

82A series

Aluminium (light weight) compression fittings Ø 6 ... 42 mm
Nominal pipe size, BSPP and BSPT thread

- For use in areas of vibration
- Can be remade without damage to tube
- Suitable for use on seam welded as well as seamless tube or pipe
- Thinner tube can be used; as thin as 0,8 mm wall thickness
- Lower torque requirement on the tube nut than fitting which bite into the tube
- Will cope with tube misalignment of ±4°
- Corrosion resistant AL2 alloy
- Approximately 65% lighter than brass or stainless steel fittings

Technical Data

Medium:
Compressed air, water (plus other media suitable for use with materials of construction)

Operating pressure:
Typically up to 15 bar; for applications above 15 bar on request

Ambient temperature:
-45 ... +150°C with HNBR o-ring (yellow)

Tube sizes:
6, 8, 10, 12, 14, 15, 18, 20, 22, 25, 28, 32, 35, 38, 42 mm

Thread sizes:
1/8", 1/4", 3/8", 1/2", 3/4", 1", 1 1/2" (BSPT and BSPP)

Tubing:
Designed for use with:
Copper tube to BS 2871
Stainless steel tube to AISI 304 and AISI 316
Nylon - PA12 (tube support required)

Testing & Approvals:
PED 97/23/EC
Shock & Vibration tested to EN 61373 Category 2 - (Bogie mounted)
Salt Spray tested to ISO 9227-06, data on request

Materials

Body & Nut:
AL2 Aluminium with PA20 anodic treatment to HB 175 hardness

Washer & Clampring:
Brass, white galvanised
o-ring: HNBR - colour coded yellow

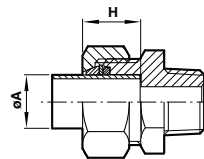


● Technical data - standard models

Recommended nut torque settings

Tube Ø mm	Recommended torque	Tube Ø mm	Recommended torque
6	20 Nm	22	55 Nm
8	20 Nm	25	75 Nm
10	20 Nm	28	95 Nm
12	25 Nm	30	135 Nm
14	30 Nm	32	150 Nm
15	30 Nm	35	170 Nm
16	35 Nm	38	280 Nm
18	45 Nm	42	290 Nm
20	55 Nm		

Torque settings based on railway applications up to 15 bar for use with stainless steel tube.

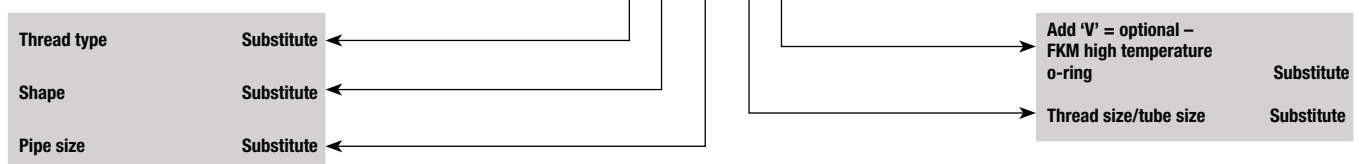


Tube stop position

Ø A	H	Ø A	H
6	16,0	22	19,5
8	17,0	25	21,0
10	18,5	28	22,5
12	18,0	30	23,0
14	18,0	32	23,5
15	18,5	35	23,5
16	20,5	38	27,0
18	19,5	42	26,5
20	19,5		

The information provided in this table are typical values as dimension H will vary slightly with torque applied to the nut. For fittings without tube stops such as straight connector and bulkheads the above tube insertion depths are also applicable.

