

Compression Fittings 36 Series Metric

- Wide range of types and sizes
- Rugged and durable
- Suitable for use under extreme conditions of temperature and pressure
- Leakage free tube sealing
- Suitable for metallic and nylon tubing
- Thread adaptor not required - machining profile available
- Now available in single part number format



Technical features

Medium:

Compressed air or any fluids compatible with the materials/ tubing listed

Operating pressure:

The maximum working pressure is limited by the type of tubing being used.

Tube material – standard duty half hard Copper (typical values):
4mm dia. up to 193 bar
28mm dia. up to 62 bar

Tube material – Nylon
4mm up to 28 bar
28mm up to 15 bar

Ambient temperature:

The maximum working temperature is limited by the type of tubing being used.

Tube material – standard duty half hard Copper (typical values):
-200 ... +200°C
Note: safe working temperature -200 ... +50°C (above +50°C the max. pressure begins to reduce, check specification with copper tube supplier)

Tube material – Nylon
-40 ... 20°C
Note: temperatures up to +80°C are possible with reduced max. pressure (consult tube data sheet).

Tube sizes:

4, 5, 6, 8, 10, 12, 16, 22, 28mm O/D

Thread types:

Parallel BSP - ISO 228
Taper BSP - ISO 7
Taper NPTF - ASME B1.20.1

Thread sizes:

1/8" ... 3/4"

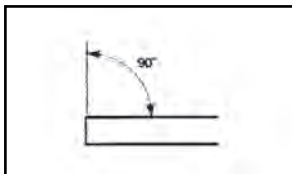
Tube types:

Nylon 11 or 12 and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS5409: Part 1 1976
Copper, annealed and half-hard to BS EN 12449:2016.
Double wall brazed steel.

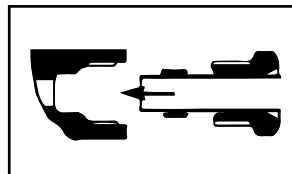
Materials:

Tubing nut, sleeve & body manufactured from bar: brass to BS EN 12164:2011
Body manufactured from stamping: brass to BS EN 12165:2016

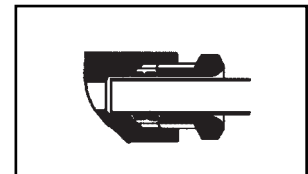
Method of Assembly



1. Ensure that the tube is cut square and is free from fraze.



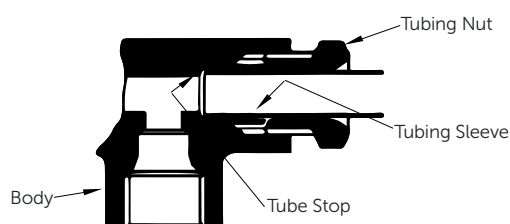
2. Place the tubing nut and sleeve on the tube and push the tube into the fitting until it bottoms on the tube stop.



3. Holding the tube firmly in contact with the tube stop screw the tubing nut down finger tight and then tighten a further 1 to 1 3/4 full turns. Slacken off the assembly and then pinch down again.

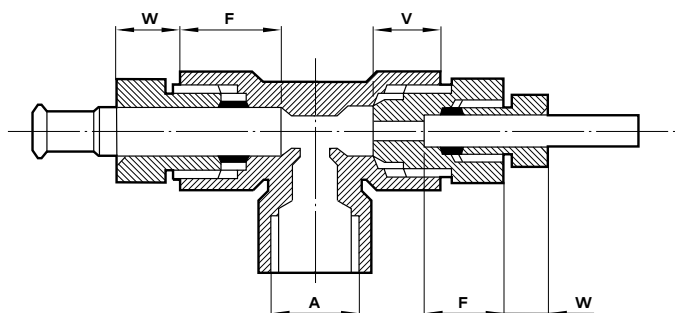
The method of preparation and assembly described will ensure leak-proof joints over a wide pressure range, depending upon the size and type of tubing being used. Failure to follow this guide, or over-tightening at any joint, will only lead to damage of the fittings or an unsatisfactory seal.

Components



Typical Dimensions

Hose stem to tube with reducing connector



O/D Tube	A thread details	F	V	W
4	M8 x 1,0	10,5	8,3	6
5	M10 x 1,0	12	9,5	6,5
6	M11 x 1,0	12	9,4	7
8	M13 x 1,0	15	11,7	8
10	M15 x 1,0	16,5	12,7	8
12	M18 x 1,5	17	13,4	9
15	M22 x 1,5	18,5	16	10
16	M24 x 1,5	19	16,2	10,5
18	M26 x 1,5	20	17	10,5
22	M30 x 1,5	24,5	20,5	11
28	M38 x 1,5	30	25,8	12,5

A = outside diameter tube size and thread details.*

F = tube or stem length inside fitting.

V = nipped connector length inside fitting.

W = projection of tubing nut from compression joint.

All these dimensions are common to a particular tubing outside diameter size.

Refer to later pages in this section for details of individual coupling dimensions.

Dimensions V & W will vary with the torque applied so these dimensions are guidance only.

