



Transair® Aluminium Range

Networks for Compressed Air, Vacuum & Inert Gas
Fire Protection

In compliance with PED 2014/68/EU



ENGINEERING YOUR SUCCESS.

Fire Protection in Industrial Buildings

Worldwide, more than half of all companies affected by a major fire are closing down. Industrials must protect themselves against these risks, which could jeopardise their **sustainability**.

There is an **obligation** to **take the necessary actions to limit the risks** of a fire and **guarantee** the **safety** of people and property in the event of a disaster.

Consequences of a fire:

- Injuries or even death of the employees
- Activity at rest, Company is unproductive and can lead to its closure
- Disruptions for customers, with the risk of losing them
- Psychological impact, and environmental consequences



In the event of a **fire**, the notion of time is essential, every minute counts:

- So that people can evacuate
- For help to arrive
- So that firefighters have time to put out the fire
- To limit damage in the building

The fire risk must be taken into account in the planning phase of the building. The approach consists, for example, in choosing the appropriate materials according to their **reaction** and **fire resistance**.

The construction materials used must be resistant to flames and delay its propagation as much as possible.



Fire protection - International Standards and Regulations in Force

In Europe, the behaviour of materials in the event of fire is governed by the following standards **Euroclasses**.

These standards encompass two complementary and distinct aspects: "**reaction to fire**". (standard EN 13501-1) and "**fire resistance**" (standard EN 13501-2).

- **Reaction to fire** is the way a material behaves as a fuel.
- **Fire resistance** is the time during which the construction element plays its role in limiting propagation.



1 - Reaction to Fire

Fire protection requires a good knowledge of the reaction of the materials to fire.

The latter is defined in the **Euroclass standard EN13501-1** according to 3 criteria, measured by standardized tests within approved centres.

Will the materials:

- Help spread the fire?
- Produce smoke?
- Produce droplets and flaming particles?

Euroclass
EN13501-1

2 - Fire Resistance

The second important element to take into account in **fire protection** is the length of time during which the construction materials will maintain their stability and fire resistance.

This fire resistance is defined by the standard **Euroclass EN13501-2**: the standard specifies the tests which determines material classification to different performances, ranging from 10 to 360 minutes.

Euroclass
EN13501-2



Transair® Aluminium Range: Reaction to Fire

Euroclass Certificate EN 13501-1

Euroclass EN 13501-1 defines the different classes for **reaction to fire** for the following **three** main criteria:

- Fire behaviour
- Smoke production
- Falling drops and flaming particles

The Transair® aluminium range is **non-flammable** and **does not generate drops or flaming particles**.

The Transair® aluminium range is classified **B s2 d0** in accordance with Euroclass EN 13501-1.

Classification of the Transair® aluminium range according to Euroclass EN13501-1:

Euroclass	Reaction to Fire	Smoke Production		Falling Drops or Flaming Particles	
A1	No contribution to fire	-	-	-	-
A2	No contribution to fire	s1	Little smoke production	d0	No drop or flaming particles
B	Very limited contribution to fire	s2	Average smoke production	d1	Drop or flaming particles resisting less than 10 seconds
C	Limited contribution to fire				
D	Acceptable contribution to fire	s3	Significant smoke production	d2	Drop or flaming particles resisting more than 10 seconds
E	Acceptable contribution to fire	Not tested yet		No indication or d2	
F	No performance requirement				

Standard Euroclass EN 13501-1

Focus on the criterion of Euroclass EN 13501-1: "falling drops and flaming particles".

Due to their **high position in a building**, fluid networks can pose a **significant risk of fire spread** if **flaming drops and particles are projected onto the ground**.



High number of drops falling



Few drops falling



No falling drops



On the criterion "drops and flaming particles", the **Transair® aluminium range** has the **highest rating d0**.



To obtain certification documentation of the Transair® aluminium range according to Euroclass EN13501-1, please contact us at the following address: transair@parker.com

Transair® Aluminium Range: Fire Resistance



Euroclass certificate EN 13501-2

Some regulations **require** the use of **specific solutions or devices to resist the spread of fire**, particularly for buildings used by the public, for example, airports, hospitals, etc.

The Euroclass EN13501-2 standard regarding **fire resistance** defines the tests allowing to classify these solutions according to their **fire resistance duration**, from 10 to 360 minutes.

