

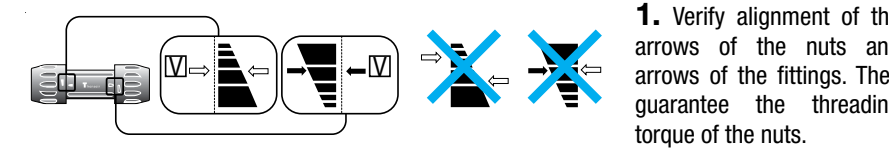
Ring Main Assembly

Ø16.5 / Ø25 / Ø40

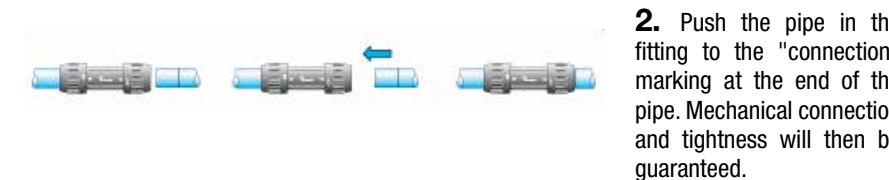
Tooling required for ring main assembly in Ø16.5, Ø25 or Ø40:

Transair®	Description
6698 03 01	PIPE CUTTER DIAM. 16.5 > DIAM. 76
6698 04 01	CHAMFER TOOL DIAM. 16.5 > DIAM. 40
6698 04 03	MARKING TOOL DIAM. 16.5 > DIAM. 40

Assembly steps for ring main assembly in Ø16.5, Ø25 or Ø40:



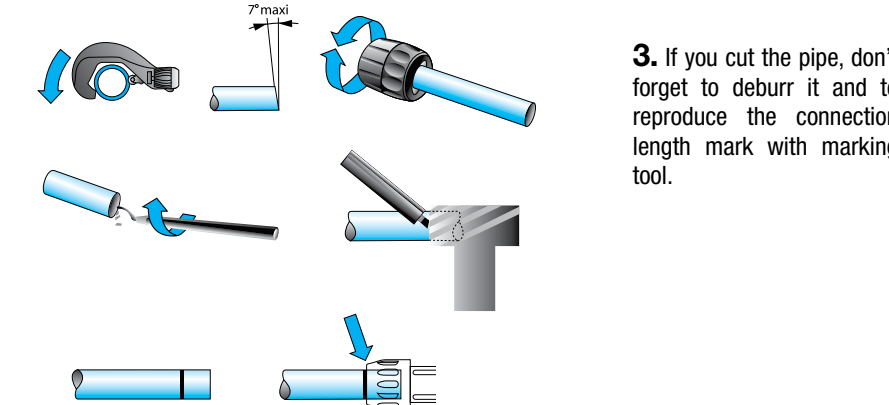
1. Verify alignment of the arrows of the fittings and the arrows of the nuts. They guarantee the threading torque of the nuts.



2. Push the pipe in the fitting to the "connection" marking at the end of the pipe. Mechanical connection and tightness will then be guaranteed.

Connection length for all pipe-to-pipe fitting are equal to:

- For 6602/6604/6606/4002 connectors:**
- 25 mm for Ø16.5
 - 27 mm for Ø25
 - 45 mm for Ø40
- For 6625 end cap:**
- 39 mm for Ø16.5 mm
 - 42 mm for Ø25 mm
 - 64 mm for Ø40 mm



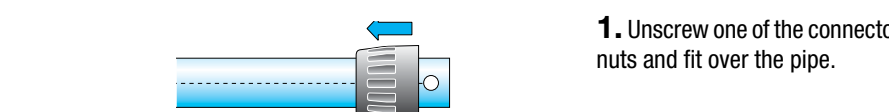
3. If you cut the pipe, don't forget to deburr it and to reproduce the connection length mark with marking tool.