*Note: The 'O/D tube' sizes in the following tables refer to the Enots compression threads listed above.

Torque Figures

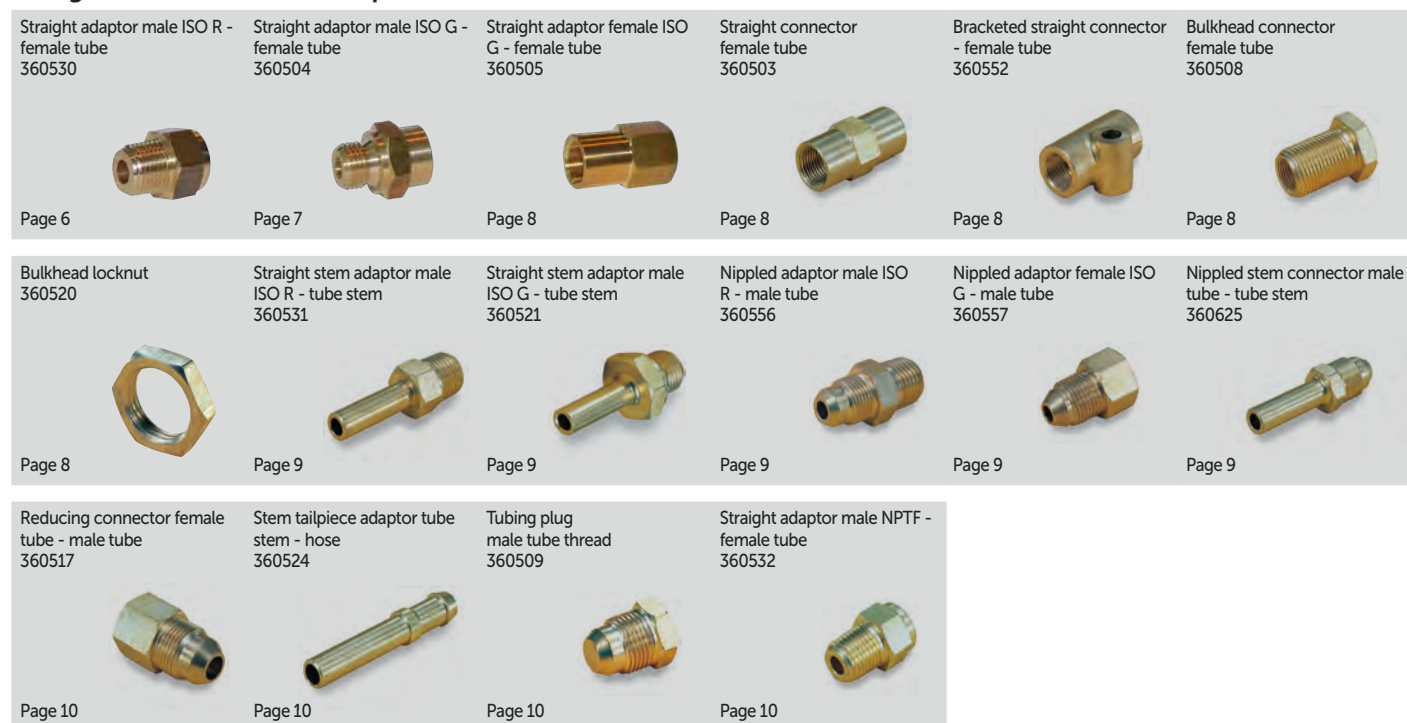
O/D Tube	Half hard copper	Annealed copper	Nylon 11 & 12	Double wall brazed steel
4	4,5 Nm	3,4 Nm	2,8 Nm	5,7 Nm
5	6,8 Nm	5,7 Nm	5,7 Nm	-
6	9,0 Nm	7,9 Nm	5,7 Nm	10,2 Nm
8	11,3 Nm	7,9 Nm	5,7 Nm	12,4 Nm
10	21,5 Nm	18,1 Nm	13,6 Nm	21,5 Nm
12	24,9 Nm	22,6 Nm	15,8 Nm	27,1 Nm
16	46,0 Nm	31,0 Nm	26,0 Nm	-
22	79,0 Nm	68,0 Nm	46,0 Nm	-
28	76,0 Nm	68,0 Nm	96,0 Nm	-

