Transair® Aluminium Range

For Industrial Breathing Air Applications

In compliance with PED 2014/68/EU

Parker

ENGINEERING YOUR SUCCESS.

Industrial Breathing Air - Compatibility of the Transair® Aluminium Range

What it industrial breathing air?

Industrial breathing air is **highly purified compressed air** from a source outside the work area.

This air is then expanded at low pressure, then conveyed by air supply to the operator's P.P.E. (Personal Protective Equipment).

To generate industrial breathing air, **not only solid particles** - water, moisture, oil and oil vapours - are **removed** from the compressed air, **but also harmful gas** such as carbon dioxide (CO_2), carbon monoxide (CO), on specified values, by maintaining the required oxygen content (O_2).

Why do we need an industrial breathing air system?

In many industrial sectors, the presence of gas, dust or smoke in the work environments poses a risk to workers.

To protect workers, companies are required to have a **breathing air system** that meets **local standards.**

The **efficiency of breathing** protection is **essential** for the user, whether the risk comes from harmful fumes, particles or contamination from a compressed air network.

The breathing air distribution system must **contribute to maintain the same generated level of purification** from the industrial breathing air generator system to the point of use.

Applications and Fields of Activity

- Tank cleaning
- Spray painting
- Asbestos removal
- Shot blasting
- Drilling of galleries
- Confined spaces
- Welding
- Aeronautics
- Chemistry
- Construction
- Food and beverage industry
- Gas plants
- Hazardous materials
- Steel industry
- Metallurgy
- Marine/Shipyards
- Mining operations
- Paper
- Laboratories and the pharmaceutical sector
- Public works

International Standards and Regulations

To protect workers, a number of regulations have been published throughout the world regarding the quality of generated breathing air required to ensure worker safety. These specifications limit the amount of potentially harmful substances while also specifying the range of oxygen that must be in the breathing air. The most common standards are:

- **The EN 12021:**
  the norm for European Union (EU)
- **The OSHA** Grade:
  the norm for the United States (USA)
- **The CSA Standard Z180.1-13:**
  the norm for Canada

The main components listed in the regulations are as follows:

- Water,
- Oils,
- Oxygen,
- Carbon monoxide,
- Carbon dioxide.

Transair® Aluminium Offer

Thanks to its **technical capabilities** in terms of **cleanliness**, the Transair® aluminium system can be used in a distribution system of industrial breathing air.

Indeed, Transair® piping system **will not be a source of pollution** for the components listed in the different standards and regulations in force.

The standards listed in the table opposite set the **levels not to be exceeded** in an **industrial breathing air** network.

For each of the components, the **Transair®** system has **much better** results than the required thresholds.

Components	EN 12021	OSHA Grade D	CSA Standard Z180.1-13	Transair®
Water Content	Dew Point <-11°C	Not specified	Dew Point <5°C	**Dew Point -70°C <-11°C**
Oils	<0.5mg/m3	<5mg/m^3	<1mg/m^3	**<0.01mg/m^3**
Oxygen	21(±1%)	19.5-23.5%	21(±1%)	**0**
CO_2	<500ppm	<1000ppm	<600ppm	**0**
CO	<15ppm	<10ppm	<5ppm	**0**

Transair® Aluminium Range Certifications regarding Air Quality

The **ISO 8573 standard** defines the different compressed air quality classes for the **3 main components present in any compressed air system: dust, water and oils**.

The certification of Transair® aluminium system is based on tests carried out in accordance with this reference standard for compressed air applications.

Transair® aluminium range is in compliance with **the highest level of purity** specified by **ISO 8573: 2001 & 2010 Class 1.1.1. certification**

