



# Food cutting with ultrasonics

Mecasonic makes effective cutting tools available to the food industriy which will extend your performance and the quality of your cutting operations.

In partnership with our customers, we can do customized assemblies to best meet each one's needs.

#### **Principle**

One simple principle: the vibrating cutting edge (sonotrode) is programmed at a defined amplitude (30 to 100  $\mu$ ) and frequency (20 or 30 MHz), depending on the needs. It creates acceleration of more than 105 g to cut different products with an up/down movement.

Slicing is done quickly, cleanly and precisely in the agrifood industry even with products with bits (nuts, pistachios, olives, raisins, etc.) which remain in place in the overall texture in addition to cheeses, quiches, pastries, nougats, pâté, pizzas, sandwiches, cold cuts and sausages, foie gras, fresh or frozen products and much more...

The ultrasonic vibrations avoid any collision against the titanium plate and, thus, limit blade cleaning

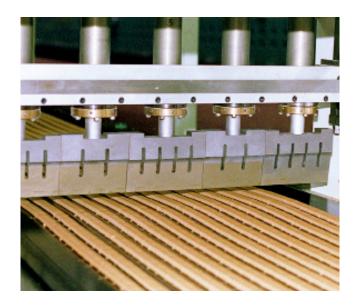
You can get extremely fine and well-calibrated slices with a tolerance that has never been seen before in any other process!

No disintegration and very low product losses with high productivity.

It's the ideal equipment for your slicers!

The ultrasonic material meets foodstuff, textile and pneumatic requirements and can be perfectly integrated into production lines and special machines so you can cut your products with parts of equal weight.

You may also add an ultrasonic cutting head at the end of a multi-axis robot.





## Sonotrodes adapted to differents case of cutting

Mecasonic makes effective custom made cutting tools for the food industriy: different shapes, different sizes for different uses! Tell us all about your projet and we will develop the most adapted product to your needs.

### **Advantages**

- $\sqrt{\text{Slice thickness can be adjusted up to 0.1 mm}}$
- $\sqrt{\text{Adjustment of the speed up to 120 cycles per minute}}$
- $\checkmark$  Enhanced tuning with amplitude variation settings
- √ Self-cleaning blade
- √ Continuous cutting possible
- √ No disintegration of the product

## Characteristics of the avalaible angles, in waves and waves length

- Symmetrical
- Right angle
- Exponential
- Asymmetrical

20 kHz



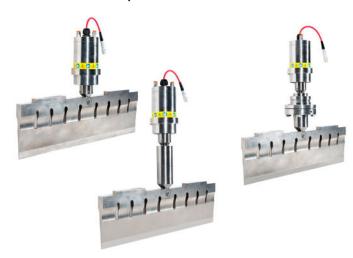




40 kHz



Ensembles acoustiques: sonotrodes 20kHz, 30 kHz et 40 kHz, avec emmetteur, avec ou sans rallonge, avec ou sans booster







## Standard equipement + food cutting kit

Pulse Touch or Pulse One generator + custom made cutting kit with sonotrode / booster / transmiter











Booster

Sonotrodes 20 kHz, 30 kHz ou 40 kHz

## Générateur Pulse One

## **Numerous applications**

Cheeses, Pastries, Nougat, Pizzas, Sandwiches, Cold cuts, Foie gras, Fresh and frozen products and many more!













We are steering operations linked to our local and international markets. The support of our various partners across all five continents has helped us expand our field of activity and offer our clients personalised service effective throughout the world.





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