

SAFELOK™

Tube Fittings



316 Stainless Steel

Twin Ferrule

SAFELOK



One of the most comprehensive component design and manufacture packages available today to the Oil and Petrochemical Industry is offered by Safelok Components.

Harnessing the demands of the industry for Total Quality Management (TQM), the Safelok indigenous quality philosophy provides a range of Valves and Instrumentation Fittings finished to the highest standards.



Also ideal for other industrial applications, where significant opportunities exist for component replacement and enhancement. Construction material specification includes Stainless Steel, Aluminium Bronze & Carbon Steel. A variety of alternative exotic material specifications are available eg. Monel, Hasteloy, Incoloy and Titanium.



Maintaining their TQM practices throughout the manufacturing process, Safelok ensure all materials utilised in the completion of major components are traceable. Copies of the original mill certificates are retained for future reference.



All products are manufactured in compliance with ISO 9002 / EN 29002 / BS 5750 PART2
Safeloks capabilities also extend to Instrumentation Procurement Packages for major Oil Companies and the Construction Industry, both in the United Kingdom and throughout the world.



SAFELOKTM

SAFELOK is a trade mark of Safelok Components Limited



BRITISH DESIGN AND MANUFACTURE





SAFELOK LIMITED is housed in a modern factory in Wigan, Lancashire, England. An area renowned for its manufacturing skills. It is also ideally situated to all major motorway networks and Manchester International Airport.

One of the most comprehensive component design and manufacture packages available today to the Oil and Petrochemical Industry is offered by Safelok Components.

Harnessing the demands of the industry for Total Quality Management (TQM), the Safelok indigenous quality philosophy provides a large range of Valves and Instrumentation Fittings to the highest standards to meet the ever increasing demand of the industry.

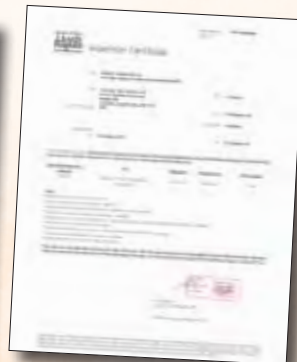
Safelok is aware of its environmental commitments and all manufacturing procedures conform to ISO 14001 - 2004.



Quality Assurance Certificate
ISO 9001:2008



Environmental Certificate
ISO 14001:2004



Firesafe Certificate

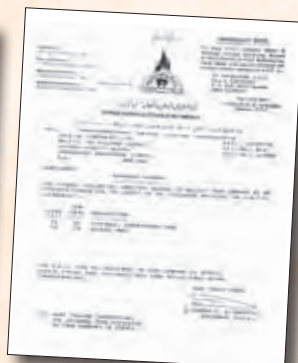


Design Certificate

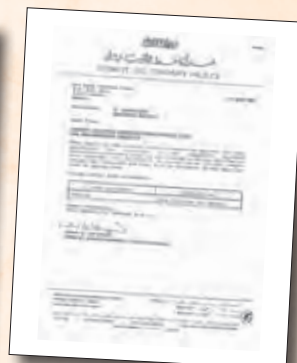
APPROVALS



ARAMCO



Kuwait NPC



Kuwait Oil Company



Abu Dhabi Company for
Onshore Oil Operations
(ADCO)

Safelok products have serviced the industry for over 25 years and we are proud of our achievements in acquiring many accreditations.

SAFELOK TUBE FITTINGS

Safelok twin ferrule tube fittings provide a leak proof, torque free seal on all compression end connections.

Total system design ensures leak proof connections.

Safelok tube fittings are composed of four precision made parts, - body - nut - front ferrule - rear ferrule. All parts are manufactured to very stringent tolerances under rigid quality control procedures. Safelok tube fittings are available in fractional and metric sizes.

Metric size range from:

4 - 6 - 8 - 10 - 12 - 14 - 16 - 18 - 20 - 22 - 25mm

Fractional size range from:

1/8 - 3/16 - 1/4 - 3/16 - 3/8 - 1/2 - 5/8 - 3/4 - 1"

Safelok tube fittings are available with ISO pipe threads for connecting to equipment ports using British BSPP, DIN, and JIS straight pipe thread and Din British BSPT threads.

Technical details of available threads are shown on page 38 and page 39 of this catalogue.

Only European and North American materials are used in the manufacture of Safelok tube fittings.

Other material available:-

Duplex F51

Alloy 825

Super Duplex F55/F53

Alloy 625

UNS31254 6MO

Alloy 400

Aluminium Bronze NES833

Alloy C276



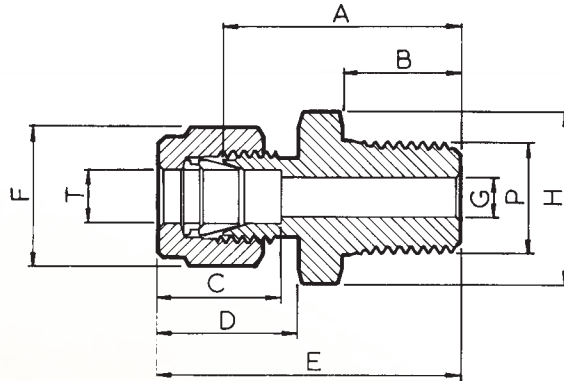
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TUBE COMPRESSION COUPLING MALE CONNECTOR - NPT (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 MC 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG/100
1/8	1/8	2 MC 2	29/32	3/8	17/32	41/64	113/64	7/16	7/16	3/32	1.7
1/8	1/4	2 MC 4	1 1/8	9/16	17/32	41/64	127/64	7/16	9/16	3/32	3.2
3/16	1/8	3 MC 2	61/64	3/8	9/16	21/32	115/64	1/2	7/16	1/8	2.0
3/16	1/4	3 MC 4	1 5/32	9/16	9/16	21/32	129/64	1/2	9/16	1/8	2.6
1/4	1/8	4 MC 2	1	3/8	19/32	45/64	119/64	9/16	9/16	3/16	2.5
1/4	1/4	4 MC 4	1 3/16	9/16	19/32	45/64	131/64	9/16	9/16	3/16	3.0
1/4	3/8	4 MC 6	1 7/32	9/16	19/32	45/64	133/64	9/16	11/16	3/16	4.2
1/4	1/2	4 MC 8	1 7/16	3/4	19/32	45/64	147/64	9/16	7/8	3/16	6.5
5/16	1/4	5 MC 4	1 1/4	9/16	21/32	49/64	137/64	5/8	9/16	1/4	3.9
3/8	1/4	6 MC 4	1 9/32	9/16	21/32	49/64	137/64	11/16	11/16	9/32	4.5
3/8	3/8	6 MC 6	1 9/32	9/16	21/32	49/64	137/64	11/16	11/16	9/32	5.0
3/8	1/2	6 MC 8	1 1/2	3/4	21/32	49/64	151/64	11/16	7/8	9/32	8.3
1/2	1/4	8 MC 4	1 5/16	9/16	29/32	55/64	123/32	7/8	7/8	9/32	7.1
1/2	3/8	8 MC 6	1 5/16	9/16	29/32	55/64	123/32	7/8	7/8	13/32	7.4
1/2	1/2	8 MC 8	1 1/2	3/4	29/32	55/64	129/32	7/8	7/8	13/32	9.4
1/2	3/4	8 MC 12	1 17/32	3/4	29/32	55/64	115/16	7/8	1 1/8	13/32	11.2
5/8	1/2	10 MC 8	1 17/32	3/4	15/16	27/32	129/32	1	1 5/16	1/2	10.6
5/8	3/4	10 MC 12	1 17/32	3/4	15/16	27/32	129/32	1	1 1/8	1/2	12.6
3/4	1/2	12 MC 8	1 19/32	3/4	31/32	55/64	163/64	1 1/8	1 1/8	1/2	12.3
3/4	3/4	12 MC 12	1 19/32	3/4	31/32	55/64	163/64	1 1/8	1 1/8	5/8	13.9
1	3/4	16 MC 12	1 3/4	3/4	1 15/64	1 3/64	2 17/64	1 1/2	1 1/2	23/32	23.5
1	1	16 MC 16	1 15/16	15/16	1 15/64	1 3/64	2 29/64	1 1/2	1 1/2	7/8	26.3

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



Quality Assurance

Environmental Management

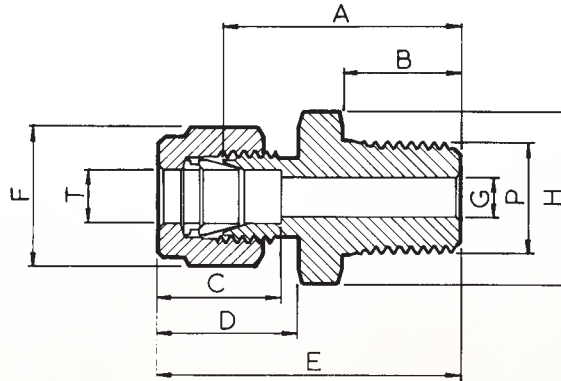
APPROVAL PROGRAM

TUBE COMPRESSION COUPLING MALE CONNECTOR - NPT (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



Part No.
12m MC 8



METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG/100
4	1/8	4m MC 2	25.4	9.5	14.5	16.9	32.8	13	13	2.8	2.2
4	1/4	4m MC 4	30.2	14.3	14.5	16.9	37.6	13	14	2.8	3.0
6	1/8	6m MC 2	25.4	9.5	16.1	18.5	33.6	14	14	4.7	2.5
6	1/4	6m MC 4	30.2	14.3	16.1	18.5	38.4	14	14	4.7	3.1
6	3/8	6m MC 6	31.0	14.3	16.1	18.5	39.2	14	17	4.7	4.7
6	1/2	6m MC 8	36.5	19.1	16.1	18.5	44.7	14	22	4.7	7.1
8	1/4	8m MC 4	31.8	14.3	16.9	19.3	40.0	16	14	6.4	3.9
8	3/8	8m MC 6	31.8	14.3	16.9	19.3	40.0	16	17	6.4	4.7
10	1/4	10m MC 4	32.5	14.3	17.7	20.1	40.7	19	17	7.1	4.8
10	3/8	10m MC 6	32.5	14.3	17.7	20.1	40.7	19	17	7.9	5.5
10	1/2	10m MC 8	38.1	19.1	17.7	20.1	46.3	19	22	7.9	7.3
12	1/4	12m MC 4	33.3	14.3	23.5	22.7	44.1	22	22	7.1	7.1
12	3/8	12m MC 6	33.3	14.3	23.5	22.7	44.1	22	22	9.5	7.6
12	1/2	12m MC 8	38.1	19.1	23.5	22.7	48.9	22	22	9.5	9.7
12	3/4	12m MC 12	38.9	19.1	23.5	22.7	49.2	22	29	10.3	11.2
14	3/8	14m MC 6	34.1	14.3	23.0	22.7	44.5	25	22	10.3	10.6
14	1/2	14m MC 8	38.9	19.1	23.0	22.7	49.2	25	24	12.7	10.6
14	3/4	14m MC 12	38.9	19.1	23.0	22.7	49.2	25	27	12.7	12.7
15	3/8	15m MC 6	34.0	14.3	24.6	22.7	44.5	25	24	10.3	10.6
15	1/2	15m MC 8	39.0	19.1	24.6	22.7	49.2	25	24	12.7	10.6
15	3/4	15m MC 12	38.9	19.1	24.6	22.7	49.2	25	27	12.7	12.7
16	3/8	16m MC 6	34.0	14.3	24.6	22.7	44.5	25	24	10.3	10.6
16	1/2	16m MC 8	38.9	19.1	25.1	22.7	49.7	25	24	12.7	10.6
16	3/4	16m MC 12	38.9	19.1	25.1	22.7	49.7	25	27	12.7	12.7
18	1/2	18m MC 8	40.5	19.1	24.6	22.7	50.8	30	27	12.7	10.6
18	3/4	18m MC 12	40.5	19.1	24.6	22.7	50.8	30	30	15.9	15.4
18	1	18m MC 16	40.5	23.8	24.6	22.7	56.4	30	30	15.9	15.4
20	1/2	20m MC 8	40.5	19.1	25.1	22.7	51.3	30	29	12.7	13.7
20	3/4	20m MC 12	40.5	19.1	25.1	22.7	51.3	30	29	16.7	15.4
20	1	20m MC 16	40.5	23.8	25.1	22.7	57.2	38	38	16.7	20.6
22	3/4	22m MC 12	40.5	19.1	24.6	22.7	50.8	30	30	15.9	15.4
22	1	22m MC 16	47.6	23.8	24.6	22.7	56.4	30	36	15.9	15.4
25	3/4	25m MC 12	44.5	19.1	31.8	27.0	57.2	38	35	18.3	20.6
25	1	25m MC 16	50.0	23.8	31.8	27.0	62.7	38	38	22.2	27.1

Dimensions for reference only

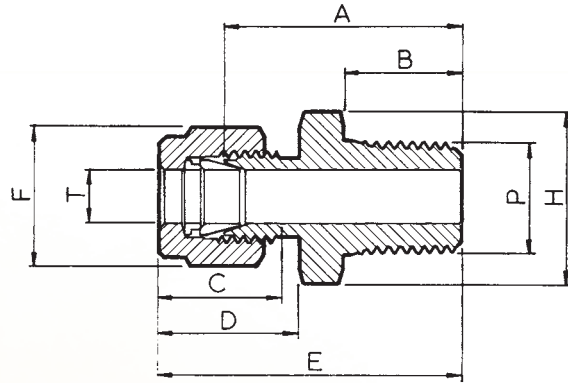
Also available in BSP Taper, BSP Parallel and ISO Metric threads

TUBE COMPRESSION COUPLING MALE THERMOCOUPLE - NPT (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



Part No.
8 MTC 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	B	C	D	E	F HEX	H HEX	WEIGHT KG/100
1/8	1/8	2 MTC 2	29/32	3/8	17/32	41/64	113/64	7/16	7/16	1.7
1/8	1/4	2 MTC 4	11/8	9/16	17/32	41/64	127/64	7/16	9/16	3.2
3/16	1/8	3 MTC 2	61/64	3/8	9/16	21/32	115/64	1/2	7/16	2.0
3/16	1/4	3 MTC 4	15/32	9/16	9/16	21/32	129/64	1/2	9/16	2.6
1/4	1/8	4 MTC 2	1	3/8	19/32	45/64	119/64	9/16	9/16	2.5
1/4	1/4	4 MTC 4	13/16	9/16	19/32	45/64	131/64	9/16	9/16	3.0
1/4	3/8	4 MTC 6	17/32	9/16	19/32	45/64	133/64	9/16	11/16	4.2
1/4	1/2	4 MTC 8	17/16	3/4	19/32	45/64	147/64	9/16	7/8	6.5
5/16	1/4	5 MTC 4	11/4	9/16	21/32	49/64	137/64	5/8	9/16	3.9
3/8	1/4	6 MTC 4	19/32	9/16	21/32	49/64	137/64	11/16	11/16	4.5
3/8	3/8	6 MTC 6	19/32	9/16	21/32	49/64	137/64	11/16	11/16	5.0
3/8	1/2	6 MTC 8	11/2	3/4	21/32	49/64	151/64	11/16	7/8	8.3
1/2	1/4	8 MTC 4	15/16	9/16	29/32	55/64	123/32	7/8	7/8	7.1
1/2	3/8	8 MTC 6	15/16	9/16	29/32	55/64	123/32	7/8	7/8	7.4
1/2	1/2	8 MTC 8	11/2	3/4	29/32	55/64	129/32	7/8	7/8	9.4
1/2	3/4	8 MTC 12	117/32	3/4	29/32	55/64	115/16	7/8	11/8	11.2
5/8	1/2	10 MTC 8	117/32	3/4	15/16	27/32	129/32	1	15/16	10.6
5/8	3/4	10 MTC 12	117/32	3/4	15/16	27/32	129/32	1	11/8	12.6
3/4	1/2	12 MTC 8	119/32	3/4	31/32	55/64	163/64	11/8	11/8	12.3
3/4	3/4	12 MTC 12	119/32	3/4	31/32	55/64	163/64	11/8	11/8	13.9
1	3/4	16 MTC 12	13/4	3/4	115/64	13/64	217/64	11/2	11/2	23.5
1	1	16 MTC 16	115/16	15/16	115/64	13/64	229/64	11/2	11/2	26.3

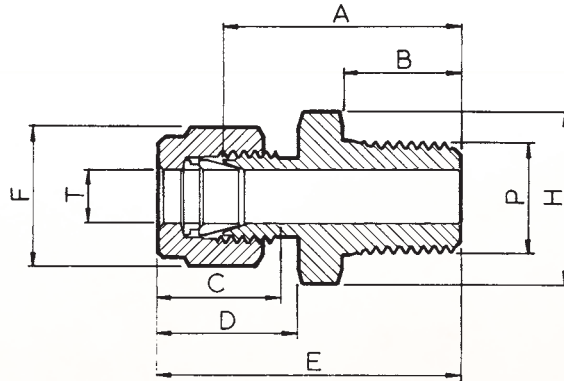
Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING MALE THERMOCOUPLE - NPT (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	B	C	D	E	F HEX	H HEX	WEIGHT KG/100
4	1/8	4m MTC 2	25.4	9.5	14.5	16.9	32.8	13	13	2.2
4	1/4	4m MTC 4	30.2	14.3	14.5	16.9	37.6	13	14	3.0
6	1/8	6m MTC 2	25.4	9.5	16.1	18.5	33.6	14	14	2.5
6	1/4	6m MTC 4	30.2	14.3	16.1	18.5	38.4	14	14	3.1
6	3/8	6m MTC 6	31.0	14.3	16.1	18.5	39.2	14	17	4.7
6	1/2	6m MTC 8	36.5	19.1	16.1	18.5	44.7	14	22	7.1
8	1/4	8m MTC 4	31.8	14.3	16.9	19.3	40.0	16	14	3.9
8	3/8	8m MTC 6	31.8	14.3	16.9	19.3	40.0	16	17	4.7
10	1/4	10m MTC 4	32.5	14.3	17.7	20.1	40.7	19	17	4.8
10	3/8	10m MTC 6	32.5	14.3	17.7	20.1	40.7	19	17	5.5
10	1/2	10m MTC 8	38.1	19.1	17.7	20.1	46.3	19	22	7.3
12	1/4	12m MTC 4	33.3	14.3	23.5	22.7	44.1	22	22	7.1
12	3/8	12m MTC 6	33.3	14.3	23.5	22.7	44.1	22	22	7.6
12	1/2	12m MTC 8	38.1	19.1	23.5	22.7	48.9	22	22	9.7
12	3/4	12m MTC 12	38.9	19.1	23.5	22.7	49.2	22	29	11.2
14	3/8	14m MTC 6	34.1	14.3	23.0	22.7	44.5	25	22	10.6
14	1/2	14m MTC 8	38.9	19.1	23.0	22.7	49.2	25	24	10.6
14	3/4	14m MTC 12	38.9	19.1	23.0	22.7	49.2	25	27	12.7
15	3/8	15m MTC 6	34.0	14.3	24.6	22.7	44.5	25	24	10.6
15	1/2	15m MTC 8	39.0	19.1	24.6	22.7	49.2	25	24	10.6
15	3/4	15m MTC 12	38.9	19.1	24.6	22.7	49.2	25	27	12.7
16	3/8	16m MTC 6	34.0	14.3	24.6	22.7	44.5	25	24	10.6
16	1/2	16m MTC 8	38.9	19.1	25.1	22.7	49.7	25	24	10.6
16	3/4	16m MTC 12	38.9	19.1	25.1	22.7	49.7	25	27	12.7
18	1/2	18m MTC 8	40.5	19.1	24.6	22.7	50.8	30	27	10.6
18	3/4	18m MTC 12	40.5	19.1	24.6	22.7	50.8	30	30	15.4
18	1	18m MTC 16	40.5	23.8	24.6	22.7	56.4	30	30	15.4
20	1/2	20m MTC 8	40.5	19.1	25.1	22.7	51.3	30	29	13.7
20	3/4	20m MTC 12	40.5	19.1	25.1	22.7	51.3	30	29	15.4
20	1	20m MTC 16	40.5	23.8	25.1	22.7	57.2	38	38	20.6
22	3/4	22m MTC 12	40.5	19.1	24.6	22.7	50.8	30	30	15.4
22	1	22m MTC 16	47.6	23.8	24.6	22.7	56.4	30	36	15.4
25	3/4	25m MTC 12	44.5	19.1	31.8	27.0	57.2	38	35	20.6
25	1	25m MTC 16	50.0	23.8	31.8	27.0	62.7	38	38	27.1

