



LISTENING ANALYZING DESIGNING MANUFACTURING

Attentive interpretation of each single customer's needs, accurate selection of construction materials and mechanical simplicity: these are the basic ingredients of the sturdiness, dependability and long life of the tailor-made solutions that GIULIO RAIOLA SRL has been designing and manufacturing ever since 1946 for food-processors all around the world.

Thanks to the experience gained in over sixty-year activity, and to the mission goal of meeting the ever evolving needs of its clientele scattered over 80 countries all around the world, Officine Meccaniche GIULIO RAIOLA srl designs, manufactures and supplies **complete and highly customized solutions** for fruit

processing with focus on top-quality of end-product, constant improvement of equipment quality and performance, combined with reduction of customers' processing costs. Moreover, fast dependable service, readiness in promptly addressing customers' needs as they arise, 24/7 availability and flexibility make this customer-service oriented company the perfect partner for processors of all sizes.

Their wide variety of products includes processing lines for fruit preserves, peach and pear canning, fresh-cut fruit products, dried fruit, candied fruit, jams, juices, citrus spirit production (eg. limoncello).



Peach preserve line



Juice line

TECHNOLOGICAL FEATURES AND ADVANTAGES

Giulio Raiola equipment and particularly their unique and patented peelers have many advantages with respect to all the other fruit peelers on the market.

Surface of the peeled fruit and product hygiene

With Raiola's equipment in fact, the peeling process is totally mechanical. It is carried out by means of blades (knives) that do not affect the product organoleptic qualities. The difference is mainly due to GIULIO RAIOLA **special blades**. In fact, all other systems peel fruit by milling, a peeling technique that produces grooves on the fruit surface, causes fruit to lose its natural look, removes not only peel but also part of the fruit pulp, causes relevant weight loss and transfers impurities from fruit peel to the peeled fruit.



The knife-peeling system gently follows the fruit surface, removes a long thin peel ribbon and produces a smooth, nice and naturally looking end-product



With Giulio Raiola special blades, instead, fruit peel is not chopped up. Each knife on RAIOLA'S systems gently **follow the surface** of each fruit and shape a very **smooth**, nice and **naturally looking end-product**, which makes Raiola's machines particularly suitable for the processing of preserves sold in jars and for fresh fruit salads. Peel is moreover gently cut away and the whole peel ribbon slips down without contaminating the fruit, which guarantees optimal product **hygiene** and safety.

Essential oil recovery

These features are even more important in citrus zest production for essential oil extraction, spirit production (eg. *limoncello*), distillation and in general for all products requiring perfect separation of zest (flavedo) from pith (albedo) without breaking the small cells containing the essential oils. RAIOLA's special knife-peeling system allows removing from each piece of fruit a long and thin zest ribbon, which is not chopped up, as it happens instead with milling systems. The zest therefore retains all essential oils inside with a major percentage recovery of essential oils.

Weight-loss minimization

On RAIOLA's peelers, all peeling and coring tools are adjustable, which allows varying peel thickness to be removed from fruit as well as coring diameter with no unintentional pulp waste and consequent **weight-loss minimization**.

Lab tests* with other peelers available on the market produced the following results:

7 to + 13 % product –pulp- recovery with respect to the other peeling systems

16 % essential oil recovery from zest with respect to other peeling systems

* all test records and reports are available for reference

Raw produce and finished product quality

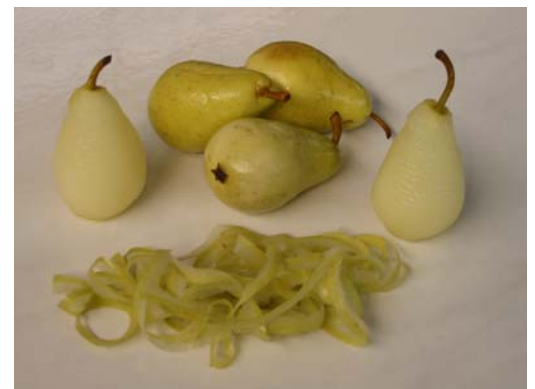
The possibility of adjusting the peel thickness also allows processing

poor-quality batches and, by modifying the blade position, removing some pulp off damaged fruit and turning it into **nice-looking products**. Also, this very simple peeling system, based on sound engineering principles, also allows peeling oddly-shaped and roughly graded fruits, often rejected by other peelers, with virtually no downstream inspection required.

