

Ultrasonic roll seam technology for Packaging & Food



SONOTRONIC
ULTRASONICS TECHNOLOGY

Roll seam module with cantilevered sonotrode

Ultrasonic sealing without heat loading of the filling material

An ever expanding application for the continuous ultrasonic sealing method from SONOTRONIC lies in packaging technology.

Applications

Here ultrasonic roll seam technology is applied mainly in horizontal and vertical tubular bag machines. Bags with four sealed edges can also be produced by ultrasonic roll seam sealing.

New possibilities in the choice of film

In addition, unlike other thermal processes, ultrasonic technology makes it possible to use monofilms, since no heat-insensitive outer layer needs to be laminated onto the film. Furthermore, even very thin polymer films (15 µm) can be sealed in high quality with the continuous ultrasonic process, which has not been possible satisfactorily with other thermal sealing systems so far.

No thermal radiation

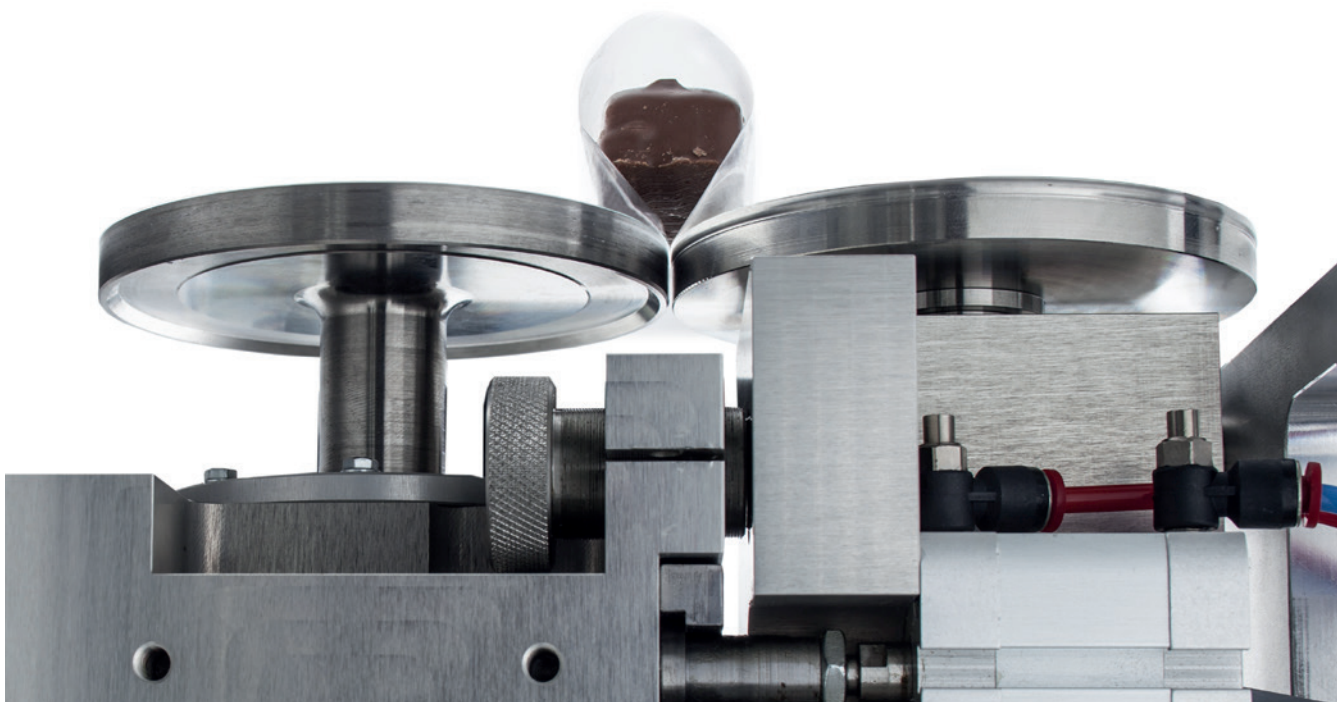
In addition to the well known advantages of ultrasonic sealing, such as tight sealing of wetted surfaces, optically attractive seams and consistent sealing results, ultrasonic roll seam technology is also characterized by further advantages. In continuous sealing, no thermal radiation is transmitted to the product, which is particularly advantageous in the case of heat-sensitive products such as chocolate.

Economic process

Both the roll seam sonotrode and the anvil are driven in this process so that there is neither slip nor wave formation in the film. No relative movement is generated between the sealing wheel and film by the double drive either.

