9	18	19	30.8
12m ASU	12	51.0	22.0	22.8	9.5	22	22	90.8
16m ASU	16	51.8	22.0	24.4	12.7	24	25	31.6
20m ASU	20	54.8	22.0	26.0	15.9	30	32	34.6
25m ASU	25	64.8	26.5	31.3	21.8	35	38	49.2



Straight Union

AURA		COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGELOK®	PARKER® LOK	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2ASU	200-6	2SC2	2-2 HBZ	2U	DUA2	2-1U
3/16"	3ASU	300-6	3SC3	3-3 HBZ	3U	DUA3	3-1U
1/4"	4ASU	400-6	4SC4	4-4 HBZ	4U	DUA4	4-1U
5/16"	5ASU	500-6	5SC5	5-5 HBZ	5U	DUA5	5-1U
3/8"	6ASU	600-6	6SC6	6-6 HBZ	6U	DUA6	6-1U
1/2"	8ASU	800-6	8SC8	8-8 HBZ	8U	DUA8	8-1U
5/8"	10ASU	1010-6	10SC10	10-10 HBZ	10U	DUA10	10-1U
3/4"	12ASU	1210-6	12SC12	12-12 HBZ	12U	DUA12	12-1U
1"	16ASU	1610-6	16SC16	16-16 HBZ	16U	DUA16	16-1U



• INCH SIZE TUBING

AURA PART NO.	T" TUBE OD	A	Ax	C	D	E	F A ₁ /F	G A ₂ /F	H	Hx	PANEL HOLE DRILL SIZE	MAX. PANEL THICKNESS
2ABHU	1/8"	2.01	1.22	0.60	0.50	0.09	1/2	7/16	1.49	0.96	21/64	0.50
4ABHU	1/4"	2.26	1.31	0.70	0.60	0.19	5/8	9/16	1.68	1.02	29/64	0.40
5ABHU	5/16"	2.38	1.40	0.73	0.64	0.25	11/16	5/8	1.80	1.11	33/64	0.44
6ABHU	3/8"	2.44	1.44	0.76	0.66	0.28	3/4	11/16	1.86	1.15	37/64	0.44
8ABHU	1/2"	2.79	1.64	0.86	0.90	0.41	15/16	7/8	1.99	1.24	49/64	0.50
10ABHU	5/8"	2.85	1.67	0.86	0.96	0.50	1-1/16	1	2.05	1.27	57/64	0.50
12ABHU	3/4"	3.10	1.86	0.86	0.96	0.63	1-3/16	1-1/8	2.30	1.46	1-1/64	0.66
16ABHU	1"	3.76	2.25	1.04	1.23	0.88	1-5/8	1-1/2	2.80	1.77	1-21/64	0.75

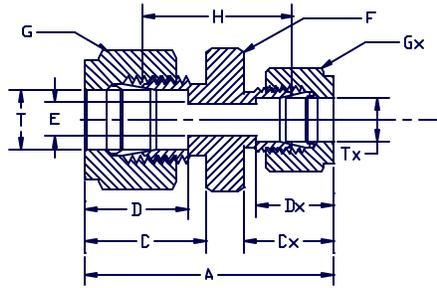
• METRIC SIZE TUBING

AURA PART NO.	T" TUBE OD	A	Ax	C	D	E	F A ₁ /F	G A ₂ /F	H	Hx	PANEL HOLE DRILL SIZE	MAX. PANEL THICKNESS
+3m ABHU	3	51.1	31.0	15.3	12.9	2.4	14	12	37.9	24.4	8.3	12.7
6m ABHU	6	53.4	31.8	16.1	13.7	2.4	14	12	40.2	25.2	9.9	12.7
8m ABHU	8	60.8	35.9	18.6	16.2	6.4	18	16	45.8	28.4	13.1	11.2
10m ABHU	10	63.5	36.8	19.5	17.2	7.9	22	19	48.3	29.2	16.3	11.2
12m ABHU	12	70.8	41.7	22.0	22.8	9.5	24	22	50.6	31.6	19.5	12.7
16m ABHU	16	72.3	42.4	22.0	24.4	12.7	27	25	52.1	32.3	22.8	12.7
20m ABHU	20	84.3	52.8	22.0	26.0	15.9	35	32	64.1	42.7	29.0	23.9



Bulkhead Union

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2ABHU	200-61	2BC2		2-2 WBZ	2BU	DSU 2	2-BHU
3/16"	3ABHU	300-61	3BC3		3-3 WBZ	3BU	DSU 3	3-BHU
1/4"	4ABHU	400-61	4BC4		4-4 WBZ	4BU	DSU 4	4-BHU
5/16"	5ABHU	500-61	5BC5		5-5 WBZ	5BU	DSU 5	5-BHU
3/8"	6ABHU	600-61	6BC6		6-6 WBZ	6BU	DSU 6	6-BHU
1/2"	8ABHU	810-61	8BC8		8-8 WBZ	8BU	DSU 8	8-BHU
5/8"	10ABHU	1010-61	10BC10		10-10 WBZ	10BU	DSU 10	10-BHU
3/4"	12ABHU	1210-61	12BC12		12-12 WBZ	12BU	DSU 12	12-BHU
1"	16ABHU	1610-61	16BC16		16-16 WBZ	16BU	DSU 16	16-BHU