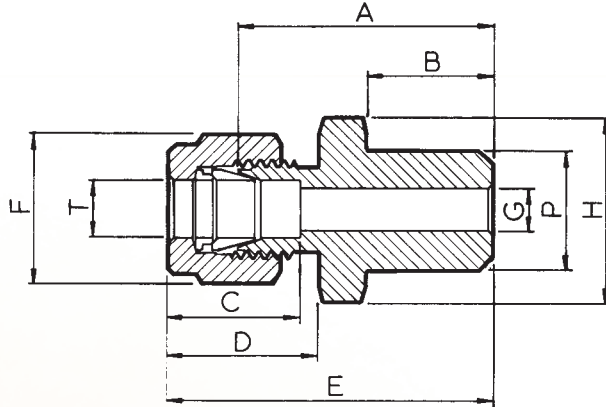
Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads

TUBE COMPRESSION COUPLING BUTT WELD CONNECTOR - (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
12 BWC 8



FRACTIONAL - Product Coding

T TUBE OD	NOMINAL BORE PIPE SIZE	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	P	WEIGHT KG/100
1/8	1/8	2 BWC 2	29/32	3/8	17/32	41/64	113/64	7/16	7/16	3/32	13/32	1.7
1/8	1/4	2 BWC 4	1 1/8	9/16	17/32	41/64	127/64	7/16	9/16	3/32	35/64	3.2
3/16	1/8	3 BWC 2	61/64	3/8	9/16	21/32	115/64	1/2	7/16	1/8	13/32	2.0
3/16	1/4	3 BWC 4	15/32	9/16	9/16	21/32	129/64	1/2	9/16	1/8	35/64	2.6
1/4	1/8	4 BWC 2	1	3/8	19/32	45/64	119/64	9/16	9/16	3/16	13/32	2.5
1/4	1/4	4 BWC 4	1 3/16	9/16	19/32	45/64	131/64	9/16	9/16	3/16	35/64	3.0
1/4	3/8	4 BWC 6	1 7/32	9/16	19/32	45/64	133/64	9/16	11/16	3/16	43/64	4.2
1/4	1/2	4 BWC 8	1 7/16	3/4	19/32	45/64	147/64	9/16	7/8	3/16	27/32	6.5
5/16	1/4	5 BWC 4	1 1/4	9/16	21/32	49/64	137/64	5/8	9/16	1/4	35/64	3.9
3/8	1/4	6 BWC 4	1 9/32	9/16	21/32	49/64	137/64	11/16	11/16	9/32	35/64	4.5
3/8	3/8	6 BWC 6	1 9/32	9/16	21/32	49/64	137/64	11/16	11/16	9/32	43/64	5.0
3/8	1/2	6 BWC 8	1 1/2	3/4	21/32	49/64	151/64	11/16	7/8	9/32	27/32	8.3
1/2	1/4	8 BWC 4	1 5/16	9/16	29/32	55/64	123/32	7/8	7/8	9/32	35/64	7.1
1/2	3/8	8 BWC 6	1 5/16	9/16	29/32	55/64	123/32	7/8	7/8	13/32	43/64	7.4
1/2	1/2	8 BWC 8	1 1/2	3/4	29/32	55/64	129/32	7/8	7/8	13/32	27/32	9.4
1/2	3/4	8 BWC 12	1 17/32	3/4	29/32	55/64	115/16	7/8	1 1/8	13/32	13/64	11.2
5/8	1/2	10 BWC 8	1 17/32	3/4	15/16	27/32	129/32	1	1 5/16	1/2	27/32	10.6
5/8	3/4	10 BWC 12	1 17/32	3/4	15/16	27/32	129/32	1	1 1/8	1/2	13/64	12.6
3/4	1/2	12 BWC 8	1 19/32	3/4	31/32	55/64	163/64	1 1/8	1 1/8	1/2	27/32	12.3
3/4	3/4	12 BWC 12	1 19/32	3/4	31/32	55/64	163/64	1 1/8	1 1/8	5/8	13/64	13.9
1	3/4	16 BWC 12	1 3/4	3/4	1 15/64	1 3/64	2 17/64	1 1/2	1 1/2	23/32	13/64	23.5
1	1	16 BWC 16	1 15/16	15/16	1 15/64	1 3/64	2 29/64	1 1/2	1 1/2	7/8	15/16	26.3

Dimensions for reference only



Quality Assurance

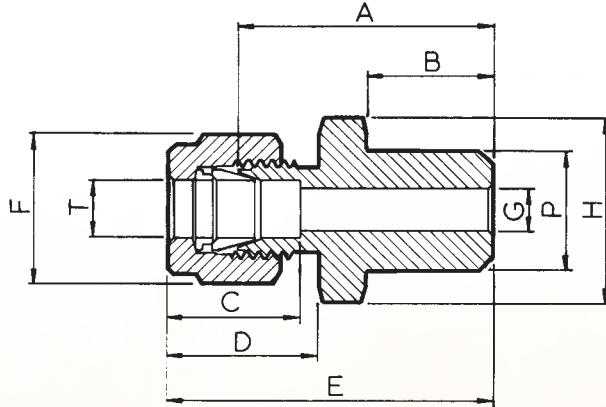
Environmental Management

TYPE APPROVAL PROGRAM

TUBE COMPRESSION COUPLING BUTT WELD CONNECTOR - (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
12m BWC 8



METRIC - Product Coding

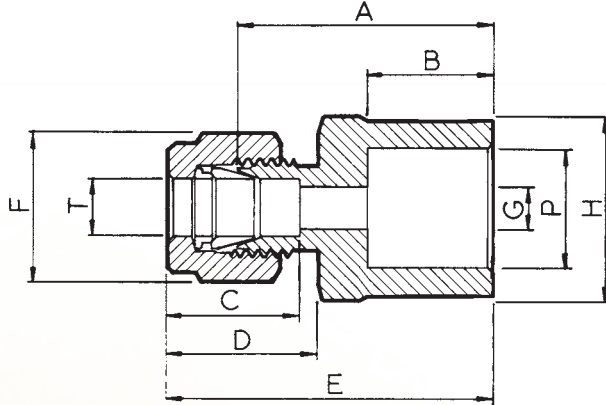
T TUBE OD	NOMINAL BORE PIPE SIZE	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	P	WEIGHT KG/100
4	1/8	4m BWC 2	25.4	9.5	14.5	16.9	32.8	13	13	2.8	10.28	2.2
4	1/4	4m BWC 4	30.2	14.3	14.5	16.9	37.6	13	14	2.8	13.72	3.0
6	1/8	6m BWC 2	25.4	9.5	16.1	18.5	33.6	14	14	4.7	10.28	2.5
6	1/4	6m BWC 4	30.2	14.3	16.1	18.5	38.4	14	14	4.7	13.72	3.1
6	3/8	6m BWC 6	31.0	14.3	16.1	18.5	39.2	14	17	4.7	17.15	4.7
6	1/2	6m BWC 8	36.5	19.1	16.1	18.5	44.7	14	22	4.7	21.34	7.1
8	1/4	8m BWC 4	31.8	14.3	16.9	19.3	40.0	16	14	6.4	13.72	3.9
8	3/8	8m BWC 6	31.8	14.3	16.9	19.3	40.0	16	17	6.4	17.15	4.7
10	1/4	10m BWC 4	32.5	14.3	17.7	20.1	40.7	19	17	7.1	13.72	4.8
10	3/8	10m BWC 6	32.5	14.3	17.7	20.1	40.7	19	17	7.9	17.15	5.5
10	1/2	10m BWC 8	38.1	19.1	17.7	20.1	46.3	19	22	7.9	21.34	7.3
12	1/4	12m BWC 4	33.3	14.3	23.5	22.7	44.1	22	22	7.1	13.72	7.1
12	3/8	12m BWC 6	33.3	14.3	23.5	22.7	44.1	22	22	9.5	17.15	7.6
12	1/2	12m BWC 8	38.1	19.1	23.5	22.7	48.9	22	22	9.5	21.34	9.7
12	3/4	12m BWC 12	38.9	19.1	23.5	22.7	49.2	22	29	10.3	26.67	11.2
14	3/8	14m BWC 6	34.1	14.3	23.0	22.7	44.5	25	22	10.3	17.15	10.6
14	1/2	14m BWC 8	38.9	19.1	23.0	22.7	49.2	25	24	12.7	21.34	10.6
14	3/4	14m BWC 12	38.9	19.1	23.0	22.7	49.2	25	27	12.7	26.67	12.7
15	3/8	15m BWC 6	34.0	14.3	24.6	22.7	44.5	25	24	10.3	17.15	10.6
15	1/2	15m BWC 8	39.0	19.1	24.6	22.7	49.2	25	24	12.7	21.34	10.6
15	3/4	15m BWC 12	38.9	19.1	24.6	22.7	49.2	25	27	12.7	26.67	12.7
16	3/8	16m BWC 6	34.0	14.3	24.6	22.7	44.5	25	24	10.3	17.15	10.6
16	1/2	16m BWC 8	38.9	19.1	25.1	22.7	49.7	25	24	12.7	21.34	10.6
16	3/4	16m BWC 12	38.9	19.1	25.1	22.7	49.7	25	27	12.7	26.67	12.7
18	1/2	18m BWC 8	40.5	19.1	24.6	22.7	50.8	30	27	12.7	21.34	10.6
18	3/4	18m BWC 12	40.5	19.1	24.6	22.7	50.8	30	30	15.9	26.67	15.4
18	1	18m BWC 16	40.5	23.8	24.6	22.7	56.4	30	30	15.9	33.40	15.4
20	1/2	20m BWC 8	40.5	19.1	25.1	22.7	51.3	30	29	12.7	21.34	13.7
20	3/4	20m BWC 12	40.5	19.1	25.1	22.7	51.3	30	29	16.7	26.67	15.4
20	1	20m BWC 16	40.5	23.8	25.1	22.7	57.2	38	38	16.7	33.40	20.6
22	3/4	22m BWC 12	40.5	19.1	24.6	22.7	50.8	30	30	15.9	26.67	15.4
22	1	22m BWC 16	47.6	23.8	24.6	22.7	56.4	30	36	15.9	33.40	15.4
25	3/4	25m BWC 12	44.5	19.1	31.8	27.0	57.2	38	35	18.3	26.67	20.6
25	1	25m BWC 16	50.0	23.8	31.8	27.0	62.7	38	38	22.2	33.40	27.1

Dimensions for reference only

TUBE COMPRESSION COUPLING SOCKET WELD CONNECTOR - (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 SWC 12



FRACTIONAL - Product Coding

T TUBE OD	NOMINAL BORE TUBE SIZE	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	P	WEIGHT KG/100
1/8	1/8	2 SWC 2	29/32	11/32	17/32	41/64	113/64	7/16	7/16	3/32	13/32	1.7
1/8	1/4	2 SWC 4	1 1/8	3/8	17/32	41/64	127/64	7/16	9/16	3/32	35/64	3.2
3/16	1/8	3 SWC 2	61/64	11/32	9/16	21/32	115/64	1/2	7/16	1/8	13/32	2.0
3/16	1/4	3 SWC 4	15/32	3/8	9/16	21/32	129/64	1/2	9/16	1/8	35/64	2.6
1/4	1/8	4 SWC 2	1	11/32	19/32	45/64	119/64	9/16	9/16	3/16	13/32	2.5
1/4	1/4	4 SWC 4	13/16	3/8	19/32	45/64	131/64	9/16	9/16	3/16	35/64	3.0
1/4	3/8	4 SWC 6	17/32	3/8	19/32	45/64	133/64	9/16	11/16	3/16	43/64	4.2
1/4	1/2	4 SWC 8	17/16	15/32	19/32	45/64	147/64	9/16	7/8	3/16	27/32	6.5
5/16	1/4	5 SWC 4	1 1/4	3/8	21/32	49/64	137/64	5/8	9/16	1/4	35/64	3.9
3/8	1/4	6 SWC 4	19/32	3/8	21/32	49/64	137/64	11/16	11/16	9/32	35/64	4.5
3/8	3/8	6 SWC 6	19/32	3/8	21/32	49/64	137/64	11/16	11/16	9/32	43/64	5.0
3/8	1/2	6 SWC 8	1 1/2	15/32	21/32	49/64	151/64	11/16	7/8	9/32	27/32	8.3
1/2	1/4	8 SWC 4	15/16	3/8	29/32	55/64	123/32	7/8	7/8	9/32	35/64	7.1
1/2	3/8	8 SWC 6	15/16	3/8	29/32	55/64	123/32	7/8	7/8	13/32	43/64	7.4
1/2	1/2	8 SWC 8	1 1/2	15/32	29/32	55/64	129/32	7/8	7/8	13/32	27/32	9.4
1/2	3/4	8 SWC 12	1 17/32	15/32	29/32	55/64	115/16	7/8	1 1/8	13/32	13/64	11.2
5/8	1/2	10 SWC 8	1 17/32	15/32	15/16	27/32	129/32	1	1 5/16	1/2	27/32	10.6
5/8	3/4	10 SWC 12	1 17/32	15/32	15/16	27/32	129/32	1	1 1/8	1/2	13/64	12.6
3/4	1/2	12 SWC 8	1 19/32	15/32	31/32	55/64	163/64	1 1/8	1 1/8	1/2	27/32	12.3
3/4	3/4	12 SWC 12	1 19/32	15/32	31/32	55/64	163/64	1 1/8	1 1/8	5/8	13/64	13.9
1	3/4	16 SWC 12	1 3/4	15/32	1 15/64	1 3/64	217/64	1 1/2	1 1/2	23/32	13/64	23.5
1	1	16 SWC 16	1 15/16	19/32	1 15/64	1 3/64	229/64	1 1/2	1 1/2	7/8	15/16	26.3

Dimensions for reference only



Quality Assurance

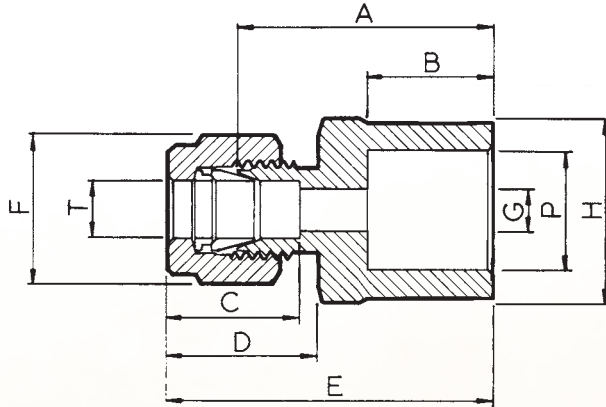
Environmental Management

ABS TYPE APPROVAL PROGRAM

TUBE COMPRESSION COUPLING SOCKET WELD CONNECTOR - (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8m SWC 12



METRIC - Product Coding

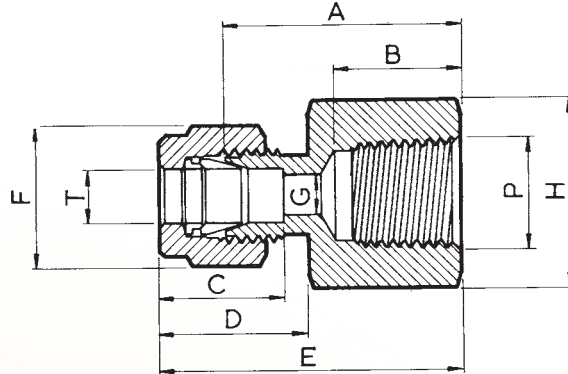
T TUBE OD	NOMINAL BORE TUBE SIZE	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	P	WEIGHT KG/100
4	1/8	4m SWC 2	25.4	8.7	14.5	16.9	32.8	13	13	2.8	10.28	2.2
4	1/4	4m SWC 4	30.2	9.5	14.5	16.9	37.6	13	14	2.8	13.72	3.0
6	1/8	6m SWC 2	25.4	8.7	16.1	18.5	33.6	14	14	4.7	10.28	2.5
6	1/4	6m SWC 4	30.2	9.5	16.1	18.5	38.4	14	14	4.7	13.72	3.1
6	3/8	6m SWC 6	31.0	9.5	16.1	18.5	39.2	14	17	4.7	17.15	4.7
6	1/2	6m SWC 8	36.5	11.9	16.1	18.5	44.7	14	22	4.7	21.34	7.1
8	1/4	8m SWC 4	31.8	9.5	16.9	19.3	40.0	16	14	6.4	13.72	3.9
8	3/8	8m SWC 6	31.8	9.5	16.9	19.3	40.0	16	17	6.4	17.15	4.7
10	1/4	10m SWC 4	32.5	9.5	17.7	20.1	40.7	19	17	7.1	13.72	4.8
10	3/8	10m SWC 6	32.5	9.5	17.7	20.1	40.7	19	17	7.9	17.15	5.5
10	1/2	10m SWC 8	38.1	11.9	17.7	20.1	46.3	19	22	7.9	21.34	7.3
12	1/4	12m SWC 4	33.3	9.5	23.5	22.7	44.1	22	22	7.1	13.72	7.1
12	3/8	12m SWC 6	33.3	9.5	23.5	22.7	44.1	22	22	9.5	17.15	7.6
12	1/2	12m SWC 8	38.1	11.9	23.5	22.7	48.9	22	22	9.5	21.34	9.7
12	3/4	12m SWC 12	38.9	11.9	23.5	22.7	49.2	22	29	10.3	26.67	11.2
14	3/8	14m SWC 6	34.1	9.5	23.0	22.7	44.5	25	22	10.3	17.15	10.6
14	1/2	14m SWC 8	38.9	11.9	23.0	22.7	49.2	25	24	12.7	21.34	10.6
14	3/4	14m SWC 12	38.9	11.9	23.0	22.7	49.2	25	27	12.7	26.67	12.7
15	3/8	15m SWC 6	34.0	9.5	24.6	22.7	44.5	25	24	10.3	17.15	10.6
15	1/2	15m SWC 8	39.0	11.9	24.6	22.7	49.2	25	24	12.7	21.34	10.6
15	3/4	15m SWC 12	38.9	11.9	24.6	22.7	49.2	25	27	12.7	26.67	12.7
16	3/8	16m SWC 6	34.0	9.5	24.6	22.7	44.5	25	24	10.3	17.15	10.6
16	1/2	16m SWC 8	38.9	11.9	25.1	22.7	49.7	25	24	12.7	21.34	10.6
16	3/4	16m SWC 12	38.9	11.9	25.1	22.7	49.7	25	27	12.7	26.67	12.7
18	1/2	18m SWC 8	40.5	11.9	24.6	22.7	50.8	30	27	12.7	21.34	10.6
18	3/4	18m SWC 12	40.5	11.9	24.6	22.7	50.8	30	30	15.9	26.67	15.4
18	1	18m SWC 16	40.5	14.9	24.6	22.7	56.4	30	30	15.9	33.40	15.4
20	1/2	20m SWC 8	40.5	11.9	25.1	22.7	51.3	30	29	12.7	21.34	13.7
20	3/4	20m SWC 12	40.5	11.9	25.1	22.7	51.3	30	29	16.7	26.67	15.4
20	1	20m SWC 16	40.5	14.9	25.1	22.7	57.2	38	38	16.7	33.40	20.6
22	3/4	22m SWC 12	40.5	11.9	24.6	22.7	50.8	30	30	15.9	26.67	15.4
22	1	22m SWC 16	47.6	14.9	24.6	22.7	56.4	30	36	15.9	33.40	15.4
25	3/4	25m SWC 12	44.5	11.9	31.8	27.0	57.2	38	35	18.3	26.67	20.6
25	1	25m SWC 16	50.0	14.9	31.8	27.0	62.7	38	38	22.2	33.40	27.1