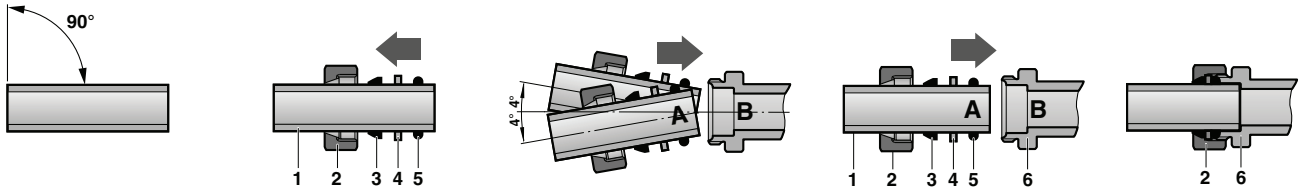
● Option selector



82A series

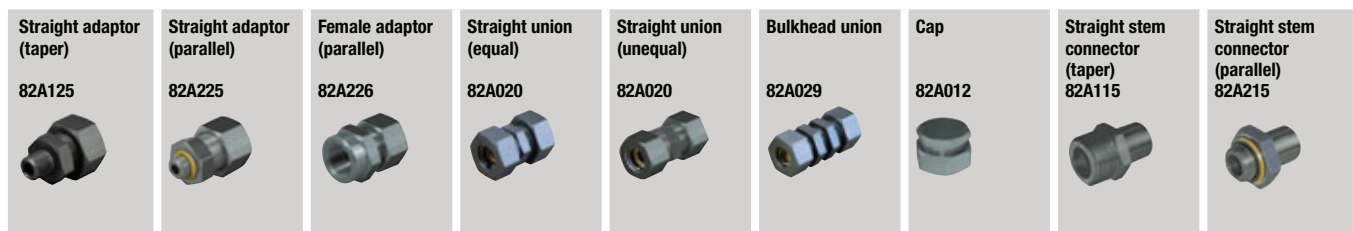
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● Method of assembly

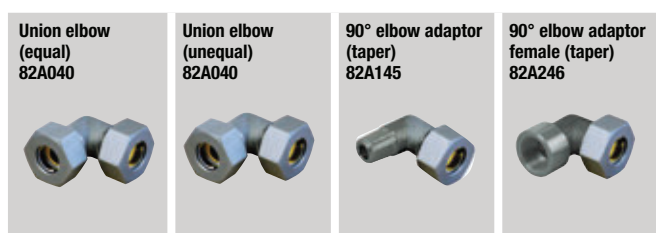


1. Ensure that the end of the tube is cut square and free from burrs.
2. Slide the nut (2) onto the pipe (1) from right to left. Slide the split ring (3) onto the pipe (1) from right to left keeping the smaller edge towards the nut (2). Slide the washer (4) onto the pipe (1) from right to left. Slide the o-ring (5) onto the pipe (1) from right to left. N.B. The pipe head must be deburred to ensure the o-ring is not damaged.
3. Before installing the pipe fittings, check that the pipes misalignment is not higher than $\pm 4^\circ$.
4. Move the pipe head (A) with all components assembled as shown towards the casing abutment (B). In pipe fittings without abutment (B), the pipe should be inserted as per the tube stop/abutment position listed below.
5. Move the four components from left to right and screw the nut (2) onto the pipe fitting casing (6).

● Straight adaptors and connectors



● Elbow connectors and adaptors



● Tee connectors and adaptors



● Accessories



83A series

Aluminium (light weight) compression fittings Ø 1/8 ... 2"
Nominal pipe size, BSPP and BSPT thread

- For use in areas of vibration
- Pre-assembled units
- No special assembly tools or heat required
- Can be remade without damage to tube
- Suitable for use on seam welded as well as seamless tube or pipe
- Thinner tube can be used; as thin as 0,03"
- (0,8 mm) wall thickness
- Lower torque requirement on the tube nut than fittings which bite into the tube
- Will cope with tube misalignment of ±4°
- Corrosion resistant AL2 alloy
- Approximately 65% lighter than brass or stainless steel fittings

Technical Data

Medium:
Compressed air, water (plus other media suitable for use with materials of construction)

Operating pressure:
Typically up to 15 bar
For applications above 15 bar on request

Ambient temperature:
-45 ... +150°C with HNBR 'o'-ring (yellow)

Tube sizes:
1/8", 1/4", 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2"