Metric - Recommended torque using 360501** series tubing sleeves

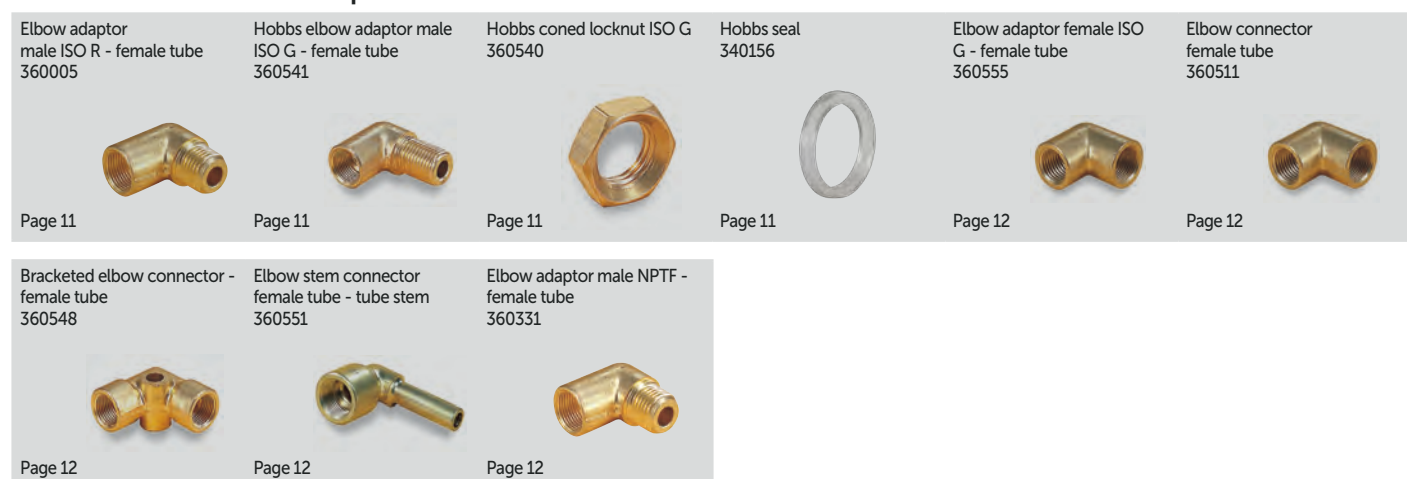
Tubing nuts and tubing sleeves



Straight Connectors and Adaptors



Elbow Connectors and Adaptors



Tee Connectors and Adaptors

Tee connector
female tube
360514



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Bracketed tee connector
female tube
360549



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Stem tee connector female
tube - tube stem
360550



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Side stem tee connector
female tube - tube stem
360511



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90° stem tee connector
female tube - tube stem
360631



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Accessories

Folded copper washer
480213



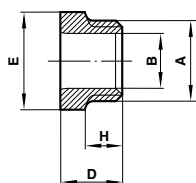
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Bonded washer
480215



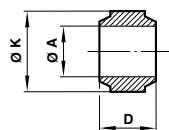
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Tubing Nut 360500**



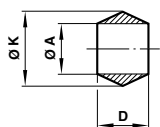
B O/D tube	A thread	D	E A/F	H	Model
4	M8 x 1.0	9.5	8	6.5	36050002
5	M10 x 1.0	10	10	6.5	36050003
6	M11 x 1.0	10.5	13	6.5	36050004
8	M13 x 1.0	12.1	13	7.6	36050005
10	M15 x 1.0	13.3	17	8.3	36050006
12	M18 x 1.5	15.1	19	8.7	36050007
16	M24 x 1.5	17.1	24	10.1	36050008
22	M30 x 1.5	21.5	30	14	36050010
28	M38 x 1.5	24.5	41	15.5	36050012

Universal Tubing Sleeve Suitable for nylon and metallic tubing 360501**



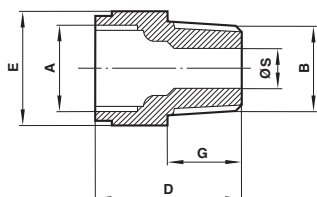
A O/D tube	D	K	Model
4	4.2	6.4	36050102
5	5.2	7.5	36050103
6	5.5	8.5	36050104
8	6.3	10.5	36050105
10	7	13	36050106
12	7.7	15.5	36050107
16	9	20	36050108
22	10.5	26.5	36050110
28	13.2	33	36050112

Tubing Sleeve Suitable for metallic tubing only 360502**



A O/D tube	D	K	Model
4	4.6	5.7	36050202
6	5.5	8	36050204
8	6.3	10.3	36050205
10	7.5	12.6	36050206
12	7.5	14.9	36050207

Straight Male Adaptor Female O/D tube to male taper ISO R thread 360530**



A thread for O/D tube	B thread	D	E A/F	G	S	Model
4	R1/8	18.5	13	9.5	2.8	36053002
5	R1/8	20	13	9.5	3.4	36053003
6	R1/8	20	14	9.5	4	36053004
8	R1/8	26.5	17	9.5	4.7	36053005
10	R1/8	28	19	9.5	4.7	36053006
4	R1/4	18	14	11.11	2.8	36053008
5	R1/4	21.6	14	11.11	3.4	36053009
6	R1/4	21.6	14	11.11	4	36053010
8	R1/4	23	17	11.11	6	36053011
10	R1/4	30	19	11.11	7	36053012
12	R1/4	31.1	22	11.11	6.4	36053013
8	R3/8	21	19	12.7	6	36053019
10	R3/8	26	19	12.7	8	36053020
12	R3/8	29	22	12.7	9.6	36053021
8	R1/2	25	22	15.9	6	36053028
10	R1/2	27	22	15.9	8	36053029
12	R1/2	30	22	15.9	10	36053030
16	R1/2	38.5	30	15.9	13.6	36053031
12	R3/4	33	30	19.1	10	36053044
16	R3/4	35	30	19.1	13.6	36053045