Another major feature of GIULIO RAIOLA peelers, is the peculiar coring system originally designed for top-range pears such as Williams. This system removes a very thin core and **hollows the seed-cells** out of pears and apples, thus allowing even higher recovery.



Citrus zest (flavedo) prepared with Raiola's peelers



Raiola's range includes a peeler especially designed for brined baby-pears, suitable for the candied fruit industry



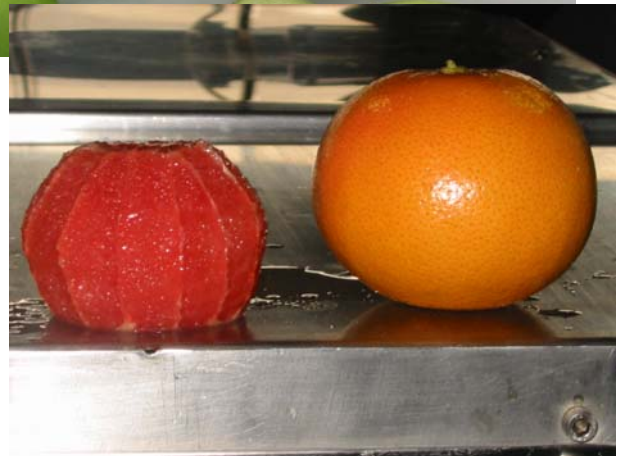
Thin coring with seed-cell removal



FRESH-CUT RANGE

Starting from their special knife-peeling system, which was originally designed to produce lemon zest for local infusion spirits such as *limoncello* and which for this reason is extremely **delicate**, GIULIO RAIOLA has then developed a complete range of equipment for fresh fruit salads, or fresh-cut fruit. This range also includes the following machines: the peeler-corer for apples and pears, that allows peeling both types of fruit on the same machine, the kiwi peeler, the peeler-corer for oranges and grapefruit removing both skin (flavedo) and pith (albedo), the peach pitters, which are so delicate on the produce that they are perfectly suitable for pitting and halving nectarines for fresh salads.

Other machines of the *fresh-cut* range are: wedging machines, cutting machines, pineapple peelers with different capacities, dicing machines, and the new *tid-bit cutter* producing tid-bits of apples and pears. All of them have in common the extremely natural look of the finished product together with weight-loss minimization.



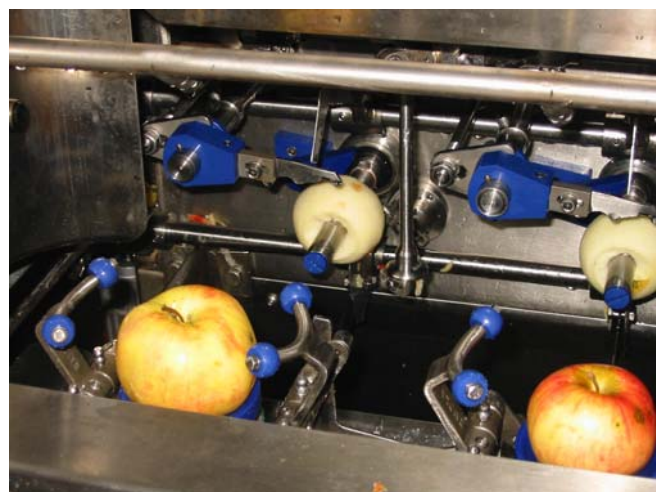
In the pictures: oranges, kiwis, apples and grapefruit to be used in fresh-fruit salad preparation

ENGINEERING FEATURES

Extremely simple design, mechanics and pneumatics, consisting in a few gears and components, make GIULIO RAIOLA machines very **easy to operate**, quick and simple to clean and incredibly **low on maintenance**. All GIULIO RAIOLA installations are designed to guarantee maximum hygiene, total operators' safety, top performance, optimum reliability and very long life.

Accurate selection of materials and components

GIULIO RAIOLA equipment is completely made of AISI 304 and 316 stainless steel, including pillow blocks and safety guards. Only few components coming into contact with fruit, and not being part of mechanics, are made of food-grade plastic.



Processing area with components made of blue POM food-grade plastic