• INCH SIZE TUBING

AURA PART NO.	T' TUBE OD	Tx TUBE OD	A	C	Cx	D	Dx	E	F	G	Gx	H
			~	~	~	~	~		A/F	A/F	A/F	
4ARU2	1/4"	1/8"	1.51	0.70	0.60	0.60	0.50	0.09	1/2	9/16	7/16	0.96
5ARU4	5/16"	1/4"	1.65	0.73	0.70	0.64	0.60	0.19	9/16	5/8	9/16	1.07
6ARU4	3/8"	1/4"	1.69	0.76	0.70	0.66	0.60	0.19	5/8	11/16	9/16	1.11
8ARU4	1/2"	1/4"	1.84	0.86	0.70	0.90	0.60	0.19	13/16	7/8	9/16	1.15
8ARU6	1/2"	3/8"	1.90	0.86	0.76	0.90	0.66	0.28	13/16	7/8	11/16	1.21
10ARU6	5/8"	3/8"	1.93	0.86	0.76	0.96	0.66	0.28	15/16	1	11/16	1.24
10ARU8	5/8"	1/2"	2.04	0.86	0.86	0.96	0.90	0.41	15/16	1	7/8	1.24
12ARU6	3/4"	3/8"	1.99	0.86	0.76	0.96	0.66	0.28	1-1/16	1-1/8	11/16	1.30
12ARU8	3/4"	1/2"	2.10	0.86	0.86	0.96	0.90	0.41	1-1/16	1-1/8	7/8	1.30
12ARU10	3/4"	5/8"	2.10	0.86	0.86	0.96	0.96	0.50	1-1/16	1-1/8	1	1.30
16ARU12	1"	3/4"	2.10	1.04	0.86	1.23	0.96	0.62	1-3/8	1-1/2	1-1/8	1.58

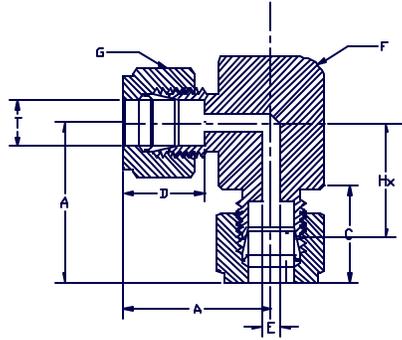
• METRIC SIZE TUBING

AURA PART NO.	T' TUB OD	Tx TUBE OD	A	C	Cx	D	Dx	E	F	G	Gx	H
			~	~	~	~	~		A/F	A/F	A/F	
6m ARU3	6	3	38.4	17.7	15.3	15.3	12.9	2.4	14	14	12	24.4
8m ARU6	8	6	42.4	18.6	17.7	16.2	15.3	4.8	15	16	14	27.2
10m ARU6	10	6	44.3	19.5	17.7	17.2	15.3	4.8	18	19	14	29.3
10m ARU8	10	8	44.9	19.5	18.6	17.2	16.2	6.4	18	19	16	29.8
12m ARU6	12	6	46.8	22.0	17.7	22.8	15.3	4.8	22	22	14	29.3
12m ARU8	12	8	47.6	22.0	18.0	22.8	16.2	6.4	22	22	16	30.0
12m ARU10	12	10	48.5	22.0	19.5	22.8	17.2	7.9	22	22	19	30.8
16m ARU10	16	10	49.3	22.0	19.5	24.4	17.2	7.9	24	25	19	31.6
16m ARU12	16	12	51.8	22.0	22.0	24.4	22.8	9.5	24	25	22	31.6



Reducing Union

AURA		COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® A LOK	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
3/16" x 1/8"	3ARU2	300-6-2	3-2 HBZ	3RU2	3UR2	DUR 3-2	3-1RU-2
1/4" x 1/8"	4ARU2	400-6-2	4-2 HBZ	4RU2	4UR2	DUR 4-2	4-1RU-2
5/16" x 1/4"	5ARU4	500-6-4	5-4 HBZ	5RU4	5UR4	DUR 5-4	5-1RU-4
3/8" x 1/4"	6ARU4	600-6-4	6-4 HBZ	6RU4	6UR4	DUR 6-4	6-1RU-4
1/2" x 1/4"	8ARU4	810-6-4	8-4 HBZ	8RU4	8UR4	DUR 8-4	8-1RU-4
1/2" x 3/8"	8ARU6	810-6-6	8-6 HBZ	8RU6	8UR6	DUR 8-6	8-1RU-6
5/8" x 3/8"	10ARU6	1010-6-6	10-6 HBZ	10RU6	10UR6	DUR 10-6	10-1RU-6
5/8" x 1/2"	10ARU8	1010-6-8	10-8 HBZ	10RU8	10UR8	DUR 10-8	10-1RU-8
3/4" x 1/2"	12ARU8	1210-6-8	12-8 HBZ	12RU8	12UR8	DUR 12-8	12-1RU-8
3/4" x 5/8"	12ARU10	1210-6-10	12-10 HBZ	12RU10	12UR10	DUR 12-10	12-1RU-10
1" x 3/4"	16ARU12	1610-6-12	16-12 HBZ	16RU12	16UR12	DUR 16-12	16-1RU-12