Dimensions for reference only

TUBE COMPRESSION COUPLING FEMALE CONNECTOR - NPT (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 FC 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG/100
1/8	1/8	2 FC 2	7/8	25/64	17/32	41/64	1 11/64	7/16	9/16	3/32	2.4
1/8	1/4	2 FC 4	1 5/32	19/32	17/32	41/64	1 29/64	7/16	3/4	3/32	4.4
3/16	1/8	3 FC 2	29/32	25/64	9/16	21/32	1 3/16	1/2	9/16	1/8	2.3
1/4	1/8	4 FC 2	1 5/16	25/64	19/32	45/64	1 15/64	9/16	9/16	3/16	2.8
1/4	1/4	4 FC 4	1 1/8	19/32	19/32	45/64	1 13/32	9/16	3/4	3/16	4.6
5/16	1/4	5 FC 2	1 5/32	19/32	21/32	49/64	1 31/64	5/8	3/4	1/4	5.6
3/8	1/4	6 FC 4	1 3/16	19/32	21/32	49/64	1 31/64	1 1/16	3/4	9/32	5.1
3/8	3/8	6 FC 6	1 1/4	19/32	21/32	49/64	1 35/64	1 1/16	7/8	9/32	6.4
1/2	3/8	8 FC 6	1 1/4	19/32	29/32	55/64	1 21/32	7/8	7/8	13/32	8.0
1/2	1/2	8 FC 8	1 7/16	25/32	29/32	55/64	1 27/32	7/8	1 1/8	13/32	13.5
1/2	3/4	8 FC 12	1 1/2	13/16	29/32	55/64	1 29/32	7/8	1 5/16	13/32	15.7
5/8	1/2	10 FC 8	1 15/32	25/32	15/16	27/32	1 27/32	1	1 1/8	1/2	13.1
3/4	1/2	12 FC 8	1 7/16	25/32	31/32	55/64	1 27/32	1 1/8	1 1/8	5/8	13.8
3/4	3/4	12 FC 12	1 1/2	13/16	31/32	55/64	1 29/32	1 1/8	1 5/16	5/8	17.8
1	3/4	16 FC 12	1 5/8	13/16	1 15/64	1 3/64	2 9/64	1 1/2	1 1/2	7/8	29.8
1	1	16 FC 16	2	1	1 15/64	1 3/64	2 33/64	1 1/2	1 11/16	7/8	40.5

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



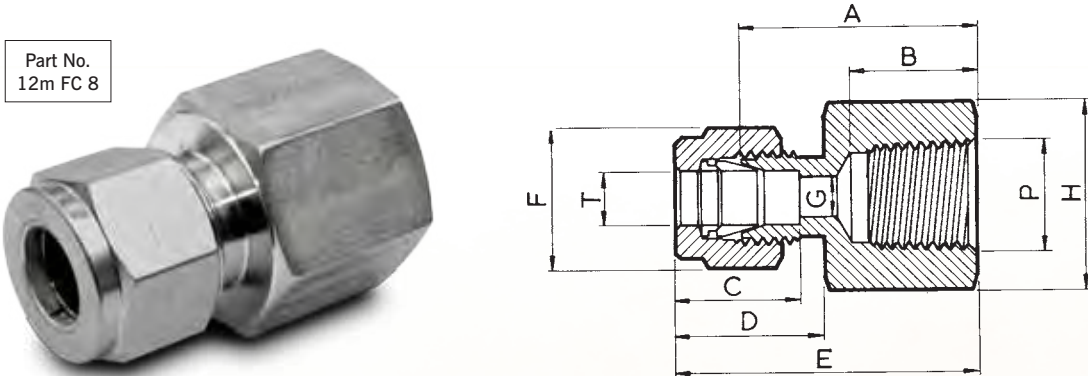
Quality Assurance

Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING FEMALE CONNECTOR - NPT (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	B	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG/100
4	1/8	4m FC 2	23	9.9	14.5	16.9	30.4	13	14	2.8	2.6
4	1/4	4m FC 4	27.8	15.0	14.5	16.9	35.2	13	19	2.8	4.6
6	1/8	6m FC 2	23.8	9.9	16.1	18.5	32.0	14	14	4.7	3.0
6	1/4	6m FC 4	28.6	15.0	16.1	18.5	36.8	14	19	4.7	5.0
6	3/8	6m FC 6	30.2	15.0	16.1	18.5	38.4	14	22	4.7	6.3
8	1/4	8m FC 4	29.4	15.0	16.9	19.3	37.6	16	19	6.4	5.6
8	3/8	8m FC 6	31.0	15.0	16.9	19.3	39.2	16	22	6.4	6.9
10	1/4	10m FC 4	30.2	15.0	17.7	20.1	38.4	19	19	7.9	5.8
10	3/8	10m FC 6	31.8	15.0	17.7	20.1	40.0	19	22	7.9	6.7
12	3/8	12m FC 6	31.8	15.0	23.5	22.7	42.6	22	22	9.5	8.1
12	1/2	12m FC 8	37.3	19.8	23.5	22.7	48.1	22	27	9.5	11.8
12	3/4	12m FC 12	38.1	20.6	23.0	22.7	48.4	22	33	9.5	15.7
14	3/8	14m FC 6	31.8	14.3	23.1	22.7	42.1	24	24	12.7	13.5
14	1/2	14m FC 8	36.5	19.1	23.0	22.7	46.8	24	27	12.7	13.9
15	3/8	15m FC 6	31.8	14.3	23.0	22.7	42.1	24	24	12.7	13.9
15	1/2	15m FC 8	36.5	19.1	23.0	22.7	46.8	24	27	12.7	15.4
16	1/4	16m FC 4	31.8	15.0	25.1	22.7	42.6	25	27	9.5	13.9
16	1/2	16m FC 8	37.3	19.8	25.1	22.7	48.1	25	29	12.7	15.4
18	1/2	18m FC 8	36.5	19.1	24.6	22.7	46.8	30	27	15.9	16.0
18	3/4	18m FC 12	38.1	19.1	24.6	22.7	48.4	30	32	15.9	16.0
22	3/4	22m FC 12	39.7	19.1	26.2	22.7	50.0	32	32	18.3	22.0
20	1/2	20m FC 8	37.3	19.8	25.1	22.7	48.1	30	29	16.7	16.0
20	3/4	20m FC 12	41.3	20.6	25.1	22.7	52.1	30	33	16.7	21.0
25	3/4	25m FC 12	43.7	20.6	31.8	27.0	56.4	38	35	18.3	26.7
25	1	25m FC 16	50.8	25.4	31.8	27.0	63.5	38	43	22.0	40.8

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



Quality Assurance

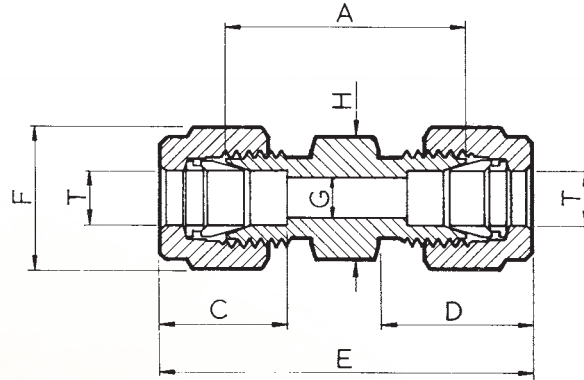
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING EQUAL UNION

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 U



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	A	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG / 100
1/8	2 U	7/8	17/32	41/64	1 ⁵ /32	7/16	7/16	3/32	1.5
3/16	3 U	61/64	9/16	21/32	1 ⁹ /32	1/2	7/16	1/8	1.7
1/4	4 U	1 ¹ /32	19/32	45/64	1 ⁵ /8	9/16	9/16	3/16	4.0
5/16	5 U	17/64	21/32	49/64	1 ⁴⁹ /64	5/8	9/16	1/4	4.9
3/8	6 U	13/16	21/32	49/64	1 ²⁵ /32	11/16	11/16	9/32	5.8
1/2	8 U	17/32	29/32	55/64	21/32	7/8	7/8	13/32	9.8
5/8	10 U	1 ¹ /4	15/16	27/32	2	1	1 ⁵ /16	1/2	9.9
3/4	12 U	1 ⁵ /16	31/32	55/64	2 ³ /32	1 ¹ /8	1 ¹ /8	5/8	10.5
1	16 U	1 ¹⁹ /32	1 ¹⁵ /64	1 ³ /64	2 ⁵ /8	1 ¹ /2	1 ¹ /2	7/8	28.2

MECTRIC - Product Coding

T TUBE OD	PART NUMBER	A	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG / 100
4	4m U	25.4	14.5	16.9	40.2	13	13	2.8	1.9
6	6m U	26.2	16.1	18.5	41.0	14	13	2.7	3.4
8	8m U	28.2	16.9	19.3	44.6	16	14	6.4	4.9
10	10m U	30.2	17.7	20.1	46.6	19	18	7.9	6.6
12	12m U	30.9	23.5	22.7	52.9	22	22	9.5	10.2
14	14m U	52.4	24.6	22.7	52.4	24	22	12.7	10.0
15	15m U	52.4	24.6	22.7	52.4	27	24	12.7	10.0
16	16m U	31.8	25.1	22.7	53.4	25	24	12.7	13.0
18	18m U	54.0	24.6	22.7	54.0	30	27	15.9	15.4
20	20m U	34.1	25.1	22.7	55.7	30	29	16.7	16.9
22	22m U	55.6	26.2	22.7	55.6	32	30	18.3	17.0
25	25m U	40.5	31.8	27.0	65.9	38	55	22.0	17.3

Dimensions for reference only



Quality Assurance

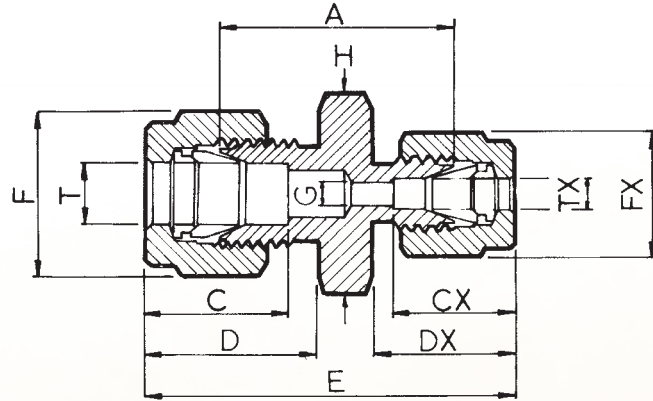
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING REDUCING UNION

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 RU 4



FRACTIONAL - Product Coding

T TUBE OD	TX TUBE OD	PART NUMBER	A	C	CX	D	DX	E	F HEX	FX HEX	H HEX	G DIA	WEIGHT KG / 100
1/4	1/8	4 RU 2	31/32	19/32	17/32	45/64	41/64	19/16	9/16	7/16	9/16	3/32	3.3
3/8	1/4	6 RU 4	1 1/8	21/32	19/32	49/64	45/64	1 23/32	11/16	9/16	11/16	3/16	5.3
1/2	1/4	8 RU 4	1 5/32	29/32	19/32	55/64	45/64	1 55/64	7/8	9/16	7/8	3/16	7.6
1/2	5/16	8 RU 5	1 3/16	29/32	21/32	55/64	49/64	1 59/64	7/8	5/8	7/8	1/4	8.4
1/2	3/8	8 RU 6	1 7/32	29/32	21/32	55/64	49/64	1 59/64	7/8	9/16	7/8	9/32	8.2
3/4	1/2	12 RU 8	1 5/16	31/32	29/32	55/64	55/64	2 7/64	1 1/8	7/8	1 1/8	13/32	13.6
1	1/2	16 RU 8	1 1/2	1 15/64	29/32	1 3/64	55/64	2 27/64	1 1/2	7/8	1 1/2	13/32	25.1
1	5/8	16 RU 10	1 1/2	1 15/64	15/16	1 3/64	27/32	2 25/64	1 1/2	1	1 1/2	1/2	25.2
1	3/4	16 RU 12	1 1/2	1 15/64	31/32	1 3/64	55/64	2 13/32	1 1/2	7/8	1 1/2	5/8	25.6

METRIC - Product Coding

T TUBE OD	TX TUBE OD	PART NUMBER	A	C	CX	D	DX	E	F HEX	FX HEX	H HEX	G DIA	WEIGHT KG / 100
6	4	6m RU 4	25.4	16.1	14.5	18.5	16.9	41.0	14	13	11	2.4	3.1
8	6	8m RU 6	27.4	16.9	16.1	19.3	18.5	43.8	16	13	14	4.8	4.2
10	6	10m RU 6	28.6	17.7	16.1	20.1	18.5	45.0	19	13	17	4.7	5.2
12	6	12m RU 6	29.4	23.5	16.1	22.7	18.5	47.8	22	13	22	4.7	7.3
12	10	12m RU 10	31.0	23.5	17.7	22.7	20.1	50.0	22	19	22	8.0	9.0
15	10	15m RU 10	31.8	24.6	22.7	22.7	50.0	27	19	24	7.1	12.0	
15	12	15m RU 12	31.8	24.6	22.7	22.7	52.8	27	22	24	10.3	12.3	
16	12	16m RU 12	31.8	25.1	23.5	22.7	22.7	53.4	25	22	24	9.5	12.3
18	12	18m RU 12	33.3	24.6	22.7	24.6	54.0	32	22	30	10.3	13.2	
20	12	20m RU 12	33.3	25.1	23.5	22.7	22.7	54.9	30	22	29	9.5	15.1
22	20	22m RU 20	34.9	26.2	22.7	26.2	55.6	32	32	30	15.9	16.2	
25	12	25m RU 12	37.3	31.8	23.5	27.0	22.7	60.8	38	22	38	9.5	22.2
25	16	25m RU 16	37.3	31.8	25.1	27.0	22.7	60.8	38	25	38	12.7	23.8
25	20	25m RU 20	37.3	31.8	25.1	27.0	22.7	60.8	38	30	38	12.7	24.6

Dimensions for reference only



Quality Assurance

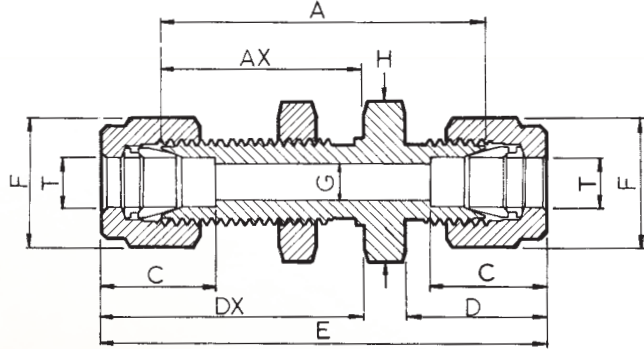
Environmental Management

TYPE APPROVAL PROGRAM

TUBE COMPRESSION COUPLING BULKHEAD UNION

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 BHU



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	A	AX	C	D	DX	E	F HEX	H HEX	G DIA	PANEL HOLE DRILL SIZE	PANEL THICK- NESS MAX	WEIGHT KG / 100
1/8	2 BHU	1 1/2	31/32	17/32	41/64	1 17/64	2 3/32	7/16	7/16	3/32	21/64	7/16	3.7
3/16	3 BHU	1 9/16	1	17/32	41/64	1 9/32	2 1/8	1/2	7/16	1/8	25/64	7/16	3.9
1/4	4 BHU	1 11/16	1 1/32	19/32	45/64	1 21/64	2 9/32	9/16	11/16	3/16	29/64	13/32	6.2
5/16	5 BHU	1 13/16	1 1/8	21/32	49/64	1 29/64	2 15/32	5/8	3/4	1/4	33/64	7/16	7.6
3/8	6 BHU	1 7/8	1 5/32	21/32	49/64	1 29/64	2 15/32	11/16	3/4	9/32	37/64	7/16	7.9
1/2	8 BHU	2	1 1/4	29/32	55/64	1 21/32	2 13/16	7/8	15/16	13/32	49/64	1/2	14.2
5/8	10 BHU	2 1/16	1 9/32	15/16	27/32	1 21/32	2 13/16	1	1 1/8	1/2	57/64	1/2	15.9
3/4	12 BHU	2 5/16	1 15/32	31/32	55/64	1 55/64	3 3/32	1 1/8	1 5/16	5/8	1 1/64	21/32	25.1
1	16 BHU	2 13/16	1 25/32	1 15/64	13/64	2 19/64	3 27/32	1 1/2	1 1/2	7/8	1 21/64	25/32	40.7

