

Transair® Main Assembly Rules

System Assembly

Ø16.5 (1/2") / Ø25 (1") / Ø40 (1-1/2")

Tooling required for system assembly in Ø16.5 (1/2"), Ø25 (1") or Ø40 (1-1/2"):

Transair®	Description
6698 03 01	PIPE CUTTER DIAM. 16.5 (1/2") > DIAM. 76 (3")
6698 04 01	CHAMFER TOOL DIAM. 16.5 (1/2") > DIAM. 40 (1-1/2")
6698 04 03	MARKING TOOL DIAM. 16.5 (1/2") > DIAM. 40 (1-1/2")

Assembly steps for closed loop assembly in Ø16.5 (1/2"), Ø25 (1") or Ø40 (1-1/2"):

1. Verify the alignment of the torque arrows on the nuts and fitting body. These indicate the fitting is pre-torqued and does not require additional tightening.

2. For out of the box sticks of pipe, push the pipe into the fitting until the insertion depth mark meets the edge of the fitting. This ensures the grab rings engage and hold the pipe in place.

Insertion depth for all pipe-to-pipe fitting are equal to:

For 6602/6604/6606 connectors:	For 6625 end cap:
• 0.98" for Ø16.5 (1/2")	• 1.54" for Ø16.5 (1/2")
• 1.06" for Ø25 (1")	• 1.65" for Ø25 (1")
• 1.77" for Ø40 (1-1/2")	• 2.52" for Ø40 (1-1/2")

3. If you need to cut the pipe, remember to deburr the pipe and mark the insertion depth using the Transair marking tool.

Ø50 (2") / Ø63 (2-1/2")

Tooling required for system assembly in Ø50 (2") or Ø63 (2-1/2"):

Transair®	Description
6698 03 01	PIPE CUTTER DIAM. 16.5 (1/2") > DIAM. 76 (3")
6698 01 03	DRILLING JIG FOR RIGID ALUMINIUM PIPE DIAM. 25 (1") > DIAM. 63 (2-1/2")
6698 02 01	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 (1-1/2") > DIAM. 63 (2-1/2")
6698 04 02	DEBURRING TOOL
6698 05 03	SPANNER WRENCHES DIAM. 50 (2") AND DIAM. 63 (2-1/2")

Assembly steps for system assembly in Ø50 (2") or Ø63 (2-1/2"):

1. Unscrew one of the connector nuts and slide over the end of the pipe.

2. Place the Snap Ring into the holes.

3. Slide the nut forward until it is stopped by the Snap Ring.

4. Tighten the nut by hand.

5. Complete the assembly using the spanner wrenches (p/n: 6698 05 03) and tightening the connector 1/2 turn.

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. 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 debris and potential sharp edges.

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

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

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

Release the jaws. Press the trigger and lug the pipe until a "snap" sound is heard.

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

Min. Number of Lugs	Ø76 (3")	Ø101 (4")	Ø168 (6")
	5	6	10

Ø76 (3") / Ø101 (4") / Ø168 (6")

Tooling required for system assembly in Ø76 (3"), Ø101 (4") and Ø168 (6"):

Transair®	Description
6698 03 01	PIPE CUTTER DIAM. 16.5 (1/2") > DIAM. 76 (3")
EW08 00 03	PIPE CUTTER DIAM. 101 (4") > DIAM. 168 (6")
EW01 00 01	PORTABLE TOOL KIT 220 V
EW02 L1 00	JAWS SET FOR PORTABLE TOOL DIAM. 76 (3")
EW02 L3 00	JAWS SET FOR PORTABLE TOOL DIAM. 101 (4")
EW02 L8 00	JAWS SET FOR PORTABLE TOOL DIAM. 168 (6")
6698 04 02	DEBURRING TOOL

Assembly steps for closed loop assembly in Ø76 (3"), Ø101 (4") and Ø168 (6"):

1. Slide the cartridge over the end of the pipe until it is stopped by the lug.

2. Bring the second pipe to the cartridge and slide the pipe until the lug is touching the cartridge.

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

4. Hand tighten the pre-fitted bolts with an Allen wrench.

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

6. Fully tighten the clamp screws. For a tight seal, tighten the bolts in an alternating pattern. (see the diagram to 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.

3. Preparing the tool to create the lugs:
- 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.

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

Release the jaws. Press the trigger and lug the pipe until a "snap" sound is heard.

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

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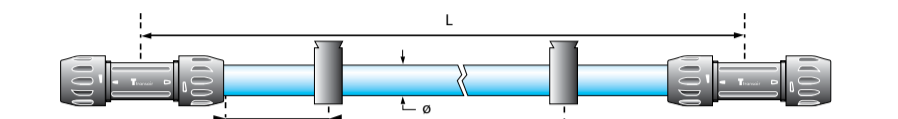
Fixture & Bending

To ensure system stability, Parker Transair® suggests using at least 2 clips per pipe.

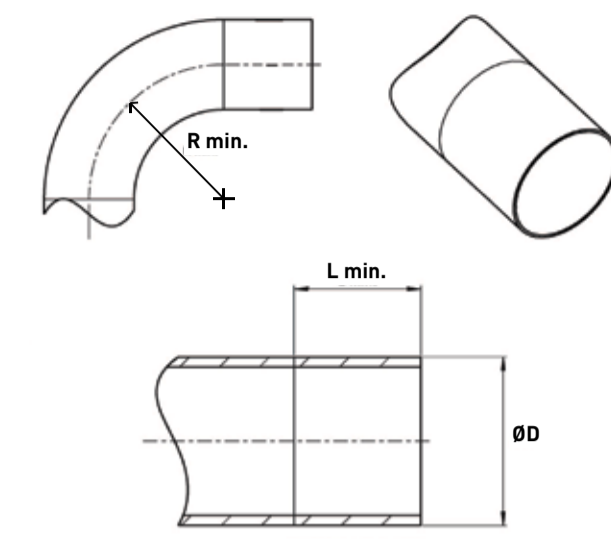
Transair aluminum pipe should only be mounted using Transair fixture accessories. The should not be substituted for another type of fixture method.