• INCH SIZE TUBING

AURA PART NO.	T" TUBE OD	A	C	D	E Minimum Opening	F Wrench Pad	G A/F	Hx
2AUE	1/8"	0.87	0.43	0.34	0.05	3/8	5/16	0.61
4AUE	1/4"	1.05	0.70	0.60	0.19	1/2	9/16	0.76
5AUE	5/16"	1.12	0.73	0.64	0.25	9/16	5/8	0.83
6AUE	3/8"	1.19	0.76	0.66	0.28	5/8	11/16	0.90
8AUE	1/2"	1.41	0.86	0.90	0.41	13/10	7/8	1.01
10AUE	5/8"	1.49	0.86	0.96	0.50	15/16	1	1.09
12AUE	3/4"	1.56	0.86	0.96	0.62	1-1/16	1-1/8	1.16
14AUE	7/8"	1.75	0.86	1.02	0.72	1-3/8	1-1/4	1.35
16AUE	1"	1.92	1.04	1.23	0.88	1-3/8	1-1/2	1.44

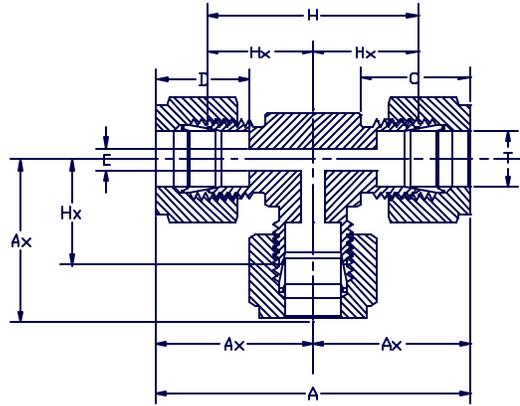
• METRIC SIZE TUBING

AURA PART NO.	T" TUBE OD	A	C	D	E Minimum Opening	F Wrench Pad	G A/F	Hx
3m AUE	3	22.1	15.3	12.9	2.4	3/8"	12	15.5
6m AUE	6	26.8	17.7	15.3	4.8	1/2"	14	19.4
8m AUE	8	28.6	18.8	16.2	6.4	9/16"	16	21.1
10m AUE	10	31.3	19.5	17.2	7.9	11/16"	19	23.7
12m AUE	12	35.8	22.0	22.8	9.5	13/16"	22	25.7
16m AUE	16	37.8	22.0	24.4	12.7	15/16"	25	27.7
20m AUE	20	39.6	22.0	24.4	15.1	1-1/16"	30	29.5
25m AUE	25	48.9	26.5	31.3	21.8	1-3/8"	38	36.6



Union Elbow

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2AUE	200-9	2EE2		2-2 EBZ	2LU	DLA 2	2-2 ELU-2
3/16"	3AUE	300-9	3EE3		3-3 EBZ	3LU	DLA 3	3-2 ELU-3
1/4"	4AUE	400-9	4EE4		4-4 EBZ	4LU	DLA 4	4-2 ELU-4
5/16"	5AUE	500-9	5EE5		5-5 EBZ	5LU	DLA5	5-2 ELU-5
3/8"	6AUE	600-9	6EE6		6-6 EBZ	6LU	DLA6	6-2 ELU-6
1/2"	8AUE	810-9	8EE8		8-8 EBZ	8LU	DLA8	8-2 ELU-8
5/8"	10AUE	1010-9	10EE10		10-10 EBZ	10LU	DLA10	10-2 ELU-10
3/4"	12AUE	1210-9	12EE12		12-12 EBZ	12LU	DLA12	12-2 ELU-12
1"	16AUE	1610-9	16EE16		16-16 EBZ	16LU	DLA16	16-2 ELU-16



• INCH SIZE TUBING

AURA PART NO.	T' TUBE OD	A	Ax	C	D	E Minimum Opening	F Wrench Pad	G Hex A/F	H	Hx
2AUT	1/8"	1.76	~	0.60	0.50	0.09	3/8	7/16	0.87	1.22
4AUT	1/4"	2.12	~	0.70	0.60	0.19	1/2	9/16	1.05	1.52
5AUT	5/16"	2.34	~	0.73	0.64	0.25	5/8	5/8	1.16	1.74
6AUT	3/8"	2.40	~	0.76	0.66	0.28	5/8	11/16	1.19	1.80
8AUT	1/2"	2.84	~	0.86	0.96	0.41	13/16	7/8	1.41	2.02
10AUT	5/8"	3.06	~	0.86	0.96	0.50	1	1	1.52	2.24
12AUT	3/4"	3.14	~	0.86	0.96	0.62	1-1/16	1-1/8	1.56	2.32
14AUT	7/8"	3.52	~	0.86	1.02	0.72	1-3/8	1-1/4	1.75	2.70
16AUT	1"	3.86	~	1.04	1.23	0.88	1-3/8	1-1/2	1.92	2.88

