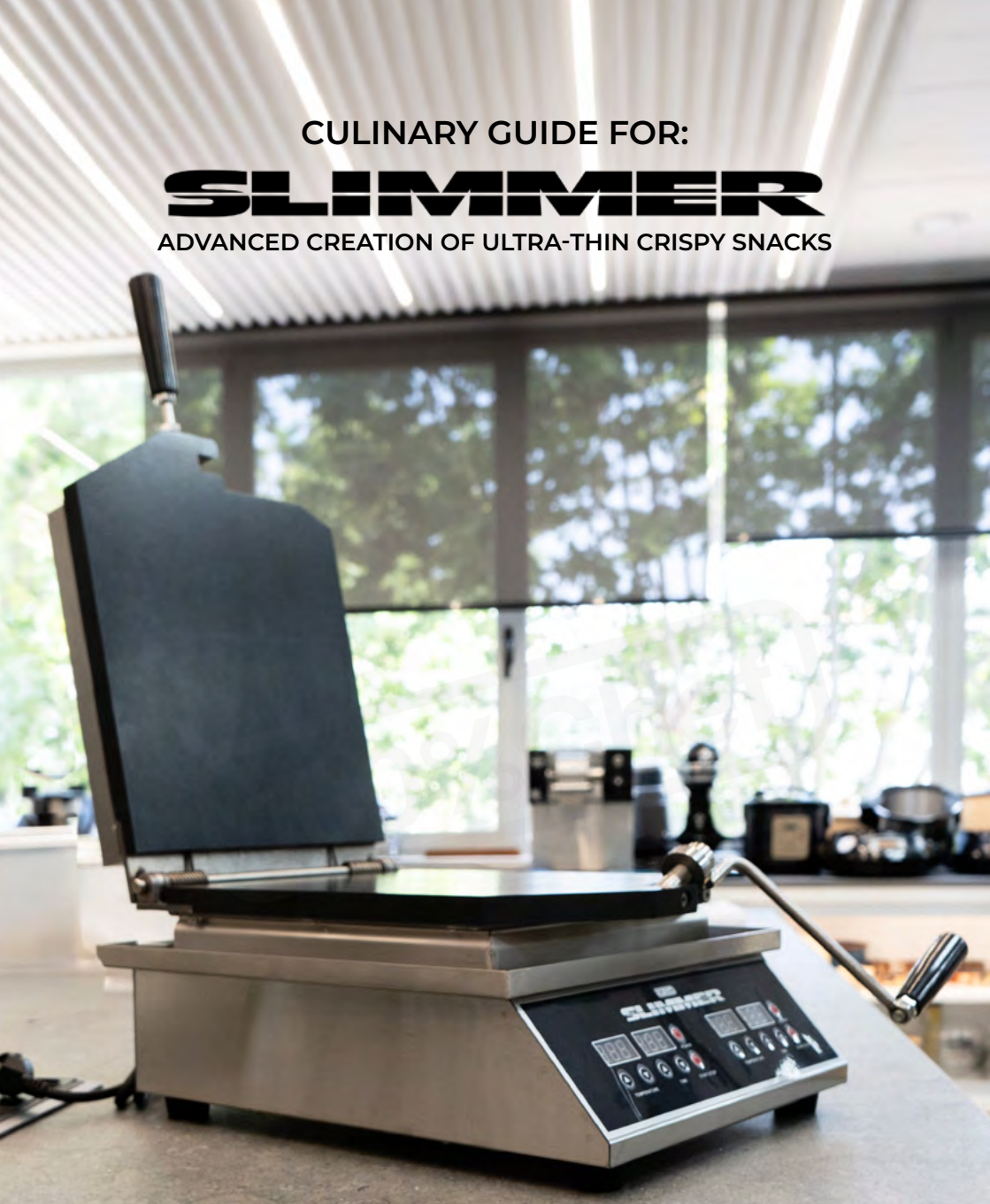
CULINARY GUIDE FOR:

SLIMMER

ADVANCED CREATION OF ULTRA-THIN CRISPY SNACKS



100%Lab 100%Chef

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A revolution in texture and flavour

Slimmer is a machine that allows ingredients to be transformed into ultra-thin snacks, with crunchy textures and enhanced sensory profiles. By pressing between heated plates with precise temperature control independent on both plates up to 240°C and pressure up to 2 tons/cm^2. This technique uses the combination of heat and pressure to transform the ingredients, achieving textures and flavours that vary depending on how they are applied.
The possibilities are endless, and the result depends on how you play with those two factors.