Ø50 / Ø63

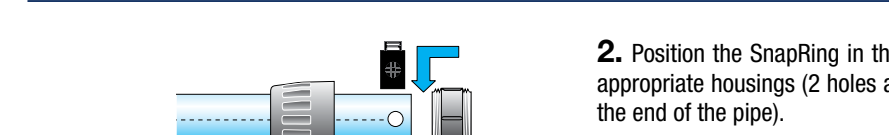
Tooling required for ring main assembly in Ø50 or Ø63:

Transair®	Description
6698 03 01	PIPE CUTTER DIAM. 16.5 > DIAM. 76
6698 01 03	DRILLING JIG FOR RIGID ALUMINIUM PIPE DIAM. 25 > DIAM. 63
6698 02 01	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 > DIAM. 63
6698 04 02	DEBURRING TOOL
6698 05 03	SET OF TIGHTENING SPANNERS DIAM. 50 AND DIAM. 63

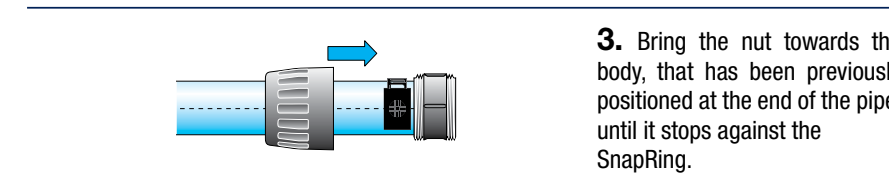
Assembly steps for ring main assembly in Ø50 or Ø63:



1. Unscrew one of the connector nuts and fit over the pipe.



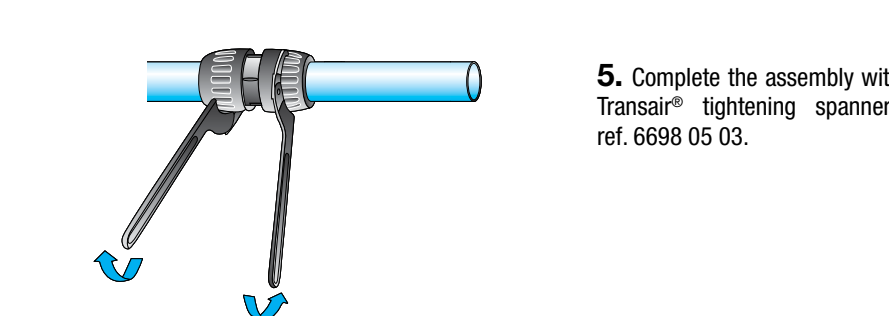
2. Position the SnapRing in the appropriate housings (2 holes at the end of the pipe).



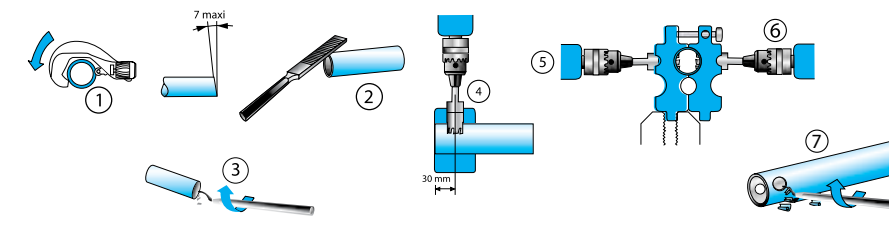
3. Bring the nut towards the body, that has been previously positioned at the end of the pipe, until it stops against the SnapRing.



4. Tighten the nut by hand.



5. Complete the assembly with Transair® tightening spanners ref. 6698 05 03.



1. Cutting the pipe :
- place the pipe in the pipe cutter
- position the blade on the pipe
- rotate the pipe cutter around the pipe while gently tightening the wheel.

2. Carefully chamfer the outer edges.

3. Also deburr the inner end of the pipe
4. Drill the two clamp holes using the drilling jig (6698 01 03). Loosen the jig, release the pipe, then deburr both holes. Ensure that all outer and inner surfaces are smooth and clear of swarf and potential sharp edges.