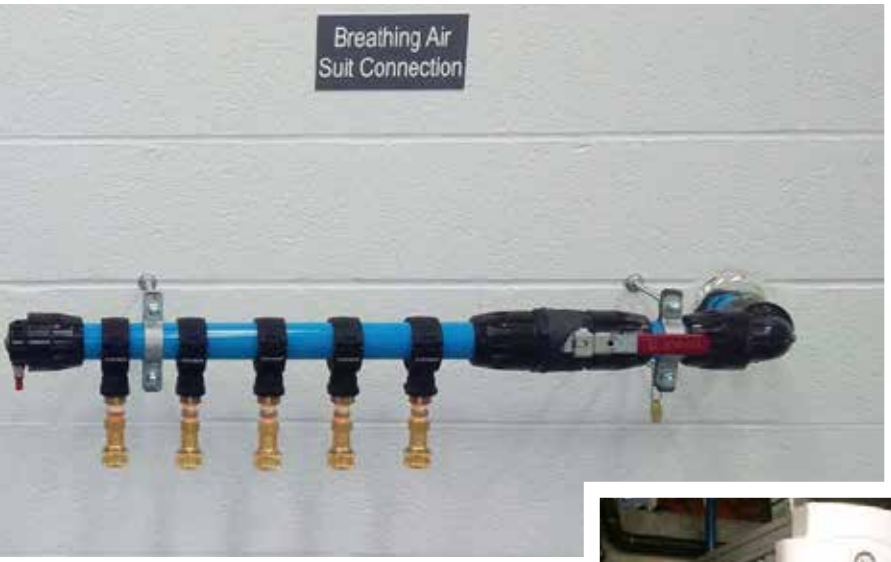
Transair® aluminium range is also certified «**silicone free**» and «**oil free**», which means that the system products **do not transmit** silicone, grease or oily particles to the fluid conveyed.

Transair® aluminium range is not subject to the generation of Oxygen, CO_2, CO type components, which makes it a **totally adapted solution** to the requirements of an industrial breathing air network.

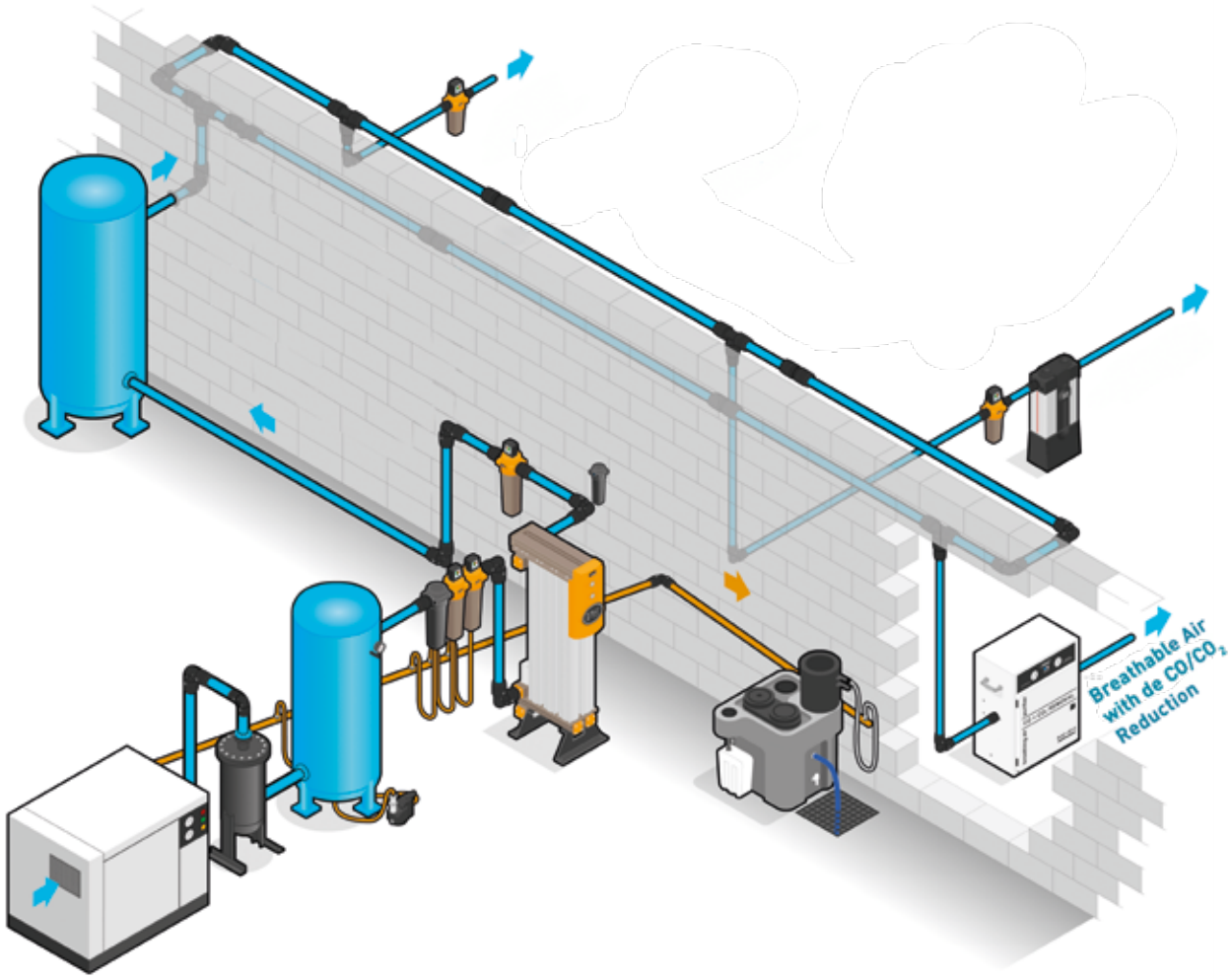
Transair® for Industrial Breathing Air Applications