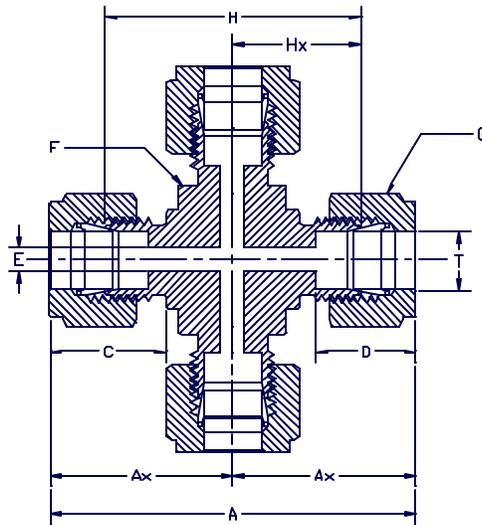
• METRIC SIZE TUBING

AURA PART NO.	T' TUBE OD	A	Ax	C	D	E Minimum Opening	F Wrench Pad	G Hex A/F	H	Hx
3m AUT	3	44.2	22.1	15.3	12.9	2.4	3/8"	12	31.0	15.5
6m AUT	6	53.6	26.8	17.7	15.3	4.8	1/2"	14	38.8	19.4
8m AUT	8	59.4	29.7	18.6	16.2	6.4	5/8"	16	44.4	22.2
10m AUT	10	62.6	31.3	19.5	17.2	7.9	11/16"	19	47.4	23.7
12m AUT	12	71.6	35.8	22.0	22.8	9.5	13/16	22	51.4	25.7
16m AUT	16	77.2	38.6	22.0	24.4	12.7	1"	25	57.0	28.7
20m AUT	20	88.8	44.4	22.0	26.0	15.9	1-3/8"	32	68.6	34.3
25m AUT	25	97.8	48.9	26.5	31.3	21.8	1-3/8"	38	73.2	36.6



Union Tee

AURA		COMPETITIVE INTERCHANGE						
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2AUT	200-3	2ET2		2-22 JBZ	2 TTT	DTA2	2-3 TTT-2
3/16"	3AUT	300-3	3ET3		3-33 JBZ	3 TTT	DTA3	3-3 TTT-3
1/4"	4AUT	400-3	4ET4		4-44 JBZ	4 TTT	DTA4	4-3 TTT-4
5/16"	5AUT	500-3	5ET5		5-55 JBZ	5 TTT	DTA5	5-3 TTT-5
3/8"	6AUT	600-3	6ET6		6-66 JBZ	6 TTT	DTA 6	6-3 TTT-6
1/2"	8AUT	810-3	8ET8		8-88 JBZ	8 TTT	DTA8	8-3 TTT-8
5/8"	10AUT	1010-3	10ET10		10-10-10 JBZ	10 TTT	DTA10	10-3 TTT-10
3/4"	12AUT	1210-3	12ET12		12-12-12 JBZ	12 TTT	DTA12	12-3 TTT-12
1"	16AUT	1610-3	16ET16		16-16-16 JBZ	16 TTT	DTA16	16-3 TTT-16



• INCH SIZE TUBING

AURA PART NO.	T" TUBE OD	A	Ax	C	D	E	F	G	H	Hx
		~	~		A/F	A/F				
2AUCR	1/8"	1.74	0.87	0.60	0.50	0.09	3/8	7/16	1.22	0.61
4AUCR	1/4"	2.10	1.05	0.70	0.60	0.19	1/2	9/16	1.52	0.76
5AUCR	5/16"	2.32	1.16	0.73	0.64	0.25	5/8	5/8	1.74	0.87
6AUCR	3/8"	2.38	1.19	0.76	0.66	0.28	5/8	11/16	1.80	0.90
8AUCR	1/2"	2.82	1.41	0.86	0.90	0.41	13/16	7/8	2.02	1.01
16AUCR	1"	3.84	1.92	1.04	1.23	0.88	1-3/8	1-1/2	2.88	1.44

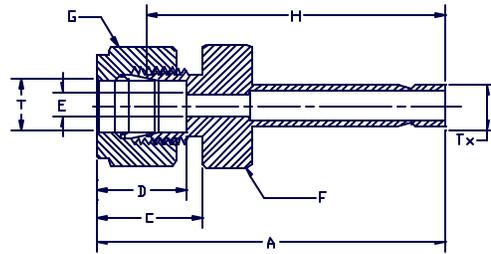
• METRIC SIZE TUBING

AURA PART NO.	T" TUBE OD	A	Ax	C	D	E	F	G	H	Hx
		~	~		A/F	A/F				
3m AUCR	3	44.2	22.1	15.3	12.9	2.4	3/8	12	31.0	15.5
6m AUCR	6	53.6	26.8	17.7	15.3	4.8	1/2	14	38.8	19.4
8m AUCR	8	59.4	29.7	18.6	16.2	6.4	5/8	16	44.4	22.2
10m AUCR	10	66.6	33.3	19.5	17.2	7.9	13/16	19	51.4	25.7
12m AUCR	12	71.6	35.8	22.0	22.8	9.5	13/16	22	51.4	25.7
16m AUCR	16	73.6	36.8	22.0	24.4	12.7	15/16	25	53.4	26.7
20m AUCR	20	88.8	44.4	22.0	26.0	15.9	1-3/8	32	68.6	34.3
25m AUCR	25	97.8	48.9	26.5	31.3	21.8	1-3/8	38	73.2	36.6



