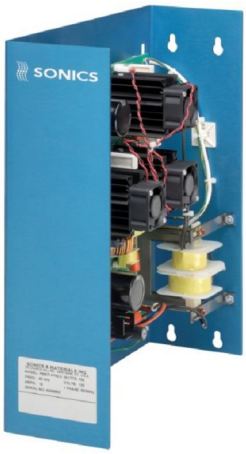
Sound Perfection



The modular ultrasonic power supply unit, 2200 watts 20kHz

The heart of the system is an ultrasonic power generator producing a 20,000 Hz frequency into a precision food cutting blade.

Generators, from 1 to 4kW at a frequency 20 kHz are specifically designed for PLC controlled systems to switch and regulate amplitude control on demand.

This function assists in optimum food cutting intensities on the blade, to control the product melt or stick during the cut and combined with Demand Energy Mode and Automatic Frequency Tuning, these systems are perfect for the most complex cuts.

The ultrasonic power supply units are housed in a protected compartment in the main cabinet, generally where the PLC system and associated electronic components are installed.

The Sonics power supply energizes an assembly, called the stack, made up of a converter, booster and cutting blade.

A Sonics ultrasonic stack assembly, converter, booster and cutting blade

Cutting Edge Technology

FEA and TiN is included as standard in all SONICS food cutting blades

Finite Element Analysis

Titanium Nitride Coating

In order to ensure balanced frequency and output amplitude, and to eliminate stress points in the blade at the design stage, **FEA (Finite Element Analysis)** is utilized.

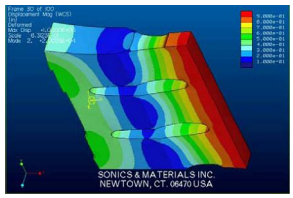
This proprietary software allows the designer to see a computer generated model of the blade “alive” on the screen prior to the actual manufacture.

Uniform and even amplitude (peak-to-peak vibrational distance) of the blade tip is critical to successful cutting.

It is essential to have an even distribution of amplitude across the full length of the blade.

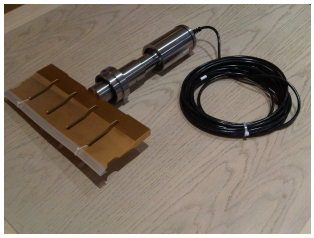
Without the FEA test, the amplitude could be concentrated in the center area, or on the edges of the blade face, which would result in inferior cutting results.

The Sonics expertise therefore allows for the custom design of cutting blades to meet specific processing applications.



A typical FEA

Precision Blade—Precision Cut

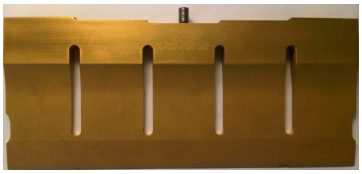


A stack assembly prior to installation in a semi-or-fully automated food processing plant

The Sonics cutting blade is precision FEA designed and finished with a final hardened coating of TiN (Titanium Nitride)

The standard blade width is 304mm and these can be assembled in a linear arrangement to suit specific applications.

The cutting blades and the Sonics stack are food grade wash-down assemblies. The power supply at 2,200 watts will



provide all the energy required to cut the most testing product and cope with the variables each different product presents in the process application.

Combine this high quality ultrasonic food cutting system with a semi-automated or fully-automated plant, designed and built specifically for you, and you have a winner!