Transair® piping system
cannot replace an air treatment product,
but it maintains the **air quality delivered**
by a production unit
of industrial breathing air
or by adequate
separators, filters and dryers.

To guarantee the safety of the
worker, the installation
should comply with the
Transair® aluminium system
assembly rules
and best practices
for this type of network.



The Parker Offer for Industrial Breathing Air Applications



As part of your **installations and projects, Parker supplies a global solution, from the breathing air production to the points of use.**

Parker's 6-stage breathing air production units, mounted on SKID, **provide purified air** with reduced CO/CO_2 contents for multiple applications requiring an operator air supply.

Further information regarding Parker/Domnick Hunter products for breathing air applications in brochure 174004470_02_EN

Transair® Wide Product Range

TCMS Transair® Monit Sys

Cloud

Wireless sensors designed for Transair® **for continuous remote condition monitoring** of a compressed air system

Compatible with aggressive condensates from all kinds of compressors (lubricated and oil-free)

Transair® Products for Technical Rooms

TCMS™ Blue Transair® Condition Monitoring System

Bluetooth Version

A **Bluetooth** wireless sensor solution for the **instant** measurement, on site, of your compressed air networks

™ Gold
Condition
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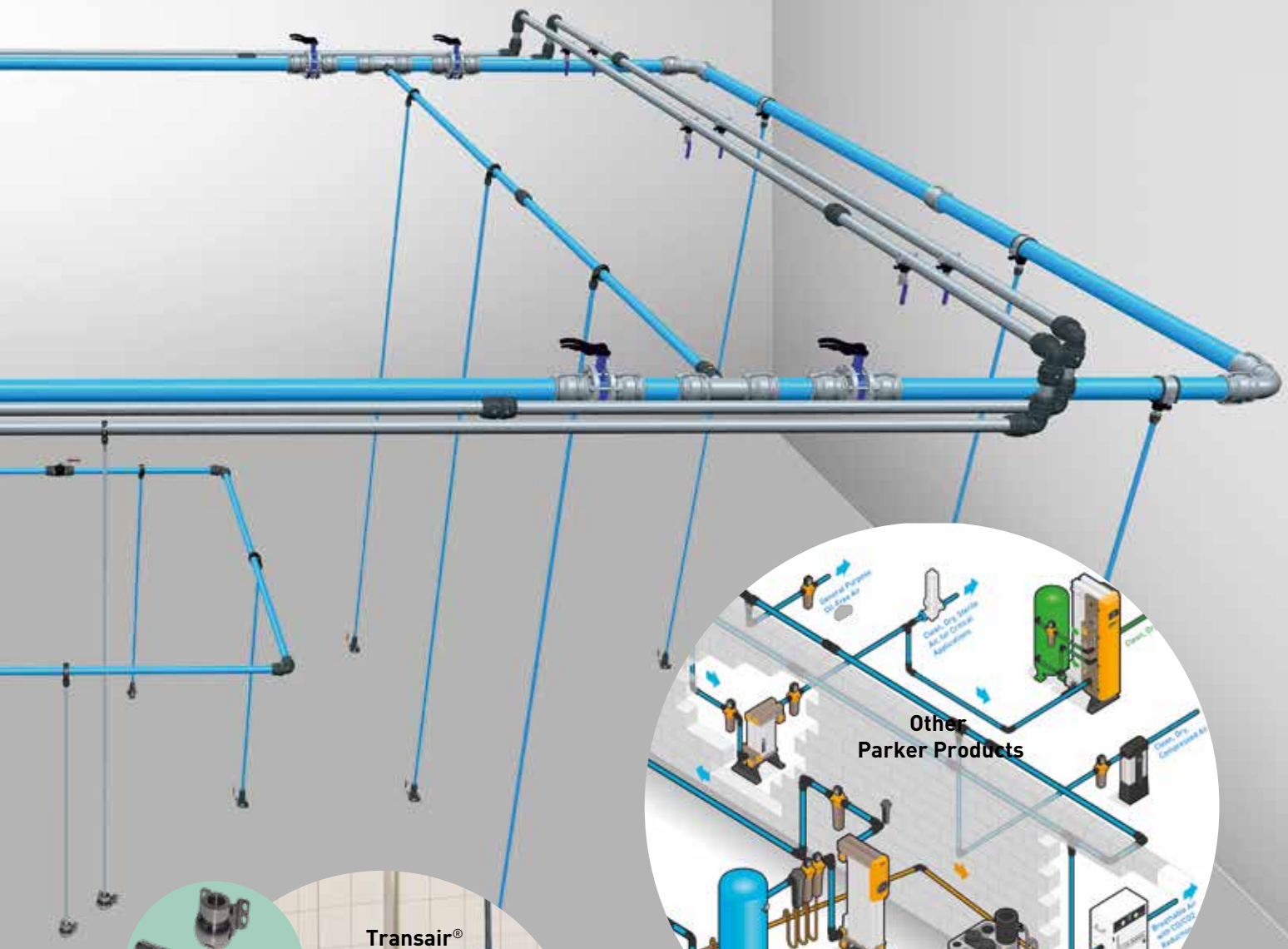
Transair®, from the Technical Room ...
... to the Heart of Production



The Transair® product range is part of Parker's full offer for compressed air and gas treatment.

Transair®
Advanced Pipe Systems for Industrial Fluids

Aluminium Range

- **Calibrated Aluminium Pipe**
  Qualicoat Painting
- **Diameters (in mm)**
