



BENEFIT FROM HIGH-QUALITY
CUT-AND-SEAL TECHNOLOGY

**CUTTING FABRIC AND FLEECE FASTER,
MORE RELIABLY AND MORE COST-
EFFICIENTLY WHILE SEALING THE EDGES**

TELSONIC
ULTRASONICS

TELSONIC



TELSONIC has earned an excellent reputation over many years.

+ **YOUR PLUS** Perfect solutions from ultrasound specialists, made in Switzerland

Our dedication to quality and reliability, combined with innovative concepts and precise implementation play a key role here. We are committed to maintaining this reputation to the benefit of our customers and partners.

Unrivalled know-how with more than 45 years of experience.

TELSONIC was one of the pioneers of the highly specialized field of ultrasonic technology and its industrial applications.

During this time the company has built a wealth of expertise and achieved international standing, which has resulted in the success of countless projects across a wide range of industries.



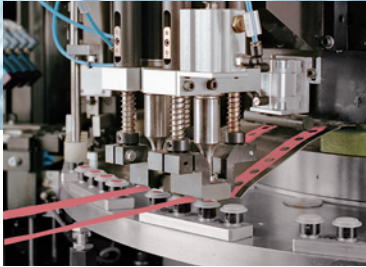
Over the course of our history, we have been developing techniques and building systems for our customers, in order to boost their product quality and manufacturing efficiency.



THE MANY ADVANTAGES OF ULTRASONICS IN PRODUCTION

More environmentally friendly – ultrasonic systems support a wide range of different process engineering applications in industry. The use of ultrasonics means that additives and chemicals for cleaning can often be reduced or left out altogether.

Energy savings – due to the very high efficiency of the resonant oscillating system, solutions based on ultrasonic technology are highly efficient. The energy required is applied for only a very short duration, and unlike thermal processes, the systems do not require a continuous supply of energy.



Attractive solutions based on creativity and literally perfect technology.

Properly employed ultrasonics technology can achieve much more than is commonly known.

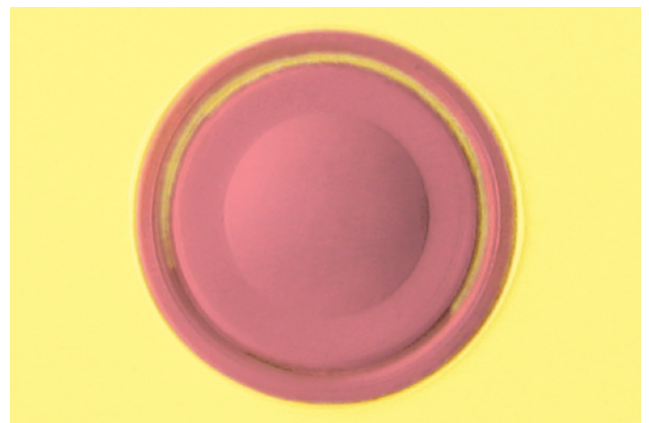
Discuss your ideas with our experts and ask to be shown some examples of this state-of-the-art technology.

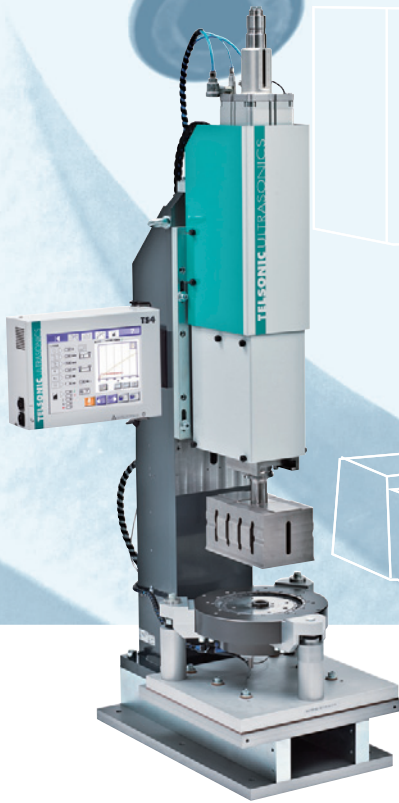
Our philosophy and the TELSONIC technology will convince you.

