

# Transair®: The Original Aluminum Pipework System for Industrial Fluids

Diameters 1/2", 7/8", 1 1/2", 2", 2 1/2", 3", 4" and 6" Compressed Air - Vacuum - Inert Gases

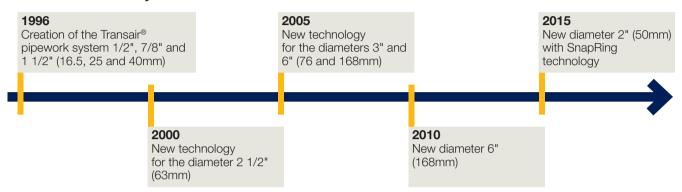
aerospace
climate control
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pneumatics
process control
sealing & shielding



# Transair®, The Original Modular Aluminum Pipework System

Transair®, the original modular pipework system based on aluminum pipes and quick connectors, was launched in 1996. Since then, with almost 20 years experience, continual improvements have been made to **meet the compressed air, inert gases and vacuum network needs!** 

# Transair® History



# Reliable and Safe Connection Technologies

Because users need versatile but reliable and safe solutions, Transair® has developed different technologies for the best compromise between safety, efficiency and adaptability.

- Gripping ring instant connection for diameters 1/2" (16.5mm), 7/8" (25mm) and 1 1/2" (40mm) offers the maximum flexibility.
- SnapRing quick-fit connection for diameters 2" (50mm) and 2 1/2" (63mm) proposes the most secure technology while maintaining ease of handling: no possible errors during installation.
- Lug & Clamp quick-fit connection for diameters 3" (76mm), 4" (100mm) and 6" (168mm) avoids any disconnection: the internal cartridge works as a fuse if a failure in the network causes an excessive pressure increase.



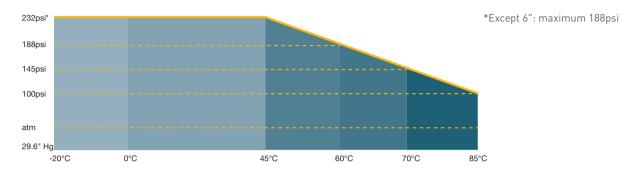
# Transair® Main Features

#### Gases

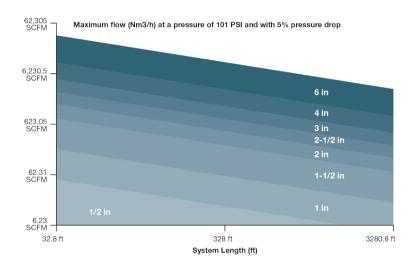
Transair<sup>®</sup> is suitable for compressed air applications (dry, lubricated or with water condensation), for inert gas applications like nitrogen, argon or CO<sub>2</sub> (for purity up to 99.99%) and for vacuum applications (minimum vacuum level of 99% (29.6Hg).

# **Working Pressure and Temperature**

The maximum working pressure of the Transair® system, versus operating temperature, is according to the diagram below.



#### **Maximum Flow**



Maximum Flow (SCFM) at a pressure of 100psi and with 5% pressure drop

For a 330ft system, maximum flow is 410SCFM (700 m³/h) for Transair® 2", compared to just 320SCFM (550 m³/h) for a traditional steel pipe (Sch. 40): Transair® is 20% more efficient.

System Length (ft)

# Safety



Transair® has CRN number for most products across Canada. Please contact Parker or your local distributor for complete details.



**TÜV Rheinland** certifies that Transair® fulfills regulatory requirements for pipes under pressure according to the German AD-2000 Merkblatt technical rules and to the **European Pressure Equipment Directive 2014/68/EU**.



Transair® meets the requirements of **ASME B31.3** and **ASME B31.1** for non boiler external piping which stipulates the minimum requirements for the design, materials, fabrication, erection, test and inspection of piping systems for industrial plants.

# Air Quality



Transair® has been successfully tested to the highest expectation of **ISO 8573-1:2010 standard for air quality:** class 1-1-1. A Transair® distribution network will not contaminate the fluid with solid particles, water, moisture or oil.



Transair® products are guaranteed **Silicone Free**, which is mandatory for premium air purity applications such as painting.

Please ask your Parker® representative for a complete list of Transair® standards and certifications.

# **Industrial Sectors and Types of Projects**

## Transair® is adapted to every sector of activity

Recognised for its performance, Transair® is installed in most industrial markets, from the source to the point of use:

- Aerospace
- Automotive
- Construction materials
- Educational
- Electronics
- Energy
- Food & Beverage
- Laboratory / Pharmaceutical
- Metal working
- Mining
- Plastic industry
- Railway / Transportation
- Textile industry
- Tobacco







# For all types of projects

#### Transair® is the best choice for a new installation or extension

As specialist in industrial fluid networks, Transair® offers an innovative solution that meets the needs of demanding users, whether for the energy source, the main network or to feed the points of use:

- High flow performance for all the diameters for higher efficiency.
- Air quality (ISO 8573-1:2010 class 1.1.1) from the production up to the point of use.
- Secured connection regardless of the environment (compressor room, outdoor...).
- Lightweight and compact products to improve the working conditions and for easy integration.
- Quick and easy installation for easier maintenance and reduced downtime.
- Dismountable system and reusable products for low depreciation on capital.

