Condensing gas boiler

The condensing gas boilers are used both in single and central heating systems. An optimal use combines a condensing boiler, a heating solar panel and a low temperature heating system (floor heating) so as to achieve an optimal condensation and exchange of latent heat of exhaust gas fumes.

From a technical point of view the condensing gas boilers operate in two different fields of temperature with different efficiency: at 50/30°C (between sent and return temperature), they achieve a mean efficiency of 105% (Best available technology – BAT: 107%), while in the field between 80/60°C they achieve a mean efficiency of 96% (BAT 98%). The difference is due to the recovery of condensation heat in exhaust gas fumes.

The energy efficiency of the condensing gas boilers has been increased from the variable flame, where the variation of the air flow in the burner according to instantaneous needs, avoids low efficiency on-off cycles. From the ecological and waste emission point of view, the emissions are respectively: CO_2 9 mg/kWh NO_x 40-44 mg/kWh, CO 15-19 mg/kWh. The generators available on the market are of various sizes that cover all the requirements of a traditional heating system, but a higher initial investment is necessary.