Ultrasonics offers great advantages in terms of process technology in many areas.

Ultrasonics is well established as an environmentally sound and particularly cost-effective process that is easy

on the material and is extensively used for joining plastics, welding packaging and portioning foodstuff, as well as cutting and sealing textile and fleece. In these areas the advantages of the technology are particularly attractive.





Ultrasonic welding press

In addition to the generator control and ultrasonic oscillator, the press is very important. In the cut-and-seal process in particular, it is essential that the cut lines remain parallel while under the influence of force and ultrasound.

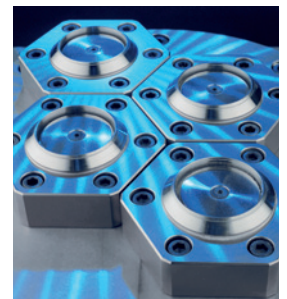
USP8000

Presses made by TELSONIC are rigid, robust and flexible when it comes to re-tooling. With forces of 750, 3000, 4700, 8000, 12000 (N) the range covers the entire application spectrum.

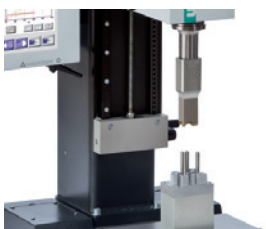


Handystar

Compact manual unit with a wide range of applications for textiles. Manual units made by TELSONIC are also very suitable for cutting patterns out of fabric, foil and thin leather.



The quality of industrial cutting and sealing is determined by the contour cutting knives.



Linear ultrasonic welding

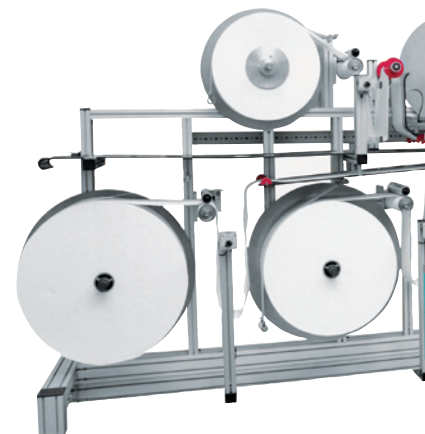
Linear ultrasonic welding is the term used for ultrasonic vibrations that are applied axially on the weld object.



Torsional ultrasonic welding

Torsional ultrasonic welding is a high-frequency friction welding process which is very gentle on the

material and is used for quality critical applications. This technology has been developed and patented by TELSONIC as a systematic upgrade of ultrasonics technology applications.



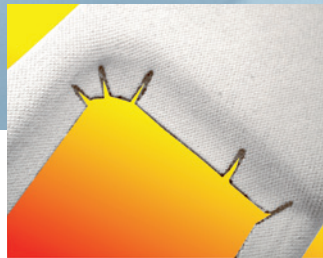


THE MANY ADVANTAGES OF ULTRASONICS IN PRODUCTION

More cost-effective – all manufacturing techniques and processes can be accelerated through the use of ultrasonics. This leads to the optimization of production costs and therefore to a correspondingly higher output.

Faster – with the use of ultrasonics it is possible to combine several different processes into a single production step. As a result of which, additional users or machine intervention can be avoided and production cycles are often significantly reduced.

More economical – faster and more streamlined processes result in excellent productivity. In addition, there is minimal wear to the sonically active components, keeping service and maintenance costs to a minimum.



Cut with heat



Cut and sealed with ultrasonics

Fully automatic cut-and-seal machine for producing 5-layer medical compresses in different sizes and shapes.