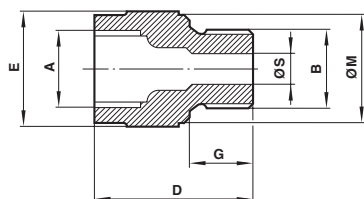
Straight Male Adaptor Female O/D tube to male taper ISO R thread – kit of parts 18125****



O/D tube	Thread	Adaptor	Tubing sleeve	Tubing nut	Model
4	R1/8	36053002	36050102	36050002	181250418
6	R1/8	36053004	36050104	36050004	181250618
8	R1/8	36053005	36050105	36050005	181250818
4	R1/4	36053008	36050102	36050002	181250428
6	R1/4	36053010	36050104	36050004	181250628
8	R1/4	36053011	36050105	36050005	181250828
10	R1/4	36053012	36050106	36050006	181251028
10	R3/8	36053020	36050106	36050006	181251038
12	R3/8	36053021	36050107	36050007	181251238
12	R1/2	36053030	36050107	36050007	181251248

Note: Minimum order quantity of 10 pieces sizes 4mm to 8mm tube, 1/8" and 1/4" thread

Straight Male Adaptor Female O/D tube to male parallel ISO G thread 360504**



A thread for O/D tube	B thread	D	E A/F	G	M	S	Model
4	G1/8	15	13	7.4	13	2.8	36050402
6	G1/8	21	17	7.4	14	4	36050404
8	G1/8	25	17	7.4	14	5	36050405
6	G1/4	21	19	10	18	4	36050410
8	G1/4	25	19	10	18	6	36050411
10	G1/4	30	19	10	18	7	36050412
12	G1/4	30	22	10	18	7	36050413
6	G3/8	22	22	11.4	22	4	36050418
8	G3/8	23	24	11.4	22	6	36050419
10	G3/8	24	24	11.4	22	7.6	36050420
12	G3/8	29	24	11.4	22	9.6	36050421
8	G1/2	25	27	15	26	6	36050428
10	G1/2	25	27	15	26	7.6	36050429
12	G1/2	27	27	15	26	9.6	36050430
16	G1/2	36	27	15	26	13.6	36050431
16	G3/4	32	36	16.3	32	13.6	36050445
22	G3/4	43	36	16.3	32	19.0	36050447
22	G1	42	41	19.1	39	19.0	36050460

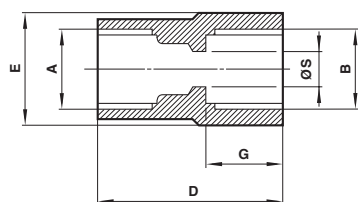
Straight Male Adaptor Female O/D tube to male parallel ISO G thread – kit of parts 18225****



O/D tube	Thread	Adaptor	Tubing sleeve	Tubing nut	Model
6	G1/8	36050404	36050104	36050004	182250618
8	G1/8	36050405	36050105	36050005	182250818
6	G1/4	36050410	36050104	36050004	182250628
8	G1/4	36050411	36050105	36050005	182250828

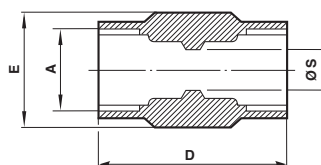
Note: Minimum order quantity of 10 pieces sizes 4mm to 8mm tube, 1/8" and 1/4" thread

Straight Adaptor Female O/D tube to female parallel ISO G thread 360505**



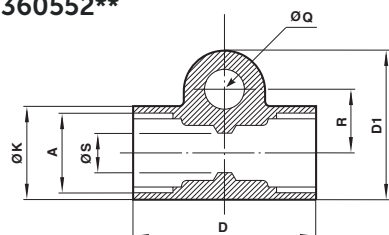
A thread for O/D tube	B thread	D	E A/F	G	S	Model
4	G1/8	23	13	11	2.8	36050502
6	G1/8	25	13	11	4	36050504
6	G1/4	27	17	12.7	4	36050510
8	G1/4	30	17	12.7	6	36050511
10	G1/4	31	19	12.7	7.6	36050512
10	G3/8	33	22	14.5	7.6	36050520
12	G3/8	33.5	22	14.5	9.6	36050521
12	G1/2	37	27	17.5	9.6	36050530

Straight Connector Female O/D tube 360503**



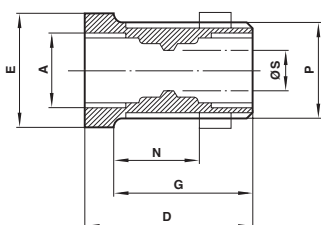
A thread for O/D tube	D	E A/F	S	Model
4	22	10	2.8	36050302
6	26	13	4	36050304
8	32	17	6	36050305
10	35	19	7.6	36050306
12	36	22	9.6	36050307

Bracketed Straight Connector Female O/D tube 360552**



A thread for O/D tube	D	D1	K	Q	R	S	Model
8	33.3	24.6	17.5	6.75 x 19.0	9.5	6.5	36055205