This file includes links (internal to the file, and external URLs). These are *highlighted in different colours* to distinguish them for easier reading and interaction with the guide. The product codes mentioned at the end of the file are also linked to make them easier to find.

1. TECHNICAL AND CULINARY FUNDAMENTALS

1.1. The role of temperature and pressure

The combination of high pressure and controlled temperature allows:

- Rapid dehydration: effective removal of surface and internal moisture, key for a crispy texture.
- Maillard reactions: at moderate to high temperatures (140–180°C), generating toasted, complex flavours and deep aromas.
- Gelatinización y caramelización: essential in sugars, starches, and proteins for cohesion and flavour. Incorporation of air by controlled gelatinization of starches (soufflates).
- Without oxidation: the combination of high temperature, pressure, and speed accelerates cooking and drastically reduces exposure to oxygen, preventing oxidation and preserving colour, flavour, and nutritional value.

1.2. Expansion control and cracker-type finishes

In doughs and purees that contain starches —especially tapioca starch—, proper pressing along with a temperature between 140°C and 160°C allows for the controlled formation of air bubbles within the mixture. This phenomenon generates crispy, flat, and slightly airy sheets.

To achieve this effect, several factors are key:

- Pre-cook the dough to gelatinize (cook) the starch (see *section 4.2.*).
- Maintain some humidity, not too dry nor excessively humid.
- Apply pressure quickly and evenly.
- Use molds or pastas cutters if you want to shape the final product.

OPTIONAL FINISH: PUFFED CRACKER

If you want to transform this base into a puffed snack, more voluminous and explosive —similar to a prawn cracker or crackling—, an additional finish can be applied:

- Lightly spray the surface with water, let it absorb for a few seconds, and then fry in oil at 180°C.

This step reactivates the internal moisture, allowing for immediate expansion upon contact with the oil and creating an even lighter, crispier, and more voluminous final texture.

This technique is especially useful in "70% vegetable + 30% tapioca" formulations, as applied in recipes like *Puffed Carrot* or *Minted Peas*.

1.3. Interaction of proteins, starches, and gluten

PROTEINS (cheeses, meats, eggs)	GLUTEN (wheat flours, blends)	GLUTEN-FREE STARCHES (tapioca, rice)
Create firm and crispy matrices. Aged cheeses, with lower moisture, form crispier and more aromatic layers; muscle proteins like octopus or ham can caramelize on the surface, creating crispy layers.	Provides elasticity and structure, allowing flexible doughs that, after pressing and cooking, become crispy without breaking. The combination with starches (rice, tapioca) modulates texture, achieving a balance between fragility and resistance.	Are key for puffing, gelatinizing and trapping steam, expanding the dough when pressed, and generating airy and crispy textures.

1.4. How the crispy texture is achieved

- Extreme reduction of internal and surface moisture.
- Formation of rigid and thin structures that have a clean snap when bitten.
- Caramelization of sugars and surface proteins for flavour and colour.
- Incorporation of air through controlled gelatinization of starches (puffed).
- Uniform and controlled pressing that guarantees constant thicknesses.

2. UNLIMITED APPLICATIONS AND POSSIBILITIES

2.1. Traditional and Revolutionary Snacks

Slimmer allows for the reinterpretation of classic preparations and the exploration of new snack forms with surprising results:

- Cured cheeses pressed into thin and crispy sheets, with aromas intensified by the natural caramelization of their fats and proteins.
- Technical sugars melted with umami heavy ingredients, herbs, or spices, creating sweet-salty contrasts in brittle and aromatic snacks.
- Vegetables in slices, rostis, or purees transformed into fresh and colourful crisps, which retain their vegetable character and gain texture and flavour.
- Marinated and dehydrated proteins, such as fish or cured meats, pressed into thin slices for high-intensity flavour snacks, with umami notes and firm texture.

Inspired by the Japanese *tako senbei* —traditionally made by pressing seafood like octopus or shrimp into a thin rice flour batter/dough—, Slimmer allows for the reproduction and reinvention of this technique to create ultra-thin, crispy, and visually striking sheets. The combination of pressed proteins, vegetables, and starches creates snacks with a rich texture and high visual appeal.

