

# Polymerisation oven

## ► Painting

After painting to ensure a good grip to the profile one needs to cook the paint so it polymerises: this happens at a temperature between 170° - 210° (measured on the profile) depending on the powder. Aluengineering designs and builds its ovens so to ensure that the appropriate temperature is reached throughout the entire oven and consequently on all the profiles with the least possible heat dispersion.

### Typical execution

- External width : 7250 mm
- External length : 8200 + 1500 mm
- External height : 4050 mm
- Passage openings width : 600 mm
- Passage openings height : 1900 mm





Internal view of the oven

#### Typical construction

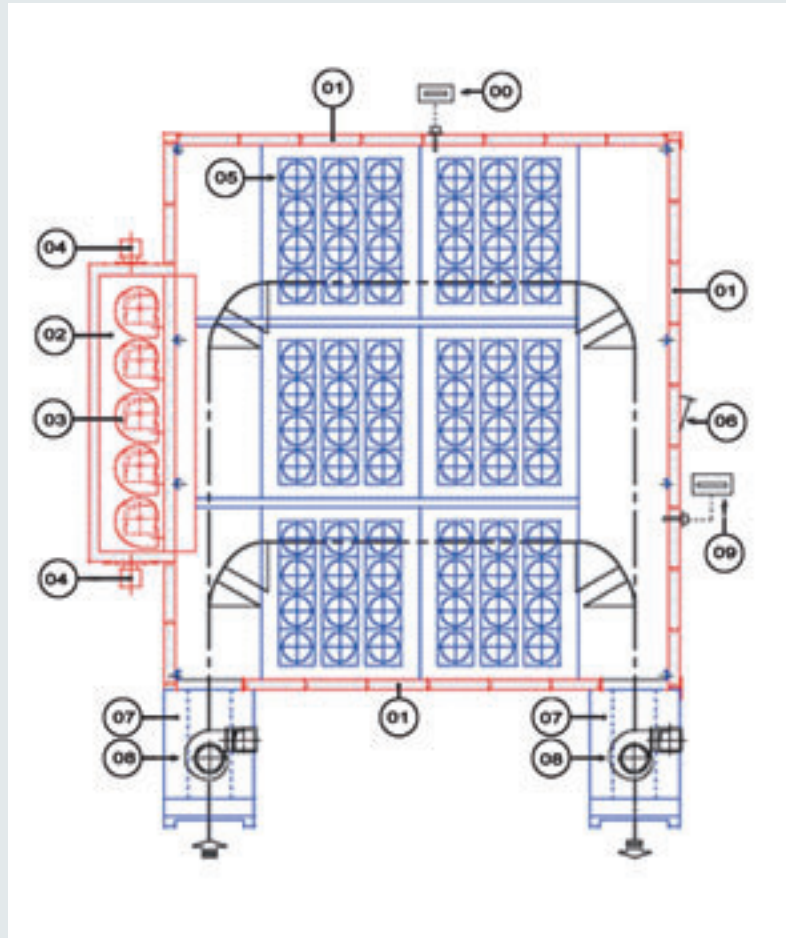
- ▶ Structure made in painted carbon steel
- ▶ Walls insulated with glass wool (thickness 150 mm, density 60 kg/m<sup>3</sup>) with external galvanised steel sheets and internal polished steel sheets (both with thickness 12/10)
- ▶ Air channeling made with carbon sheets panels (thickness 12/10)
- ▶ Combustion chamber made in stainless steel AISI 430
- ▶ All external parts (non galvanised) painted in blue RAL5010



Oven under constuction

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Schematic top view of the oven

Pos.	DESCRIPTION
01	Insulated panels for walls, floor and roof
02	Combustion chamber
03	Air recycle fan
04	Gas / LPG burner
05	Air diffuser
06	Inspection door
07	Air veils
08	Centrifugal fan
09-00	Temperature probe



## Oven equipment

- ▶ 5 Fans for air circulation with flow rate 7500 m<sup>3</sup>/h, head 30 mm, power consumption 3 kW
- ▶ 2 Combustion chambers
- ▶ 2 Gas/LPG burners, double flame 250000 kcal/h each
- ▶ 2 Temperature probe (0-300°C)
- ▶ 2 Fans for air veils with flow rate 6000 m<sup>3</sup>/h, head 50 mm, power consumption 2,2kW
- ▶ 1 Extraction fan with flow rate 2000 m<sup>3</sup>/h



Internal views of the oven