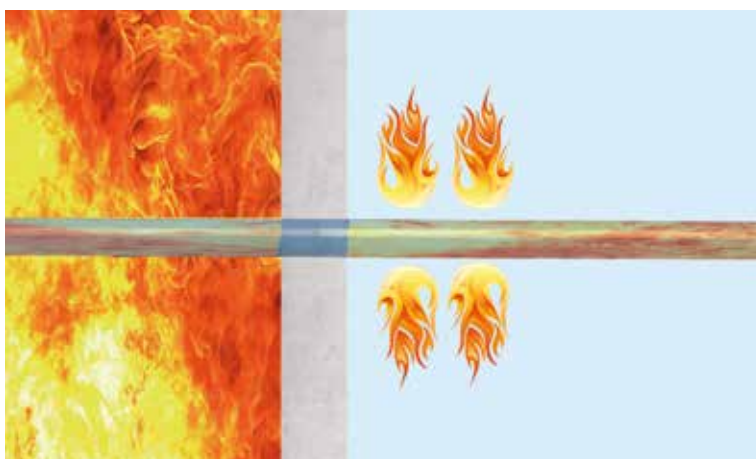
The openings created in the walls to accommodate elements such as electrical cables, technical ducts, pipes, etc., are a **critical point** in fire protection.

These openings can create "**leaks**" that the fire can use to spread to other parts of the building.



Any network crossing walls and ceilings **can potentially spread a fire**.

The space between the wall and the piping must therefore be **secured**.



Spreading a fire through an opening between 2 parts of a building

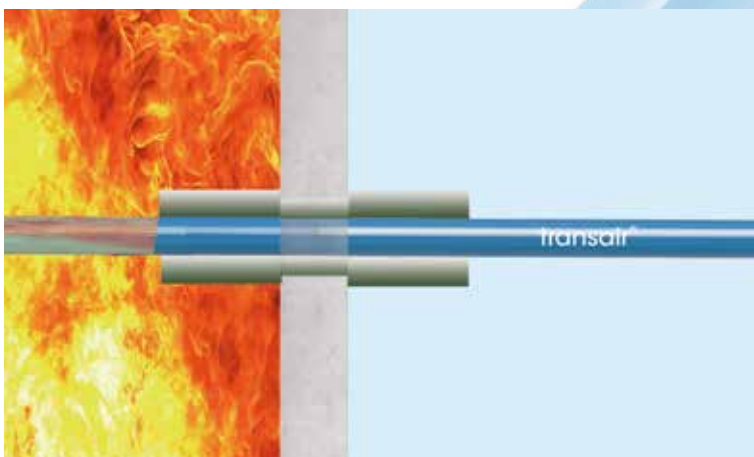
Standard Euroclass 13501-2



In accordance with Euroclass EN13501-2, **the Transair® aluminium range, equipped with a specific solution, is a fireproof conduit passage that prevents the propagation of any fire and resists for 120 minutes (E120)*.**

(*) tested by one of the world leaders in fire protection

When Transair® pipes are equipped with a specific firewall solution, **the fire is confined for nearly 2 hours**, allowing time for people to evacuate, rescue to arrive and firefighters to act.



Networks equipped with a specific solution are flame resistant and prevent the spread of fire



To obtain certification documentation of the Transair® aluminium range equipped with a fireproof solution, in accordance with Euroclass EN13501-2, please contact us at the following address: transair@parker.com