Ø76 / Ø100 / Ø168

Tooling required for ring main assembly in Ø76, Ø100 and Ø168:

Transair®	Description
6698 03 01	PIPE CUTTER DIAM. 16.5 > DIAM. 76
EW08 00 03	PIPE CUTTER DIAM. 100 > DIAM. 168
EW01 00 01	PORTABLE TOOL KIT 220 V
EW02 L1 00	JAWS SET FOR PORTABLE TOOL DIAM. 76
EW02 L3 00	JAWS SET FOR PORTABLE TOOL DIAM. 100
EW02 L8 00	JAWS SET FOR PORTABLE TOOL DIAM. 168
6698 04 02	DEBURRING TOOL

Assembly steps for ring main assembly in Ø76, Ø100 and Ø168:



1. Slip the cartridge over the end of the first pipe fully up to the shoulder.



2. Bring the second pipe to the cartridge and slide fully up to the shoulder.



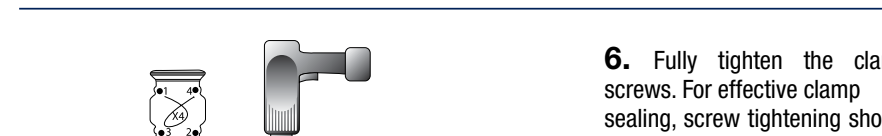
3. Position the clamp over the cartridge / pipe assembly.



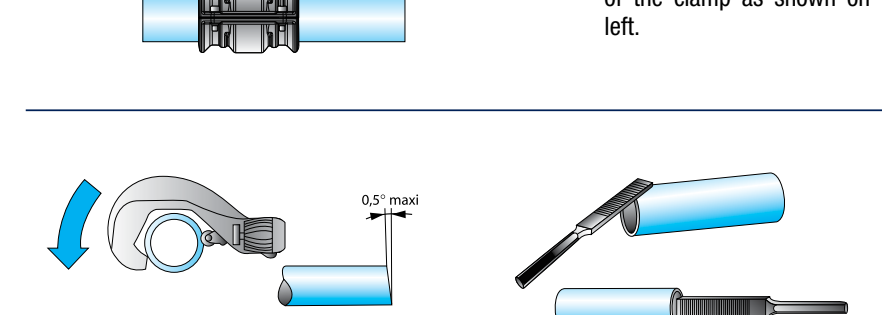
4. Hand tighten the pre-fitted screws with an Allen key.



5. Pull the pipes fully back towards the outside of the clamp.



6. Fully tighten the clamp screws. For effective clamp sealing, screw tightening should be performed on alternate sides of the clamp as shown on the left.



1. Cutting the pipe :
- place the pipe in the pipe cutter
- position the blade on the pipe
- rotate the pipe cutter around the pipe while gently tightening the wheel.

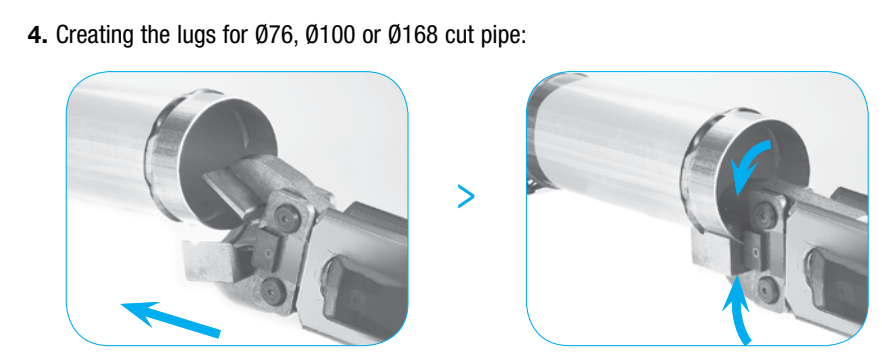
2. Carefully deburr and chamfer the outer and inner edges of the pipe with a file.



Open the retaining pin at the front of the machine by pressing the jaws release button*.

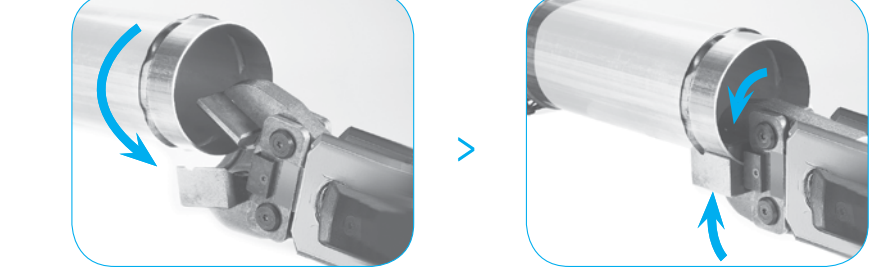
Place the jaws in the housing.