Thread sizes:
1/8", 1/4", 3/8", 1/2", 3/4", 1", 1 1/2" (BSPT and BSPP)

Tubing:
Designed for use with:
Copper tube to BS 2871
Nylon - PA12 (tube support required)
Stainless Steel tube to AISI 304 and AISI 316

Testing & approvals:
PED 97/23/EC
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Materials

Body & Nut:
AL2 Aluminium with PA20 anodic treatment to HB 175 hardness

Washer & clamping:
brass, white galvanized
'o'-ring: HNBR – colour coded yellow

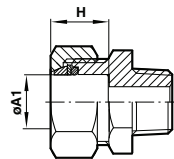


● Technical data - standard models

Recommended nut torque settings

Nominal pipe size	Recommended torque	Tube Ø mm	Recommended torque
1/8	20 Nm	1	150 Nm
1/4	30 Nm	1 1/4	300 Nm
3/8	40 Nm	1 1/2	310 Nm
1/2	45 Nm	2	320 Nm
3/4	90 Nm		

Torque settings based on railway applications up to 15 bar for use with stainless steel tube

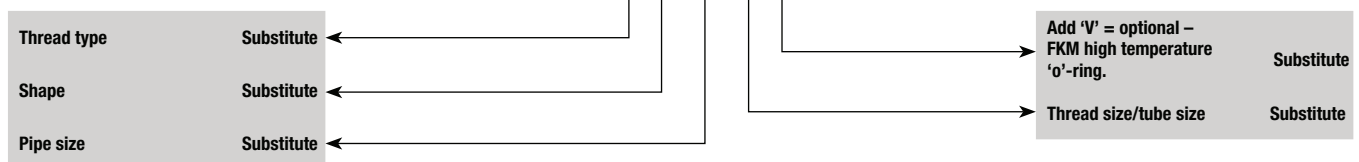


Tube stop position

Ø A	H	Ø A	H
1/8	0,405	10,3	18
1/4	0,540	13,7	18,5
3/8	0,675	17,1	20
1/2	0,840	21,3	20
3/4	1,050	26,7	21,5
1	1,315	33,4	22,5
1 1/4	1,660	42,2	27
1 1/2	1,900	48,3	25
2	2,375	60,3	35

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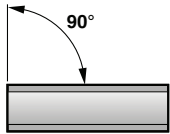
● Option selector



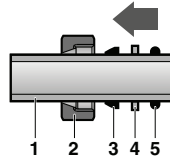
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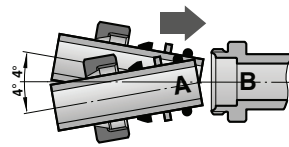
● Method of assembly



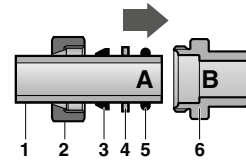
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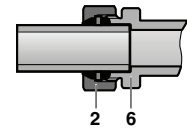
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3. Before installing the pipe fittings, check that the pipes misalignment is not higher than $\pm 4^\circ$.



4. Move the pipe head (A) with all components assembled as shown towards the casing abutment (B). In pipe fittings without abutment (B), the pipe should be inserted as per the tube stop/abutment position listed below.

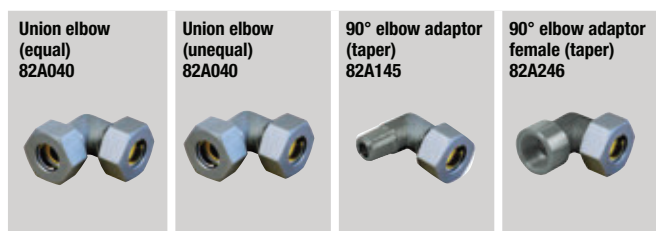


5. Move the four components from left to right and screw the nut (2) onto the pipe fitting casing (6).

● Straight adaptors and connectors



● Elbow connectors and adaptors



● Tee connectors and adaptors



● Accessories