Union Cross

AURA		COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® A LOK	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2AUCR	200-4	2ECR2	2KBZ	2C	DXA2	2-4CR
1/4"	4AUCR	400-4	4ECR4	4KBZ	4C	DXA4	4-4CR
5/16"	5AUCR	500-4	5ECR5	5KBZ	5C	DXA5	5-4CR
3/8"	6AUCR	600-4	6ECR6	6KBZ	6C	DXA6	6-4CR
1/2"	8AUCR	810-4	8ECR8	8KBZ	8C	DXA8	8-4CR
5/8"	10AUCR	1010-4	10ECR10	10KBZ	10C	DXA10	10-4CR
3/4"	12AUCR	1210-4	12ECR12	12KBZ	12C	DXA12	12-4CR
1"	16AUCR	1610-4	16ECR16	16KBZ	16C	DXA16	16-4CR



• INCH SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' TUBE DIA OD	A ~	C ~	D	E	F A/F	G A/F	H
2AR2	1/8"	1/8"	1.31	0.60	0.50	0.08	7/16	7/16	1.05
2AR4	1/8"	1/4"	1.41	0.60	0.50	0.09	7/16	7/16	1.15
4AR4	1/4"	1/4"	1.53	0.70	0.60	0.19	1/2	9/16	1.24
4AR5	1/4"	5/16"	1.56	0.70	0.60	0.19	1/2	9/16	1.27
4AR6	1/4"	3/8"	1.59	0.70	0.60	0.19	1/2	9/16	1.30
4AR8	1/4"	1/2"	1.81	0.70	0.60	0.19	9/16	9/16	1.52
5AR6	5/16"	3/8"	1.64	0.73	0.64	0.25	9/16	5/8	1.35
5AR8	5/16"	1/2"	1.86	0.73	0.64	0.25	9/16	5/8	1.57
6AR4	3/8"	1/4"	1.62	0.76	0.66	0.19	5/8	11/16	1.33
6AR8	3/8"	1/2"	1.90	0.76	0.66	0.28	5/8	11/16	1.61
6AR12	3/8"	3/4"	1.97	0.76	0.66	0.28	13/16	11/16	1.68
8AR6	1/2"	3/8"	1.83	0.86	0.90	0.28	13/16	7/8	1.48
8AR10	1/2"	5/8"	2.11	0.86	0.90	0.41	13/16	7/8	1.71
8AR12	1/2"	3/4"	2.11	0.86	0.90	0.41	13/16	7/8	1.71
8AR16	1/2"	1"	2.36	0.86	0.90	0.41	1-1/16	7/8	1.96
10AR12	5/8"	3/4"	2.14	0.86	0.96	0.50	15/16	1	1.74
10AR14	5/8"	7/8"	2.20	0.86	0.96	0.50	15/16	1	1.80
10AR16	5/8"	1"	2.39	0.86	0.96	0.50	1-1/16	1	1.99

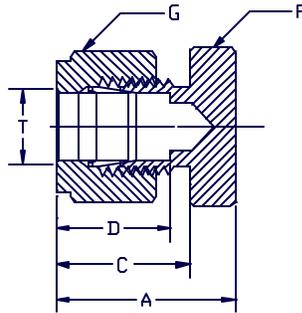
• METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	'P' TUBE DIA OD	A ~	C ~	D	E	F A/F	G A/F	H
3m AR6	3	6	35.9	15.3	12.9	2.4	12	12	29.3
6m AR8	6	8	39.7	17.7	15.3	4.8	14	14	32.3
6m AR10	6	10	40.5	17.7	15.3	4.8	14	14	33.1
6m AR12	6	12	46.1	17.7	15.3	4.8	14	14	38.7
8m AR10	8	10	40.0	18.6	16.2	6.4	15	16	34.3
8m AR12	8	12	47.4	18.6	16.2	6.4	15	16	39.9
10m AR6	10	6	42.2	19.5	17.2	4.6	18	19	34.6
10m AR12	10	12	49.6	19.5	17.2	7.9	18	19	42.0
12m AR10	12	10	46.5	22.0	22.8	7.7	22	22	36.4
12m AR16	12	16	53.6	22.0	22.8	9.5	22	22	43.5
12m AR25	12	25	62.2	22.0	22.8	9.5	27	22	52.1