Lock in position by closing the retaining pin.



Manually open the jaws of the clamp and insert the aluminium pipe into the clamp as far as it will go.

Release the jaws. Press the trigger and crimp the tube until a "snap" sound is heard.



Re-open the two jaws to remove the pipe and rotate the pipe slightly.

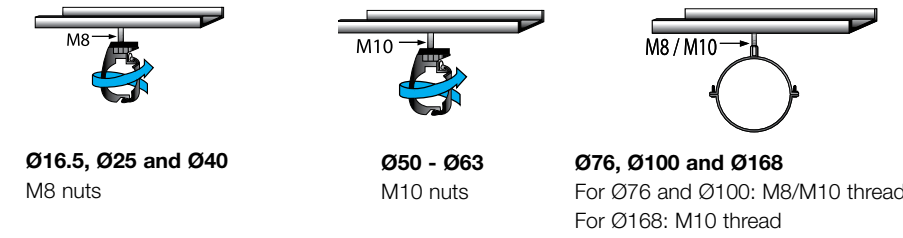
Renew the operation until the required minimum number of lugs for each diameter is achieved.

	Ø76	Ø100	Ø168
Min. Number of Lugs	6	7	10

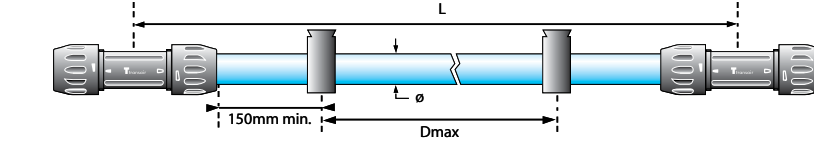
Important: do not overlap the lugs!

Fixture & Bending

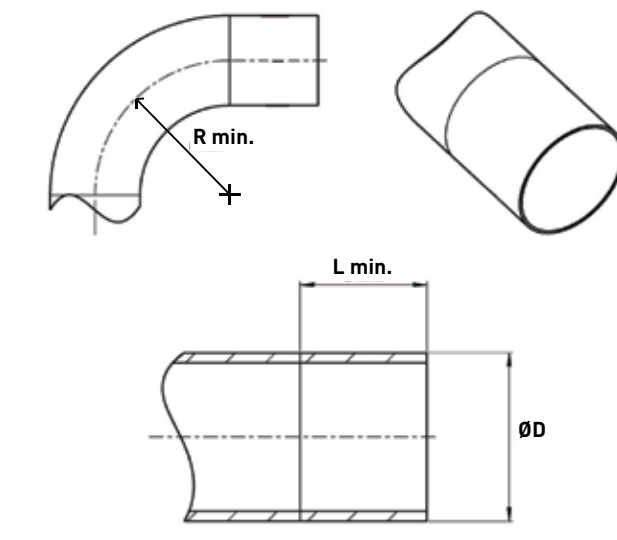
To ensure good system stability, we recommend the use of at least 2 clips per pipe. Transair® aluminium pipe should only be mounted using these clips. They should not be substituted by any other type of clip or fixing.



Transair® Fixing Clip for all Diameters



Pipes	Ø	Dmax (m)
6 m length	25 mm	3
6 m length	40 / 50 / 63 mm	4
6 m length	76 / 100 / 168 mm	5
3 m length	16.5 / 25 / 40 / 50 / 63 / 76 / 100 / 168 mm	2.5

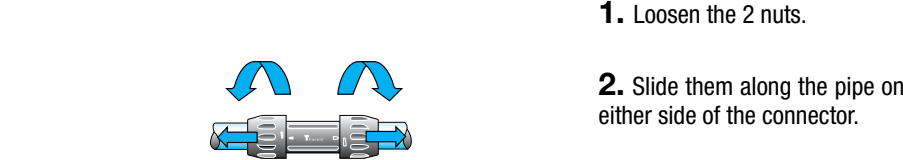


Transair®	R min. (mm)	L min. (mm)
Ø16.5	102	185
Ø25	154	185
Ø40	250	185
Ø50	300	185
Ø63	394	185
Ø76	317	185
Ø100	423	185
Ø168	700	185