From this base, the so-called "edible fossils" are born; variations in which flowers, fresh herbs, or thin slices of vegetables are embedded within the pressed mixture. When cooked, these elements become trapped on the surface, revealing shapes and colours like natural impressions.

A technique that goes beyond flavour: it turns each pressed leaf into a unique piece of visual and sensory narrative, ideal for snacks, decorations, or conceptual appetizers.

2.2. New frontiers: carpaccio and cold-pressed

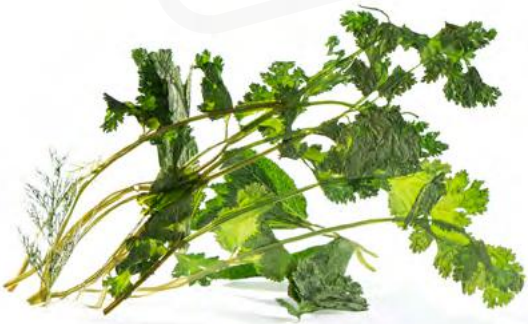
Slimmer also allows pressing at room temperature without cooking, making it ideal for preparing vegetable carpaccios, fruits, or other delicate ingredients. This process maintains the original texture and natural flavour, while transforming the product into thin, firm, and stable sheets. This opens up new possibilities for fresh, healthy snacks with clean presentations and innovative textures —more flexible or elastic than traditionally crunchy—.

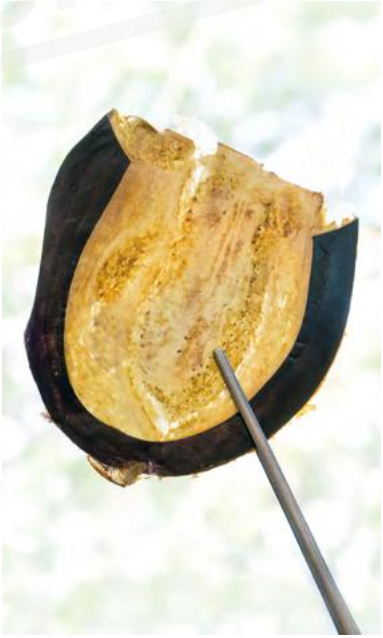
2.3. Advanced dehydration: precise preservation of sensory qualities

Slimmer allows you to dehydrate ingredients while pressing them, combining heat and pressure to concentrate flavour and create crispy textures in a matter of seconds, without lengthy processes or visual loss.

In the recipe for *sliced pineapple*, thin slices pressed at 160°C caramelize naturally, concentrating their sugars and acquiring an intense, bright, and appetizing golden colour. The result is a crispy, aromatic, and stable slice that retains the fruit's own nuances, completely flat, without oxidation, and very pleasant to eat, without the need for prolonged drying.

With fresh herbs, Slimmer offers a quick and effective way of preservation: the almost instant dehydration prevents oxidation, preserving the vibrant green colour, essential oils, and aromatic profile. Delicate ingredients like basil, parsley, or cilantro turn into light, crispy, and fragrant flakes, perfect as a vegetable snack or creative garnish.





2.4. Diverse applications: *Oblat*, crêpes, and hard shell tacos

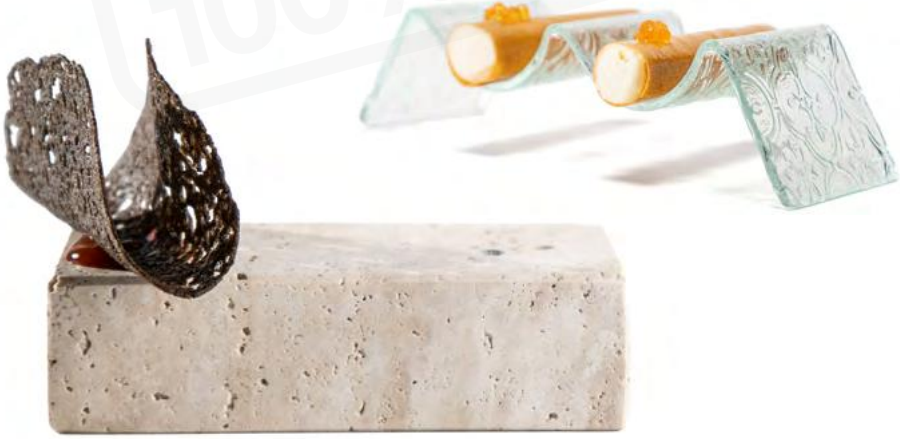
In addition to plant-based doughs, Slimmer allows working with delicate products like wafers or thin crêpes, which greatly expands culinary possibilities.

