

# Head Sealing Unit KSE 250-100

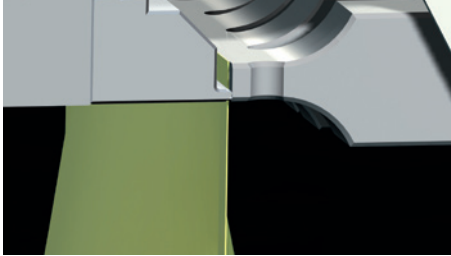
Ultrasonic sealing system  
for head sealing seams  
in upright and flat bags

**KSE 250-100**



# KSE 250-100 head sealing unit

Ultrasonic system for head sealing seams in upright and flat bags



Ultrasonic components for head sealing seams

SONOTRONIC now supplies, as a supplement, mechanical sealing tongs for the pure ultrasonic components for free head sealing of upright and flat bags.

## Closed all-in system

The KSE 250-100 head sealing unit has been specially adapted for the mechanical requirements of an ultrasonic sealing system. As a closed all-in system the head sealing unit can easily be integrated into existing or new bag filling systems, thus enabling manufacturers of packaging machines to convert to sustainable ultrasonic technology with one complete solution and



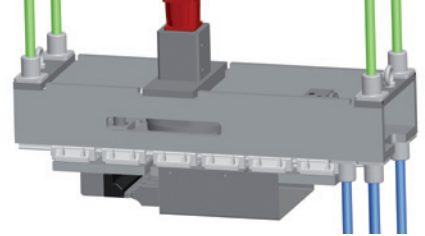
KSE head sealing unit with standard foot housing

use the whole spectrum of advantages ultrasonic technology provides.

**“Sealing without disturbing contours with the KSE 250-100 ultrasonic head sealing unit.”**

## No disturbing contours in the sealing area

In order to meet the parallelism requirements the ultrasonic system and the sealing anvil are mounted on a common continuous guidance system. This guidance system is arranged in a second plane above the tools so that the sealing area is completely free of additional disturbing contours.



KSE with the possibility of adding components at the bottom (blue) and at the top (green)

## Maximum sealing width

Because of the two-plane design the width of the mechanical sealing tongs is also equal to the maximum sealing width. In addition, the main body of the tongs has been designed specifically to meet the requirements regarding bending strength and guidance accuracy of an ultrasonic sealing system.