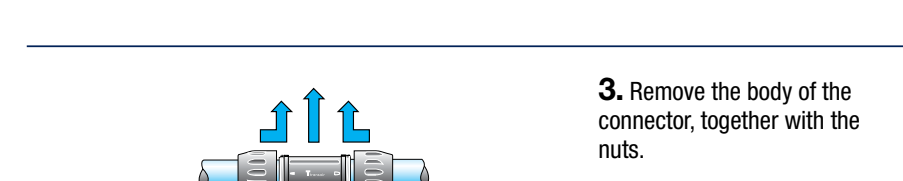
Network Modifications

Ø16.5 / Ø25 / Ø40

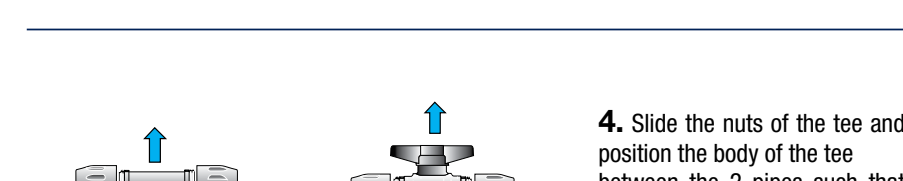
Replacing a straight union by a tee or a valve:



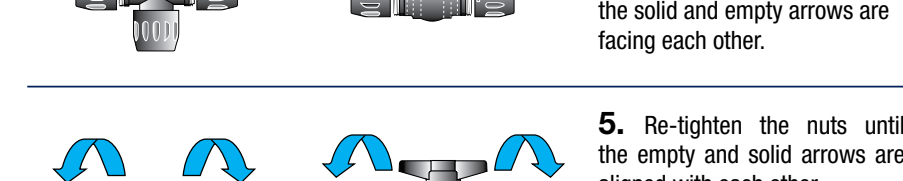
1. Loosen the 2 nuts.



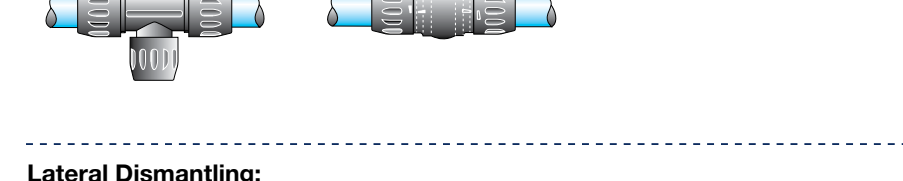
2. Slide them along the pipe on either side of the connector.



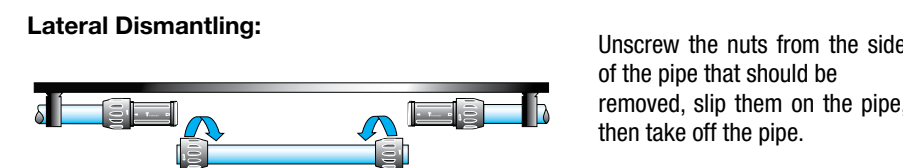
3. Remove the body of the connector, together with the nuts.



4. Slide the nuts of the tee and position the body of the tee between the 2 pipes such that the solid and empty arrows are facing each other.



5. Re-tighten the nuts until the empty and solid arrows are aligned with each other.



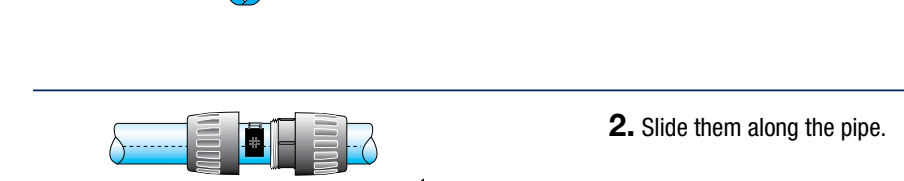
Lateral Dismantling:

Unscrew the nuts from the side of the pipe that should be removed, slip them on the pipe, then take off the pipe.

