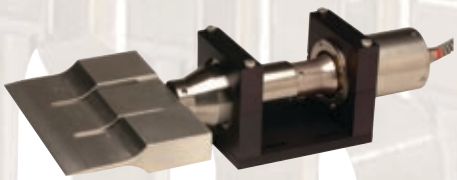
Ultrasonic Food Processing

Ultrasonic Food processing is an efficient way to cut, slice, form, divert, align or transfer a variety of food products. The ultrasonic blade(s) vibrate at high-frequencies of 20 kHz, 30 kHz, or 40 kHz. This oscillating/vibration motion of the blades produces a nearly friction-free surface. Problems with product sticking and build-up on the blade/tools are minimized.

Users have increased productivity by minimizing the production time previously lost cleaning the machinery. Others have discovered they can totally eliminate procedures necessary with conventional cutting, such as chilling the product before the cutting operations, or realigning the product after cutting prior to the packaging operation.

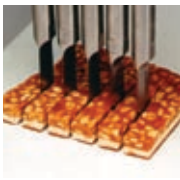


35 years of ultrasonic experience has allowed us to continuously improve the technology to its current advanced level.

We offer technical assistance for application evaluations, in-plant demonstrations and consultations.

Benefits of Ultrasonics

- Increased productivity
- Reduced down time
- Improved cut quality
- Multi–layers & densities are cut without smearing
- Particulates such as nuts & fruits are cut cleanly without displacement
- Minimized sticking of product to the blades
- Ultrasonic components can be cleaned in place
- Easily adapted into existing production lines
- Reduced cutting force



Confectionery

Baked

Cheese

DUKANE

Intelligent Assembly Solutions

Dukane Ultrasonic Components for Food Cutting

Ultrasonic Generator/Power Supply

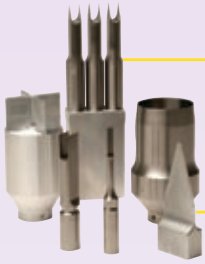
- Converts line voltage into 20, 30, or 40kHz signal that is sent to the converter via a coax cable. Typically they are remote mounted in equipment electrical panels.

Sealed Ultrasonic Converter

- Converts the generator signal into mechanical motion through the use of piezoelectric crystals (approximately 20µ of amplitude peak to peak). Stainless sealed converter can be cleaned in place.

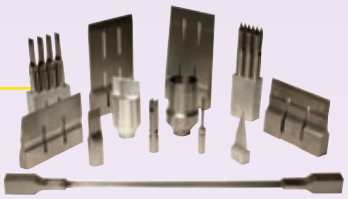
Booster

- Used to maintain, decrease or increase the amplitude of the cutting blade/horn. Also acts as mounting point for integration. Offered in titanium or aluminum.



Ultrasonic Cutting Blades

- Connected to the booster. They are made from titanium and can be used for guillotining or slitting products.
- Custom cutting blades available

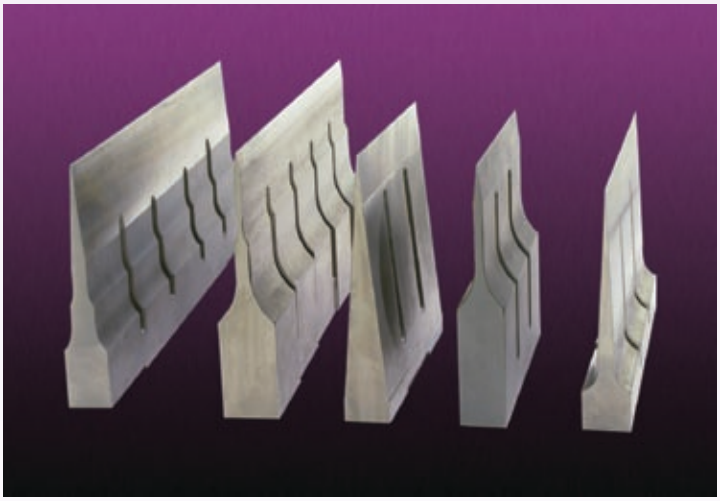


Dukane Ultrasonic Cutting Blades

Full Wave Guillotine

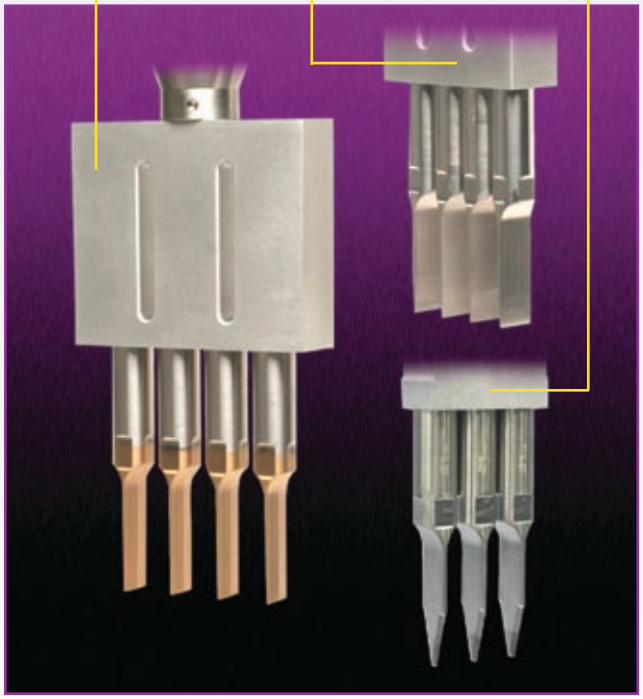
Full Wave Wedge

Half Wave Titanium Guillotine Profiles



Dukane composite slitters feature replaceable slitting blades. Choose side, end, or arrowhead designs. We can custom configure slitters down to 0.5" centers.

Side Slitter | **End Slitter** | **Arrowhead Slitter**



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