METRIC - Product Coding

T TUBE OD	PART NUMBER	A	AX	C	D	DX	E	F HEX	H HEX	G DIA	PANEL HOLE DRILL SIZE	PANEL THICK- NESS MAX	WEIGHT KG / 100
4	4m BHU	41.3	25.4	14.5	16.9	32.8	56.1	13	15	2.8	10.1	11	4.6
6	6m BHU	42.8	26.2	16.1	18.5	34.4	59.2	14	18	4.7	11.5	11	5.5
8	8m BHU	46.0	28.6	16.9	19.3	36.8	62.4	16	19	6.4	13.0	12	7.6
10	10m BHU	47.6	29.4	17.7	20.1	37.6	64.0	19	22	7.9	16.5	12	10.3
12	12m BHU	50.8	31.8	23.5	22.7	42.6	72.4	22	25	9.5	19.5	13	14.7
14	14m BHU	52.4	32.5	23.0	22.7	42.9	73.0	24	27	12.7	21.0	13	19.0
15	15m BHU	52.4	32.5	23.0	22.7	42.9	73.0	24	27	12.7	21.0	13	19.0
16	16m BHU	52.4	32.5	25.1	22.7	43.3	74.0	25	30	12.7	23.0	13	19.0
18	18m BHU	58.7	37.3	24.6	22.7	47.6	79.4	30	30	15.9	26.0	15	24.0
20	20m BHU	58.7	37.3	25.1	22.7	48.1	80.3	30	34	15.8	28.0	16	24.2
22	22m BHU	64.3	42.9	26.2	22.7	53.2	84.9	32	36	18.3	33.7	17	24.4
25	25m BHU	71.4	45.2	31.8	27.0	58.0	96.8	38	38	22.0	34.0	18	40.7

Dimensions for reference only



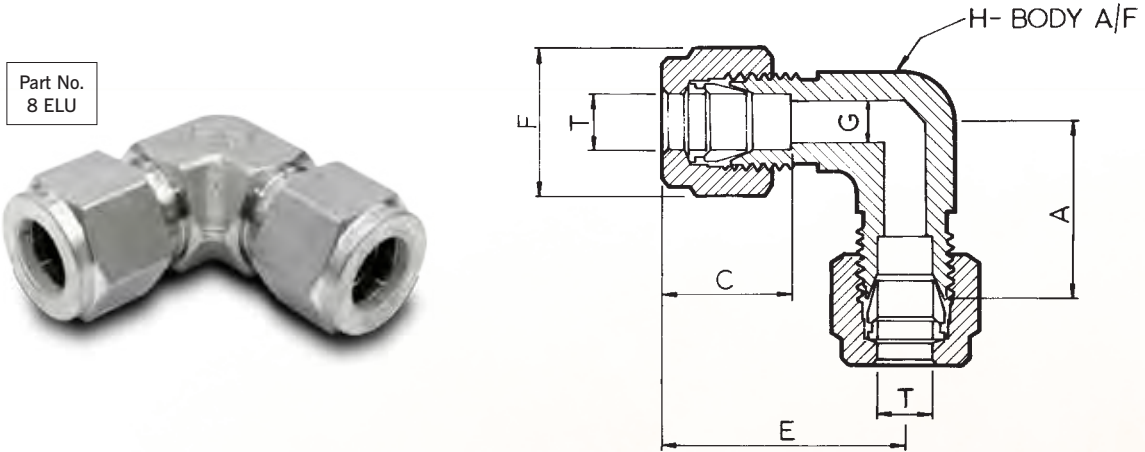
Quality Assurance

Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING EQUAL ELBOW

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	A	C	E	F HEX	H A/F	G DIA	WEIGHT KG / 100
1/8	2 ELU	3/4	17/32	1 1/8	7/16	1/2	3/32	3.8
3/16	3 ELU	25/32	9/16	19/64	1/2	1/2	1/8	4.1
1/4	4 ELU	13/16	19/32	17/64	9/16	1/2	3/16	4.7
5/16	5 ELU	7/8	21/32	1 13/64	5/8	9/16	1/4	6.4
3/8	6 ELU	29/32	21/32	1 13/64	11/16	9/16	9/32	6.4
1/2	8 ELU	63/64	29/32	1 25/64	7/8	1 1/16	13/32	11.7
5/8	10 ELU	1 1/16	15/16	1 7/16	1	1 5/16	1/2	20.0
3/4	12 ELU	1 11/64	31/32	1 9/16	1 1/8	1 5/16	5/8	19.0
1	16 ELU	1 13/32	1 15/64	1 59/64	1 1/2	1 1/4	7/8	30.2

METRIC - Product Coding

T TUBE OD	PART NUMBER	A	C	E	F HEX	H A/F	G DIA	WEIGHT KG / 100
4	4m ELU	19.8	14.5	28.8	13	13	2.8	4.1
6	6m ELU	20.6	16.1	28.8	14	13	4.7	4.5
8	8m ELU	22.2	16.9	30.4	16	14	6.3	6.4
10	10m ELU	23.8	17.7	32.0	19	14	7.9	7.4
12	12m ELU	25.0	23.5	35.8	22	17	9.5	12.2
14	14m ELU	26.2	24.6	37.8	25	24	12.7	16.8
15	15m ELU	26.2	24.6	37.8	25	24	12.7	16.8
16	16m ELU	27.0	25.1	37.8	25	24	12.7	16.8
18	18m ELU	29.4	24.6	44.1	27	30	15.9	19.0
20	20m ELU	33.3	25.1	44.1	30	30	16.7	19.1
22	22m ELU	32.5	26.2	48.4	27	32	18.3	19.3
25	25m ELU	35.7	31.8	48.4	38	32	22.2	30.2

Dimensions for reference only



Quality Assurance

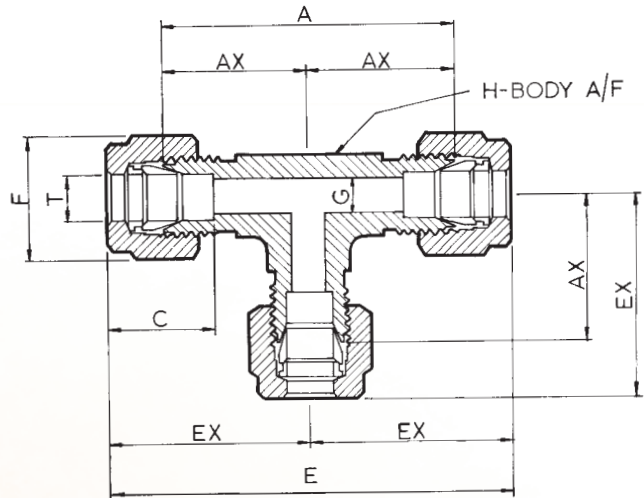
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING UNION TEE

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 TTT



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	A	AX	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/8	2 TTT	1 1/2	3/4	17/32	2 3/32	1 3/64	7/16	1/2	3/32	5.7
3/16	3 TTT	1 9/16	25/32	9/16	2 1/8	1 1/16	1/2	1/2	1/8	5.6
1/4	4 TTT	1 5/8	13/16	19/32	2 7/32	1 7/64	9/16	1/2	3/16	6.6
5/16	5 TTT	1 3/4	7/8	21/32	2 13/32	1 13/64	5/8	9/16	1/4	9.2
3/8	6 TTT	1 13/16	29/32	21/32	2 13/32	1 13/64	11/16	9/16	9/32	9.2
1/2	8 TTT	1 31/32	63/64	29/32	2 25/32	1 25/64	7/8	1 1/16	13/32	16.4
5/8	10 TTT	2 9/16	13/32	15/16	2 15/16	1 15/32	1	1 5/16	1/2	25.7
3/4	12 TTT	2 11/32	1 11/64	31/32	3 5/32	1 9/16	1 1/8	1 5/16	5/8	32.0
1	16 TTT	2 13/16	1 13/32	1 15/64	3 25/32	1 59/64	1 1/2	1 1/4	7/8	49.7

METRIC - Product Coding

T TUBE OD	PART NUMBER	A	AX	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
4	4m TTT	41.2	39.6	19.8	57.6	28.8	13	13	2.8	5.6
6	6m TTT	41.2	20.6	16.1	57.6	28.8	14	13	4.7	6.5
8	8m TTT	44.4	22.2	16.9	60.8	30.4	16	14	6.3	9.2
10	10m TTT	46.0	23.0	17.7	62.4	31.2	19	14	7.9	10.4
12	12m TTT	50.0	25.0	23.5	71.6	35.8	22	17	9.5	16.9
14	14m TTT	54.0	26.2	24.6	73.0	36.5	22	24	12.7	26.0
15	15m TTT	54.0	26.2	24.6	73.0	36.5	22	24	12.7	26.0
16	16m TTT	54.0	27.0	25.1	75.6	37.8	25	24	12.7	26.0
18	18m TTT	66.6	29.4	24.6	79.4	39.7	25	27	15.9	32.0
20	20m TTT	66.6	33.3	25.1	88.2	44.1	30	24	16.7	33.1
22	22m TTT	71.4	32.5	25.1	85.8	42.9	33	30	18.3	34.0
25	25m TTT	71.4	35.7	31.8	96.8	48.4	38	32	22.2	48.0

Dimensions for reference only



Quality Assurance

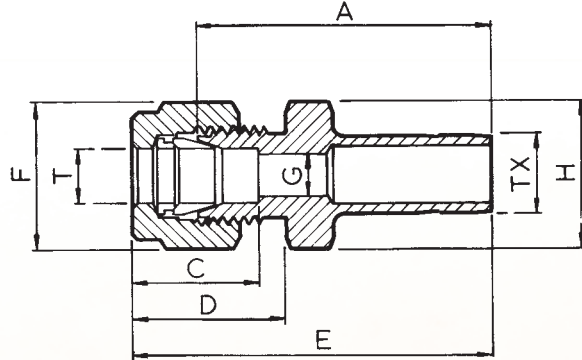
Environmental Management

ABS
TYPE
APPROVAL
PROGRAM

TUBE COMPRESSION COUPLING REDUCING ADAPTOR

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
4 RED 8



FRACTIONAL - Product Coding

T TUBE OD	TX	PART NUMBER	A	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG / 100
1/8	1/4	2 RED 4	1 ³ / ₁₆	17/32	41/64	1 ³¹ / ₆₄	7/16	7/16	3/32	1.7
1/4	3/8	4 RED 6	1 ¹¹ / ₃₂	19/32	45/64	1 ⁴¹ / ₆₄	9/16	9/16	3/16	2.9
1/4	1/2	4 RED 8	1 ⁹ / ₁₆	19/32	45/64	1 ⁵⁵ / ₆₄	9/16	9/16	3/16	3.3
5/16	1/2	5 RED 8	1 ³⁹ / ₆₄	21/32	49/64	1 ¹⁵ / ₁₆	9/16	5/8	1/4	4.0
3/8	1/2	6 RED 8	1 ²¹ / ₃₂	21/32	49/64	1 ⁶¹ / ₆₄	1 ¹¹ / ₁₆	1 ¹¹ / ₁₆	9/32	4.4
1/2	3/4	8 RED 12	1 ³ / ₄	29/32	55/64	2 ⁵ / ₃₂	7/8	7/8	1 ³ / ₃₂	9.3
1/2	1	8 RED 16	2	29/32	55/64	2 ¹³ / ₃₂	7/8	1 ¹ / ₈	1 ³ / ₃₂	12.1
5/8	1	10 RED 16	2 ³ / ₆₄	15/16	27/32	2 ²⁷ / ₆₄	1	1 ¹ / ₈	1/2	13.0
3/4	1	12 RED 16	2 ¹ / ₁₆	31/32	55/64	2 ¹⁷ / ₃₂	1 ¹ / ₈	1 ¹ / ₈	5/8	14.2

METRIC - Product Coding

T TUBE OD	TX	PART NUMBER	A	C	D	E	F HEX	H HEX	G DIA	WEIGHT KG / 100
4	6	4m RED 6	31.0	14.5	16.9	38.4	13	11	2.4	1.9
6	8	6m RED 8	33.3	16.1	18.5	41.5	14	11	4.7	2.4
6	10	6m RED 10	34.1	16.1	18.5	42.3	14	14	4.7	2.8
6	12	6m RED 12	39.7	16.1	18.5	47.9	14	14	4.7	3.4
8	10	8m RED 10	35.3	16.9	19.3	43.6	16	14	6.3	3.5
8	12	8m RED 12	40.9	16.9	19.3	49.1	16	14	6.4	4.0
10	12	10m RED 12	42.1	17.7	20.1	50.3	19	17	8.0	5.0
12	16	12m RED 16	44.4	23.5	22.7	55.2	22	22	9.5	7.6
16	25	16m RED 25	52.0	25.1	22.7	62.8	25	29	12.7	14.3
20	25	20m RED 25	54.4	25.1	22.7	65.2	30	29	16.7	15.5

Dimensions for reference only



Quality Assurance

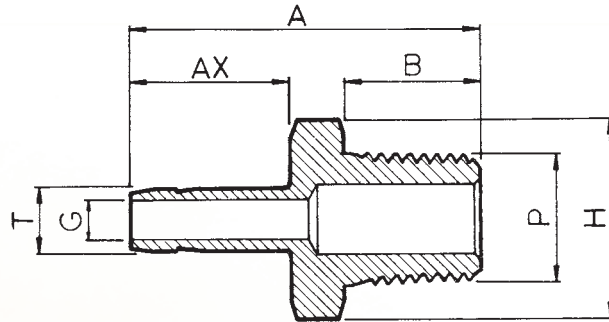
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING

MALE STUD STANDPIPE ADAPTOR - NPT (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	H HEX	G DIA	WEIGHT KG/100
1/8	1/8	2 ATPM 2	1 1/8	17/32	3/8	9/16	5/64	1.0
3/16	1/8	3 ATPM 2	1 5/32	9/16	3/8	9/16	1/8	1.2
1/4	1/8	4 ATPM 2	1 1/4	21/32	3/8	9/16	11/64	1.4
1/4	1/4	4 ATPM 4	1 7/16	21/32	9/16	9/16	11/64	1.7
1/4	1/2	4 ATPM 8	1 11/16	21/32	3/4	7/8	11/64	5.0
3/8	3/8	6 ATPM 6	1 17/32	23/32	9/16	11/16	17/64	2.8
3/8	1/2	6 ATPM 8	1 3/4	23/32	3/4	7/8	17/64	5.2
1/2	1/4	8 ATPM 4	1 3/4	15/16	9/16	9/16	9/32	2.8
1/2	1/2	8 ATPM 8	1 31/32	15/16	3/4	7/8	23/64	5.9
1/2	3/4	8 ATPM 12	2	15/16	3/4	1 1/16	23/64	8.7
3/4	1/2	12 ATPM 8	2 1/32	1	3/4	7/8	1/2	6.4
3/4	3/4	12 ATPM 12	2 1/8	1	3/4	1 1/8	37/64	9.1
3/4	1	12 ATPM 16	2 5/16	1	3/4	1 3/8	37/64	13.8
1	3/4	16 ATPM 12	2 25/64	1 17/64	3/4	1 1/8	49/64	12.3

Dimensions for reference only

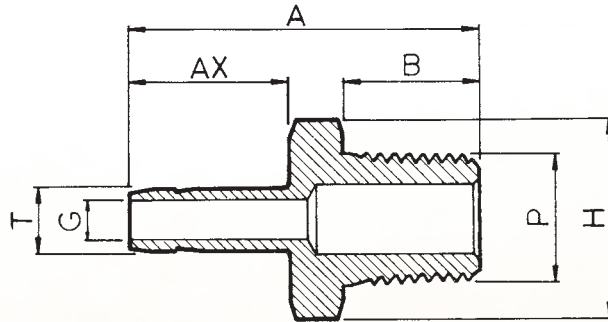
Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING

MALE STUD STANDPIPE ADAPTOR - NPT (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	H HEX	G DIA	WEIGHT KG/100
4	1/8	4m ATPM 2	28.6	13.5	9.5	11	2.0	1.0
4	1/4	4m ATPM 4	34.1	13.5	14.3	14	2.4	1.2
6	1/8	6m ATPM 2	31.8	16.7	9.5	11	4.0	1.4
6	1/4	6m ATPM 4	36.5	16.7	14.3	14	4.0	1.7
6	3/8	6m ATPM 6	35.7	16.7	14.3	14	7.1	1.9
6	1/2	6m ATPM 8	42.9	16.7	19.1	22	4.0	4.9
8	1/4	8m ATPM 4	37.3	14.3	14.3	14	6.0	1.9
8	3/8	8m ATPM 6	37.3	14.3	14.3	19	6.0	1.9
8	1/2	8m ATPM 8	42.9	18.3	19.1	22	6.0	2.8
10	1/4	10m ATPM 4	38.1	18.3	14.3	14	7.1	2.1
10	3/8	10m ATPM 6	38.9	18.3	14.3	17	7.1	2.8
10	1/2	10m ATPM 8	44.5	18.3	19.1	22	7.1	5.1
12	1/4	12m ATPM 4	44.5	23.8	14.3	14	7.1	2.8
12	3/8	12m ATPM 6	44.5	23.8	14.3	17	8.3	3.8
12	1/2	12m ATPM 8	50.0	23.8	19.1	22	8.3	5.9
12	3/4	12m ATPM 12	50.8	23.8	19.1	29	8.3	8.7
14	3/8	14m ATPM 6	46.0	25.4	19.1	19	12.3	3.8
14	1/2	14m ATPM 8	50.8	25.4	19.1	24	10.3	5.9
14	3/4	14m ATPM 12	51.6	27.0	19.1	27	10.3	8.7
15	1/2	15m ATPM 8	52.4	25.4	19.1	22	12.3	6.1
15	3/4	15m ATPM 12	52.4	25.4	19.1	22	12.3	7.6
16	1/2	16m ATPM 8	52.4	25.4	19.1	22	12.3	6.1
16	3/4	16m ATPM 12	52.4	25.4	19.1	29	12.3	7.6
20	3/4	20m ATPM 12	56.3	27.0	19.1	29	16.5	9.1
20	1	20m ATPM 16	61.9	27.0	23.8	38	15.5	13.8
22	3/4	22m ATPM 12	53.2	27.0	19.1	27	16.5	9.1
25	3/4	25m ATPM 12	60.7	32.1	19.1	29	19.1	12.3

