

MODULAR ROASTERS

COFFEE PROCESSING SOLUTIONS



MODULAR ROASTERS

TMR model has been specially designed for industrial productions that require high profitability and repeatability of the roasting processes during the various working stages.

TMR roasters have a modular architecture with an **external heat generating unit**. Therefore, the roasting process takes place totally by **forced convection of indirect hot air**.

The modular architecture allows a greater production, thanks to the recirculation system of heat adopted, that allows to have only one burner that acts also as **thermal afterburner or catalyzer pre-heater**.

TMR allows to achieve the desired roasting profile in terms of time, color and flavor.





HIGH PROFITABILITY AND REPRODUCIBILITY

TMR roasting process ensures **consistent degree of roast** and roasting time, in order to reach the best bean quality consistency, despite of any affecting external conditions like production start-stop-restart, green coffee quality, coffee moisture, change of coffee lot. If the product temperature follows always the same profile, batch by batch, then the result will be consistent over the entire batch series. This is the reason why TMR is suitable for **frequent recipe changes with a guaranteed repeatability**.

TMR gives the possibility to create innovative roasting profiles for new flavour characteristics and physical bean properties.

The roasting curves are previously drawn by setting the time and bean temperature as independent variables. It is possible thanks to a software called **I.R.C. (Integrated Roasting Control)** that allows to keep a consistent quality of the product right from the first batch, when the machine is cold, up to the last roasting cycle.

Moreover, the roasting time between one batch and the next one of the same product, is 2/3 sec max.

These features guarantee exactly the same final color, moisture and taste, day by day, during production.

HEAT RECOVERY SYSTEM

Heat is transferred to the beans by an hot air flow generated by an external unit. The air passes through the drum and therefore through a cyclone that removes the chaffs released by the beans during the roasting process. Then, the cleaned air is conveyed again into the roasting drum by **forced convection system**.

This method avoids any kind of beans damages during the roasting or an overheating of the roasting drum and gives a uniform roasting color even in case of different green coffee bean sizes.

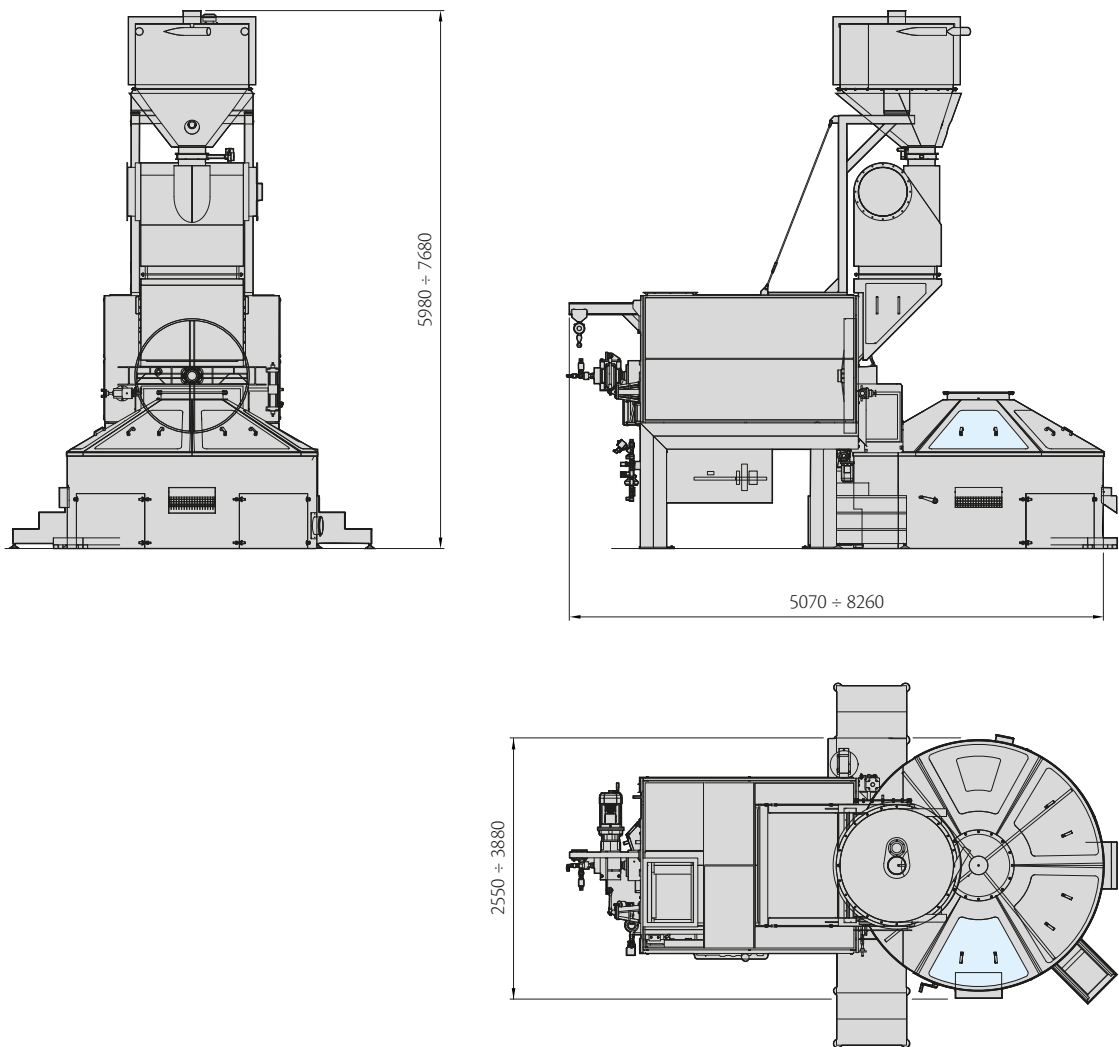
Petroncini Heat Recovery System cleans all the exhaust air before recirculating it again into the roasting drum. The heat generator acts also as a thermal afterburner or catalyzer pre-heater.

It has substantial benefits on energy savings and limited impact on the environment in terms of CO2 emission and VOC.

The Recovery System does not have any influence on the coffee quality and the **desired sensorial profile** of the final product. Furthermore, it helps in keeping clean the roasting drum and pipes, **reducing maintenance**.

- THE ROASTING PROCESS ENSURES CONSISTENT DEGREE OF ROAST
- TMR IS SUITABLE FOR FREQUENT RECIPE CHANGES
- THE ROASTING CURVES ARE PREVIOUSLY DRAWN
- TMR GUARANTEES THE LOWEST ENERGY CONSUMPTION
- THE FINAL PRODUCT HAS THE COLOR, MOISTURE AND TASTE DESIRED

TECHNICAL DATA



	TMR 250	TMR 400	TMR 720
Lenght (mm)	5070	6280	8260
Width (mm)	2550	2960	3880
Height (mm)	5980	6170	7680
Batch size (kg)	250	400	720
Capacity (kg/h)	up to 1250	up to 2000	up to 3600
Roasting Time (min)	8-20	8-20	8-20