Reducer

AURA			COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK	A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8" x 1/8"	2AR2	200R-2	2TUR2		2-2 TRBZ	2R2	DRE 2-2	2-1RATT-2
1/8" x 1/4"	2AR4	200R-4	2TUR4		2-4 TRBZ	2R4	DRE 2-4	2-1RATT-4
1/4" x 1/4"	4AR4	400R-4	4TUR4		4-4 TRBZ	4R4	DRE 4-4	4-1RATT-4
1/4" x 5/16"	4AR5	400R-5	4TUR5		4-5 TRBZ	4R5	DRE 4-5	4-1RATT-5
1/4" x 3/8"	4AR6	400R-6	4TUR6		4-6 TRBZ	4R6	DRE 4-6	4-1RATT-6
1/4" x 1/2"	4AR8	400R-8	4TUR8		4-8 TRBZ	4R8	DRE 4-8	4-1RATT-8
5/16" x 3/8"	5AR6	500R-6	5TUR6		5-6 TRBZ	5R6	DRE 5-6	5-1RATT-6
5/16" x 1/2"	5AR8	500R-8	5TUR8		5-8 TRBZ	5R8	DRE 5-8	5-1RATT-8
3/8" x 1/4"	6AR4	600R-4	6TUR4		6-4 TRBZ	6R4	DRE 6-4	6-1RATT-4
3/8" x 1/2"	6AR8	600R-8	6TUR8		6-8 TRBZ	6R8	DRE 6-8	6-1RATT-8
3/8" x 3/4"	6AR12	600R-12	6TUR12		6-12 TRBZ	6R12	DRE 6-12	6-1RATT-12
1/2" x 3/8"	8AR6	810R-6	8TUR6		8-6 TRBZ	8R6	DRE 8-6	8-1RATT-6
1/2" x 5/8"	8AR10	810R-10	8TUR10		8-10 TRBZ	8R10	DRE 8-10	8-1RATT-10
1/2" x 3/4"	8AR12	810R-12	8TUR12		8-12 TRBZ	8R12	DRE 8-12	8-1RATT-16
1/2" x 1"	8AR16	810R-16	8TUR16		8-16 TRBZ	8R16	DRE 8-16	8-1RATT-16
5/8" x 3/4"	10AR12	1010R-12	10TUR12		10-12 TRBZ	10R12	DRE 10-12	10-1RATT-12
5/8" x 1"	10AR16	1010R-16	10TUR16		10-16 TRBZ	10R16	DRE 10-16	10-1RATT-16
3/4" x 1"	12AR16	1210R-16	12TUR16		12-16 TRBZ	12R16	DRE 12-16	12-1RATT-16



- INCH SIZE TUBING

AURA PART NO.	T ¹ TUBE OD	A ~	C ~	D ~	F A/F	G A/F	H
2ATEC	1/8"	0.78	0.60	0.50	7/16	7/16	0.52
4ATEC	1/4"	0.92	0.70	0.60	1/2	9/16	0.62
5ATEC	5/16"	0.96	0.73	0.64	9/16	5/8	0.65
6ATEC	3/8"	1.00	0.76	0.66	5/8	11/16	0.71
8ATEC	1/2"	1.14	0.86	0.90	13/16	7/8	0.74
10ATEC	5/8"	1.17	0.86	0.96	15/16	1	0.77
12ATEC	3/4"	1.23	0.86	0.96	1-1/16	1-1/8	0.83
14ATEC	7/8"	1.33	0.86	1.02	1-3/16	1-1/4	0.93
16ATEC	1"	1.80	1.04	1.23	1-3/8	1-1/2	1.02

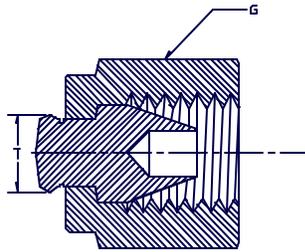
- METRIC SIZE TUBING

AURA PART NO.	T ¹ TUBE OD	A ~	C ~	D ~	F A/F	G A/F	H
3m ATEC	3	19.9	15.3	12.9	12	12	13.3
6m ATEC	6	22.9	17.7	15.3	14	14	15.5
8m ATEC	8	24.3	18.6	16.2	16.2	15	16.8
10m ATEC	10	26.4	19.5	17.2	18	19	18.8
12m ATEC	12	28.9	22.0	22.8	22	22	18.8
16m ATEC	16	29.7	22.0	24.4	24	24	19.6
20m ATEC	20	33.8	22.0	26.0	30	32	23.7
25m ATEC	25	38.4	26.5	31.3	35	38	26.0



Tube End Closure

AURA		COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® A LOK	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2ATC	200-C	2BLEN2	2PNBZ	2CP	DCA 2	2-CAP
3/16"	3ATC	300-C	3BLEN3	3PNBZ	3CP	DCA 3	3-CAP
1/4"	4ATC	400-C	4BLEN4	4PNBZ	4CP	DCA 4	4-CAP
5/16"	5ATC	500-C	5BLEN5	5PNBZ	5CP	DCA 5	5-CAP
3/8"	6ATC	600-C	6BLEN6	6PNBZ	6CP	DCA 6	6-CAP
1/2"	8ATC	810-C	8BLEN8	8PNBZ	8CP	DCA 8	8-CAP
5/8"	10ATC	1010-C	10BLEN10	10PNBZ	10CP	DCA 10	10-CAP
3/4"	12ATC	1210-C	12BLEN12	12PNBZ	12CP	DCA 12	12-CAP
1"	16ATC	1610-C	16BLEN16	16PNBZ	16CP	DCA 16	16-CAP



INCH SIZE TUBING

AURA PART NO.	T' TUBE OD	G $\frac{A}{F}$
2AFEC	1/8"	7/16
4AFEC	1/4"	9/16
5AFEC	5/16"	5/8
6AFEC	3/8"	11/16
8AFEC	1/2"	7/8
10AFEC	5/8"	1
12AFEC	3/4"	1-1/8
14AFEC	7/8"	1-1/4
16AFEC	1"	1-1/2

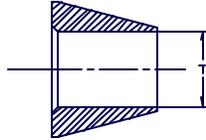
- METRIC SIZE TUBING

AURA PART NO.	T' TUBE OD	G $\frac{A}{F}$
3mAFEC	3	12
6mAFEC	6	14
8mAFEC	8	16
10mAFEC	10	19
12mAFEC	12	22
16mAFEC	16	25
20mAFEC	20	32
25mAFEC	25	38