Dimensions for reference only

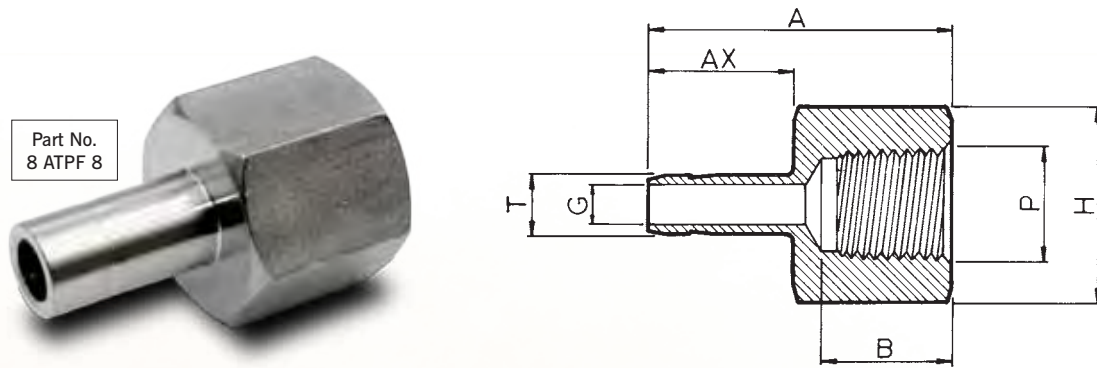
Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING

FEMALE STUD STANDPIPE ADAPTOR - NPT (FRACTIONAL)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	H HEX	G DIA	WEIGHT KG / 100
1/8	1/4	2 ATPF 4	1 1/4	17/32	19/32	3/4	5/64	3.5
1/4	1/4	4 ATPF 4	1 3/8	21/32	19/32	3/4	11/64	3.1
1/4	1/8	4 ATPF 6	1 7/16	21/32	19/32	7/8	11/64	4.4
1/4	1/2	4 ATPF 8	1 5/8	21/32	25/32	1 1/16	11/64	7.9
3/8	1/4	6 ATPF 4	1 7/16	23/32	19/32	3/4	17/64	3.4
3/8	3/8	6 ATPF 6	1 1/2	23/32	19/32	7/8	17/64	4.5
3/8	1/2	6 ATPF 8	1 11/16	23/32	25/32	1 1/8	23/64	8.2
1/2	1/4	8 ATPF 4	1 21/32	15/16	19/32	3/4	23/64	4.1
1/2	3/8	8 ATPF 6	1 23/32	15/16	19/32	7/8	23/64	5.1
1/2	1/2	8 ATPF 8	1 29/32	15/16	25/32	1 1/16	23/64	8.5
3/4	3/8	12 ATPF 6	1 25/32	1	19/32	7/8	9/16	6.8
3/4	1/2	12 ATPF 8	1 31/32	1	25/32	1 1/16	37/64	10.0
1	3/4	16 ATPF 12	2 1/4	1 17/64	13/16	1 5/16	47/64	16.0

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



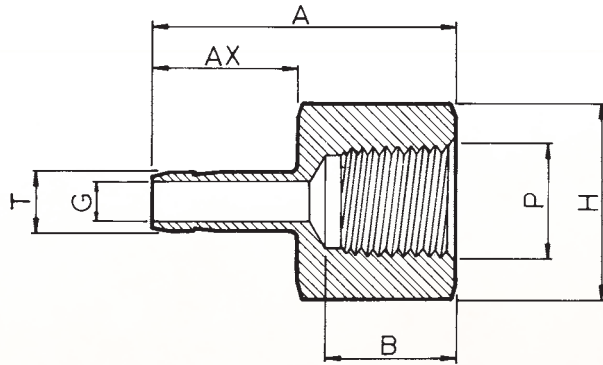
Quality Assurance

Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING FEMALE STUD STANDPIPE ADAPTOR - NPT (METRIC)

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	H HEX	G DIA	WEIGHT KG / 100
4	1/4	4m ATPF 4	34.1	15.9	15.0	19	2.8	3.0
6	1/4	6m ATPF 4	34.9	16.7	15.0	19	3.9	3.1
6	3/8	6m ATPF 6	36.5	16.7	15.0	22	3.9	4.4
6	1/2	6m ATPF 8	42.1	16.7	19.8	27	3.9	7.9
8	1/4	8m ATPF 4	35.7	17.5	15.0	19	5.5	4.5
8	3/8	8m ATPF 6	37.3	17.5	15.0	22	5.5	4.8
8	1/2	8m ATPF 8	36.5	17.5	14.3	22	6.0	4.8
10	1/4	10m ATPF 4	36.5	18.3	15.0	19	7.1	3.5
10	3/8	10m ATPF 6	38.1	18.3	15.0	22	7.1	5.0
10	1/2	10m ATPF 8	43.7	18.3	19.8	27	7.1	8.2
12	1/4	12m ATPF 4	42.1	23.8	15.0	19	8.3	4.1
12	3/8	12m ATPF 6	43.7	23.8	15.0	22	8.3	5.2
12	1/2	12m ATPF 8	49.2	23.8	19.8	27	8.3	8.5
14	3/8	14m ATPF 6	44.5	25.4	14.3	22	10.4	5.7
14	1/2	14m ATPF 8	49.2	25.4	19.1	27	10.4	5.7
15	3/8	15m ATPF 6	44.5	25.4	14.3	22	10.4	4.8
15	1/2	15m ATPF 8	50.8	25.4	19.8	27	12.3	9.5
16	1/4	16m ATPF 4	46.8	25.4	15.0	19	12.3	5.7
16	3/8	16m ATPF 6	44.5	25.4	19.1	22	10.4	9.5
16	1/2	16m ATPF 8	50.8	25.4	19.8	27	12.3	9.5
18	1/2	18m ATPF 8	49.2	25.4	19.1	27	15.1	9.5
18	3/4	18m ATPF 12	50.8	27.0	19.1	32	15.1	9.5
20	3/4	20m ATPF 12	52.4	27.0	20.6	33	15.5	6.8
20	1	20m ATPF 16	57.2	27.0	25.4	43	15.5	10.0
22	3/4	22m ATPF 12	52.4	25.4	19.1	32	17.5	10.0
25	3/4	25m ATPF 12	57.5	32.1	20.6	33	15.5	16.0

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



Quality Assurance

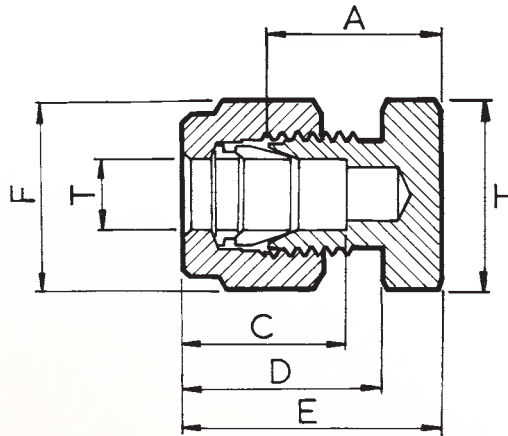
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING BLANKING END

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 BE



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	A	C	D	E	F HEX	H HEX	WEIGHT KG / 100
1/8	2 BE	17/32	17/32	41/64	53/64	7/16	7/16	1.5
3/16	3 BE	37/64	9/16	21/32	55/64	1/2	7/16	2.0
1/4	4 BE	5/8	19/32	45/64	59/64	9/16	9/16	2.3
5/16	5 BE	43/64	21/32	49/64	1	5/8	9/16	3.0
3/8	6 BE	23/32	21/32	49/64	1 1/64	11/16	11/16	3.4
1/2	8 BE	3/4	29/32	55/64	1 5/32	7/8	7/8	6.1
5/8	10 BE	27/32	15/16	27/32	1 7/32	1	1 5/16	8.4
3/4	12 BE	29/32	31/32	55/64	1 19/64	1 1/8	1 1/8	10.9
1	16 BE	1 1/8	1 15/64	1 3/64	1 41/64	1 1/2	1 1/2	24.1

METRIC - Product Coding

T TUBE OD	PART NUMBER	A	C	D	E	F HEX	H HEX	WEIGHT KG / 100
4	4m BE	15.1	14.5	16.9	22.5	13	11	1.9
6	6m BE	15.9	16.1	18.5	24.1	14	13	2.1
8	8m BE	17.1	16.9	19.3	25.3	16	14	3.0
10	10m BE	18.3	17.7	20.1	26.5	19	17	3.8
12	12m BE	19.1	23.5	22.7	29.9	22	22	6.3
14	14m BE	22.0	25.1	22.7	29.9	22	22	9.0
15	15m BE	25.0	25.1	22.7	29.9	25	24	9.0
16	16m BE	23.0	25.1	22.7	33.8	25	24	9.0
18	18m BE	30.0	25.1	22.7	33.8	30	29	12.7
20	20m BE	25.4	25.1	22.7	36.2	30	29	12.7
22	22m BE	32.0	26.2	22.7	34.1	30	32	13.0
25	25m BE	28.6	31.8	27.0	41.3	38	38	15.2

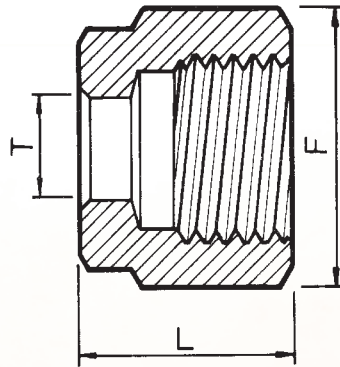
Dimensions for reference only



TUBE COMPRESSION COUPLING BLANKING PLUG

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 BP



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	F HEX	A WEIGHT KG / 100
1/8	2 BP	7/16	0.8
3/16	3 BP	1/2	1.0
1/4	4 BP	9/16	1.4
5/16	5 BP	5/8	2.1
3/8	6 BP	11/16	2.2
1/2	8 BP	7/8	4.4
5/8	10 BP	1	5.7
3/4	12 BP	1 1/8	7.0
1	16 BP	1 1/2	16.7

METRIC - Product Coding

T TUBE OD	PART NUMBER	F HEX	A WEIGHT KG / 100
4	4m BP	13	1.1
6	6m BP	14	1.4
8	8m BP	16	2.1
10	10m BP	19	2.7
12	12m BP	22	4.2
14	14m BP	25	4.2
15	15m BP	25	4.2
16	16m BP	25	7.5
18	18m BP	30	7.5
20	20m BP	30	12.3
25	25m BP	38	16.7

Dimensions for reference only



Quality Assurance

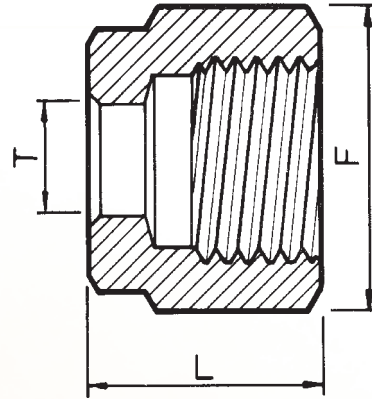
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING COMPRESSION NUT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 N



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	L	F HEX	A WEIGHT KG / 100
1/8	2 N	15/32	7/16	0.7
3/16	3 N	15/32	1/2	0.6
1/4	4 N	1/2	9/16	1.0
5/16	5 N	17/32	5/8	1.5
3/8	6 N	9/16	11/16	1.4
1/2	8 N	11/16	7/8	2.6
5/8	10 N	11/16	1	3.8
3/4	12 N	11/16	1 1/8	3.5
1	16 N	1 3/16	1 1/2	7.4

METRIC - Product Coding

T TUBE OD	PART NUMBER	L	F HEX	A WEIGHT KG / 100
4	4m N	11.9	13	0.7
6	6m N	12.7	14	0.9
8	8m N	13.5	16	1.5
10	10m N	14.3	19	1.7
12	12m N	17.4	22	2.5
14	14m N	17.5	22	2.5
15	15m N	17.5	22	2.5
16	16m N	17.5	25	3.8
18	18m N	17.5	25	3.8
20	20m N	17.5	30	4.5
22	22m N	17.5	30	4.5
25	25m N	20.6	38	7.4

Dimensions for reference only



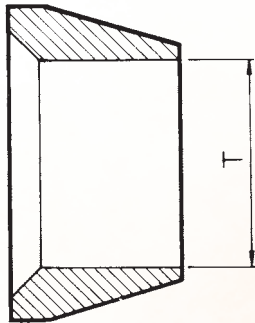
TUBE COMPRESSION COUPLING FRONT / BACK SEALRING

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 FC



Part No.
8 RC



FRACTIONAL (FRONT) - Product Coding

T TUBE OD	PART NUMBER	A WEIGHT KG / 100
1/8	2 FC	0.05
3/16	3 FC	0.1
1/4	4 FC	0.1
5/16	5 FC	0.2
3/8	6 FC	0.25
1/2	8 FC	0.3
5/8	10 FC	0.4
3/4	12 FC	0.45
1	16 FC	1.2

FRACTIONAL (BACK) - Product Coding

T TUBE OD	PART NUMBER	A WEIGHT KG / 100
1/8	2 RC	0.04
3/16	3 RC	0.05
1/4	4 RC	0.1
5/16	5 RC	0.15
3/8	6 RC	0.17
1/2	8 RC	0.2
5/8	10 RC	0.2
3/4	12 RC	0.25
1	16 RC	0.3

METRIC (FRONT) - Product Coding

T TUBE OD	PART NUMBER	A WEIGHT KG / 100
4	4m FC	0.1
6	6m FC	0.1
8	8m FC	0.2
10	10m FC	0.25
12	12m FC	0.3
14	14m FC	0.4
15	15m FC	0.4
16	16m FC	0.4
18	18m FC	0.45
20	20m FC	0.45
22	22m FC	0.45
25	25m FC	1.2

METRIC (BACK) - Product Coding

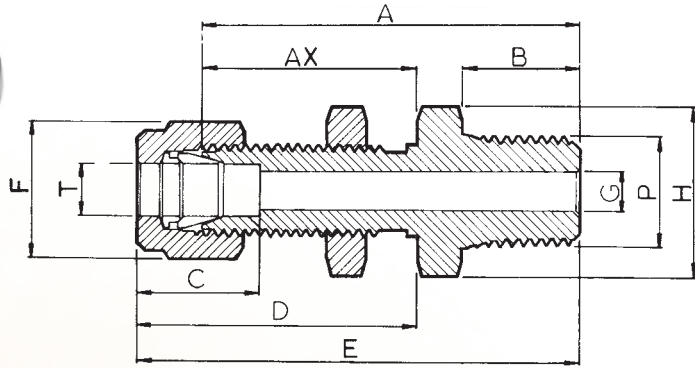
T TUBE OD	PART NUMBER	A WEIGHT KG / 100
4	4m RC	0.05
6	6m RC	0.1
8	8m RC	0.15
10	10m RC	0.17
12	12m RC	0.2
14	14m RC	0.2
15	15m RC	0.2
16	16m RC	0.2
18	18m RC	0.25
20	20m RC	0.25
22	22m RC	0.25
25	25m RC	0.3

Dimensions for reference only

Dimensions for reference only

TUBE COMPRESSION COUPLING
MALE BULKHEAD CONNECTOR - NPT
 316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
12m MBH 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	D	E	F HEX	H HEX	G DIA	PANEL HOLE DRILL SIZE	PANEL THICK- NESS MAX	WEIGHT KG / 100
1/4	1/8	4 MBH 2	1 ⁵ / ₈	1 ³ / ₃₂	3/8	1 ⁹ / ₃₂	4 ⁵ / ₆₄	1 ⁵⁹ / ₆₄	9/16	1 ¹ / ₁₆	3/16	2 ⁹ / ₆₄	1 ³ / ₃₂	4.2
1/4	1/4	4 MBH 4	1 ¹³ / ₁₆	1 ¹ / ₃₂	9/16	1 ⁹ / ₃₂	4 ⁵ / ₆₄	2 ⁷ / ₆₄	9/16	1 ¹ / ₁₆	3/16	2 ⁹ / ₆₄	1 ³ / ₃₂	5.6
3/8	1/4	6 MBH 4	1 ³¹ / ₃₂	1 ⁵ / ₃₂	9/16	2 ¹ / ₃₂	4 ⁹ / ₆₄	2 ¹⁷ / ₆₄	1 ¹ / ₁₆	3/4	9/32	3 ⁷ / ₆₄	7/16	6.6
1/2	1/4	8 MBH 4	2 ³ / ₃₂	1 ¹ / ₄	9/16	2 ⁹ / ₃₂	5 ⁵ / ₆₄	2 ¹ / ₂	7/8	1 ⁵ / ₁₆	1 ³ / ₃₂	4 ⁹ / ₆₄	1/2	10.4
1/2	1/2	8 MBH 8	2 ⁹ / ₃₂	1 ¹ / ₄	3/4	2 ⁹ / ₃₂	5 ⁵ / ₆₄	2 ¹¹ / ₁₆	7/8	1 ⁵ / ₁₆	1 ³ / ₃₂	4 ⁹ / ₆₄	1/2	13.7

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	D	E	F HEX	H HEX	G DIA	PANEL HOLE DRILL SIZE	PANEL THICK- NESS MAX	WEIGHT KG / 100
6	1/8	6m MBH 2	41.3	26.2	9.5	16.1	18.5	49.5	14	17	4.7	11.5	10	3.7
6	1/4	6m MBH 4	46.0	26.2	14.3	16.1	18.5	54.2	14	17	4.7	11.5	10	5.0
10	1/4	10m MBH 4	50.0	29.4	14.3	17.7	20.1	58.2	19	22	7.2	16.5	11	8.1
12	1/4	12m MBH 4	53.2	31.8	14.3	23.5	22.7	64.0	22	24	7.2	19.5	12	11.1
12	1/2	12m MBH 8	57.9	31.8	19.0	23.5	22.7	68.7	22	24	7.2	19.5	12	14.5

Dimensions for reference only

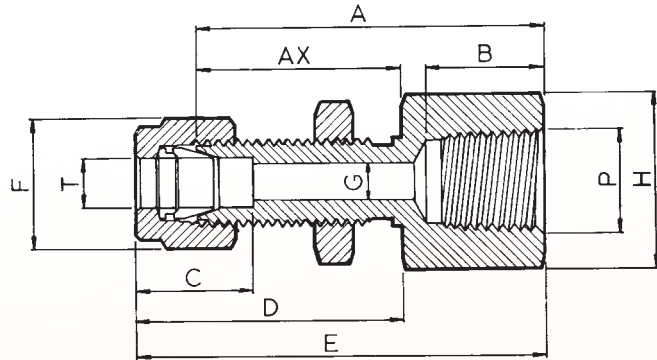
Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING FEMALE BULKHEAD CONNECTOR - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 FBH 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	DX	E	F HEX	H HEX	G DIA	PANEL HOLE DRILL SIZE	PANEL THICK- NESS MAX	WEIGHT KG / 100
1/4	1/8	4 FBH 2	19/16	11/32	25/64	19/32	121/64	155/64	9/16	9/16	3/16	29/64	13/32	4.0
1/4	1/4	4 FBH 4	1 3/4	1 1/32	19/32	19/32	121/64	23/64	9/16	3/4	3/16	29/64	13/32	6.4
3/8	1/4	6 FBH 4	1 7/8	1 5/32	19/32	21/32	129/64	211/64	11/16	3/4	9/16	37/64	7/16	7.5
1/2	1/4	8 FBH 4	2 1/32	1 1/4	19/32	29/32	121/32	27/16	7/8	7/8	13/32	49/64	1/2	13.6
1/2	1/2	8 FBH 8	2 1/4	1 1/4	25/32	29/32	121/32	221/32	7/8	1 1/8	13/32	49/64	1/2	17.2