Bulkhead Connector Female O/D tube 360508**

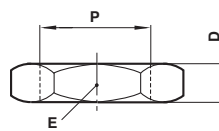


A thread for O/D tube	D	E A/F	G	N max. bulkhead	P thread	S	Bulkhead clearance drilling	Locknut number	Model
4	23	17	18	12	M12 x 1.0	2.8	13	36052001	36050802
6	26	19	20	13	M15 x 1.0	4	16	36052003	36050804
8	32	22	26	19	M18 x 1.5	6	19	36052005	36050805
10	35	24	29	20	M20 x 1.5	7.6	21	36052006	36050806
12	36	30	30	21	M24 x 1.5	9.6	25	36052007	36050807
16	41	36	35	25	M30 x 1.5	13.6	32	36052008	36050808

Minimum Bulkhead thickness 3,0

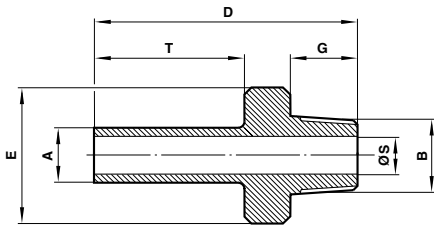
Locknuts should be ordered separately.

Bulkhead Locknut 360520**



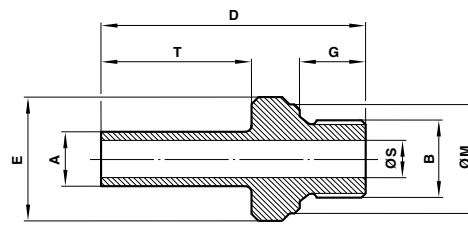
P thread	D	E A/F	Model
M12 x 1.0	5	17	36052001
M15 x 1.0	6	22	36052003
M18 x 1.5	6	24	36052005
M20 x 1.5	7	27	36052006
M24 x 1.5	7	30	36052007
M30 x 1.5	8	41	36052008

Straight Stem Adaptor O/D tube stem to male taper ISO R thread 360531**



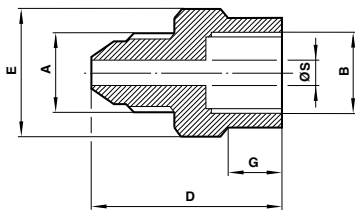
A O/D stem	B thread	D	E A/F	G	S	T	Model
6	R1/8	37	13	9.5	4	23	36053104
6	R1/4	42	14	11.1	4	23	36053110
8	R1/4	45	14	11.1	5	26	36053111
10	R1/4	47	14	11.1	7	28	36053112

Straight Stem Adaptor O/D tube stem to male parallel ISO G thread 360521**



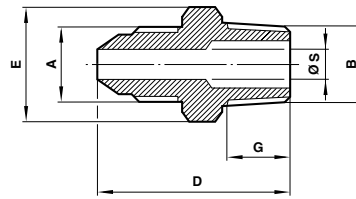
A O/D stem	B thread	D	E A/F	G	M	S	T	Model
8	G1/4	45	19	10	18	5	26	36052111
16	G1/2	61	27	15	26	12	35	36052131

Nippled Adaptor Male O/D tube to female parallel ISO G thread 360557**



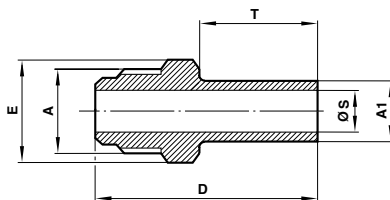
A thread for O/D tube	B thread	D	E A/F	G	S	Model
6	G1/8	24.5	13	7.5	4	36055704
8	G1/4	30	17	6	5.4	36055711
10	G1/4	31.5	17	6	7	36055712

Nippled Adaptor Male O/D tube to male taper ISO R thread 360556**



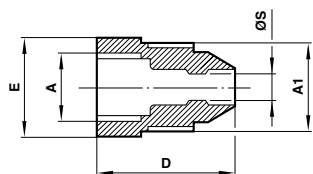
A thread for O/D tube	B thread	D	E A/F	G	S	Model
8	R1/8	30	14	9.5	5	36055605
6	R1/4	30	14	11.1	4	36055610
8	R1/4	32	14	11.1	5.4	36055611

Nippled Stem Connector Male O/D tube to O/D tube stem 360625**



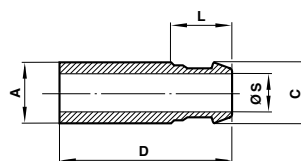
A1 O/D stem	A thread for O/D tube	D	E A/F	S	T	Model
8	8	45.5	13	5	26	36062505
10	10	49	17	7	28	36062506
12	12	53.5	19	9	30	36062507

Reducing Connector Female O/D tube to male O/D tube 360517**



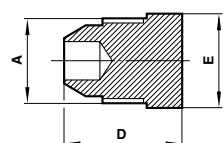
A thread for O/D tube	A thread for O/D tube	D	E A/F	S	Model
6	4	16	13	2.8	36051727
8	4	19.5	13	2.8	36051728
8	5	19.5	13	3.4	36051738
8	6	25	13	4	36051747
12	6	23.5	19	4	36051749
12	8	23.5	19	6	36051757
16	12	27	24	9.6	36051771