Fitting End Closure

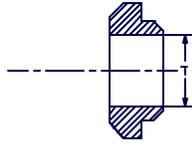
AURA		COMPETITIVE INTERCHANGE					
SIZE OD x NPT	PART NO	SWAGelok®	PARKER® LOK A	PARKER® CPI	GYROLOK®	BILOK®	TYLOK®
1/8"	2AFEC	200-P	2BLP2	2FNZ	2P	DBA2	2-1F PLUG
3/16"	3AFEC	300-P	3BLP3	3FNZ	3P	DBA3	3-1F PLUG
1/4"	4AFEC	400-P	4BLP4	4FNZ	4P	DBA4	4-1F PLUG
5/16"	5AFEC	500-P	5BLP5	5FNZ	5P	DBA5	5-1F PLUG
3/8"	6AFEC	600-P	6BLP6	6FNZ	6P	DBA6	6-1F PLUG
1/2"	8AFEC	810-P	8BLP8	8FNZ	8P	DBA8	8-1F PLUG
5/8"	10AFEC	1010-P	10BLP10	10FNZ	10P	DBA10	10-1F PLUG
3/4"	12AFEC	1210-P	12BLP12	12FNZ	12P	DBA12	12-1F PLUG
1"	16AFEC	1610-P	16BLP16	16FNZ	16P	DBA16	16-1F PLUG



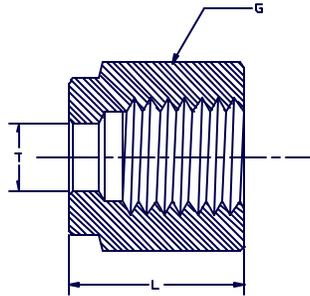
INCH SIZE TUBING

METRIC SIZE TUBING

AURA PART NO.	'T' TUBE OD	AURA PART NO.	'T' TUBE OD
2AFF	1/8"	3m AFF	3
4AFF	1/4"	6m AFF	6
5AFF	5/16"	8m AFF	8
6AFF	3/8"	10m AFF	10
8AFF	1/2"	12m AFF	12
10AFF	5/8"	16m AFF	16
12AFF	3/4"	20m AFF	20
14AFF	7/8"	25m AFF	25
16AFF	1"		

**INCH SIZE TUBING****METRIC SIZE TUBING**

AURA PART NO.	'T' TUBE OD	AURA PART NO.	'T' TUBE OD
2ABF	1/8"	3m ABF	3
4ABF	1/4"	6m ABF	6
5ABF	5/16"	8m ABF	8
6ABF	3/8"	10m ABF	10
8ABF	1/2"	12m ABF	12
10ABF	5/8"	16m ABF	16
12ABF	3/4"	20m ABF	20
14ABF	7/8"	25m ABF	25
16ABF	1"		



INCH SIZE TUBING

METRIC SIZE TUBING

AURA PART NO.	T TUBE OD	G	L	AURA PART NO.	T TUBE OD	G	L
2AHN	1/8"	7/16	0.47	3m AHN	3	12	11.9
4AHN	1/4"	9/16	0.50	6m AHN	6	14	12.7
5AHN	5/16"	5/8	0.53	8m AHN	8	16	13.5
6AHN	3/8"	11/16	0.56	10m AHN	10	19	15.1
8AHN	1/2"	7/8	0.69	12m AHN	12	22	17.4
10AHN	5/8"	1	0.69	16m AHN	16	25	17.4
12AHN	3/4"	1-1/8	0.69	20m AHN	20	32	17.4
14AHN	7/8"	1-1/4	0.69	25m AHN	25	38	20.6
16AHF	1"	1-1/2	0.81				

The Total Quality Management System employed by Aura Inc. covers all aspects of Engineering, Documentation, Production Planning, Incoming Inspection, Stage Inspection, Final Product Inspection, Packing & Dispatch. The system ensures appropriate action in our Customer Service, Engineering and Manufacturing divisions, to produce and maintain adequate documentation and inspection systems capable of producing evidence that material or services conform to the specified requirements, through all stages of the company's operations.

Total Quality Management at Aura Inc. is an on-going process that is constantly upgraded and monitored to keep pace with the company's growth rate and diversification plans.

The Quality Program includes, but is not limited to, the following areas:

- Standard Operating Procedures and standard formats to ensure high degree of accuracy in interpreting and responding to client requirements for technical information and quotations.
- Order entry and production planning systems ensure that client orders are entered and processed with a clear understanding of client requirements so that the final product conforms to the Purchase Order requirements by way of product specifications and delivery.
- Documentation control and conformance to international standards & practices ensures a high degree of accuracy and quality of Engineering.
- Supervision of quality procedures at sub vendor's works to ensure that incoming materials are processed and manufactured to Aura's purchase specifications, thus ensuring that final production plans are on schedule.
- Quality plans for individual products covering all aspects of incoming, stage & final inspection including parameters to be checked, reference documents, methods of checking, instruments used, frequency of checking, format of recording and person responsible.
- Standard & procedures for packing and standard dispatch documentation ensure that products are adequately packed for the mode of shipment and documentation is accurate and meet requirements of client purchase orders, airlines/ shipping line & customs at the ports of dispatch and entry.