The *Oblat*, of Japanese origin, is an ultra-thin, edible, and tasteless sheet made from potato, rice, or corn starch. It was originally created to encapsulate medicinal powders. It can be pressed with syrups and freeze-dried powders (such as miso, raspberry, parmesan, or yuzu), resulting in ultra-thin, aromatic, and highly intense chips. It is a neutral and adaptable base, ideal for personalized snacks, both sweet and savory.

Slimmer also acts as a dual-function taco press, flattening, cooking, and dehydrating simultaneously. If the sheets are removed just before full dehydration—while still warm—they retain enough flexibility to be manually shaped over tubes, ladles, or molds before cooling to room temperature. This facilitates the creation of tacos, tulips, or tartlet bases, which, upon cooling, acquire a firm structure and crispy texture.

This immediate molding capability makes Slimmer a creative tool for generating edible shapes ready to be filled, presented, and served with technical and aesthetic precision.

The pressure applied during the process directly influences the final result: working without pressure (only with the weight of the upper plate) is considered null pressure (N.P.), while a partial closure generates medium pressure (M.P.) and a complete closure applies high pressure (H.P.). Each level offers variations in texture, thickness, transparency, rigidity, and adhesion between ingredients, expanding creative possibilities with distinctive finishes and technical control.

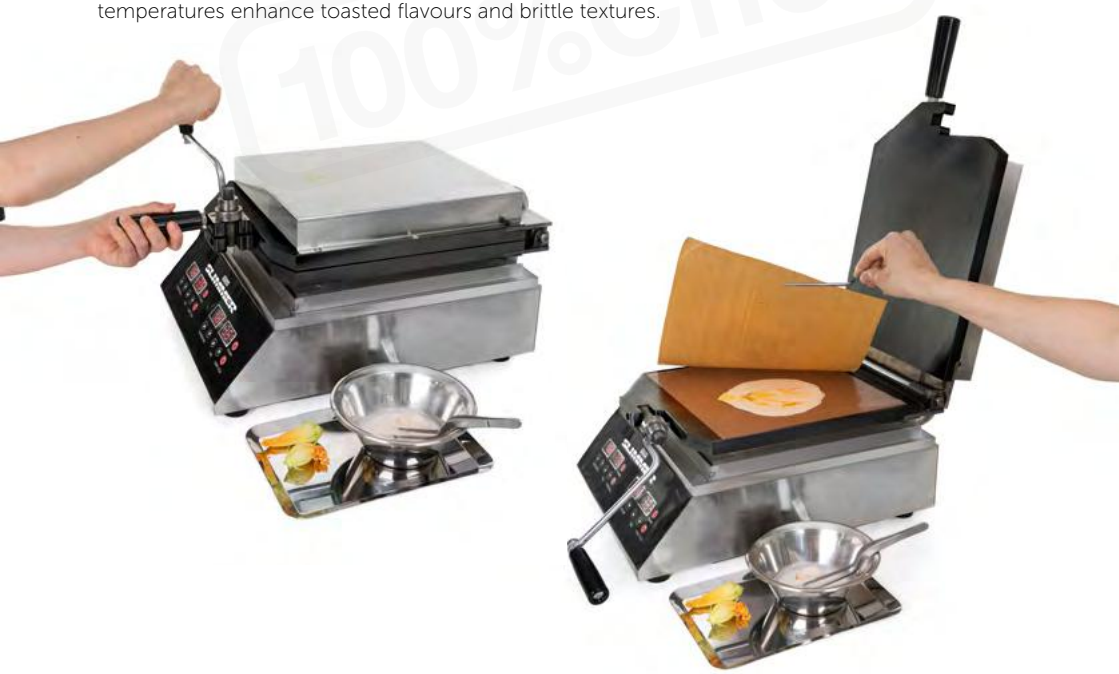


3. TEMPERATURE CONTROL

Temperature vs. type of food: analysis and recommendations

Temperature (°C)	Type of food	Benefits and culinary effect
No temperature	Cold pressing (carpaccio, delicate slices)	Preserves freshness, no cooking; firm but flexible texture
60 - 120	Fruits, fresh vegetables	Gentle dehydration, retains colour and aroma
120 - 160	Purees, tapioca doughs, cheeses	Gelatinization and expansion for soufflés; light caramelization
160 - 180	Hard cheeses, technical sugars	Maximum caramelization; crunchy texture and intense flavour
180 - 240	Herbs and rapid dehydration	Intense drying, aroma extraction, extreme crunchiness