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	DX	E	F HEX	H HEX	G DIA	PANEL HOLE DRILL SIZE	PANEL THICK- NESS MAX	WEIGHT KG / 100
6	1/8	6m FBH 2	39.7	26.2	9.9	16.1	34.4	47.9	14	19	4.7	11.5	10	4.0
6	1/4	6m FBH 4	44.5	26.2	15.0	16.1	34.4	52.7	14	19	6.1	11.5	10	6.4
10	1/4	10m FBH 4	47.6	29.4	15.0	17.7	37.6	55.8	19	22	7.9	16.5	11	7.5
12	1/4	12m FBH 4	51.6	31.8	15.0	23.5	42.6	62.4	22	24	9.5	19.5	12	13.5
12	1/2	12m FBH 8	56.4	31.8	19.0	23.5	42.6	67.2	22	27	9.5	19.5	12	17.4

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



Quality Assurance

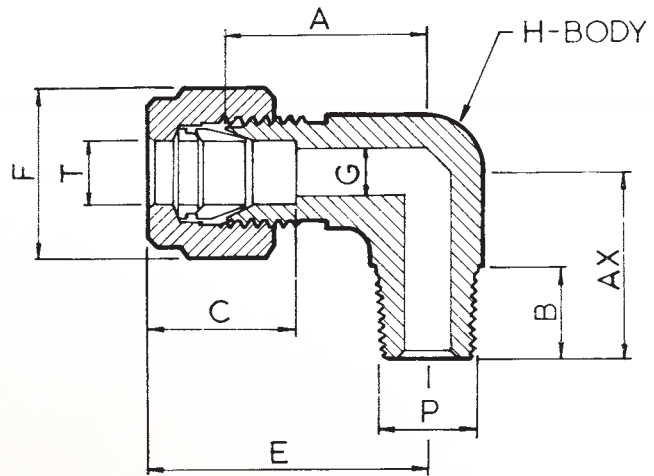
Environmental Management



TUBE COMPRESSION COUPLING MALE STUD ELBOW - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 ME 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	E	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/8	1/8	2 ME 2	3/4	3/4	3/8	17/32	1 1/8	7/16	1/2	3/32	2.7
3/16	1/8	3 ME 2	25/32	3/4	3/8	9/16	13/32	1/2	1/2	1/8	2.8
1/4	1/8	4 ME 2	13/16	3/4	3/8	19/32	17/64	9/16	1/2	3/16	2.9
1/4	1/4	4 ME 4	13/16	5/16	9/16	19/32	17/64	9/16	1/2	3/16	3.4
3/8	1/4	6 ME 4	29/32	1	9/16	21/32	113/64	11/16	9/16	9/32	5.2
3/8	3/8	6 ME 6	29/32	1 1/8	9/16	21/32	113/64	11/16	9/16	9/32	5.9
1/2	3/8	8 ME 6	63/64	1 5/64	9/16	29/32	125/64	7/8	11/16	11/32	9.5
1/2	1/2	8 ME 8	63/64	1 5/16	3/4	29/32	125/64	7/8	11/16	13/32	11.2
5/8	1/2	10 ME 8	1 1/16	1 11/32	3/4	15/16	17/16	1	15/16	7/16	12.9
3/4	1/2	12 ME 8	1 11/16	1 5/16	3/4	31/32	19/16	1 1/8	15/16	7/16	15.1
3/4	3/4	12 ME 12	1 11/16	1 29/64	3/4	31/32	19/16	1 1/8	15/16	5/8	18.3
1	3/4	16 ME 12	1 13/32	1 21/32	3/4	1 15/64	1 59/64	1 1/2	1 1/4	5/8	30.9

METRIC - Product Coding

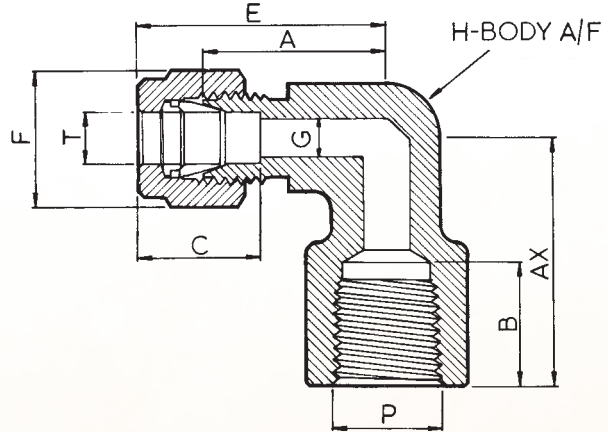
T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	E	F HEX	H A / F	G DIA	WEIGHT KG / 100
4	1/8	4m ME 2	19.8	19.5	9.5	14.5	28.0	13	13	2.8	2.9
6	1/8	6m ME 2	20.6	19.5	9.5	16.1	28.8	14	13	4.7	3.4
6	1/4	6m ME 4	20.6	23.8	10.3	16.1	28.8	14	13	4.7	3.9
8	1/4	8m ME 4	22.2	25.4	14.3	16.9	30.4	16	13	6.3	5.3
10	1/4	10m ME 4	23.8	25.4	14.3	17.7	32.0	19	14	7.9	5.7
10	3/8	10m ME 6	23.8	28.6	14.3	17.7	32.0	19	14	7.9	6.6
12	3/8	12m ME 6	25.0	27.4	14.3	23.5	35.8	22	17	8.7	9.6
12	1/2	12m ME 8	26.2	33.3	19.1	23.5	37.0	22	17	9.5	11.8
14	1/2	14m ME 8	27.0	34.1	19.1	25.1	37.8	25	24	12.7	13.0
15	1/2	15m ME 8	27.0	34.1	19.1	25.1	37.8	25	24	12.7	13.0
16	1/2	16m ME 8	27.0	34.1	19.1	25.1	37.8	25	24	12.7	13.0
18	1/2	18m ME 8	29.4	38.1	19.1	25.1	39.7	27	27	15.9	16.2
18	3/4	18m ME 12	33.3	42.1	19.1	31.8	48.4	38	32	18.3	30.0
20	1/2	20m ME 8	33.3	34.1	19.1	25.1	44.1	30	24	12.7	16.2
20	3/4	20m ME 12	33.3	42.1	19.1	25.1	44.1	30	24	16.7	19.0
25	3/4	25m ME 12	35.7	42.1	19.1	31.8	48.4	38	32	18.3	30.9

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads

TUBE COMPRESSION COUPLING FEMALE STUD ELBOW - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	E	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/4	1/8	4 FE 2	3/16	7/8	25/64	19/32	17/64	9/16	1/2	3/16	4.7
1/4	1/4	4 FE 4	7/8	13/16	19/32	19/32	111/64	9/16	9/16	3/16	6.1
3/8	1/4	6 FE 4	15/16	13/16	19/32	21/32	115/64	11/16	9/16	7/32	7.3
1/2	1/4	8 FE 4	11/32	11/4	19/32	29/32	17/16	7/8	11/16	7/32	13.4
1/2	1/2	8 FE 8	13/16	15/8	25/32	29/32	119/32	7/8	15/16	13/32	21.9
3/4	3/4	12 FE 12	115/64	15/16	13/16	31/32	15/8	11/8	15/16	5/8	39.4

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	B	C	E	F HEX	H A / F	G DIA	WEIGHT KG / 100
6	1/8	6m FE 2	22.2	27.8	10.0	16.1	30.4	14	14	4.7	5.8
6	1/4	6m FE 4	22.2	30.2	15.0	16.1	30.4	14	14	4.7	6.5
10	1/4	10m FE 4	23.8	34.9	15.0	17.7	32.0	19	17	5.5	7.8
12	1/4	12m FE 4	30.2	38.1	15.0	23.5	41.0	22	24	9.5	14.0
12	1/2	12m FE 8	30.2	41.3	19.8	23.5	41.0	22	24	9.5	21.7
14	1/2	14m FE 8	30.2	41.3	19.8	23.5	41.0	22	24	9.5	21.9
15	1/2	15m FE 8	30.2	41.3	19.8	23.5	41.0	22	24	9.5	21.9
16	1/2	16m FE 8	30.2	41.3	19.8	23.5	41.0	22	24	9.5	21.9
18	1/2	18m FE 8	30.2	41.3	19.8	24.6	42.1	30	30	15.9	39.4
18	3/4	18m FE 12	33.3	42.1	19.1	24.6	42.1	30	32	15.9	39.4
20	3/4	20m FE 12	33.3	42.1	20.6	25.1	44.1	30	32	16.7	39.4
22	3/4	22m FE 12	35.7	42.1	19.1	31.8	48.4	30	38	18.3	39.4

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads

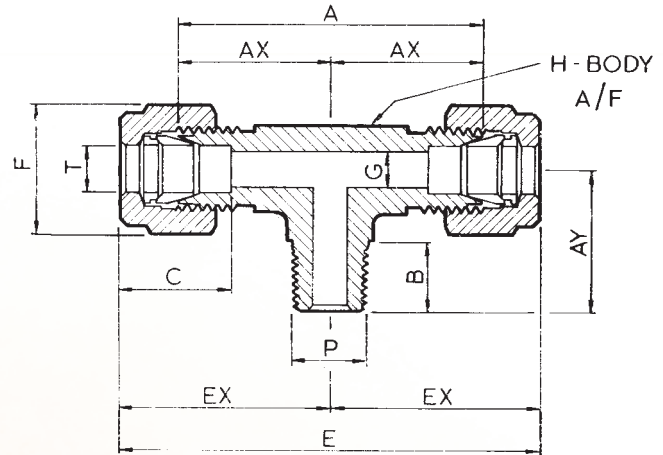


TUBE COMPRESSION COUPLING

MALE BRANCH TEE - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 TTM 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/4	1/8	4 TTM 2	15/8	13/16	3/4	3/8	19/32	27/32	17/64	9/16	1/2	3/16	5.8
1/4	1/4	4 TTM 4	1 11/16	27/32	31/32	9/16	19/32	29/32	19/64	9/16	1/2	3/16	6.8
3/8	1/4	6 TTM 4	1 13/16	29/32	31/32	9/16	21/32	2 13/32	1 13/64	1 1/16	9/16	9/32	7.8
1/2	3/8	8 TTM 6	1 31/32	63/64	1 5/64	9/16	29/32	2 25/32	1 25/64	7/8	1 1/16	13/32	13.7
1/2	1/2	8 TTM 8	2 3/8	1 3/16	1 3/8	3/4	29/32	3 3/16	1 19/32	7/8	1 1/16	13/32	22.3
5/8	1/2	10 TTM 8	2 3/8	1 3/16	1 3/8	3/4	15/16	3 1/8	1 9/16	1	15/16	1/2	23.4
3/4	1/2	12 TTM 8	2 11/32	1 11/64	1 29/64	3/4	55/64	3 1/8	1 9/16	1 1/8	15/16	5/8	22.8
3/4	3/4	12 TTM 12	2 11/32	1 11/64	1 29/64	3/4	55/64	3 1/8	1 9/16	1 1/8	15/16	5/8	24.4
1	3/4	16 TTM 12	2 13/16	1 13/32	1 37/64	3/4	1 15/64	3 27/32	1 59/64	1 1/2	1 1/4	7/8	42.4

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
6	1/8	6m TTM 2	41.2	21.6	19.1	9.5	16.1	57.4	28.7	14	13	4.7	5.2
6	1/4	6m TTM 4	42.8	21.4	24.6	14.3	16.1	59.2	29.6	14	13	4.7	6.7
10	1/4	10m TTM 4	47.6	23.8	24.6	14.3	17.7	64.0	32.0	19	14	7.9	7.1
12	3/8	12m TTM 6	50.0	25.0	27.4	14.3	23.5	71.6	35.8	22	17	9.5	14.4
12	1/2	12m TTM 8	60.4	30.2	34.9	19.1	23.5	82.0	41.0	22	24	9.5	23.9
14	1/2	14m TTM 8	60.0	30.2	34.9	19.1	12.7	73.0	26.2	25	24	12.7	23.4
15	1/2	15m TTM 8	60.0	30.2	34.9	19.1	12.7	79.4	29.4	25	24	12.7	23.4
16	1/2	16m TTM 8	60.4	30.2	34.9	19.1	25.1	82.0	41.0	25	24	12.7	23.4
18	1/2	18m TTM 8	79.4	39.7	38.1	19.1	15.9	79.4	29.4	30	32	15.9	22.0
20	1/2	20m TTM 8	71.4	35.7	34.9	19.1	25.1	93.0	46.5	30	32	16.7	22.8
20	3/4	20m TTM 12	71.4	35.7	41.2	19.1	25.1	93.0	46.5	30	32	16.7	24.4
22	3/4	22m TTM 12	85.8	42.9	38.1	19.1	18.3	85.8	32.5	30	32	18.3	24.4
25	3/4	25m TTM 12	71.4	35.7	41.2	19.1	31.8	96.8	48.4	38	32	16.7	42.0

Dimensions for reference only

Also available in BSP Taper, BSP Parallel and ISO Metric threads



Quality Assurance

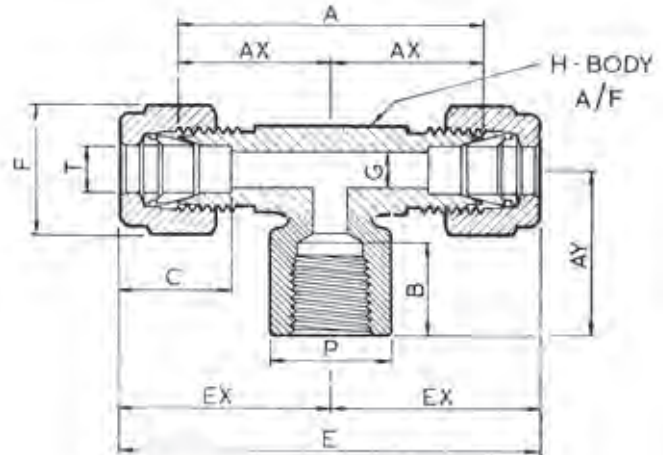
Environmental Management

APPROVAL PROGRAM

TUBE COMPRESSION COUPLING FEMALE BRANCH TEE - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
6 TTF 8



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/4	1/8	4 TTF 2	1 ⁵ / ₈	1 ³ / ₁₆	3/4	3/8	1 ⁹ / ₃₂	2 ⁷ / ₃₂	1 ⁷ / ₆₄	9/16	1/2	3/16	5.8
1/4	1/4	4 TTF 4	1 ¹¹ / ₁₆	2 ⁷ / ₃₂	3 ¹ / ₃₂	9/16	1 ⁹ / ₃₂	2 ⁹ / ₃₂	1 ⁹ / ₆₄	9/16	1/2	3/16	6.8
3/8	1/4	6 TTF 4	1 ¹³ / ₁₆	2 ⁹ / ₃₂	3 ¹ / ₃₂	9/16	2 ¹ / ₃₂	2 ¹³ / ₃₂	1 ¹³ / ₆₄	1 ¹ / ₁₆	9/16	9/32	7.8
1/2	3/8	8 TTF 6	1 ³¹ / ₃₂	6 ³ / ₆₄	1 ⁵ / ₆₄	9/16	2 ⁹ / ₃₂	2 ²⁵ / ₃₂	1 ²⁵ / ₆₄	7/8	1 ¹ / ₁₆	1 ³ / ₃₂	13.7
1/2	1/2	8 TTF 8	2 ³ / ₈	1 ³ / ₁₆	1 ³ / ₈	3/4	2 ⁹ / ₃₂	3 ³ / ₁₆	1 ¹⁹ / ₃₂	7/8	1 ¹ / ₁₆	1 ³ / ₃₂	22.3
5/8	1/2	10 TTF 8	2 ³ / ₈	1 ³ / ₁₆	1 ³ / ₈	3/4	1 ⁵ / ₁₆	3 ¹ / ₈	1 ⁹ / ₁₆	1	1 ⁵ / ₁₆	1/2	23.4
3/4	1/2	12 TTF 8	2 ¹¹ / ₃₂	1 ¹¹ / ₆₄	1 ²⁹ / ₆₄	3/4	5 ⁵ / ₆₄	3 ¹ / ₈	1 ⁹ / ₁₆	1 ¹ / ₈	1 ⁵ / ₁₆	5/8	22.8
3/4	3/4	12 TTF 12	2 ¹¹ / ₃₂	1 ¹¹ / ₆₄	1 ²⁹ / ₆₄	3/4	5 ⁵ / ₆₄	3 ¹ / ₈	1 ⁹ / ₁₆	1 ¹ / ₈	1 ⁵ / ₁₆	5/8	24.4
1	3/4	16 TTF 12	2 ¹³ / ₁₆	1 ¹³ / ₃₂	1 ³⁷ / ₆₄	3/4	1 ¹⁵ / ₆₄	3 ²⁷ / ₃₂	1 ⁵⁹ / ₆₄	1 ¹ / ₂	1 ¹ / ₄	7/8	42.4

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
6	1/8	6m TTF 2	41.2	21.6	19.1	9.5	16.1	57.4	28.7	14	13	4.7	5.2
6	1/4	6m TTF 4	42.8	21.4	24.6	14.3	16.1	59.2	29.6	14	13	4.7	6.7
10	1/4	10m TTF 4	47.6	23.8	24.6	14.3	17.7	64.0	32.0	19	14	7.9	7.1
12	3/8	12m TTF 6	50.0	25.0	27.4	14.3	23.5	71.6	35.8	22	17	9.5	14.4
12	1/2	12m TTF 8	60.4	30.2	34.9	19.1	23.5	82.0	41.0	22	24	9.5	23.9
16	1/2	16m TTF 8	60.4	30.2	34.9	19.1	25.1	82.0	41.0	25	24	12.7	23.4
20	1/2	20m TTF 8	71.4	35.7	34.9	19.1	25.1	93.0	46.5	30	32	16.7	22.8
20	3/4	20m TTF 12	71.4	35.7	41.2	19.1	25.1	93.0	46.5	30	32	16.7	24.4
25	3/4	25m TTF 12	71.4	35.7	41.2	19.1	31.8	96.8	48.4	38	32	16.7	42.0