#### Transair® is the best choice to retrofit old networks

Transair<sup>®</sup> is the economical, reliable and efficient alternative to traditional steel networks. Change your old steel pipe network for Transair<sup>®</sup> to optimise your operation costs and to benefit from high impacts on your productivity:

- Lower roughness and larger inner diameter: maximum flow
   20% higher than with steel pipe, energy savings in compressor.
- Corrosion free: reducing the costs of changing filter elements.
- Constant air quality for **reduction of maintenance costs** for machines and equipments.





# Advantages of the Transair® Aluminum System

Transair® aluminum is the 1<sup>st</sup> choice for compressed air, inert gases and vacuum applications.



#### **Pressure and Flow**

- The largest range of diameters from 1/2" (16.5mm) to 6" (168mm)
- Full flow fittings to lower pressure drops



### Air Quality

- Transair® meets the ISO 8573-1:2010 standard for air quality class 1-1-1



#### Safety

- Light-weight piping and reduced tooling **improves the working conditions** of the installers, without the need for a hot works (fire) permit
- Quality assurance according to the highest standards of the industry
- Safest connection technology for every diameter



#### **Quick Installation for Reduced Downtime**

- All-in-one fittings and accessories to satisfy the particular needs of each pipework, and tailor made products on customers' requests
- Products **ready-to-use**: installation of a drop to connect a machine in less than 15 minutes
- Easy technology: the **risk of errors** during installation is **minimised**
- Lateral dismantling and interchangeability: **labour reduced** during extension and modification



#### **Services**

- Transair® provides **services to support each step of a project**, from technical study to delivery and onsite training







# **An Ecological Product Design**

Transair® has been specifically designed to ensure a lower impact on the environment compared to steel pipe. Life cycle analysis, from production of raw materials to end of product life, show that the use of Transair® is 2 times less harmful to the environment than a traditional steel pipe system.



Transair® diameters from 1" (25mm) up to 4" (100mm)



Transair® diameter 3" (76 mm)

# Transair® Standards and Certifications

#### International Certification



#### **ISO Certification**

Parker Hannifin is certified **ISO 9001 version 2008** (ISO TS 16949-2009 for the Automotive industry) and operates a Quality Management System in order to ensure the level of quality and service that is expected by its customers.

- ISO 9001-2008
- · ISO TS 16949-2009



#### **TÜV Certification**

**TÜV Rheinland** certifies that Transair® fulfills regulatory requirements for pipes under pressure according to the German AD-2000 Merkblatt technical rules and to the European Pressure Equipment Directive 2014/68/EU.

- Transair® aluminum range 1/2", 7/8", 1 1/2", 2", 2 1/2"
- Transair® aluminum range 3"
- Transair® aluminum range 4"
- Transair® aluminum range 6"



**TÜV**Rheinland

#### **ASME B31.1/ B31.3**

Transair® meets the requirements of **ASME B31.1** for non boiler external piping.

- which stipulates « the minimum requirements for the design, materials, fabrication, erection, test and inspection of power and auxiliary piping systems for industrial institutional plants.

- ASME B31.1 compliance certificate
- CRN (Canadian Registration Number)



Transair® has CRN number for most products across Canada. Please contact Parker or your local distributor for complete details.

Qualicoat certificate

# Pipe Standards



#### Qualicoat Label

Transair® complies with the **QUALICOAT** label which guarantee the quality of the painting process, the chemicals used, the finished quality and the coating resistance on the aluminum pipes.

- Standards EN 755-2,
   EN 755-8, EN 573-3
- Standard EN 10088-2



#### **European Standards**

Transair® piping system complies with **EN 755.2**, **EN 755.8**, **EN 573.3** for aluminum pipes. Those standards define mechanical and chemical properties of pipes.



# Transair® Standards and Certifications

## **Product Quality**



#### **Product Testing**

All Transair® products are tested and controlled at every stage of the production process to ensure a maximum efficiency to the customer. Product testing includes: static and dynamic leak tests, burst pressure, cycled pressure and accelerated ageing tests.



#### 10 Year Guarantee

Transair® products carry a 10 year guarantee from date of installation for manufacturing or material defect.

• 10 Year Guarantee Certificate



#### **Product Traceability**

Transair® tracks each production batch at any stage of its organisational and marking process. In addition and for logistic purposes, Transair® provides the origin of products. The chemical composition of Transair® pipes, based upon batch number and bwarcode, is listed into the material certificate (according to standard EN 10204).