Newly developed unilaterally mounted roll seam sonotrodes

In addition to the proven roll seam sonotrodes mounted on both sides, SONOTRONIC has now also developed special unilaterally mounted roll seam sonotrodes. In the case of horizontal tubular bag machines, the roll seam sonotrode with unilateral mounting can be assembled directly underneath the filled bag.





Infos online

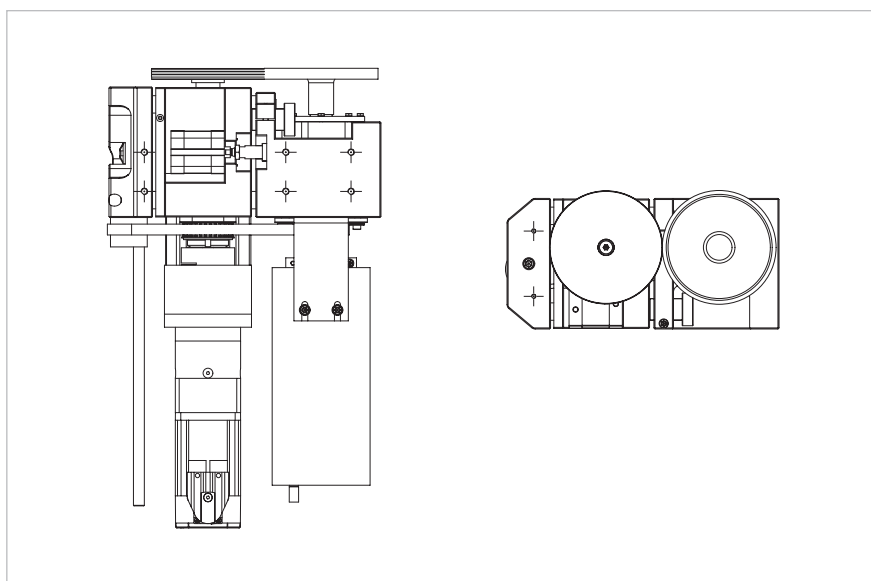
Technical data

Integration in existing or new machine concepts

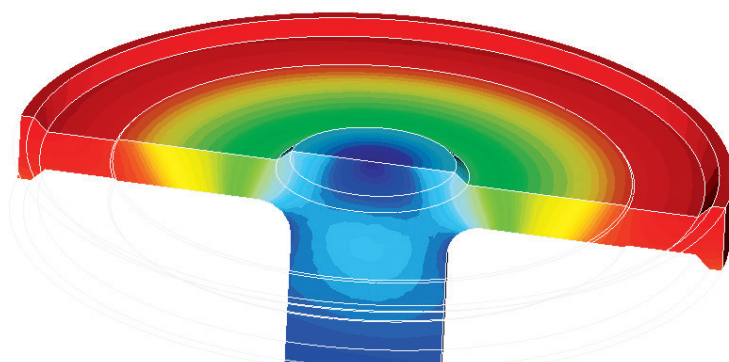
Technical data	
Welding width [mm]	2 – 9
Max. welding force [N]	250
Max. speed [m/min]	80
Frequency [kHz]	35
Power of the generator [M]	400
Max. air pressure [bar]	6
Electrical connected loads of the drive [V] / [A]	230 / 4
Dimensions of the module W x H x D [mm]	250 x 428 x 127

Features and advantages

- Continuous sealing seams
- Tight sealing seams even on product wetted surfaces
- No thermal radiation to damage the product or film
- Assembly directly underneath the bag
- Sealing of mono-films and very thin films (15 µm) possible
- No slip or saving of the film
- Use in VFFS and HFFS machines and for bags with four sealed edges
- Environmentally friendly and energy-saving



FEM view of a roll seam sonotrode mounted on one side





Infos online

Locations

Global presence



Headquarters

- Karlsruhe, Germany

Branch plants

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

Agencies

- Bursa, Turkey
- Shanghai, China
- Johannesburg, South Africa
- Kawasaki, Japan
- London, UK
- Marietta, Georgia, USA
- Puebla, Mexico
- Sao Paulo, Brazil
- Vallentuna, Sweden

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SONOTRONIC GmbH

Headquarters
 Becker-Goering-Str. 17-25
 76307 Karlsruhe, Germany
 Phone: +49 7248 91 66-0
 Fax: +49 7248 91 66-144
 info@sonotronic.de
 www.sonotronic.de

SONOTRONIC, Inc.

Branch USA
 31132 Century Drive
 Wixom, MI 48393, USA
 Phone: +1 248 987 5970
 Fax: +1 248 987 5964
 info@sonotronic.com
 www.sonotronic.com

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