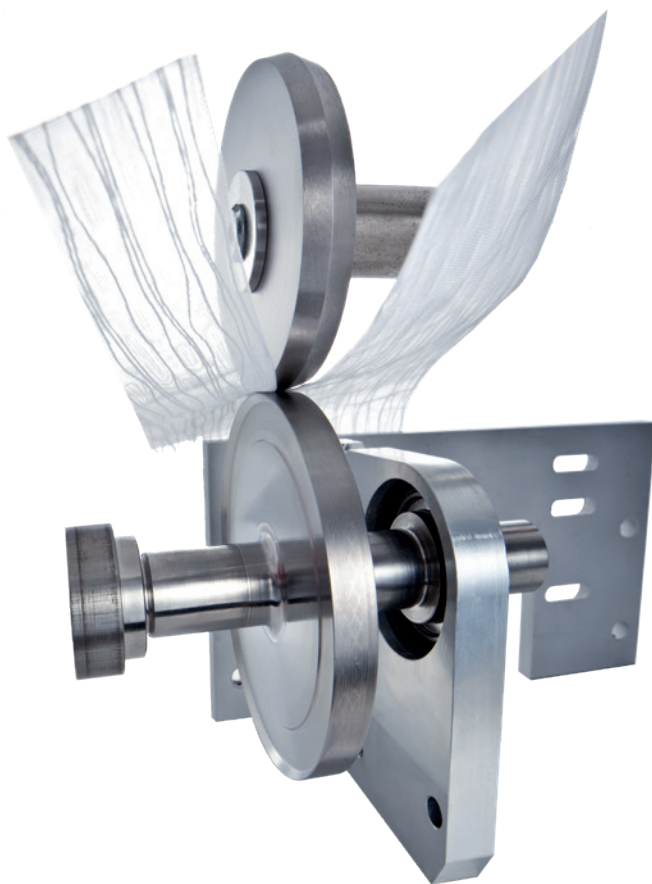


iSONIC WAVE BRM

Ultrasonic roll seam technology
for technical textiles



SONOTRONIC
ULTRASONICS TECHNOLOGY

Ultrasonic roll seam module supported at both ends

Continuous ultrasonic cutting and sealing

The ultrasonic roll seam units from SONOTRONIC are suitable not only for continuous sealing but also for the simultaneous cutting and sealing of synthetic textiles.

Continuous sealing seams with high design flexibility

In ultrasonic roll seam sealing, continuous sealing seams are produced by the disc-shaped sonotrode without seam interruptions, for which purpose the roll seam sonotrode has a titanium mounting on both sides. At the same time the design of the anvil wheels with different contours and widths allows flexibility in seam design.

Simultaneous cutting and sealing (Cut & Seal)

A further application of the innovative ultrasonic roll seam technology from SONOTRONIC is the simultaneous cutting and sealing of thermoplastic textiles with extremely wear-resistant steel sonotrodes. This produces not only fixed seams but also minimal seam projections. During ultrasonic edge cutting the edges are already sealed so that they cannot fray.

Possible applications

In the textile industry ultrasonic roll seam units replace conventional sewing machines. Continuous sealing seams and seams with free geometries can be produced. Fabrics from thermoplastic synthetic fibres are then no longer sewn with one thread but are sealed ultrasonically, and because of this no holes are made in the fabric by needle stitches and there is no subsequent taping. Besides their use at manual workstations, ultrasonic roll seam systems can also be integrated in existing machines.

The SONOTRONIC roll seam module, supported at both ends, is used for continuous welding and for Cut&Seal in textile processing, in various industrial sectors. It can easily be incorporated in existing and new machine concepts and is made up of three components:

- Roll seam sonotrode module (with roll seam sonotrode supported at both ends)
- Anvil module (exchange anvil)
- Control module



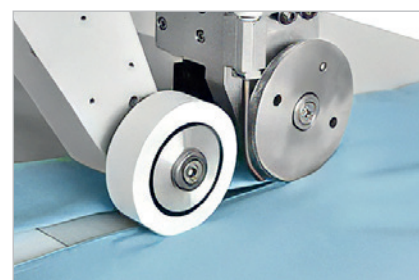
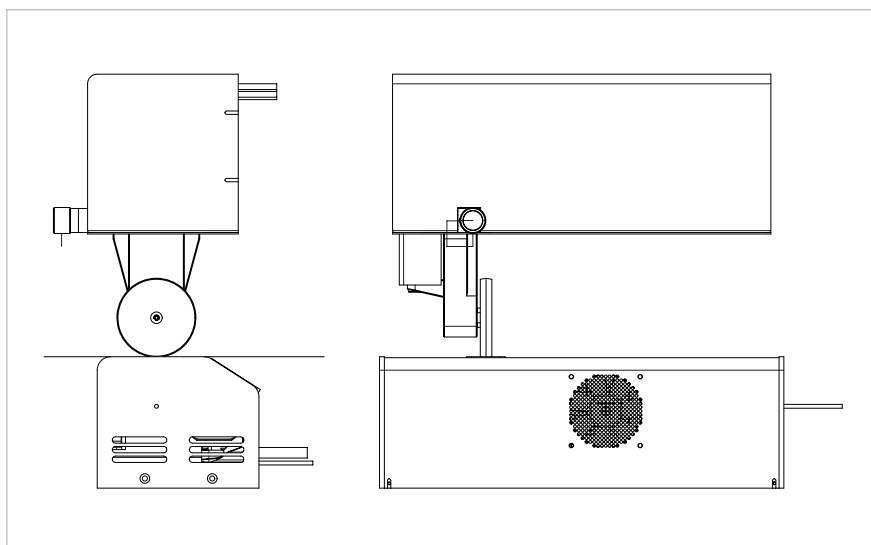
Technical data

Integration in existing or new machine concepts

Technische Daten			
Welding frequency	[kHz]	35	30
Welding speed	[m/min.]	80 (Option: 120)	250
Machine speed	[m/min.]	0,1 – 10,0 (Option: 20)	0,1 – 10,0 (Option: 20)
Seam width	[mm]	0,5 - 10	0,5 - 15 (20)
Welding pressure	[N]	500	
Welding power	[W]	max. 400	max. 750
Material thickness (min.)	[μ]	> 50	
Areal weight (max.)	[g/qm]	300	500
Sonotrode (Amplitude)	[μm]	Steel: 14 / Titanium: 26	Steel: 22

Features and advantages

- Cutting and sealing of elastic and non-elastic textiles
- No fraying in edge cutting
- Minimum seam projection
- Flexible seam design
- No subsequent taping of the seams
- Control of the amplitude proportional to the sealing speed
- The application force can be adjusted by electro-pneumatic pressure control valve
- Circumferential speed of the sonotrode and anvil unit is regulated by a master-slave coupling
- Fan-cooled roll seam sonotrode and ultrasonic converter



Roll seam sonotrodes for cutting and sealing





Infos online

Locations

Global presence



Headquarters

- Karlsbad, Germany

Niederlassungen

- Barcelona, Spain
- Detroit, MI, USA
- Shanghai, China

Vertretungen

- Atlanta, USA
- Borås, Sweden
- Istanbul, Turkey
- Johannesburg, South Africa
- Kaatsheuvel, Netherlands
- Kąty Wrocławskie, Poland
- Kawasaki, Japan
- Leicester, United Kingdom
- Liberec, Czech Republic
- Milan, Italy
- Paris, France
- Puebla, Mexico
- São Paulo, Brazil
- Werribee, Australia
- Zagreb, Croatia



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