- Long Term Declaration
- Certificate of Origin
- Material Certificate (for pipes)

## Air Quality



#### ISO 8573-1:2010 Certification

This international standard establishes the different quality classes of compressed air. Transair® has been successfully tested to reach the highest expectation of this standard. A Transair® distribution network will not contaminate the fluid with solid particles, water, moisture or oil.

- · Air Quality Certificate
- · Oil Free Certificate

#### Silicone Free



The Transair® products are guaranteed silicone-free, which is mandatory for premium air purity applications such as painting.

No need to add complementary filters which increase pressure drop.

Silicone Free Certificate

# **Neutral Gases & Purity**



Transair<sup>®</sup> is adapted for distribution of non flammable gases such as: Argon, Nitrogen, Carbon Dioxyde and mix of these gases.

Based on laboratory purity testing. Transair<sup>®</sup> (fittings and aluminum pi-

- Based on laboratory purity testing, Transair<sup>®</sup> (fittings and aluminum piping) is compatible with a 99,99% purity Nitrogen application.
- Nitrogen Purity Application Certificate
- · Compatibility with Argon
- Compatibility with Argon/CO2 Mixture
- Compatibility with Nitrogen

#### Vacuum



Transair can be used for vacuum applications down to 99% (29.6" Hg).

· Vacuum Certificate



# Transair® Standards and Certifications

#### **Environment**



All Transair® products are in compliance with the **RoHS** and **REACH** directives which limit the use of hazardous substances.



Transair® has been specifically designed and produced to ensure a lower impact on the environment.

- ROHS & ELV certificate of compliance
- REACH regulation
- Eco-Design
- · ISO 14001



afaQ ISO 14001 Environnement For example: a Life Cycle Analysis, from production of raw materials to end of product life, shows that the use of 6" (168mm) Transair® is 5 times less harmful to the environment than a traditional steel pipe system.

Parker Hannifin is certified **ISO 14001** for its Environmental Management System which lower its impact on the environment.

## Safety



All Transair<sup>®</sup> components are non-flammable with no propagation of flame.

- Pipe-to-pipe and stud connectors, ball valves and butterfly valves: conform to UL 94 HB Grade
- Flexible hoses: compressed air hoses conform to ISO 8030, vacuum hoses conform to EN 12115
- Pipes' lacquer classified A2/M0 according to EN 13501-1

- · Euroclasses 13 501-1 Certificate
- Aluminum range
- UL 94 HB Grade Aluminum range
- OSHA certificate



Transair® blowgun complies with regulations:

OSHA 1910.242 (b) for hand and portable powered tools, OSHA 1910.95 (b), Directive **2003/10/EC** and INRS ED755 European Recommendation for noise exposure.

## **CE Conformity**



Transair® conforms the European Pressure Equipment Directive **2014/68/EU** for article 4.3 and category I module A, depending on the diameter of pipe and the working pressure.

The aims of Directive **2014/68/EU** are to maintain a sufficient level of safety in the tanks, generators and piping. It applies to the design, manufacture and conformity assessment of pressure equipment and assemblies with a maximum allowable pressure above 0.5 bar (7.25psi).

CE Certificate

# Transair®: Tools and Services



#### Transair® Flow Calculator

Defines the recommended diameter for your project, estimates your pressure drops, and gives the maximum flow rate by diameter.



## Transair® Vacuum Calculator

Helps you to size and compare vacuum systems guickly and easily.



# Transair® Energy Efficiency Calculator

Evaluates the energy cost of your system and return on investment of a Transair® solution.



# Transair® CAD Drawings

View or download Transair® CAD drawings in real time in 2D or 3D.



# Transair® Website: www.parkertransair.com

Gives you access to extensive information about the Transair system, technical data, examples of existing networks and a download centre for catalogues, manuals, software and brochures.



# Transair® Quotation Service: transair.quotation@parker.com

Gives you a budgeted or detailed quotation for your project and its implementation.

# Transair®: Advanced Pipe Systems



# Aluminum Range

#### Calibrated Aluminum Pipes

Qualicoat painting

#### **Diameters**

1/2" (16.5mm) - 7/8" (25mm) - 1 1/2" (40mm) - 2" (50mm) - 2 1/2" (63mm) -3" (76mm) - 4" (100mm) - 6" (168mm)

#### Colours

Available in blue - grey - green Other colours upon request

#### **Maximum Working Pressure**

232 psi (from -20°C to +45°C) up to 4" 188 psi (from -20°C to +60°C) for all diameters 100 psi (from -20°C to +85°C) for all diameters

#### Vacuum Level

99% (29.6" Hg)

#### **Working Temperature**

-20°C to 85°C

#### **NBR Seals**

#### Compatibility

Lubricated or oil-free compressed air, industrial vacuum, nitrogen (99.99% purity), inert gas

#### Certification













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