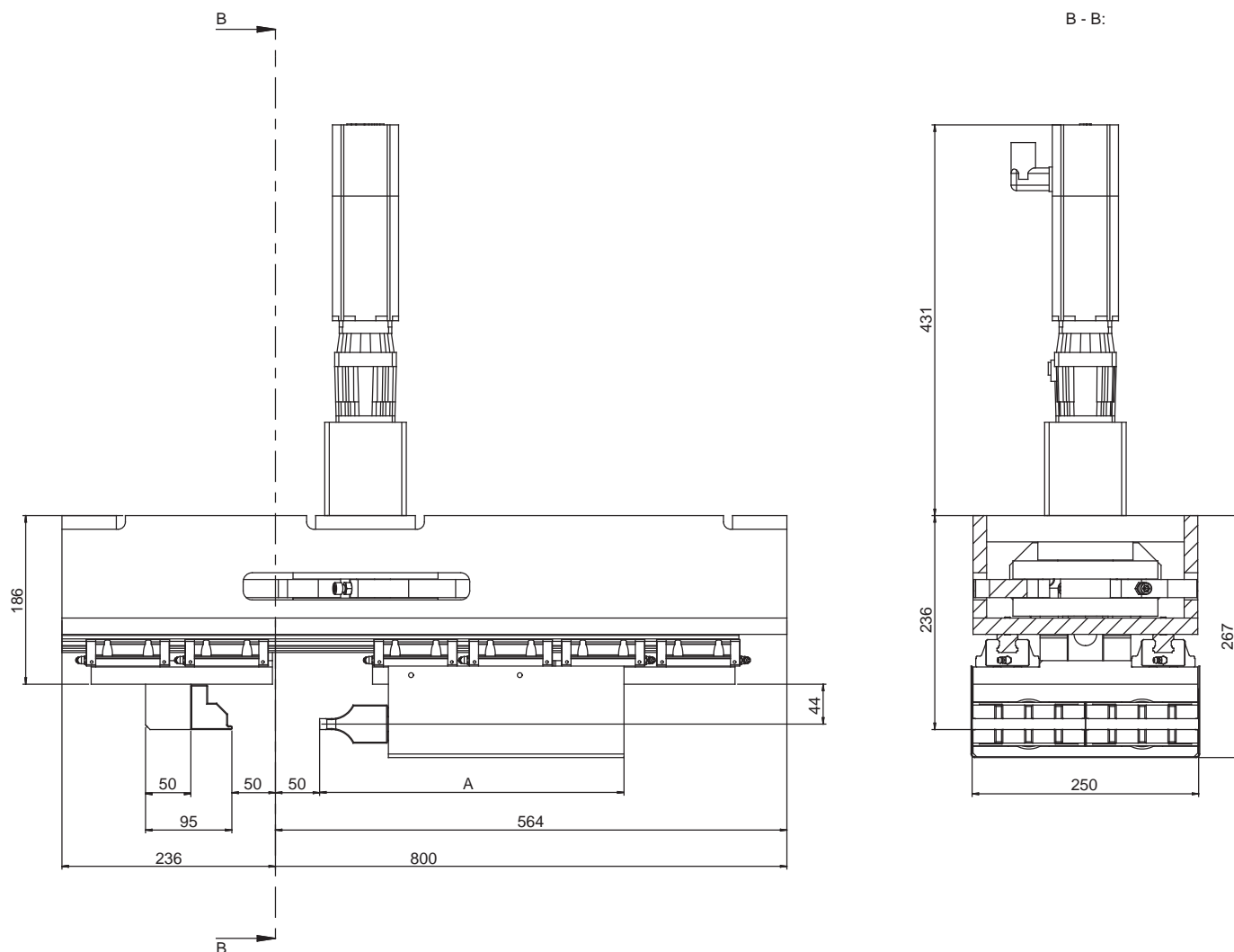
## Advantages

- Ultrasonic tools and sealing tongs in one unit
- Modular sonotrodes in 20, 30 or 35 kHz technology can be used
- Common guidance system comprising the oscillating structure and anvil
- Sealing strength specifically adjustable
- Disturbing contours above tool level (not in the sealing area)
- Speed profile, stroke and retention time-specifically adjustable
- High guidance accuracy by means of recirculating roller guide
- High sealing forces to avoid film displacement in the sealing process
- Equipped with customer-specific servo drives



# Technical data

Simple integration in existing or new machine concepts



## Customer-specific adaptations

The maximum stroke, speed profile and retention time of the head sealing unit can be freely reduced to the specific requirements by means of the servo drive. The servo drive itself is mounted in the vertical axis above the guidance system.

The servo drive is coupled to the guidance system by means of crank mechanics with

automatic tumbler in the sealing position.

The head sealing unit can be mounted customer-specifically, for example over the guide rails at the top or bottom, or is also available with a stand foot housing integrating the servo control.

## Technical data

Maximum sealing width [mm]	250
Max. stroke [mm]	2 x 50
Max. closing force [N]	2.000
Number of cycles (cycles/min) at max. stroke	50
Max. air pressure [bars]	6
Electrical connected loads	3 x 400V+N+PE 50Hz
Reach on anvil side [mm]	95
Reach of sonotrode side (A) [mm] at 30 kHz	336
Dimensions of sealing tongs WxHxT [mm]	250 x 800 x 186
Sealing tong housing WxHxT [mm]	250 x 800 x 700

# Your partner for packaging solutions with ultrasound

Technology and system integration in one unit

As your partner for packaging solutions and system integration with ultrasound, we will accompany you from product development through to product launch.

## Ultrasonic sealing: efficiently and environmentally friendly

The extremely gentle process makes ultrasonic technology ideal for packaging heat-sensitive products. The contents are not heated because the tools are cold. The welds are completely gas and liquid tight. Even products that adhere in the sealed area do not affect the weld quality, which means far fewer rejects. Compared with thermal processes, the energy consumed in ultrasonic welding is low. Energy is not supplied continuously but only when welding takes place.

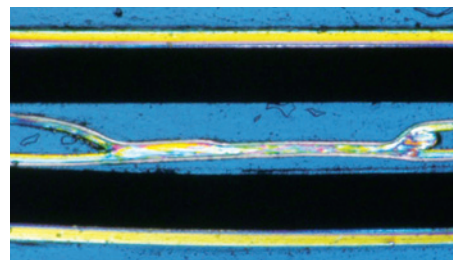
**"SONOTRONIC: Partner  
for ultrasonic solutions  
and system integration."**

## Individually adapted and specially designed ultrasonic systems

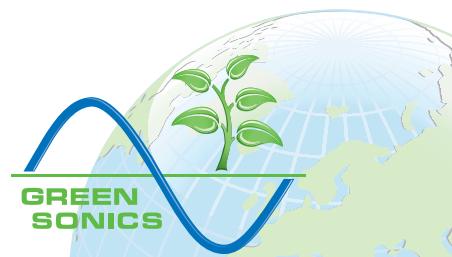
For the various requirements and customer requests, we individually adapt our innovative ultrasonic systems or produce special one-off designs. We develop and manufacture our systems to be fitted both into new installations and into existing ones.

## Tested quality

All our ultrasonic packaging systems are perfectly matched to one another and comply with safety classes up to IP68. We satisfy customer requirements by continuous quality and environmental management in our company, according to the tried and tested standards DIN EN ISO 9001 and DIN EN ISO 14001.



Microtome section through an ultrasonic sealing seam



Green ultrasonic technology by SONOTRONIC



Company headquarters in Karlsbad, Germany

## SONOTRONIC Linked with success.

Since the company was established in 1974, SONOTRONIC has successfully designed and produced systems and components for joining plastics, based on ultrasonic, heating element and laser technology. Over and above this, we use the advantages of these forward-looking technologies to find optimum solutions for other applications as well.

With a powerful team of 200 qualified employees, we implement new ideas reliably and consistently. In so doing, we work closely with universities, research institutions, institutes and associations.

Today, our products are used in many different areas, i.e.:

- Automotive industry
- Packaging industry
- Food industry
- Textile industry
- Environmental technology
- White goods industry
- Electronic and electrical engineering
- Medical technology
- Special applications

Through our branches and partners, we are internationally represented and offer a worldwide service.



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