

THE ART OF ULTRASONIC TECHNOLOGY



 **SinapTec**®
ULTRASONIC TECHNOLOGY

- Find out more

Ultrasonic slicing involves making a sharpened blade vibrate at high frequency.

The ultrasonic vibration makes it easier to slice foodstuffs as the blade is inserted into the material without force and without compressing it. At the same time it reduces the friction in contact with the product, thereby improving slicing quality and raw material saving.



Ultrasonic slicing is especially suitable for soft, frozen or heterogeneous products like cheese, prepared dishes, cold meats, tarts, confectionery, pastries, fish, meat and so on.



The vibrations prevent the blade from becoming dirty, thereby improving the operation and simplifying the servicing of the slicing tool.

Operating and maintenance costs are far less than on a mechanical blade. Ultrasonic slicing is also an excellent alternative to contamination risks from a water jet slicer and burns from a laser slicer.

Ultrasonic slicing therefore has the following advantages:

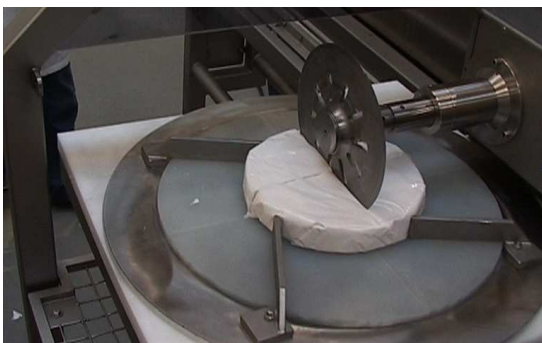
- slicing without tearing the material, product savings,
- less forcing into the material, improved output,
- better finish quality, the blade does not stick or get dirty,
- suitable for all food slabs, pieces, layers, sheets, circles, bulk and bread
- low operating cost,
- easy to service, low maintenance cost.

- Specific support

As the use of an ultrasonic solution is relatively complex and specific to each requirement, our service includes support that is tailored to the specific expectations of our clients and to the maturity of the project:

- Drafting the specifications in partnership with our customers to specify the requirements.
- Custom design and adaptation of equipment described below depending on the application.
- Training in the use of our equipment.
- Monitoring of the equipment's user and configuration protocols.

- Examples of applications



Cheese sliced by
rotary blade



Pre-slicing of trimmed
fish in four lines

Slicing cake/dessert
shares



▪ Ultrasonic transducer


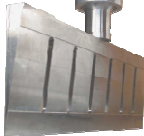






Frequency	20 kHz
Ultrasonic power	100 to 1000 W
Transducer cooling method	Compressed air 3 to 5 bar by connection for 6 mm dia. pipe
Option	Flange

▪ Guillotine blade

The blade is inserted by an up and down movement in the material being sliced.

There are various blade profiles for the different uses (slicing with or without separation). Some blades can slice the products in a tray or a pie dish, with the packing film and on linerboard.

Blade profile	Use	Useful height
Very flared  	Sloping blade Tips the slice after slicing	150 mm
Slightly flared  	Separates the sliced sections whilst leaving them in position	75 mm
Very thin  	Does not separate the sliced sections	75 mm 150 mm

The blades are 325 mm wide maximum and can be combined to achieved the desired slicing width.

- Rotary blade

The motor-driven blade is inserted into the material by a rotating movement (SinapTec patent). Several blades can be arranged parallel to each other to increase productivity. The blade is 300 mm in diameter maximum, for a useful height of 100 mm.





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