Chicago Pneumatic

AIR NET Catalog

Ordering and Installation Guide

High-performance products.
Designed for you!

Fast, Easy, Reliable

AIRnet™ uses non-corrosive materials only:
- Eliminates risk of pollution.
- Delivers constant quality air from point of generation to point of use.
- Maintains the required system pressure.
- Reduces network maintenance.
- Protects downstream manufacturing processes.

SYSTEM SAVINGS

AIRnet's smooth inner aluminium surface has numerous benefits:
- No resistance of air circulation.
- Minimal network pressure drop.
- No energy waste.

HIGH COMPATIBILITY

- Can be connected to any existing equipment.
- Can be connected to any existing network.
- Allows for future network extensions.
- Continuously evolving product.

QUICK TO INSTALL

- Lightweight yet robust and easy to cut, AIRnet aluminium pipes can be installed safely by just one person without any training.
- The polymer fittings provide perfect alignment, eliminating the need for welding, gluing or crimping.
- Pipes up to Ø25 mm (1") can be tightened by hand, with instant air tightness.
- The system can be pressurized immediately after assembly, limiting downtime to a strict minimum.

A COMPLETE SOLUTION

The AIRnet compressed air piping system is a complete solution from source to production thanks to its high quality aluminium pipes, its range of aluminium and polymer fittings from Ø20 - 80 mm (¾" - 3") and variety of specialized tools, brackets and bushing.

HIGH MATERIAL RESISTANCE

The AIRnet piping system is resistant to corrosion, mechanical shocks, thermal variations and outdoor weather conditions.

THE FLEXIBLE FIT

AIRnet's thread assembly, system cleanness and easy disassembly mean full reusability, fast extension possibilities, and full control over the network.

MINIMUM LEAKAGE

- O-ring ensures an airtight fit.
- Resistant to vibration.
- No risk of corrosion.
- Easy system maintenance.
- No energy waste.

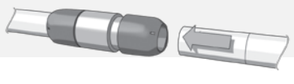
AIRnet fitting design

1. **STRONG-GRIP INTERNAL DESIGN**
   New design increasing grip, strength and safety (with stainless steel clinch ring)
2. **SPECIFIC NUT DESIGN**
   Notches enable you to tightly secure the AIRnet spanner, without damaging the nut itself.
3. **SPECIFIC BODY DESIGN**
   Very large inner body diameter eliminates the flow resistance and pressure drop.
4. Flow guide reduces the pressure drop.
5. **PARTS IDENTITY**
   Part number and diameter are embossed.

AIRnet uses a single assembly method for all diameters, ensuring the shortest possible assembly time, from 1.5 minutes for the smallest to 4 minutes for the largest diameters.

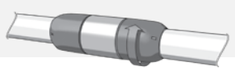
UNIQUE ASSEMBLY SYSTEM

STEP 1



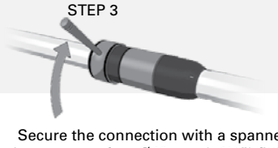
Push the pipe into the fitting.

STEP 2



Tighten the fitting by hand.

STEP 3



Secure the connection with a spanner (only necessary for >Ø40 mm (>1½") fittings).

AIRnet vs. traditional galvanized pipes

AIRnet PIPES

- ✓ Smooth surface.
- ✓ Low friction factor.
- ✓ Low initial pressure drop.
  (E.g. In a system with an air demand of 110 l/s, designed as a 400 m long ring of Ø50 mm (2") pipes with P = 7 bar, the pressure drop (ΔP) equals 0.2 bar.)
- ✓ Aluminium and polymer fittings are corrosion-free.
- ✓ No risk of corrosion when cutting the aluminium. Very low risk of leakage, which is not related to corrosion.
- ✓ Lightweight pipes: a standard Ø50 mm (2") diameter pipe weighs less than 5 kg (11 lbs).
- ✓ Short manual cutting time.
- ✓ Fast deburring of the pipe. Pipes can be simply pushed into the fitting.
- ✓ The fittings can be tightened by hand and secured with a spanner.
- ✓ Modifying the network is easy: the fittings and pipes can be simply disassembled and re-used.
- ✓ Standard painted blue (compressed air) or green (inert gases) for easy network identification.

GALVANIZED PIPES

- ✗ Rough surface.
- ✗ Friction factor is almost double of an aluminium pipe.
- ✗ High initial pressure drop.
  (E.g. In a system with an air demand of 110 l/s, designed as a 400 m long ring of Ø50 mm (2") pipes with P = 7 bar, the pressure drop (ΔP) equals 0.37 bar.)
- ✗ Corrosion protection depends on galvanization quality.
- ✗ When cutting the pipe, the galvanization is removed. The connection poses a high risk of corrosion at low level points where water can stagnate, resulting in a high risk of leakage.
- ✗ Heavy pipes: a standard Ø50 mm (2") pipe weighs more than 25 kg (55 lbs).
- ✗ Very long manual cutting time, electrical cutter may generate some metallic dust.
- ✗ Threading the pipe requires a certain level of experience to avoid future leakage.
- ✗ The galvanized fittings need to be tightened using a spanner. The risk of leakage depends on the quality of the thread.
- ✗ Modifying the network is often difficult: after disassembly, the pipes have to be cut, changed, threaded and re-assembled.
- ✗ Pipes need to be painted in the appropriate color, adding to the total cost.

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Your distributor:

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