AURA

TYPICAL QUALITY PLAN

COMPONENT CATEGORY OR OPERATION	PARAMETER	REFERENCE DOCUMENT	METHOD OF CHECKING	INSTRUMENTS USED	FREQUENCY OF CHECKING	FORMAT OF RECORDING	RESPONSIBILITY
1)	Standard Test Hydro – Proof Pressure Test	BS 4368 Part IV	Hydrostatic test to be carried out for 4,500 Psi for 5 mins	Hydrostatic Pump. Range 0-18,000 Psi. Make: Mercury Pumps Model 160-142-2	Sample	AI/QC/03	Q.C. Inspector
2)	Minimum Hydraulic Burst Pressure Test		Hydrostatic Test to be carried out for 12,000 Psi for 5 mins.	- do -	Sample	Log Book	Q.C. Inspector
3)	Dismantling and reassembly test		Test loops to be dismantled & reassembled 10 times followed by repetition of hydrostatic test per 1)	- do -	Sample	Log Book	Q.C. Inspector
4)	Minimum static gas pressure (Vacuum test)		Test loops to be subjected to negative pressure of 700 mbar by a vacuum pump and checked for 15 minutes .No rise in pressure in excess of 30 mbar is allowed within 15	Vacuum Pump (Range 0-760 mbar) Make: M.B. Instrument	Sample	Log Book	Q.C. Inspector

AURA

TYPICAL QUALITY PLAN

COMPONENT CATEGORY OR OPERATION	PARAMETER	REFERENCE DOCUMENT	METHOD OF CHECKING	INSTRUMENTS USED	FREQUENCY OF CHECKING	FORMAT OF RECORDING	RESPONSIBILITY
5)	Maximum Static Gas Pressure Test		Test Loops to be subjected to minimum inert gas pressure of 70 bar for minimum of 10 minutes	Nitrogen cylinder and regulator with Pressure Gauge – Range 0-140 Kg/Cm ²	Sample	Log Book	Q.C. Inspector
6)	Hydraulic Impulse & Vibration test		Test loops to be subjected to hydrostatic pressure, impulse and vibration simultaneously for 20×10^5 cycles	Special Purpose test rig	Sample	Log Book	Q.C. Inspector



CERTIFICATE

The TÜV CERT Certification Body
for QM Systems of RWTÜV Systems GmbH

hereby certifies in accordance with TÜV CERT
procedure that



AURA INC.

Head Office : W-167(A), Greater Kailash – II, New Delhi – 110 048

Works : D-11/3, Okhla Industrial Area, Phase – II,
New Delhi – 110 020, India

has established and applies a quality system for

**Manufacture and supply of Instrument Fittings, Valves and Manifolds,
Temperature Sensing Accessories and Precision Turned Components**

An audit was performed, Report No. 2.5-1463/2001

Proof has been furnished that the requirements according to

ISO 9001 : 2000

are fulfilled. The certificate is valid until **30 October 2007**

Certificate Registration No. **04100 2001 1698 – E3**

The company has been certified since 2001



Essen, 10.12.2004

The TÜV CERT Certification Body for QM Systems
of RWTÜV Systems GmbH



Alberta Boilers Safety Association

STATUTORY DECLARATION
Registration of Fittings



Valid Outside India



I, Niraj Sharan – President & CEO

Of Aura Inc.

Located at W-167(A), Greater Kailash-II, New Delhi-110 048, India

do solemnly declare that the fitting listed hereunder, which are subject to the Safety Codes Act

Comply with the requirement of Various Material , Design and Testing Standards per attached document no AI/ABSA/APPL/01

are not covered by the provisions of a recognized North American standard and are therefore manufactured to comply with as supported by the attached data which identifies the dimensions, material of construction, pressure/temperature ratings and the basis for such ratings, and the marking of the fittings for identification.

I further declare that the manufacture of these fittings is controlled by a quality control program which has been verifies by the following authority ISO9001:2000 certified by TUV GERMANY (copy attached) as being suitable for the manufacture of these fittings to the stated standard. The fittings covered by this declaration, for which I seek registration, are, Double Ferrule Compression Fittings In support this application, the following information, calculations and/or test data are attached :

- (a) Product Catalogs containing Company Information, Overview, Specifications, Assembly procedures, Testing Procedures and drawings.- 3 Sets
- (b) Quality Plan as per ISO 9001-2000 –3 Sets **11 GF 94, Meghdoot Building?**
- (c) TUV Certificate for ISO 9001-2000 –3 Sets **Nebru Place, New Delhi-110011**



DECLARED before me at New Delhi in the office of Public Notary, N.C.T. Delhi

This thirteenth day of June 2002
(Month) (Year)

(print) Niraj Sharan

(sign) _____
(A Commissioner of Oaths / equivalent)

14 JUN 2002

H. L. JAD
Notary Public
2A Pocket A/9
Kalkaji (Ext.)
New Delhi (India)
6091717

Regd. No. 531 Desai
(Signature of Applicant)

My Commission
Expires on 19,9,2002

For Office use only

To the best of my knowledge and belief, the application meets the requirements of the Safety Codes Act and CSA Standard B51, Clause 4.2, and is accepted for registration in Category A

Registration Number: 0A5283.2

Desai **S.A. DESAI**
(For the Administrator /Chief Inspector of Alberta)

Date Registered: JUL 22 2002

Expiry Date: 2012 July 23

The information you provide is necessary only for the programs as required by the Alberta Safety Codes Act and Regulations in the Boiler Discipline.

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