Note: The choice of temperature must balance the desired texture and the preservation of flavour/aroma. Lower temperatures preserve freshness and delicate aromas; higher temperatures enhance toasted flavours and brittle textures.



4. MASSES AND HYDRATION

4.1. Amount of water

Hydration is a critical factor in the formulation of doughs for the Slimmer.

HIGH HYDRATION

Wet and fluid doughs, ideal for flatbreads, dentelles, or coral-type tuiles (a mixture of oil, water, and flour or starch for decoration) and applications that require light and crispy textures.

MINIMUM HYDRATION

Firm doughs that allow the formation of multiple small portions (balls) that can be pressed and cooked simultaneously, increasing productivity.

Slimmer allows working with customized doughs, adjusting the amount of liquid and starch according to the desired result. This principle extends to any liquid combined with flour or starch: vegetable juices with starches, infused broths, milks, etc., opening up an unlimited range for innovative snacks.

Flavour is key and is not limited to salt and pepper: infusions, herbs, spices, and enriched broths add complexity. Classic sauces based on flour and milk, such as béchamel, can be transformed into crispy and easy-to-make snacks.

4.2. Starch gelatinization

In the preparation of doughs for the Slimmer, starch gelatinization is a key process to achieve a light texture and a finer, more delicate crunch. It occurs when starch-rich ingredients, such as rice, tapioca, potato, or wheat, are hydrated and heated, causing the starch to thicken and form a more cohesive dough. At temperatures between 52°C and 78°C, depending on the type of starch, this gelatinization process begins, which helps to obtain firmer and more uniform doughs, easy to work with in the machine without the need to add flours or other binding agents. This base is ideal for pressing in the Slimmer and obtaining light crisps.

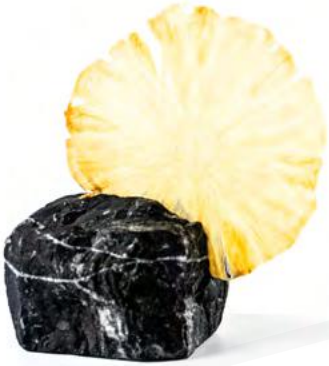
A quick way to activate this gelation is to precook the mixture for a few seconds in the microwave (covered), or steam it in a more traditional manner, thus ensuring a more stable base before pressing.

Additionally, if they are dehydrated after pressing and then sprayed with a bit of water before frying, they can turn into puffed or puff-like crackers, expanding the possibilities for texture and presentation depending on the thermal treatment and the type of starch used.

5. PRACTICAL APPLICATIONS

Puffed

Made with gelatinized starches for light and airy textures.

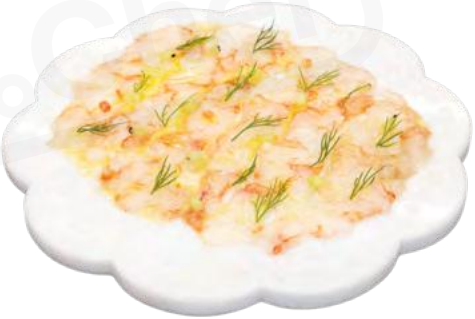


Dehydration

Fruits (e.g., pineapple slices) dried at 160 °C for moldable and crunchy bases.

Cold carpaccios

Ultra-thin slices of pressed and dried proteins with intense texture and flavour.



Savory and sweet snacks

Unlimited combinations of ingredients, processes, and temperatures for innovative and personalized products.

6. HIGHLIGHTED PRACTICAL EXAMPLES

Category	Concept	Ingredients / Process	Temp.	Pressure
Sugars	Isomalt and sun dried tomato	Melted isomalt + sun dried tomato	120°C	H.P.
Sugars	Iberian ham fat	Ham fat + maltodextrin	140°C	M.P.
Sugars	Glucose with miso	Glucose + white miso	140°C	N.P.
Sugars	Isomalt and black garlic	Melted isomalt + black garlic paste	120°C	M.P.
Sugars	Trehalose with olive powder	Melted trehalose + black olive powder	120°C	M.P.
Sugars	Thin caramel sheets	Neutral candies (Halls, Werther's...)	140°C	N.P. / H.P.