Dimensions for reference only

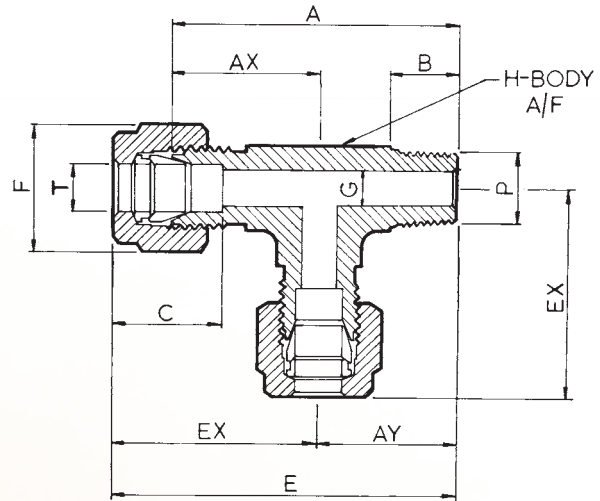
Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING

MALE RUN TEE - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 TMT 8

FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/4	1/8	4 TMT 2	1 ⁹ / ₁₆	1 ³ / ₁₆	3/4	3/8	19/32	1 ⁵⁵ / ₆₄	1 ⁷ / ₆₄	9/16	1/2	3/16	5.4
1/4	1/4	4 TMT 4	1 ²⁵ / ₃₂	1 ³ / ₁₆	3 ¹ / ₃₂	9/16	19/32	2 ⁵ / ₆₄	1 ⁷ / ₆₄	9/16	1/2	3/16	6.6
3/8	1/4	6 TMT 4	1 ⁷ / ₈	2 ⁹ / ₃₂	3 ¹ / ₃₂	9/16	2 ¹ / ₃₂	2 ¹¹ / ₆₄	1 ¹³ / ₆₄	1 ¹ / ₁₆	9/16	9/32	7.8
1/2	3/8	8 TMT 6	2 ¹ / ₁₆	6 ³ / ₆₄	1 ⁵ / ₆₄	9/16	2 ⁹ / ₃₂	2 ¹⁵ / ₃₂	1 ²⁵ / ₆₄	7/8	1 ¹ / ₁₆	1 ³ / ₃₂	13.2
1/2	1/2	8 TMT 8	2 ¹⁷ / ₃₂	1 ³ / ₁₆	1 ¹¹ / ₃₂	3/4	2 ⁹ / ₃₂	2 ¹⁵ / ₁₆	1 ¹⁹ / ₃₂	7/8	1 ¹ / ₁₆	1 ³ / ₃₂	23.0
5/8	1/2	10 TMT 8	2 ¹⁷ / ₃₂	1 ³ / ₁₆	1 ¹¹ / ₃₂	3/4	1 ⁵ / ₁₆	2 ²⁹ / ₃₂	1 ⁹ / ₁₆	1	1 ⁵ / ₁₆	1/2	33.2
3/4	1/2	12 TMT 8	2 ³ / ₄	1 ¹ / ₄	1 ¹ / ₂	3/4	3 ¹ / ₃₂	3 ⁹ / ₆₄	1 ⁴¹ / ₆₄	1 ¹ / ₈	1 ⁵ / ₁₆	5/8	27.0
3/4	3/4	12 TMT 12	2 ³ / ₄	1 ¹ / ₄	1 ¹ / ₂	3/4	3 ¹ / ₃₂	3 ⁹ / ₆₄	1 ⁴¹ / ₆₄	1 ¹ / ₈	1 ⁵ / ₁₆	5/8	31.7

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
6	1/8	6m TMT 2	39.7	20.6	19.1	9.5	16.1	47.9	28.8	14	13	4.7	5.2
6	1/4	6m TMT 4	46.0	21.4	24.6	14.3	16.1	54.2	29.6	14	14	4.7	7.1
10	1/4	10m TMT 4	48.4	23.8	24.6	14.3	17.7	56.6	32.0	19	14	7.1	8.8
12	3/8	12m TMT 6	52.4	25.0	27.4	14.3	23.5	63.2	35.8	22	17	9.5	14.4
12	1/2	12m TMT 8	64.3	30.2	34.1	19.1	23.5	75.1	41.0	22	24	9.5	23.0
14	1/2	14m TMT 8	65.9	31.8	34.1	19.1	24.6	76.0	42.6	25	24	12.7	33.2
15	1/2	15m TMT 8	65.9	31.8	34.1	19.1	24.6	76.0	42.6	25	24	12.7	33.2
16	1/2	16m TMT 8	65.9	31.8	34.1	19.1	25.1	76.0	42.6	25	24	12.7	33.2
18	1/2	18m TMT 8	79.4	39.7	38.1	19.1	24.6	79.4	42.6	32	27	15.9	27.0
20	1/2	20m TMT 8	69.8	35.7	34.1	19.1	25.1	80.6	46.5	30	24	16.7	27.0
20	3/4	20m TMT 12	71.4	36.5	34.9	19.1	25.1	82.2	47.3	30	30	16.7	32.0
22	3/4	22m TMT 12	85.5	42.9	38.1	19.1	26.2	85.8	42.6	32	27	18.3	32.0

Dimensions for reference only

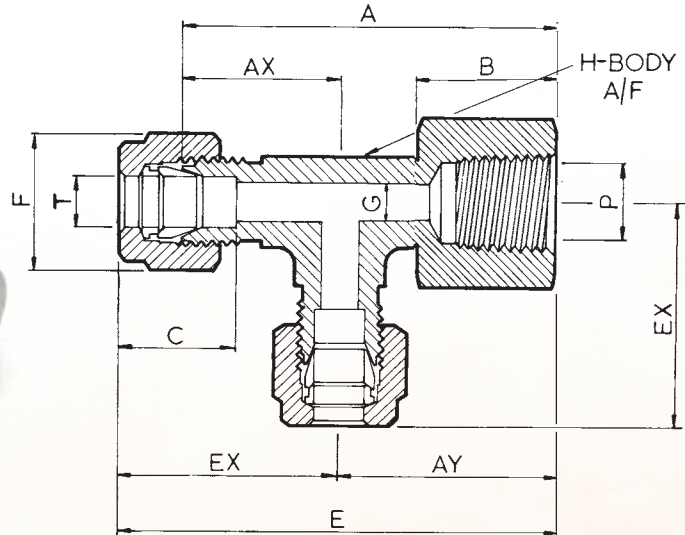
Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING

FEMALE RUN TEE - NPT

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS



FRACTIONAL - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/4	1/8	4 TFT 2	1 ⁹ / ₁₆	1 ³ / ₁₆	3/4	3/8	19/32	1 ⁵⁵ / ₆₄	1 ⁷ / ₆₄	9/16	1/2	3/16	5.4
1/4	1/4	4 TFT 4	1 ²⁵ / ₃₂	1 ³ / ₁₆	3 ¹ / ₃₂	9/16	19/32	2 ⁵ / ₆₄	1 ⁷ / ₆₄	9/16	1/2	3/16	6.6
3/8	1/4	6 TFT 4	1 ⁷ / ₈	2 ⁹ / ₃₂	3 ¹ / ₃₂	9/16	2 ¹ / ₃₂	2 ¹¹ / ₆₄	1 ¹³ / ₆₄	1 ¹ / ₁₆	9/16	9/32	7.8
1/2	3/8	8 TFT 6	2 ¹ / ₁₆	6 ³ / ₆₄	1 ⁵ / ₆₄	9/16	2 ⁹ / ₃₂	2 ¹⁵ / ₃₂	1 ²⁵ / ₆₄	7/8	1 ¹ / ₁₆	1 ³ / ₃₂	13.2
1/2	1/2	8 TFT 8	2 ¹⁷ / ₃₂	1 ³ / ₁₆	1 ¹¹ / ₃₂	3/4	2 ⁹ / ₃₂	2 ¹⁵ / ₁₆	1 ¹⁹ / ₃₂	7/8	1 ¹ / ₁₆	1 ³ / ₃₂	23.0
5/8	1/2	10 TFT 8	2 ¹⁷ / ₃₂	1 ³ / ₁₆	1 ¹¹ / ₃₂	3/4	1 ⁵ / ₁₆	2 ²⁹ / ₃₂	1 ⁹ / ₁₆	1	1 ⁵ / ₁₆	1/2	33.2
3/4	1/2	12 TFT 8	2 ³ / ₄	1 ¹ / ₄	1 ¹ / ₂	3/4	3 ¹ / ₃₂	3 ⁹ / ₆₄	1 ⁴¹ / ₆₄	1 ¹ / ₈	1 ⁵ / ₁₆	5/8	27.0
3/4	3/4	12 TFT 12	2 ³ / ₄	1 ¹ / ₄	1 ¹ / ₂	3/4	3 ¹ / ₃₂	3 ⁹ / ₆₄	1 ⁴¹ / ₆₄	1 ¹ / ₈	1 ⁵ / ₁₆	5/8	31.7

METRIC - Product Coding

T TUBE OD	P PIPE THREAD	PART NUMBER	A	AX	AY	B	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
6	1/8	6m TFT 2	39.7	20.6	19.1	9.5	16.1	47.9	28.8	14	13	4.7	5.2
6	1/4	6m TFT 4	46.0	21.4	24.6	14.3	16.1	54.2	29.6	14	14	4.7	7.1
10	1/4	10m TFT 4	48.4	23.8	24.6	14.3	17.7	56.6	32.0	19	14	7.1	8.8
12	3/8	12m TFT 6	52.4	25.0	27.4	14.3	23.5	63.2	35.8	22	17	9.5	14.4
12	1/2	12m TFT 8	64.3	30.2	34.1	19.1	23.5	75.1	41.0	22	24	9.5	23.0
16	1/2	16m TFT 8	65.9	31.8	34.1	19.1	25.1	76.0	42.6	25	24	12.7	33.2
20	1/2	20m TFT 8	69.8	35.7	34.1	19.1	25.1	80.6	46.5	30	24	16.7	27.0
20	3/4	20m TFT 12	71.4	36.5	34.9	19.1	25.1	82.2	47.3	30	30	16.7	32.0

Dimensions for reference only

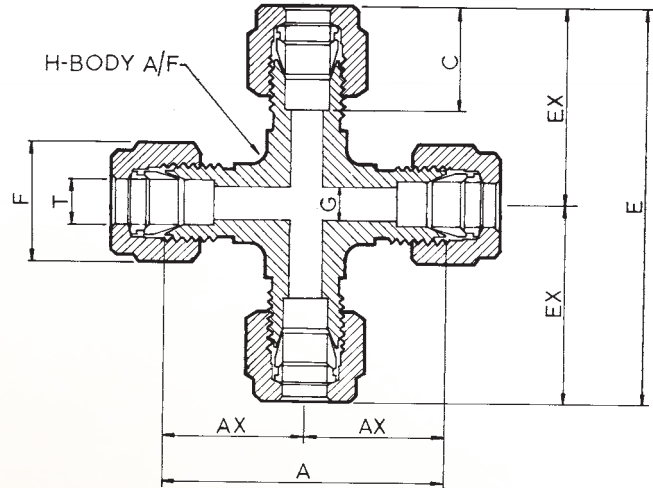
Also available in BSP Taper, BSP Parallel and ISO Metric threads



TUBE COMPRESSION COUPLING UNION CROSS

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

Part No.
8 UC



FRACTIONAL - Product Coding

T TUBE OD	PART NUMBER	A	AX	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
1/8	2 UC	1 1/2	3/4	17/32	2 3/32	1 3/64	7/16	1/2	3/32	8.0
3/16	3 UC	1 9/16	25/32	9/16	2 1/8	1 1/16	1/2	1/2	1/8	9.0
1/4	4 UC	1 5/8	13/16	19/32	2 7/32	1 7/64	9/16	1/2	3/16	9.6
5/16	5 UC	1 3/4	7/8	21/32	2 13/32	1 13/64	5/8	9/16	1/4	9.8
3/8	6 UC	1 13/16	29/32	21/32	2 13/32	1 13/64	11/16	9/16	9/32	11.4
1/2	8 UC	1 15/16	63/64	29/32	2 25/32	1 25/64	1/8	11/16	13/32	20.1
5/8	10 UC	2 1/8	1 1/16	15/16	2 7/8	1 7/16	1	15/16	1/2	37.9
3/4	12 UC	2 1/2	1 1/4	31/32	3 9/32	1 41/64	1 1/8	15/16	5/8	35.9

METRIC - Product Coding

T TUBE OD	PART NUMBER	A	AX	C	E	EX	F HEX	H A / F	G DIA	WEIGHT KG / 100
4	4m UC	39.6	19.8	13.5	53.2	26.6	11	14	2.4	8.5
6	6m UC	41.2	20.6	16.1	57.6	28.8	14	14	4.7	8.9
8	8m UC	44.4	22.2	16.9	60.8	30.4	16	14	6.3	9.8
10	10m UC	47.6	23.8	17.7	64.0	32.0	19	14	7.9	13.6
12	12m UC	50.0	25.0	23.5	71.6	35.8	22	17	9.5	21.2
14	14m UC	54.0	27.0	25.1	75.6	37.8	24	24	12.7	13.7
15	15m UC	54.0	27.0	25.1	75.6	37.8	24	24	12.7	13.7
16	16m UC	54.0	27.0	25.1	75.6	37.8	24	24	12.7	37.0
18	18m UC	58.4	29.4	25.1	79.4	44.1	27	32	15.9	35.0
20	20m UC	58.4	33.3	25.1	88.2	44.1	30	32	16.7	35.0
22	22m UC	65.0	32.5	26.2	85.8	45.2	27	32	18.3	37.0

Dimensions for reference only



Quality Assurance

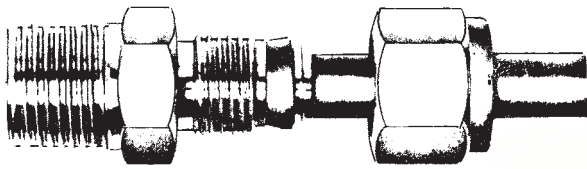
Environmental Management

TYPE APPROVAL PROGRAM

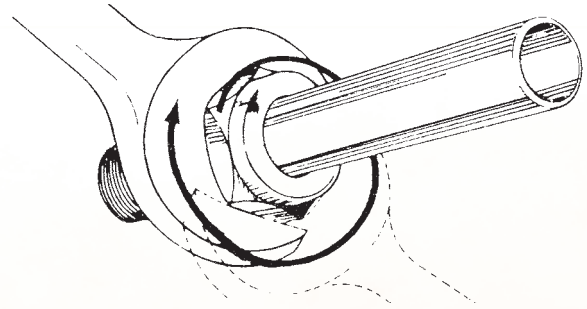
TUBE COMPRESSION COUPLING

316 STAINLESS STEEL PRECISION INSTRUMENTATION FITTINGS

ASSEMBLY INSTRUCTIONS



Insert the tubing through the nut and ferrules until it comes up to the tube-stop.



Ensure that the nut is finger tight. Then tighten the nut 1 1/4 turns.

RE-ASSEMBLY OF SAFELOK FITTINGS

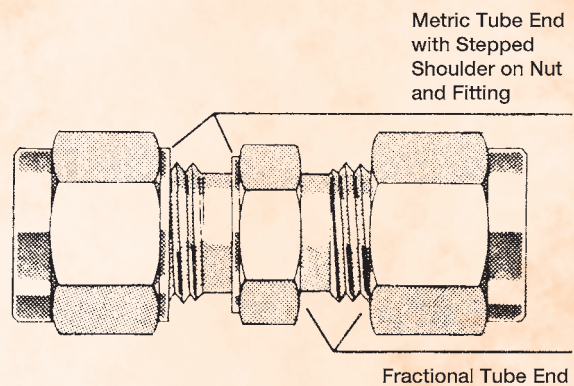
Safelok Fittings may be assembled and disassembled repeatedly. The following instructions should be followed for re-assembly.

Tighten the nut with a wrench until a sharp rise in torque is felt, then snug with wrench.

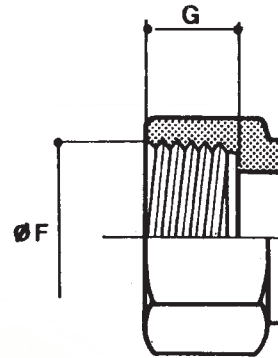
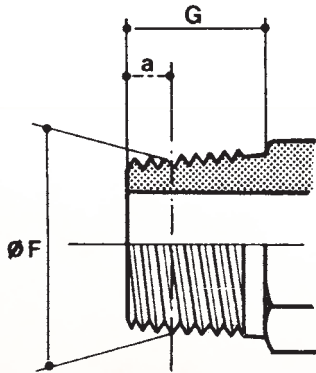
Insert the tubing end with the previously set ferrules into the fitting body and tighten the nut until hand-tight.

IDENTIFICATION OF SAFELOK FITTING

For ease of identification, Safelok Fittings in metric sizes have an additional stepped shoulder on the nuts and bodies to distinguish them from fractional sizes. (See illustration).