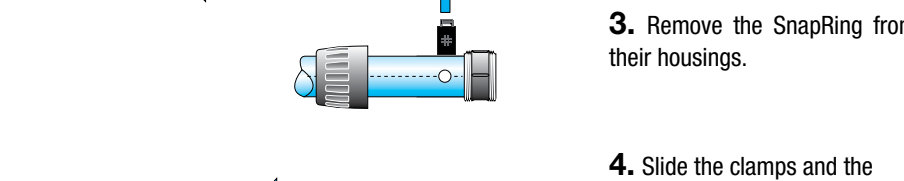
Ø50 / Ø63



1. Loosen the connector nuts on the ends of the pipe to be removed.



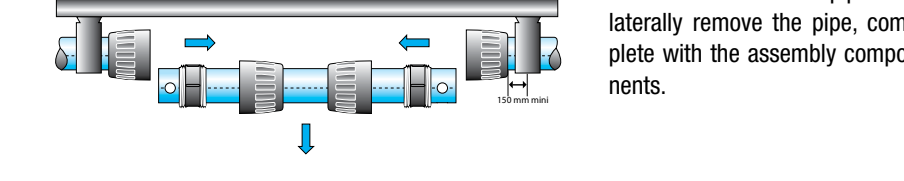
2. Slide them along the pipe.



3. Remove the SnapRing from their housings.



4. Slide the clamps and the connector body along the pipe which is to be removed.



Lateral Dismantling:

5. Repeat the operation at the other end of the pipe and laterally remove the pipe, complete with the assembly components.

Drops Assembly

Tooling required to assemble a drop:

Transair®	Description
6698 01 03	DRILLING JIG FOR RIGID ALUMINIUM PIPE DIAM. 25 > DIAM. 63
6698 02 02	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 25
6698 02 01	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 > DIAM. 63
6698 04 02	DEBURRING TOOL

Tooling required to install a drop on a Ø50 or Ø63 ring main:

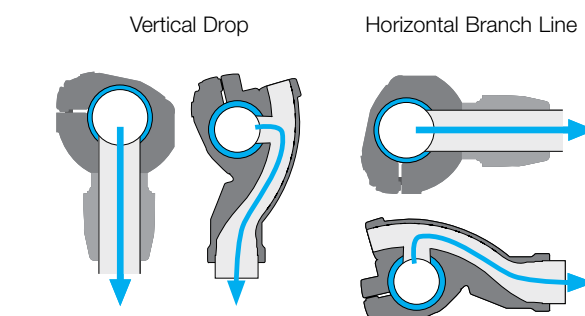
Transair®	Description
6698 01 03	DRILLING JIG FOR RIGID ALUMINIUM PIPE DIAM. 25 > DIAM. 63
6698 02 01	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 > DIAM. 63
6698 04 02	DEBURRING TOOL

Tooling required to install a drop on a Ø76, Ø100 or Ø168 ring main:

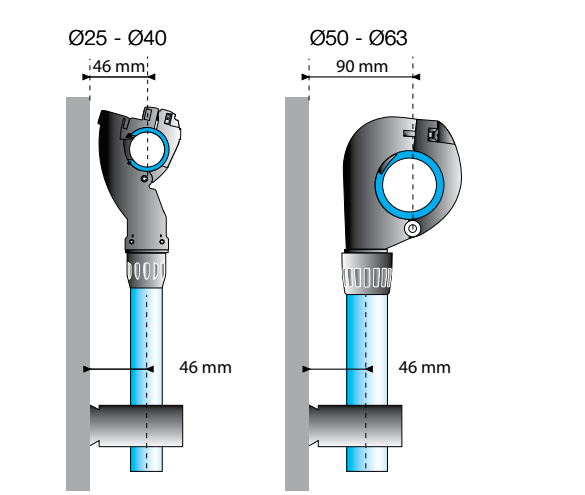
Transair®	Description
EW09 00 30	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 76 AND DIAM. 100
EW09 00 51	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 168 - 1 1/2"
EW09 00 64	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 168 - 2"
6698 04 02	DEBURRING TOOL

Introduction to Drop Assembly

On every pipe two lines are printed at 90° distance. They both allow installation of aligned or perpendicular brackets/drops on the same pipe.



Transair® quick assembly brackets can be installed vertically or horizontally.