* Remember that N.P., M.P. y H.P. are Null Press, Medium Press and High Press.

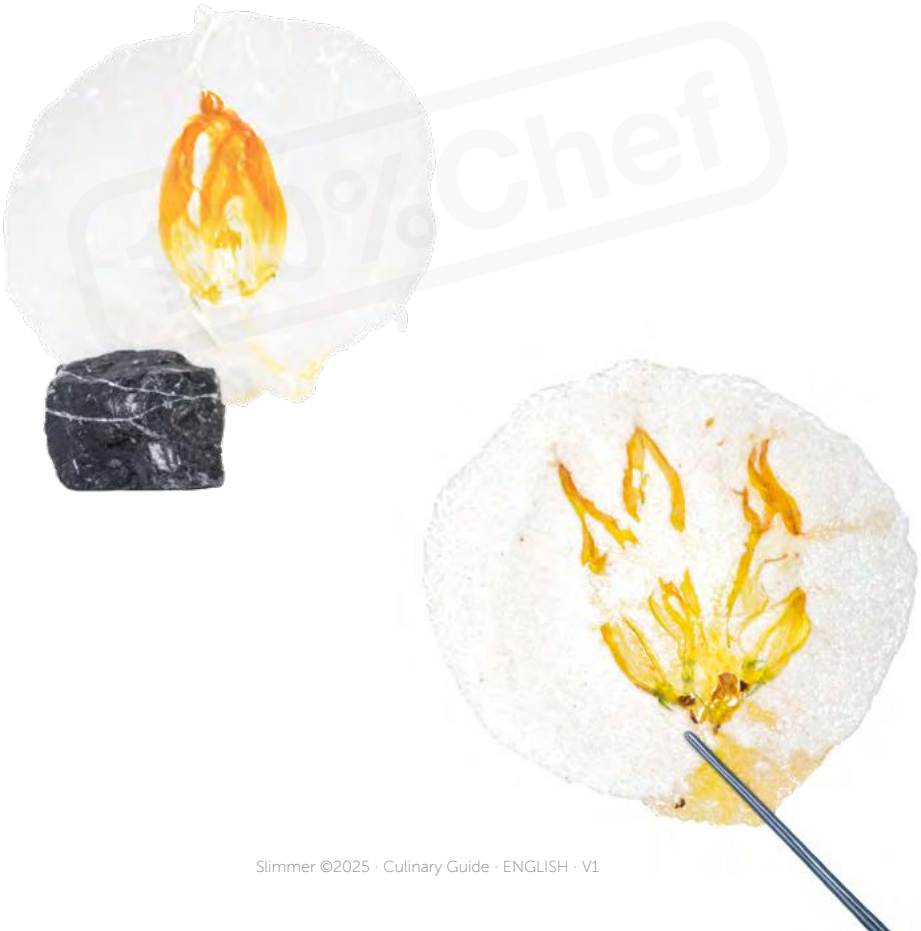
Category	Concept	Ingredients / Process	Temp.	Pressure
Cheeses	Chip Pizza Margherita	Grated mozzarella + fresh basil + freeze-dried tomato	160°C	H.P.
Cheeses	Grated Parmesan	Thin slice of Parmesan	180°C	H.P.
Cheeses	Emmental with paprika	Finely grated Emmental + sweet paprika	180°C	H.P.
Cheeses	Cured Manchego	Grated	160°C	M.P.
Cheeses	Parmesan with black garlic	Parmesan 120 g + black garlic 80 g + maltodextrin 20 g	160°C	H.P.
Cheeses	Parmesan and green olive	Parmesan 60 g + green olive 40 g + brine 20 g + maltodextrin 10 g + tapioca flour 130 g	160°C	H.P.
Cheeses	Gorgonzola	Gorgonzola 50 g + wheat flour 30 g + maltodextrin 4 g + water 30 g	180°C	H.P.
Puffed	Carrot	70% carrot puree + 30% tapioca Gelatinize (see *section 4.2.*)	140°C	H.P.
Puffed	Peas with mint	70% pea puree + 30% tapioca + mint powder Gelatinize (see *section 4.2.*)	140°C	H.P.
Puffed	Neutral puffed base	70% water + 30% tapioca Gelatinize (see *section 4.2.*)	140°C	H.P.
Puffed	Coliflor Ocoo Crust	Black cauliflower 100 g + tapioca 100 g + water 80 g Gelatinize (see *section 4.2.*) Fry at 180ºC	140°C	H.P.
Puffed	Sweet potato with orange and ginger	Roasted sweet potato 100 g + tapioca 100 g + orange juice 90 g + ginger 10 g Gelatinize (see *section 4.2.*)	140°C	H.P.