Stem Tailpiece Adaptor O/D tube stem to hose 360524**



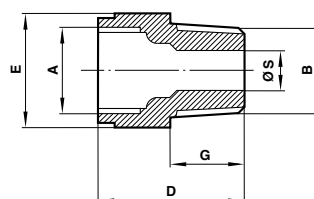
A O/D stem	C hose bore	D	L	S	Model
6	6.3	40.5	17.5	4.3	36052424
8	6.3	43.5	17.5	4.3	36052425
10	10	47	19	7.3	36052442
16	12.5	54.8	20	9.7	36052453

Tubing Plug Male O/D tube thread 360509**



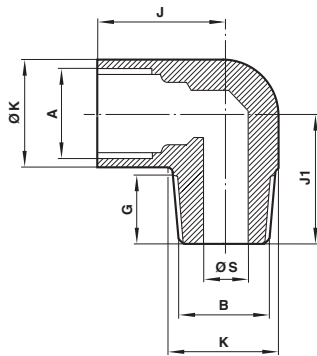
A thread for O/D tube	D	E A/F	Model
4	15.3	8	36050902
6	17	13	36050904
8	19.5	13	36050905
10	21	17	36050906
12	23.5	19	36050907
16	27	24	36050908

Straight Male Adaptor (NPTF) Female O/D tube to male NPTF thread 360532**



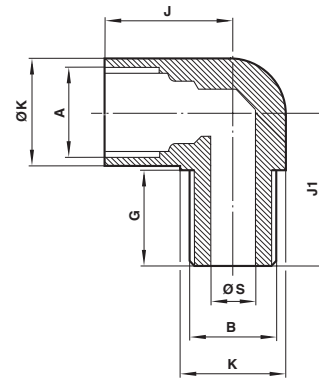
A thread for O/D tube	B thread NPTF	D	E A/F	G	S	Model
6	1/8"	20	14	9.5	4	36053204
6	1/4"	22.5	17	14.3	4	36053210

Male Elbow Adaptor Female O/D tube to male taper ISO R thread 360005**



A thread for O/D tube	B thread	G	J	J1	K	S	Model
4	R1/8	9.5	14.9	16.5	11.1	4.7	36000502
5	R1/8	9.5	16.5	17	12.7	4.7	36000503
6	R1/8	9.5	16.5	18.2	14.3	4.7	36000504
8	R1/8	9.5	20	20	15.9	4.7	36000505
4	R1/4	11.11	15.7	19.8	14.3	6.3	36000508
6	R1/4	11.11	17.2	19	14.3	6.3	36000510
8	R1/4	11.11	20.6	21	15.9	6.3	36000511
10	R1/4	11.11	21	23	20.6	6.3	36000512
12	R1/4	11.11	22.2	25	24.6	6.3	36000513
8	R3/8	12.7	21.8	24	17.4	9.6	36000519
10	R3/8	12.7	21.5	24	20.6	8	36000520
12	R3/8	12.7	24.5	26	24.6	9.6	36000521
10	R1/2	15.9	24.9	29.2	24.6	12.7	36000529
12	R1/2	15.9	25.4	33	28.6	12.7	36000530
16	R1/2	15.9	28	32	28.6	12.7	36000531
16	R3/4	19.0	29.0	34.5	28.6	17.5	36000545

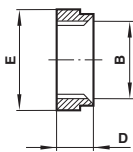
Hobbs Elbow Adaptor Female O/D tube to male parallel ISO R thread 360541**



A thread for O/D tube	B thread	G	J	J1	K	S	Model
8	G1/4	17.5	20.6	27	15.8	6.3	36054111
16	G1/2	23.0	28.0	38.0	28.6	12.7	36054131

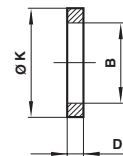
The design of a Hobbs fittings allows the fittings to be screwed into a parallel BSP tapping and accurately located for position in both height and direction before it is secured with the special coned locknut and polyurethane seal.

Hobbs Coned Locknut Female parallel ISO G thread 360540**



B thread	D	E A/F	Model
G1/8	7	17	36054001
G1/4	8.4	19	36054002
G3/8	9.6	24	36054003
G1/2	10.9	27	36054004

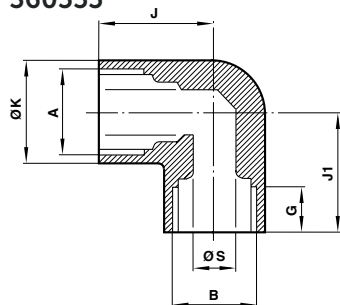
Hobbs Seal 340156**



B to seal thread	D	K	Model
G1/4	2.5	15.9	34015602
G3/8	2.5	20.7	34015603
G1/2	2.6	24.3	34015604

Female Elbow Adaptor

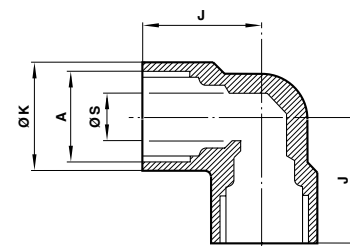
Female O/D tube to female parallel ISO R thread
360555**



