



## COMPANY PROFILE – OVERVIEW OF PRODUCTION AND PRODUCTS

INDUSTRIE PASOTTI S.p.A. is one of the major European companies in the field of light alloy die-casting for the production of die-cast aluminium radiators and industrial technical articles.

Manufacturing activities are carried out at two plants, one used for die-cast aluminium alloy radiators, and the other for industrial technical articles.

The covered area as a whole is 40,000 m<sup>2</sup>.

The company has more than 440 employees.

Expertise and continuous technological adaptation developed in over 40 years of activity enabled the establishment of die-cast aluminium heating radiator production, thirty years ago. Now the company is a leader in this field.

The radiators manufactured by INDUSTRIE PASOTTI in the COMFORT, MONDIAL, ELEGANCE, ROUNDING, JOKER, NEW-AGE, TOWER series, supplemented by its towel-warming radiators made of steel, chromium-plated steel and stainless steels in the STILL and CLASS, SOFT and SMART series, have become very popular at the international level for the research constantly devoted to these applications, their modern and winning design keeping up with market demands, as well as their thermo-technical functions, such as:

- ✓ High thermal convective and radiant gradient.
- ✓ Sturdy body with minimum water flow rate.
- ✓ Logarithmic curve performance always below 1.3 (low temperatures).
- ✓ High thermal emission performance
- ✓ Beautiful and safe design, perfectly fitting any environment.

All of this was made possible thanks to the skills of the company's technical staff, the quality of its raw materials, its manufacturing process quality checks, and its high-tech systems.

And all of this was confirmed by the quality certification according to the **UNI EN ISO 9001 standard Ed. 2000 (certificate no. 97.016), SINCERT reg. no. 015**, that the company obtained from **SGS**, an international certification company.

The entire range of radiators produced by INDUSTRIE PASOTTI has been approved in the major European countries.

## PRODUCTION BASED ON HIGH QUALITY MATERIALS

The material used to manufacture die-cast aluminium radiators is the GD - Al Si 12 Cu 2 Fe alloy (international abbreviation), which is equivalent to the EN 46100 alloy.

The use of such an alloy is important to manufacture radiators because of the physical and mechanical features and percentage chemical composition of the metals contained therein.

The alloy is made up of different percentages of several metals, such as aluminium (~ 85%), silicon (Si 12%), iron (Fe ≤ 1.1%), copper (Cu 1.75 ÷ 2.5%); all the others metal elements have very low percentages.

In the product manufacture, special attention is given to the zinc value, which must be below **1.3%**. If this value is exceeded, the pile effect may happen with certain waters, leading to corrosion.

The seals used for heating elements are environment-friendly.

All mechanical and thermal features, operating pressures (6 bars in general; 16 bars for the ELEGANCE series) are supported by certifications according to the EN 442/1/2 standard.

The water average operating temperature can range from 50°C to 110°C (low pressure steam, 0.4 bars).

## EXCELLENT SURFACE FINISHING

The radiator surface protection is achieved with two coats of paint.

The first coat is applied by **anaphoresis** with a state-of-the-art technological system. Paint application by anaphoresis is the most advanced metal protection technique by paint coating.

The process uses a dipping tank where the painting product is diluted in water and makes the so-called bath; the painting product is laid on the radiator by means of a continuous electrical field where the radiator, connected to the anode (+), attracts the paint contained in the tank, which is the cathode (-), thanks to the electrodes contained therein.

The finish coat is made with electrostatically applied epoxy-polyester powders.

Both paints are polymerised (baked) at a temperature of 180°C.

On the other hand, the pre-coating treatment process includes:

- ✓ Alkaline degreasing.
- ✓ Acid deoxidisation.
- ✓ Fluozirconate treatment.

In the above cycle, radiators undergo treatments that have several purposes, such as preparation of a priming layer for paint setting, anticorrosion treatment of the thermal carrier fluid (water) chamber, including the removal of residues of previous mechanical machining processes (swarfs, chips, etc.).

This anticorrosion treatment applied inside the water chamber is intended to protect it from the formation of most corrosive gases\*\* usually found in heating systems.

Contrary to a widespread opinion, a good painting with multiple coats does not decrease, but rather tends to increase, although slightly, thermal emission.

Using such treatments, INDUSTRIE PASOTTI can ensure their customers a top quality product with a long lasting surface finishing; of course, the radiator must be maintained properly according to the following instructions:

- ✓ Do not coat radiators with new paint.
- ✓ Periodically wash radiators with neutral liquid detergents.
- ✓ Do not use blunt bodies, punches, etc., that could scratch the painting.

All the production of our heating elements is 100% tested before they are packed to check their hydraulic seal.

Special attention is paid to packaging. Before being packed, every radiator battery is visually inspected and rejected if it exhibits finish flaws.

Each battery is coated with a polyethylene film in order to protect it during installation and packed in a sturdy cardboard box.

All the products manufactured by INDUSTRIE PASOTTI S.p.A. have a 10-year guarantee (6 years for the SMART models) from the beginning of their use.

INDUSTRIE PASOTTI S.p.A.

Technical Management