Category	Concept	Ingredients / Process	Temp.	Pressure
Doughs	Neutral rice liquid dough	Rice flour 100 g + water 140 g	140°C	H.P.
Doughs	Neutral moldable rice dough	Rice flour 100 g + water 120 g	140°C	H.P.
Doughs	Neutral coral tuile wheat	Wheat flour 10 g + water 70 g + oil 25 g	160°C	N.P.
Doughs	Neutral mixed dough	Wheat flour 50 g + rice flour 50 g + water 160 g	180°C	M.P.
Doughs	Vegetable dough	Q.S juiced vegetables + Q.S flour or starch	140°C	M.P. / H.P.
Doughs	Red cabbage tacos	100 g juiced red cabbage + 100 g corn flour + salt	140°C	M.P.
Doughs	Vegetable Trio	Combination of 3 different vegetable doughs	160°C	H.P.
Cereals/ legumes	Dry legume dough	Raw ground lentils + spices + water	160°C	H.P.
Cereals/ legumes	Paella Socarrat	Cooked rice + fumet + shrimp + ghee	160°C	N.P. / H.P.
Cereals/ legumes	Crushed buckwheat	Buckwheat + water + salt + pepper	180°C	H.P.
Cereals/ legumes	Purple Arepa	Purple corn flour 200 g + water 240 g + salt	180°C	N.P.
Cereals/ legumes	Cooked rice with tandoori	Cooked rice 105 g + tandoori sauce 55 g	140°C	M.P.

* Q.S.: Quantum Satis (as much as needed).

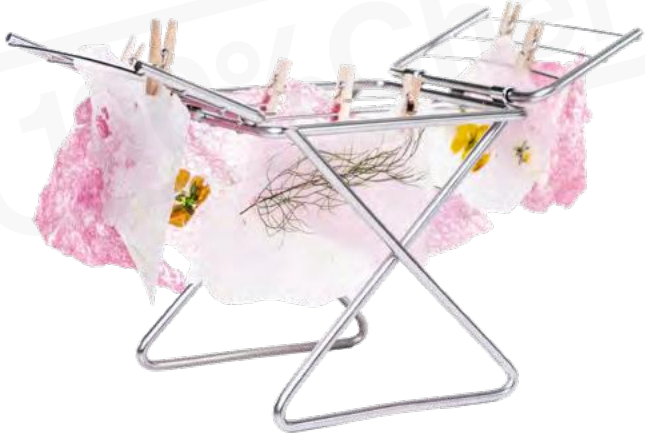
Category	Concept	Ingredients / Process	Temp.	Pressure
Dehydration	Cilantro	Q.S herb	180°C	H.P.
Dehydration	Basil	Q.S herb	180°C	H.P.
Dehydration	Fresh dill	Q.S herb	180°C	H.P.
Dehydration	Orange slices	Q.S fruit slices + syrup (20% sugar) / Total time: 8 min	160°C	M.P.
Dehydration	Pineapple slices	Q.S fruit slices + syrup (20% sugar) / Total time: 8 min	160°C	M.P.
Dehydration	Sage	Q.S herb + light oil	180°C	H.P.
Dehydration	Mint	Q.S herb + syrup (20% sugar)	180°C	H.P.
Animal	Tako senbei	Cooked octopus + neutral liquid base of glutinous rice	180°C	H.P.
Animal	Andalusian Cuttlefish	Cuttlefish + chickpea flour + salt / Airy texture	180°C	H.P.
Animal	Pork trotters	Cooked, deboned, and pressed	190°C	N.P.
Animal	Cured meat / Ham	Q.S thin slices	150°C	M.P.
Animal	Shredded cooked chicken	Low-temperature chicken / Jerky type crunch	160°C	M.P.

