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# From the vegetable garden TO THE TABLE

*Cooking, a “hot” issue in an age when the centrality of the conservation of foods’ organoleptic values, nowadays a consolidated theme in the food production and catering culture, is connected with the growth of the vegetarian and vegan cooking, more and more “antagonist” of traditional cooking, ready to propose itself as healthier and more nourishing.*



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lberto Nobili, one of the three managing directors of Nilma, a company that since 1956 has faced the catering appliance world in innovative manner, outlines us the features of oriented appliances and technologies aimed at supporting these trends efficaciously.

**The cooking modality of vegetables is a key element of the conservation of organoleptic and hygienic values. What are the most fashionable trends?**

Vegetables – to maintain taste and nutritional values – should be steam-cooked or, even better, with pressurized steam because this solution better preserves products' organoleptic aspects, reducing the dispersion of salts, vitamins and proteins. Our technological choice privileges pressurized steam of dry saturated kind.

**Vegetables should be steam-cooked or pressurized steam because this solution better preserves products' organoleptic and hygienic values.**

Compared to the wet one used in mixed ovens, produced at 100°C, it has a much higher capacity of thermal exchange on the product. Hence the higher cooking speed. At Nilma we implement Vaphoor, the biggest steam cooker in the world, able to contain 18 GN 1/1, corresponding to a capacity of 90 kg of potatoes.

**Steam cooking is very successful: what are the technological requisites to make it efficacious indeed?**

As above said, the pressurized steam cooking, due to its cooking rapidity, four – six minutes for vegetables in leaves and ten – twelve minutes for potatoes and carrots, is the best cooking system because the vitamins contained in vegetables are exposed to the destructive action of temperature for a shorter time and therefore they are more conserved, protecting the nutritional quality of the product served.

We can deduce it would be sufficient to serve a smaller quantity of steam-cooked vegetables, in comparison with a bigger quantity cooked in water, to assimilate the same nutritional value. Moreover, with a better taste, sparing seasonings and then improving diners' health, too.

**Has the MOCA regulations introduced any variation in your cooking line?**

It is an irremissible requirement, ratified by the regulation, where we have always been in the forefront: Nilma uses the best stainless steels produced in Europe in the “food zones” of its appliances, as established by law, in full compliance with MOCA regulations. Like for vegetable washers, all non-metal components are certified by competent acknowledged institutes, as required by the directive: a qualitative standard that today is an access requisite to the market but anyway already existing, even if not regulated, for a high-quality appliance production.



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### Are there any specific design and manufacturing solutions for the vegetable management according to HACCP?

The HACCP regulation imposes attention to the risk management that implies very precise ergonomic design logics: appliances must be easily sanitized after use.

This means the materials in contact with the product must be certified. However, it is not enough, because materials are extremely relevant: worth pointing out we use steels with polished or micro-shot-peened finishes, which make cleaning easier, as well as radiated angles in “food zones”. In the appliance design, we consider these fundamental aspects. However, the most relevant aspect and the new frontier concern the introduction of the detection and management software

of HACCP parameters, the entry of electronics in the kitchen.

### Cooking is the task of the machine, but it must also be clean (hygienically) and efficient (energetically): what methods do you use to design and to implement hygienically correct cooking systems able to save energy? Is the cooking of vegetables more problematic or is it in line with the cooking of other foods?

If we consider for instance pressurized steam cookers, besides what already said on user-friendly cleaning, the steam itself they generate sterilizes the cooking chamber, having a temperature of 120 °C. In addition to that, all systems are equipped with the automated washing of the cooking chamber. From the energy point of view, our experience has led



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us to implement a product range fully equipped with thermostatic temperature regulation, which switches on and off the heating system according to cooking requirements. Besides, another essential point is an efficacious insulation. In practice, you can consider that out of one cooking hour, the heating system is in operation for just 20 minutes. You achieve a relevant energy saving by using steam as heating source because it has much higher efficiency than gas and electricity. With the same capacity, a steam-powered appliance has almost double efficiency than a gas-operated equipment and 30% more than an electric one. Concerning this, Nilma, operating for the large-scale cooking and the food industry, has developed an entire range of steam-powered cooking appliances, with pressures ranging from 0.5 to 8 bars.