**Transair®
Wide Product
Range**



**TCMS
Transair®
Moni
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**



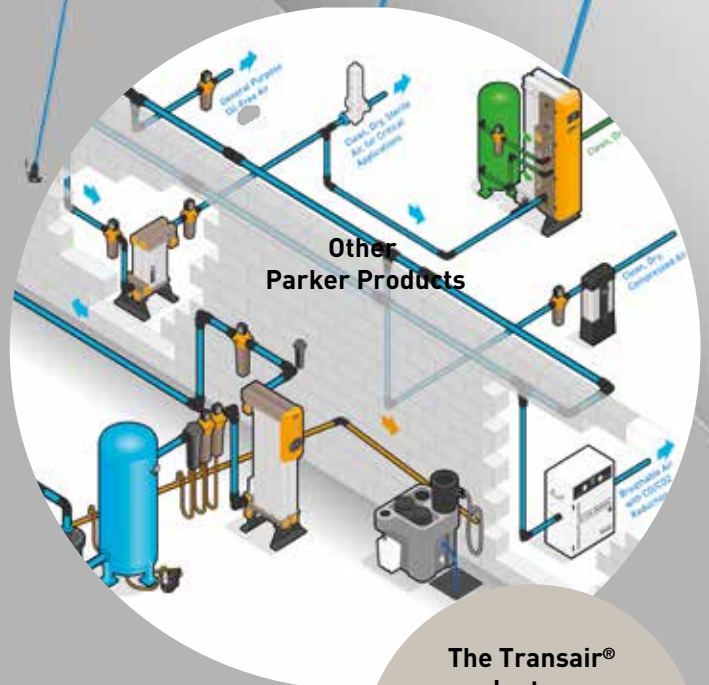
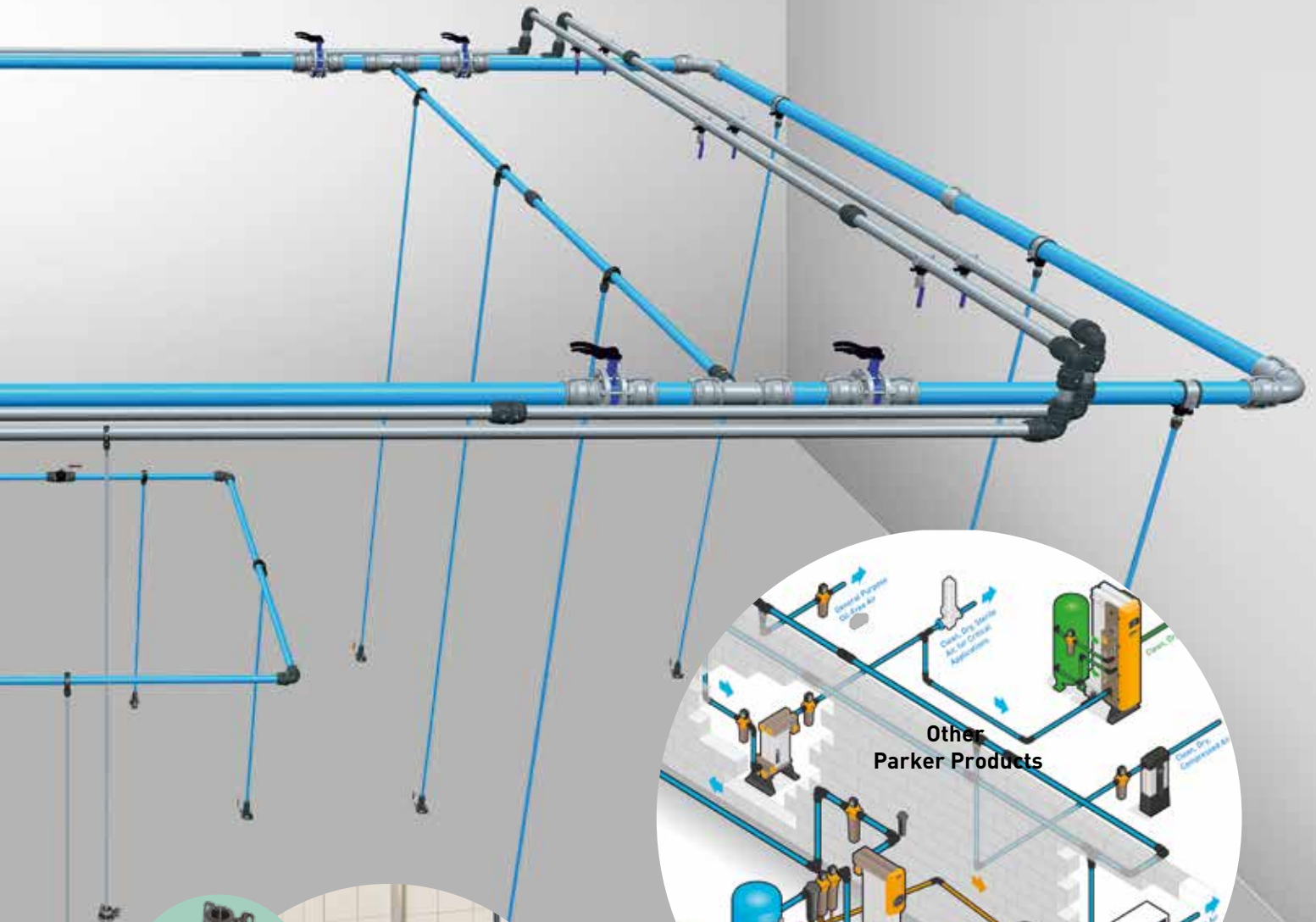
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Transair® Condition
Monitoring System**

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

™ Gold
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Monitoring
System
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Transair®, from the Technical Room to the Heart of Production



Transair®
Stainless Steel Drops
for Harsh Environments

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



Transair® : Tools and Services



Transair® General Catalogue

Combines 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 contributors 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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