Category	Concept	Ingredients / Process	Temp.	Pressure
Fossil	Fossil vegetables	Neutral liquid base + asparagus + Padron pepper	160°C	H.P.
Fossil	Fossil / Stained glass	Neutral liquid base + blueberries + strawberries + flowers	140°C	H.P.
Fossil	Courgette flower	Neutral rice liquid base + courgette fower	160°C	H.P.



Category	Concept	Ingredients / Process	Temp.	Pressure
Vegetable	Lilac potato rosti	Grated potato 100 g + ghee 20 g + salt 2 g + pepper 0.5 g	180°C	N.P. / H.P.
Vegetable	Kale chips	Kale + ras al hanout + mild oil	140°C	H.P.
Vegetable	Sweet potato lattice	Sweet potato *gaufrette* (mandolin)	160°C	N.P.
Vegetable	Sunchoke	1 mm slices + lemon + salt	140°C	N.P.
Vegetable	Courgette	1 mm slices + lemon + salt	140°C	M.P.
Vegetable	Padrón pepper	Cut pepper + mild oil + salt	140°C	M.P.
Vegetable	Spiced eggplant	Roasted eggplant 150 g + trehalose 20 g + isomalt 20 g + maltodextrin 5 g + flour 50 g + spices	140°C	M.P.
Vegetable	Crispy roasted tomato	Roasted Tomato 150 g + trehalose 20 g + isomalt 20 g + maltodextrin 5 g + flour 50 g + freeze-dried tomato 7 g	140°C	M.P.
Vegetable	Brava potato chip	Potato 4 mm + brava sauce (see recipe below)	140°C	M.P.
Vegetable	Brava sauce	Freeze-dried tomato 1.6 g + spicy paprika 1.6 g + salt 0.5 g + potato starch 21 g	140°C	N.P.

Category	Concept	Ingredients / Process	Temp.	Pressure
Vegetable	Rosti pumpkin	Grated pumpkin 200 g + ghee 10 g + salt 2 g	160°C	N.P. / H.P.
Vegetable	Beetroot rosti with dill	Grated beetroot 30 g + butter 5 g + dill 3 g	160°C	N.P.
Vegetable	Sweet potato rosti	Grated sweet potato 150 g + ghee 15 g + flour 15 g + water 60 g	160°C	M.P.

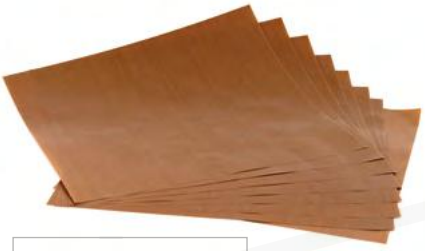


7. ESSENTIAL ACCESSORIES

Cooking: The Importance of Using Teflon Sheets with the Slimmer

Although the **Slimmer** plates are coated with Teflon, the use of Teflon sheets during pressing is important to facilitate the clean and efficient removal of the preparations. These sheets allow the pieces to be extracted more quickly, cleanly, and easily, while also preventing flavour transfer when producing different items. This leads to faster production and more impeccable finishes.

In addition, by avoiding direct contact between the preparations and the plates, the Teflon coating is protected—helping to extend the equipment's lifespan and reduce the need for maintenance. In this way, the use of Teflon sheets not only protects the machine but also optimizes the process.



30/3019
Teflon Slimmer
6 pcs

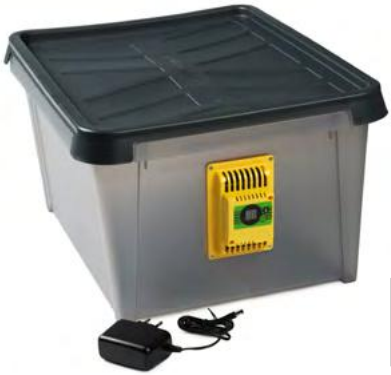
Precision bottle

130/0011	50 ml	50 pcs
130/0012	150 ml	10 pcs
130/0013	300 ml	

PC/65402
Mini Spray 15 ml
24 pcs

P/64504
Straight spatula

Conservación



70/0041
Dry Food Box 31 L

70/0045
SilcaBag M 150 g
10 pcs

SLIMMER

PRIVACY POLICY

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