For Ø25 and Ø40 Transair® quick assembly brackets, the pipe centre to wall distance is equal to the bracket centre to wall distance, i.e. 46mm.

For Ø50 and Ø63 Transair® quick assembly brackets the pipe centre to wall distance is 90mm and the Ø25 and Ø40 bracket centre distance is 46mm.

Ø25 / Ø40 / Ø50 / Ø63 → Ø16.5 / Ø25

1. Mark the pipe at the desired position for the bracket. The mark should be placed on one of the locator marks so that multiple brackets are correctly aligned, when several take-off points are required.

> Place the drilling jig in a vice or on the floor and place the pipe in the jig.
> Ensure that the line marked on the pipe is centred within the drilling guide: 2 marks on either side of the jig's upper side provide a rapid indication of the pipe's positioning.
> Tighten the locking clamp to secure the pipe and drill using the appropriate drilling tool.

- Ø25 mm: Ø16 mm hole > drilling tool 6698 02 02
- Ø40 - Ø50 - Ø63 mm: Ø22 mm hole > drilling tool 6698 02 01
NB: Recommended rotation speed: 650 rpm.

2. Loosen the locking clamp and release the pipe, deburr and remove any swarf and the cut circular aluminium piece of pipe. Repeat the operation for the number of brackets that you wish to fit.

3. Position the quick assembly bracket using its location hole.

4. Tighten the screw with Allen key Hex 5 mm or Hex 3/16 inch.

Ø76 / Ø100 / Ø168 → 1", 1 1/2", 2"

1. Drill the aluminium pipe at the desired position using drilling tool ref. EW09 00 30, EW09 00 51, EW09 00 64.
NB: Recommended rotation speed: 650 rpm.

2. Carefully deburr the pipe.

3. Position bracket ref. RR61 / RR63 and fully tighten the 2 screws.

Diameter	Transair®	Bolt Torque (Nm)	Bolt Torque (Lbs.-ft)
Ø76	RR61 L1 08	70-75 Nm	50-55 Lbs.-ft
Ø100	RR61 L3 08	70-75 Nm	50-55 Lbs.-ft
Ø168	RR63 L8 12	135-175 Nm	100-130 Lbs.-ft
Ø168	RR63 L8 16	135-175 Nm	100-130 Lbs.-ft

Do's & Dont's

> Connection		> Don't loosen the nuts during assembly	
> Use a pipe cutter		> Don't cut the pipe with the saw	
> Carefully chamfer and deburr the pipe after cutting or drilling		> Don't use non-deburred pipe	
> Check that the pipe is correctly positioned in the connector		> Don't fail to make the pipe secure	
		> Don't overtight with pliers	

Contact:

Additional Products

To complete the installation you will find hereafter a list of accessories you may need. Please contact us for further information and product part numbers.

Composite Automatic Safety Couplers:

- For quick and repetitive connection and disconnection
- 100% safety
- Very high flow, extremely low pressure loss

Profiles available: ISO B 5.5 mm, ISO B 8 mm, EURO 7.2 mm, ARO 5.5 mm

PU Recoil Tubing:

- Perfectly suited to installations requiring flexibility in a reduced space

Lengths available: 2m, 4m or 6m
with internal diameters: 4 mm, 5 mm, 7 mm, 8 mm

Blowgun:

- Dusting, cooling and drying components
- Removing swarf
- Cleaning machinery
- Compliance with OSHA 1910.242 (b) and OSHA 1910.95 (b)

Hose Reels:

- Optimise productivity and the safety of your work area
 - Prevent hose damage occurring on the workshop floor
- Lengths available: 10m, 16m or 21m
with internal diameter: 8 mm, 10 mm, 12.5 mm

Filters, regulators, lubricators and manometers:

- Can be fitted downstream of the compressed air installation and at the take-off point on workstations and machines.
- Ports available: 1/4" / 1/2"
Filter, regulator, lubricator and manometer available separately or as a complete set.

For specific needs, we can develop tailor made products.

- These special requests can include:
- Pre-assembly of existing products
 - Drilling of pipes
 - Pipes cutting and hoses preparation
 - Special colored pipes
 - Pipe bending
 - Special manifold or wall brackets.