Transair®	Description
Ø16.5 (1/2"), Ø25 (1") and Ø40 (1-1/2")	1/4-20 UNC nuts
Ø50 (2") - Ø63 (2-1/2")	3/8-16 UNC nuts
Ø76 (3"), Ø101 (4") and Ø168 (6")	For Ø76 (3") and Ø101 (4"): 3/8-16 UNC thread For Ø168 (6"): M10 thread

Transair® Fixing Clip for all Diameters



Pipes	Ø	Dmax (ft)
20ft length	Ø25 (1")	10
20ft length	Ø40 / Ø50 / Ø63 (1-1/2" / 2" / 2-1/2")	13
20ft length	Ø76 / Ø101 / Ø168 (3" / 4" / 6")	16
10ft length	Ø16.5 / Ø25 / Ø40 / Ø50 / Ø63 (1/2" / 1" / 1-1/2" / 2" / 2-1/2")	8



Transair®	R min. mm (in)	L min. mm (in)
Ø16.5 (1/2")	102mm (4.02")	185mm (7.28")
Ø25 (1")	154mm (6.06")	185mm (7.28")
Ø40 (1-1/2")	250mm (9.84")	185mm (7.28")
Ø50 (2")	300mm (11.81")	185mm (7.28")
Ø63 (2-1/2")	317mm (12.48")	185mm (7.28")
Ø76 (3")	394mm (15.51")	185mm (7.28")
Ø101 (4")	423mm (16.65")	185mm (7.28")
Ø168 (6")	700mm (27.56")	185mm (7.28")

System Modifications

Ø16.5 (1/2") / Ø25 (1") / Ø40 (1-1/2")

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 and nuts.

4. Slide the nuts of the tee and position the body of the tee between the 2 pipes so 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, slide them down the pipe, then take off the pipe.

Ø50 (2") / Ø63 (2-1/2")

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

2. Slide them along the pipe.

3. Remove the Snap Ring.

4. Slide the clamps and the connector body along the pipe to remove.

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

Lateral Dismantling: Unscrew the nuts from the side of the pipe that should be removed, slide them down the pipe, then take off the pipe.

Do's & Dont's

> Connection

> Use a pipe cutter

> Carefully chamfer and deburr the pipe after cutting or drilling

> Check that the pipe is correctly positioned in the connector

> Don't loosen the nuts during assembly

> Don't cut the pipe with a saw

> Don't use non-deburred pipe

> Don't fail to fully insert the pipe

> Don't over-tighten with pliers

Drop Assembly

Tooling required to assemble a drop:

Tooling required to install a drop on a Ø25 (1") or Ø40 (1-1/2") ring main:

Transair®	Description
6698 01 03	DRILLING JIG FOR RIGID ALUMINIUM PIPE DIAM. 25 (1") > DIAM. 63 (2-1/2")
6698 02 02	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 25 (1")
6698 02 01	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 (1-1/2") > DIAM. 63 (2-1/2")
6698 04 02	DEBURRING TOOL

Tooling required to install a drop on a Ø50 (2") or Ø63 (2-1/2") ring main:

Transair®	Description
6698 01 03	DRILLING JIG FOR RIGID ALUMINIUM PIPE DIAM. 25 (1") > DIAM. 63 (2-1/2")
6698 02 01	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 (1-1/2") > DIAM. 63 (2-1/2")
6698 04 02	DEBURRING TOOL

Tooling required to install a drop on a Ø76 (3"), Ø101 (4") or Ø168 (6") ring main:

Transair®	Description
EW09 00 30	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 76 (3") AND DIAM. 101 (4")
EW09 00 51	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 40 (1-1/2") > 168 (6")
EW09 00 64	DRILLING TOOL FOR RIGID ALUMINIUM PIPE DIAM. 50 (2") > 168 (6")
6698 04 02	DEBURRING TOOL

Introduction to Drop Assembly

For aligned installation of drop brackets, every Transair pipe is printed with 2 guide lines at a 90° angle.



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

For Ø25 (1") and Ø40 (1-1/2") Transair® quick assembly brackets, the pipe center to wall distance is equal to the bracket center to wall distance, i.e. 1.8".

For Ø50 (2") and Ø63 (2-1/2") Transair® quick assembly brackets the pipe center to wall distance is 3.54" and the Ø25 (1") and Ø40 (1-1/2") bracket center distance is 1.8".

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Ø25 (1") / Ø40 (1-1/2") / Ø50 (2") / Ø63 (2-1/2") → Ø16.5 (1/2") / Ø25 (1")

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 drops 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 centered 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 (1"): Ø16mm hole > drilling tool 6698 02 02
- Ø40 (1-1/2") - Ø50 (2") - Ø63 (2-1/2"): Ø22mm hole > drilling tool 6698 02 01

Please note: Recommended rotation speed: 650 rpm.

2. Loosen the locking clamp and release the pipe, deburr and remove any swarf and the cut circular aluminum 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 wrench Hex 5mm or Hex 3/16".

Ø76 (3") / Ø101 (4") / Ø168 (6") → 1", 1.5", 2"

1. Drill the aluminum pipe at the desired position using drilling tool (ref. EW09 00 30, EW09 00 51, EW09 00 64).

Please note: Recommended rotation speed: 650 rpm.

2. Carefully deburr the pipe.

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