A thread for O/D tube	B Thread	G	J	J1	K	S	Model
4	G1/8	7.4	14	12.5	12.7	2.8	36055502
6	G1/4	11	16	17.5	17.5	4	36055510
8	G1/4	11	20	18.5	17.5	6	36055511
10	G1/4	11	22	18.5	20.6	7.6	36055512
10	G3/8	11.4	21.5	22	20.6	7.6	36055520
12	G3/8	11.4	24.5	22	24.6	9.6	36055521
12	G1/2	15	24.5	26	24.6	9.6	36055530

Elbow Connector

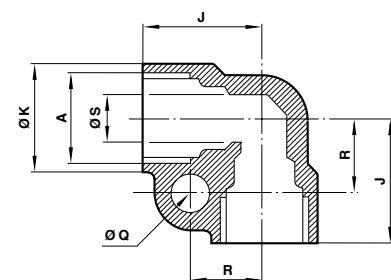
Female O/D tube to female O/O tube
360511**



A thread for O/D tube	J	K	S	Model
6	16	14.3	4	36051104
8	20	16	6	36051105
10	23	20	7.6	36051106
12	25	24	9.6	36051107

Bracketed Elbow Connector

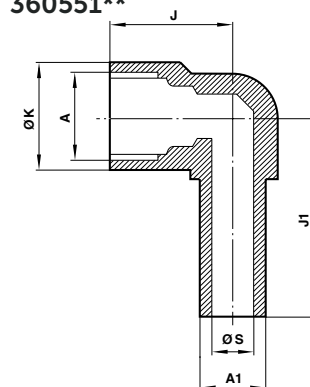
Female O/D tube to female O/D tube
360548**



A thread for O/D tube	J	K	Q	R	S	Model
6	21	16.7	6.75 x 19.0	7.8	4.5	36054804
8	26.2	16.7	6.75 x 19.0	7.8	6.5	36054805

Stem Elbow Connector

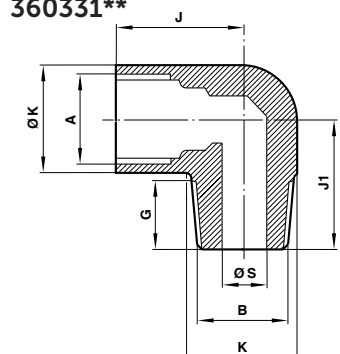
Female O/D tube to O/D tube stem
360551**



A thread for O/D tube	A1 O/D stem	J	J1	K	S	Model
6	6	19	30.6	14.3	4	36055104
8	8	23	34.9	17.5	5	36055105
10	10	23	41.3	23	7	36055106
12	12	24	43.5	23	9	36055107
16	16	30	53	30	12	36055108

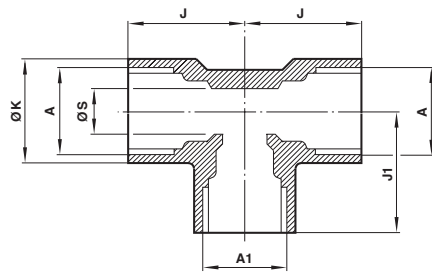
Male Elbow Adaptor

Female tube to male NPTF thread
360331**



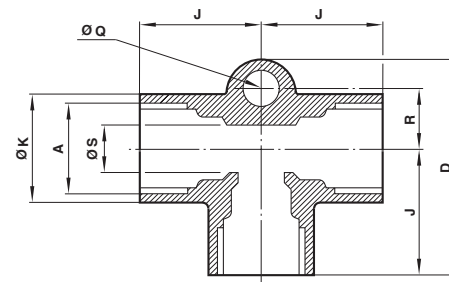
A thread for O/D tube	B NPTF thread	G	J	J1	K	S	Model
12	3/8"	14.3	24.5	28.6	24.6	9.6	36033121

Tee Connector Female O/D tube 360514**



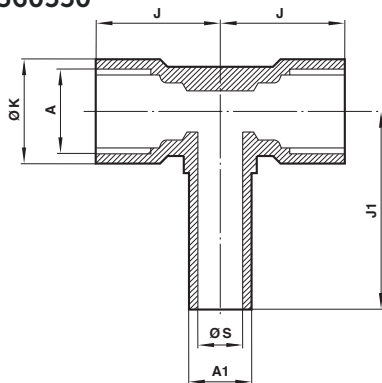
A thread for O/D tube	A1 thread for O/D tube	J	J1	K	S	Model
6	6	16	16	14.3	4	36051404
8	8	20	20	16	6	36051405
10	10	23	23	20	7.6	36051406
12	12	25	25	24	9.6	36051407