TUBE COMPRESSION COUPLING STANDARD THREAD SIZES

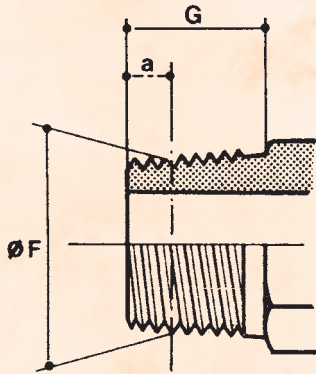


NPT - ANSI B2.1

INCHES	ØF	THREAD TO INCH	A	G
1/8	10.2	27	4.5	9.5
1/4	13.5	18	5.0	14.3
3/8	17.0	18	6.0	14.3
1/2	21.2	14	8.1	19.1
3/4	26.5	14	8.6	19.1
1	33.2	1 1/2	10.1	23.8
1 1/4	41.9	1 1/2	10.6	23.8
1 1/2	48.0	1 1/2	10.6	26.2

NPT - ANSI B2.1

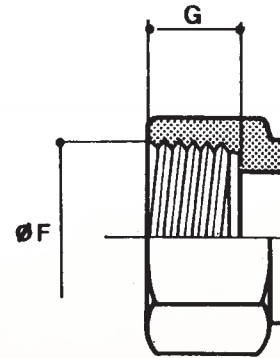
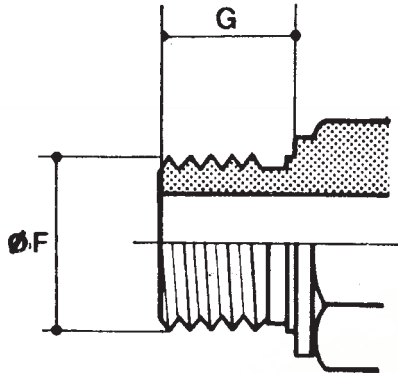
INCHES	ØF	THREAD TO INCH	G
1/8	10.2	27	9.5
1/4	13.5	18	14.3
3/8	17.0	18	14.3
1/2	21.2	14	19.1



BSP Taper B.S.21 - 1985

INCHES	MM	ØF	THREAD TO INCH	A	G
1/8	5.10	9.7	28	4.0	9.5
1/4	8.13	13.1	19	6.0	14.3
3/8	12.17	16.6	19	6.4	14.3
1/2	15.21	20.9	14	8.2	19.1
3/4	21.27	26.4	14	9.5	19.1
1	26.34	33.2	11	10.4	23.8
1 1/4	33.42	41.9	11	12.7	23.8
1 1/2	40.49	47.8	11	12.7	26.2
2	59.60	59.6	11	15.9	27.0

TUBE COMPRESSION COUPLING STANDARD THREAD SIZES

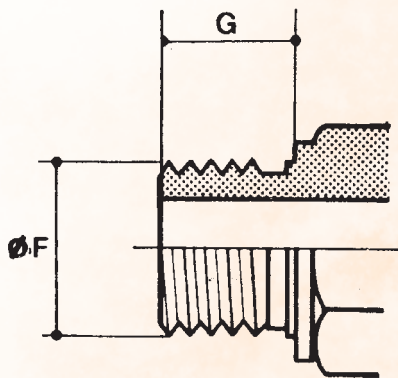


BSP Parallel B.S.2779 - 1973

INCHES	MM	ØF	THREAD TO INCH	G
1/8	5.10	9.7	28	8
1/4	8.13	13.1	19	10
3/8	12.17	16.6	19	10
1/2	15.21	20.9	14	12
3/4	21.17	26.4	14	16
1	26.34	33.2	11	16
1 1/4	33.42	41.9	11	18
1 1/2	40.49	47.8	11	18
2	50.60	59.6	11	20

BSP Parallel B.S.2779 - 1973

INCHES	MM	ØF	THREAD TO INCH	G
1/8	5.10	9.7	28	8.0
1/4	8.13	13.1	19	11.0
3/8	12.17	16.6	19	11.4
1/2	15.21	20.9	14	15.0
3/4	21.27	26.4	14	16.3
1	26.34	33.2	11	19.1
1 1/4	33.42	41.9	11	21.4
1 1/2	40.49	47.8	11	21.4



ISO Metric

ØF	G	ØF	G
8 x 100	8	24 x 150	14
10 x 100	8	26 x 150	16
12 x 100	8	27 x 150	16
12 x 125	8	30 x 200	16
12 x 150	10	33 x 150	16
14 x 125	10	33 x 200	16
14 x 150	10	39 x 200	18
16 x 150	10	42 x 200	18
18 x 150	12	45 x 200	18
20 x 150	12	48 x 200	18

TUBE COMPRESSION COUPLING SERVICE PRESSURES

TABLE 1 304 and 316 Stainless Steel (ASTM A-269 or equivalent)
Maximum allowable working pressures in bars for temperatures between -29°C and 38°C

Wall Thickness in Inches									
OD OF TUBE	.020	.028	.035	.049	.065	.083	.095	.109	.118
1/8	480	700	885						
3/16	305	445	570	830					
1/4		320	410	605	820				
5/16		250	320	470	645				
3/8			265	385	530				
1/2			195	280	380	505			
5/8			155	220	300	390	455		
3/4			130	180	245	320	370	430	480
7/8			110	155	210	270	310	365	405
1			95	135	180	235	270	315	350

Allowable stress = 1,300 bar. Burst pressures = these pressures x 4.

TABLE 2 Carbon Steel (ASTM A-179 or equivalent)
Maximum allowable working pressures in bars for temperatures between -29°C and 38°C

Wall Thickness in Inches									
OD OF TUBE	.020	.028	.035	.049	.065	.083	.095	.109	.118
1/8	400	585	740						
3/16	255	370	480	690	910				
1/4		270	345	505	685				
5/16		210	270	395	540				
3/8			220	320	440	580			
1/2			160	230	320	420	490		
5/8		130	185	250	320	380			
3/4		105	150	205	265	310	360		
7/8			90	130	175	225	260	305	
1			80	110	150	195	225	260	290

Allowable stress = 1,100 bar. Burst pressures = these pressures x 3.

TABLE 3 Copper Tubes (ASTM B-75 or equivalent)
Maximum allowable working pressures in bars for temperatures between -29°C and 38°C

Wall Thickness in Inches									
OD OF TUBE	.020	.028	.035	.049	.065	.083	.095	.109	.118
1/8	225	260	285						
3/16	140	165	185	265					
1/4	105	120	130	195	265				
5/16		95	105	150	210				
3/8		80	85	125	170	220			
1/2			60	90	120	160			
5/8			50	70	95	125	145		
3/4			40	60	80	100	120	140	
7/8			35	50	65	85	100	115	
1			30	40	60	75	85	100	110

Allowable stress = 420 bar. Burst pressures = these pressures x 5.

TUBE COMPRESSION COUPLING SERVICE PRESSURES

TABLE 4 Copper Annealed Seamless (ASTM B-75 or equivalent)
Maximum allowable working pressures in bars for temperatures between -20°C and 30°C

Wall Thickness in mm								
OD OF TUBE	.7	.8	1.0	1.2	1.5	1.6	1.8	2.0
3	230	266						
6	106	124	159	195	248	293		
8		90	115	141	179	195		
10		71	90	110	141	152	173	195
12		58	74	90	115	124	141	159

Allowable stress = 413.8 bar. Burst pressures = these pressures x 5.

TABLE 5 304 and 316 Stainless Steel (Annealed Seamless)(ASTM A-269 or equivalent)
Maximum allowable working pressures in bars for temperatures between -29°C and 38°C

Wall Thickness in mm				
OD OF TUBE	.7	.8	1.0	1.2
4	276	690		
6	207	517		
8	172	413		
10	137	310	517	
12	103	248	379	483

Allowable stress = 1290 bar. Burst pressures = these pressures x 4.

TABLE 6 Factors to determine pressure ratings at elevated temperatures.

Factors					
°C	ALUMINIUM ASTM B210 (6061 - T6)	STEEL ASTM A179	COPPER ASTM B75	304 SS ASTM A269	316 SS ASTM A269
93	.87	.96	.97	.89	.99
204	.40	.87	.45	.73	.94
316		.79		.62	.92
427		.60		.53	.90
538		.18		.47	.75
649				.24	.35
760				.07	.14
871					.06
982					.05

To determine allowable pressure at elevated temperatures:
multiply allowable working pressure from Tables 1 - 5 by factor shown in Table 6.

Example:

At 90°C multiply the maximum pressure given in the tables 1 - 5 by the factor given in the table above.
eg. for a 316 SS tube 1/4" diameter 1.25mm wall thickness 650°C service temperature, the maximum allowable working pressure would be 605 x 0.35 = 211.75 bar.

Note:

All the values shown in the tables are for reference only and are based on information given in standards. Safelok are not responsible for the accuracy of information presented in these tables.

TUBE COMPRESSION COUPLING CONVERSION DATA

Imperial Tube Dimensions	
INCHES	MM
1/16	1.588
1/8	3.175
3/16	4.763
1/4	6.350
5/16	7.938
3/8	9.525
1/2	12.700
5/8	15.875
3/4	19.050
7/8	22.225

Temperature Conversion Table	
°C	°F
-200	-328
-180	-292
-160	-256
-140	-220
-120	-184
-100	-148
-80	-112
-60	-76
-40	-40
-20	-4
0	32
20	68
40	104
60	140
80	176
100	212
120	248
140	284
160	320
180	356
200	392
220	428
240	464
260	500
280	536
300	572
320	608
340	644
360	680
380	716
400	752
420	788
440	824
460	860
480	896
500	932
520	968
540	1004
560	1040
580	1076
600	1112
620	1148
640	1184
660	1220
680	1256
700	1292
720	1328
740	1364
760	1400
780	1436
800	1472

Decimal Equivalents	
8ths	Decimal
1/8	.125
1/4	.250
3/8	.375
1/2	.500
5/8	.625
3/4	.750
7/8	.875
16ths	Decimal
1/16	.0625
3/16	.1875
5/16	.3125
7/16	.4375
9/16	.5625
11/16	.6875
13/16	.8125
15/16	.9375
32nds	Decimal
1/32	.03125
3/32	.09375
5/32	.15625
7/32	.21875
9/32	.28125
11/32	.34375
13/32	.40625
15/32	.46875
17/32	.53125
19/32	.59375
21/32	.65625
23/32	.71875
25/32	.78125
27/32	.84375
29/32	.90625
31/32	.96875

Decimal Equivalents	
64ths	Decimal
1/64	.015625
3/64	.046875
5/64	.078125
7/64	.109375
9/64	.140625
11/64	.171875
13/64	.203125
15/64	.234375
17/64	.265625
19/64	.296875
21/64	.328125
23/64	.359375
25/64	.390625
27/64	.421875
29/64	.453125
31/64	.484375
33/64	.515625
35/64	.546875
37/64	.578125
39/64	.609375
41/64	.640625
43/64	.671875
45/64	.703125
47/64	.734375
49/64	.765625
51/64	.796875
53/64	.828125
55/64	.859375
57/64	.890625
59/64	.921875
61/64	.953125
63/64	.984375

SS Pipe Dimensions ANSI B36-10	
NOMINAL PIPE SIZE	OUTSIDE DIAMETER (INCHES)
1/8	0.405
1/4	0.540
3/8	0.675
1/2	0.840
3/4	1.050
1	1.315

mm to Inch Equivalent			
MM	INCH	MM	INCH
1	.039	14	.551
2	.079	15	.590
3	.118	16	.630
4	.157	17	.669
5	.197	18	.709
6	.236	19	.748
7	.276	20	.787
8	.315	21	.827
9	.354	22	.866
10	.394	23	.905
11	.433	24	.944
12	.472	25	.984
13	.512	25.4	1.0

Temperature conversion formula:
 °C = 5/9 (°F-32)
 °F = 9/5 °C+32

TUBE COMPRESSION COUPLING CONVERSION DATA

Flow Rate

FROM / TO	LIT / SEC	GAL / MIN	FT ³ / SEC	FT ³ / MIN	BBL / HR	BBL / DAY
lit / sec	1	15.85	0.03532	2.119	22.66	543.8
gal / min	0.06309	1	0.00223	0.1337	1.429	34.30
ft ³ / sec	28.32	448.8	1	60	641.1	1.54 x 10 ⁴
ft ³ / min	0.4719	7.481	0.01667	1	10.69	256.5
bbl / hr	0.04415	0.6997	0.00156	0.09359	1	24
bbl / day	0.00184	0.02917	6.50 x 10 ⁻⁵	0.00390	0.04167	1

bbl refers to bbl oil 42 gallons

Area

FROM / TO	CM ²	M ²	KM ²	IN ²	FT ²	MILE ²
cm ²	1	0.0001	1 x 10 ⁻¹⁰	0.1550	0.00108	3.86 x 10 ⁻¹¹
m ²	1 x 10 ⁴	1	1 x 10 ⁶	1550	10.76	3.86 x 10 ⁻⁷
km ²	1 x 10 ¹⁰	1 x 10 ⁶	1	1.55 x 10 ⁹	1.08 x 10 ⁷	0.3861
in ²	6.452	6.45 x 10 ⁻⁴	6.45 x 10 ⁻¹⁰	1	0.00694	2.49 x 10 ⁻¹⁰
ft ²	929.0	0.09290	9.29 x 10 ⁻⁸	144	1	3.59 x 10 ⁻⁸
mile ²	2.59 x 10 ¹⁰	2.59 x 10 ⁶	2.590	4.01 x 10 ⁹	2.79 x 10 ⁷	1

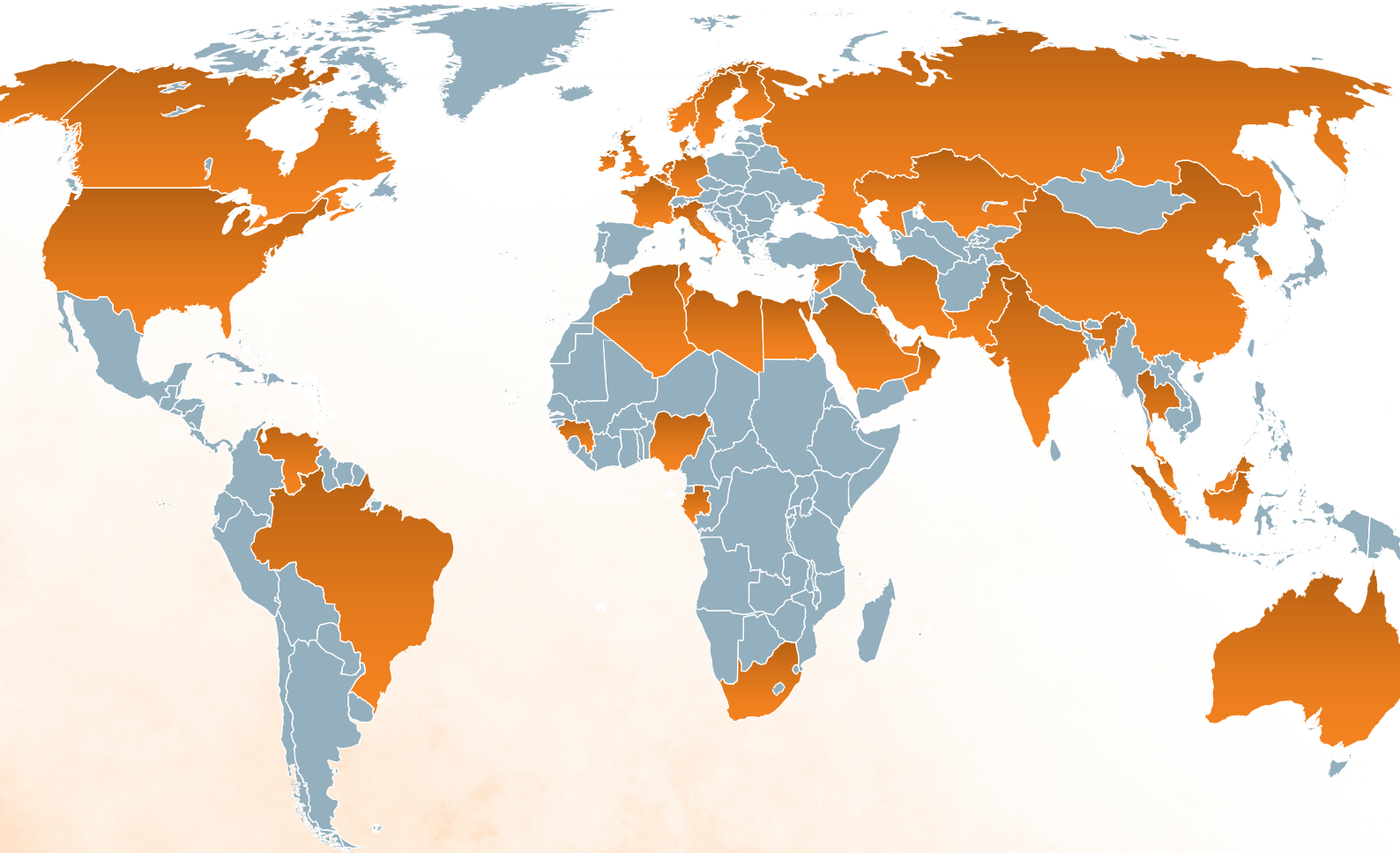
Pressure

FROM / TO	MM / Hg	IN / Hg	IN / H ₂ O	FT / H ₂ O	ATM	LB / IN ²	KG / CM ²	kPa
mm / Hg	1	0.03937	0.5353	0.04460	0.00132	0.01934	0.00136	0028
in / Hg	25.40	1	13.60	1.133	0.003342	0.4912	0.03453	0712
in / H ₂ O	1.868	0.07355	1	0.08333	0.00246	0.03613	0.00254	0052
ft / H ₂ O	22.42	0.8826	12	1	0.02950	0.4335	0.03048	0629
atm	760	29.92	406.8	33.90	1	14.70	1.033	2.139
lb / in ²	51.71	2.036	27.67	2.307	0.06805	1	0.07031	140
kg / cm ²	735.6	28.96	393.7	32.81	0.9678	14.22	1	2.064
kPa	356.28	14.03	190.65	15.90	469	6.89	484	1

1 Bar = 1 x 10⁴ dynes / cm² = 0.98692 atm = 14.5 psi = 100 kPa = 0.1 MPa
1.0 psi = 6.9 kPa

Volume

FROM / TO	CM ³	LITRE	M ³	IN ³	FT ³	YD ³	FL OZ	FL PT	FL QT	GAL	GAL (Br)	BBL (Oil)	BBL (Liq)
cm ³	1	0.001	1 x 10 ⁻⁶	0.06102	3.53 x 10 ⁻⁵	1.31 x 10 ⁻⁶	0.03381	0.00211	0.00106	2.64 x 10 ⁻⁴	2.20 x 10 ⁻⁴	6.29 x 10 ⁻⁶	8.39 x 10 ⁻⁶
litre	1000	1	0.001	61.02	0.03532	0.00131	33.81	2.113	1.057	0.2642	0.2200	0.00629	0.00839
m ³	1 x 10 ⁶	1000	1	6.10 x 10 ⁴	35.31	1.308	3.38 x 10 ⁴	2113	1057	264.2	220.0	6.290	8.386
in ³	16.39	0.01639	1.64 x 10 ⁻⁵	1	5.79 x 10 ⁻⁴	2.14 x 10 ⁻⁵	0.5541	0.03463	0.01732	0.00433	0.00360	1.03 x 10 ⁻⁴	1.37 x 10 ⁻⁴
ft ³	2.83 x 10 ⁴	28.32	0.02832	1728	1	0.03704	957.5	59.84	29.92	7.481	6.229	0.1781	0.2375
yd ³	7.65 x 10 ⁵	764.5	0.7646	4.67 x 10 ⁴	27	1	2.59 x 10 ⁴	1616	807.9	202.0	168.2	4.809	6.412
fl oz	29.57	0.02957	2.96 x 10 ⁻⁵	1.805	0.00104	3.87 x 10 ⁻⁵	1	0.06250	0.03125	0.00781	0.00651	1.86 x 10 ⁻⁴	2.48 x 10 ⁻⁴
fl pt	473.2	0.4732	4.73 x 10 ⁻⁴	28.88	0.01671	6.19 x 10 ⁻⁴	16	1	0.5000	0.1250	0.1041	0.00298	0.00397
fl qt	946.4	0.9463	9.46 x 10 ⁻⁴	57.75	0.03342	0.00124	32	2	1	0.2500	0.2082	0.00595	0.00794
gal	3785	3.785	0.00379	231.0	0.1337	0.00495	128	8	4	1	0.8327	0.02381	0.03175
gal (Br)	4546	4.546	0.00455	277.4	0.1605	0.00595	153.7	9.608	4.804	1.201	1	0.02859	0.03813
bbl (oil)	1.59 x 10 ⁵	159.0	0.1590	9702	5.615	0.2079	5376	336	168	42	34.97	1	1.333
bbl (liq)	1.19 x 10 ⁵	119.2	0.1192	7299	4.211	0.1560	4032	252	126	31.5	26.23	0.7500	1



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