TECHNICAL AND MANUFACTURING FEATURES OF "STILL" TOWEL-WARMING RADIATORS

STILL towel-warming radiators are manufactured using "**state-of-the-art**" methods.

Raw materials are purchased on the market according to strict specifications that take into account their aptitude to undergo further manufacturing processes so as to guarantee the durability and consistency of the aesthetic and functional features of the end product.

Cutting and drilling processes are performed on automatic centres that are especially customised to obtain the necessary production capacity with the right tolerances and, at the same time, to avoid producing residual stresses or minor damages in the semi-finished product that would prejudice its final aspect.

The various parts of our **STILL** radiators are joined using "**strong brazing**", which consists of heating the parts to be coupled to the melting temperature of the weld material, which in our case is copper, that allows for the junction of the various parts infiltrating by capillarity between the coupling surfaces of the two parts to be joined.

The name "strong brazing" derives, as it is well known, from the choice of the weld material, which in our case is copper that has a high melting point and excellent mechanical features. The entire heating and cooling process takes place in a controlled atmosphere so as to avoid the oxidation of carbon steel, used to make radiators.

This process, which involves heating the whole part, has the advantage of avoiding a rise in residual stresses, which are always present when technologies based on limited localised heating of the welding area only are used.

"Strong brazing", performed in a continuous furnace, with copper as the weld material, has another advantage compared to so-called "soft" brazing techniques, where “soft” means welding alloys with a lower melting point. This type of welding is normally performed on flame systems that need special deoxidisers, whose residues can entail problems of slow corrosion on end products.

Surface finishing

At the end of the production process, **STILL** towel-warming radiators are treated in a completely automatic system, which ensures perfect painting from both the aesthetic and functional point of view and is especially aimed at ensuring protection and surface resistance with the purpose of guaranteeing durability.

The towel-warming radiator painting process includes various cycles of processing and finishing with epoxy-polyester powder paints for a total of 12 distinct phases:

1. end material control;

   pre-washing;

pressure test according to EN 442 with antioxidative solution;
washing treatment with phosphodegreasing solution;
rinse in osmotised water;
rinse in deionised water;
“flow coating” treatment with filmogenic solution;
dripping and drying of filmogenic protection;
filmogenic layer polymerisation;
electrostatic powder painting;
polymerisation in convection oven;
total visual check (100%).

The result of these processes is an excellent product in terms of aesthetics and resistance to corrosion, which is guaranteed for 10 years (*) provided that it is used correctly.

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Technical Management