  16.5 - 25 - 40 - 50 - 63 - 76 - 100 - 168
- **Colours**
  Available in blue - grey - green
  Other colours upon request
- **Maximum Working Pressure***
  - 16 bar (-20°C to 45°C) up to 100 mm
  - 13 bar (-20°C to 60°C) for all diameters
  - 7 bar (-20°C to 85°C) for all diameters
- **Vacuum Level**
  99,9% (1 mbar absolute pressure)
- **Working Temperature :** -20°C to 85°C
- **NBR Seals**
- **Compatibility**
  Lubricated or oil-free compressed air, industrial vacuum, nitrogen (99.99% purity), inert gas

*TÜV certification

Stainless Steel Range

- **Stainless Steel Pipe**
  AISI 304 or 316L
- **Diameters (in mm)**
  22 - 28 - 42 - 60 - 76 - 100
- **Maximum Working Pressure***
  - 10 bar (-20°C to 60°C) for all diameters
  - 7 bar (-20°C to 90°C) for all diameters
- **Vacuum Level**
  99,9% (1 mbar absolute pressure)
- **Working Temperature :** -20°C to 90°C
- **EPDM or FKM Seals**
- **Compatibility**
  Cooling water, industrial water with additives, lubricating oil, compressed air, vacuum, inert gas

*TÜV certification

Certification

afaq ISO 9001 Qualité AFNOR CERTIFICATION

TÜVRheinland®

10 YEARS GUARANTEE 10 YEARS

ISO8573

Transair®: Tools and Services

Transair® General Catalogue

Gathers all information, regarding Transair® aluminium and stainless steel product ranges.

Available for download on www.parkertransair.com

Transair® Available for BIM

BIM - Building Information Modeling - is a collaborative e-platform of a construction project, gathering all the actors of this project, according to a common language. All Transair® families are now available, in REVIT format, in **LOD (Level Of Detail) 200 and 400**.

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 quickly 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.

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