Bracketed Tee Connector Female O/D tube 360549**



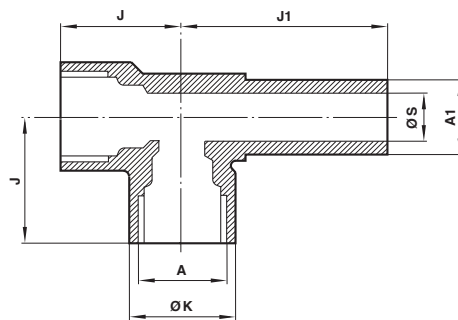
A thread for O/D tube	D	J	K	Q	R	S	Model
8	36.4	20.5	17.7	6.75 x 19.0	9.5	6.5	36054905

Stem Tee Connector Female O/D tube to O/D tube stem 360550**



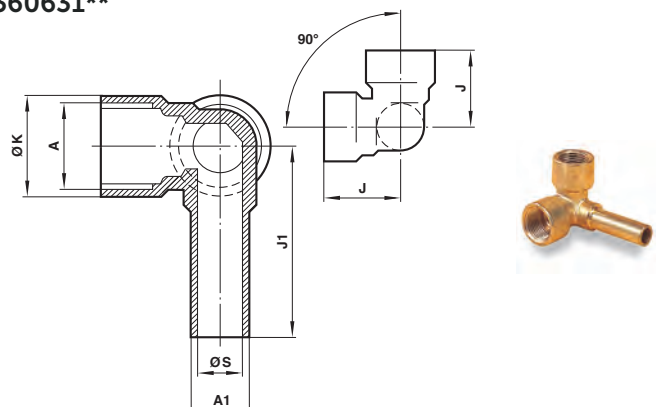
A thread for O/D tube	A O/D stem	J	J1	K	S	Model
8	8	18.5	34.9	17.5	5	36055005

Side Stem Tee Connector Female O/D tube to O/D tube stem 360511**



A thread for O/D tube	A1 O/D stem	J	J1	K	S	Model
6	6	19	30.6	14.3	4	36062604
8	8	23	34.9	17.4	5	36062605

90° Stem Tee Connector Female O/D tube to O/D tube stem 360631**



A thread for O/D tube	A1 O/D stem	J	J1	K	S	Model
6	6	19	33.5	14.3	4	36063104
8	8	23	38	17.5	5	36063105

Folded Copper Washer 480213**

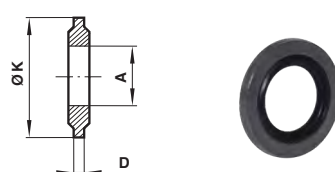


A for ISO G thread	D	K	Model
G1/8	1.8	13.5	48021301
G1/4	1.8	17.6	48021302
G3/8	1.8	20.9	48021303
G1/2	1.8	26.4	48021304
G3/4	1.8	32.4	48021306
G1	1.8	38.9	48021308

Operating Pressure: 20 Bar (max)

Temperature: -10°C to +80°C

Bonded Washer 480215**



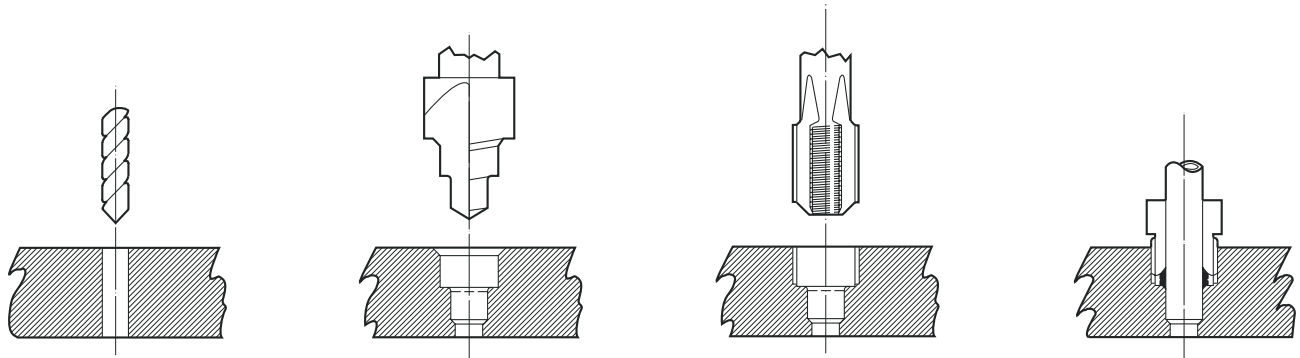
A for ISO G thread	D	K	Model
G1/8	2	15.9	48021501
G1/4	2	20.6	48021502
G3/8	2	23.8	48021503
G1/2	2	28.6	48021504
G3/4	2	34.9	48021506
G1	2.5	42.8	48021508

Operating Pressure: 128 Bar (max)

Temperature: -30°C to +110°C

Instructions For Machining

Where for some reason, such as saving overall space, it is desired to dispense with the male adaptor and fit a tube, complete with its associated nut and sleeve, direct into a casting, this may be done as illustrated below, by machining the correct form and thread thread.



1. Drill

2. Machine form

3. Tap thread

4. Assemble

Note: Machining details are available on request please contact IMI Norgren technical service for more information

We can advise on individual application issues but we cannot be held responsible for failures due to non-observance of the dimensions and tolerances which we lay down for these compression unions.

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under

»Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Norgren. Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.