

PROPER INSTALLATION

The radiators must be installed by qualified personnel. Following are some recommendations for proper installation:

- _ Before you install a new radiator make sure that the pipes of the heating system are clean. Precisely, in a new system you must eliminate all the residuals deriving from the set up of the system, in an old system you must remove all and any impurities, sludge, calamine, grease and make sure there is no scaling and no air inside the pipes that could prevent the new radiator from functioning properly or make it rapidly deteriorate. Remember that any impurities could obstruct the proper flow of water through the valves and lockshields and thus drastically reduce the thermal yield.
- _ The vent valve supplied must be installed taking care not to tighten too much, i.e. not exceeding 10 Nm torque.
- _ The vent valve, the valve and lockshield must be installed with a Teflon tape or hemp in the connection thread.
- _ Fill up the radiator VERY SLOWLY in order to enable the air inside the radiator to be discharged from the air valve. For a new system this operation should be carried out at least three times, with an interval of two/three days from each operation.
- _ You should not fill up the heating system with water or fluids that have a PH over 8.5, as to make the radiator last longer and prevent the forming of internal corrosion which could perforate the radiator.
- _ The excellent heat transfer of our radiators make them perfectly suitable to be used in low temperature delivery systems, and in such cases we recommend you provide for an adequate heat plumbing plan in order to ensure proper sizing. Our radiators are not suitable to operate with steam systems.
- _ The operating pressure of the heating units must not be over the guaranteed pressure, which is 5 bar.

PROBLEMS THAT CAN EMERGE WHEN USING THE RADIATORS

The room is COLD even if the radiator is boiling hot. This problem can arise when the system or heater itself was NOT properly sized or when calculation of the required yield was made with wrong data regarding the insulation, the internal and external project temperature and the features of the boiler. In such case it is advisable to have a heating specialist assess the problem.

The radiator DOES NOT HEAT UP. Despite the fact that the radiator was properly installed by a professional installer it can happen that it does NOT heat up. The most frequent causes preventing a radiator from heating up can be the following:

- _ The thermal power is insufficient to heat the room where the radiator has been installed or the water temperature is too low.
- _ The pipes of the heating system were not properly sized.
- _ The circulation pump of the system must be adjusted properly in order to avoid a yield that is too low in some areas of the radiator
- _ The radiator could have accumulated air on the inside which must be discharged with the vent valve found on the radiator.
- _ The thermostat or thermostatic valve head do not function properly.
- _ The main thermostat is exposed to intense sources of external heat such as sun rays, which make it reach the required temperature, for this reason the radiators in the other rooms do not heat up.
- _ The water temperature is too low.
- _ Impurities inside the system are deposited in the valve. Impurities considerably reduce the water capacity and, consequently, the production of heat.
- _ Only part of the radiator heats up. The radiator is oversized, thus the room reaches the temperature set before the radiator can reach a homogeneous temperature over its entire surface.

The radiator is NOISY. In some situations the radiator is the noise diffusion terminal which however does NOT depend on the radiator. The radiator in fact becomes the 'resonance box' of noise coming from the system i.e. from the pipes and systems scraping against the walls or inside the floors. Other noise can be caused by wrong connection of the valve and lockshield (inverted) or by excessive water at valve level due to excessive pressure. Strain in the system can also cause noise. Often the cause is to be found in the tubes or manifolds in contact with floors, walls, and other materials. Moreover, the absence of acoustic protection on the manifolds can cause noise.

RADIATOR LIFE

In order to enjoy the functionality and beauty of our radiators we recommend you follow the advice below:

- _ Except in the case of stainless steel models, the radiators must not be positioned over a bath tub, inside a shower, in Turkish baths, in saunas, near swimming pools or in any other area with particularly high humidity levels.
- _ Avoid mounting the radiators in laboratories where they would be exposed to aggressive acids or acid vapours, also avoid mounting next to WC (toilet) bowls and urinals.
- _ The radiators cannot be installed on ceilings or outdoors, such as for example in greenhouses or verandas, because they would not satisfy the requirements.
- _ After the initial fill up the heating units must not remain without any water and must not be emptied periodically in order to prevent corrosion that could perforate your radiator.
- _ Should any anti-freeze or corrosion inhibitors be used you must keep into account their compatibility with the materials that compose the heating units.
- _ The cleaning of the surfaces of the radiator must not be carried out with acid or abrasive products but preferably with soft, water moistened cloths.
- _ The radiators and towel warmers can be used for heating, for keeping towels warm or for warming up fabrics, but they cannot be used for drying any wet towels, underwear or other wet items.

RADIATOR MAINTENANCE

The radiators and towel warmers do not require much maintenance. Regularly clean them with a soft, moist cloth. We recommend that you do not use acid and/or abrasive detergents because they could ruin the painted and/or chrome-plated surface of the radiator or towel warmer.

We recommend moreover that the air accumulated inside the radiators or heating systems be discharged at regular intervals. Air discharging should be carried out at least once/ twice a year, preferably before the heating system is turned on. This operation eliminates all the air that normally accumulates during the operating of the heating system, preventing rust from forming inside the radiators which over time could cause a new radiator to deteriorate prematurely.