Quality aspects of ultrasonic cut-and-seal technology

Compared to cuts made using thermal cutting methods, those made with ultrasonics have the advantage of a soft cut edge without any marked (flash) areas.





Generators

The hallmarks of tried-and-tested TELSONIC ultrasonics technology are its strong and consistent performance and compact design. We have replicated these characteristics in the construction of our generator series.

SG22 series

Generator type SG22 with an output of up to 6,500 W has been designed specifically for the maximum required output in ultrasonic welding applications. This high-performance system guarantees rugged performance and a long service life.

Generator SG3510

Generator with amplitude regulated output system of ARP up to 1000 W and fully automatic frequency control. Also available as aggregates in housings for 1, 3 or 6 modules.

SGM series

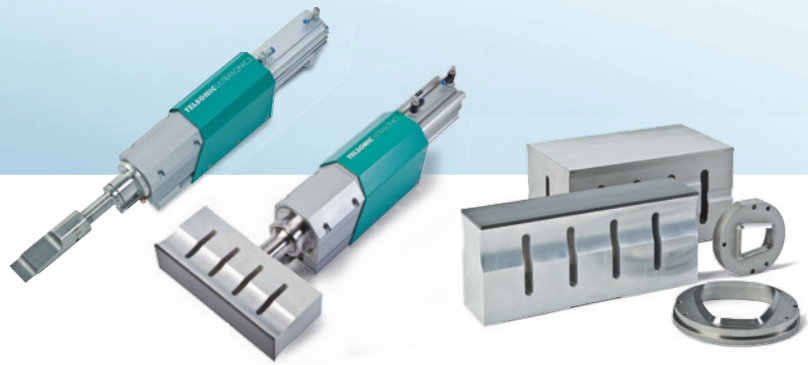
The SGM generator series features outputs of up to 2000 W and can be used for a wide range of special machine applications. The modular concept is particularly suited for installation in multiple units.



DHG series

With a maximum output of up to 4500 W, the DHG-type generators cover a wide range of universal applications. Due to the direct communication with the integrated interface, they are ideal for use with all TELSONIC presses.

	USP750	USP2000	USP3000	USP4700	USP8000	TSP750	TSP3000
Control system							
TS4	■		■	■	■	■	■
MPS4	■		■	■	■	■	■
Generator							
SG22					■		■
SG3510	■						
DHG	■	■		■	■	■	



Control systems

Advantages of TELSONIC ultrasonics technology are user friendliness, consistent product quality and process control, and remote diagnostics of the ultrasonic machines, which guarantee users top-quality end results. TELSONIC offers two different control models to meet the demands and needs of customers.

TouchScreen TS4

Machine control for communication with TELSONIC's high-performance welding machines. The communication is based on graphics symbols without language. Each menu section is supported with help texts in the respective language.



MPS4

The standard model can be combined with all pneumatic welding presses, welding actuators and ultrasonic generators.

Welding actuator units

In order to offer users tried-and-tested systems that are powerful, yet compact in design, TELSONIC offers actuator units consisting of several modules. They feature all the functions which are normally included in the TELSONIC welding presses and thus guarantee top reproducibility with high production output. These actuator units are available with different welding forces.

Sonotrodes

Sonotrodes are the tools which deliver the oscillating movement by high frequency mechanical vibrations (ultrasound). Our in-house sonotrode production department uses high-quality wear-resistant steel to build sonotrodes for cut-and-seal duties. The sonotrodes and anvils are hardened in a specially devised heat treating process with subsequent tempering treatment to ensure best possible service life.

TELSONIC – ULTRASONIC TECHNOLOGY FOR ALL APPLICATIONS

It takes a deep understanding of the entire spectrum of the ultrasonic technology to be able to design and manage all related processes. TELSONIC has been working in this field for over 45 years,

and will continue to set the industry standards for the future. Numerous patents in different applications including cleaning, welding and screening are proof that our

work has been successful. From these innovations, we produce application-specific products and solutions which will quickly optimize your processes.

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