

### Delivery program for the textile industry

For more than 15 years, we have supplied ultrasonic technology for different sectors as well as many standardized components and custom solutions.

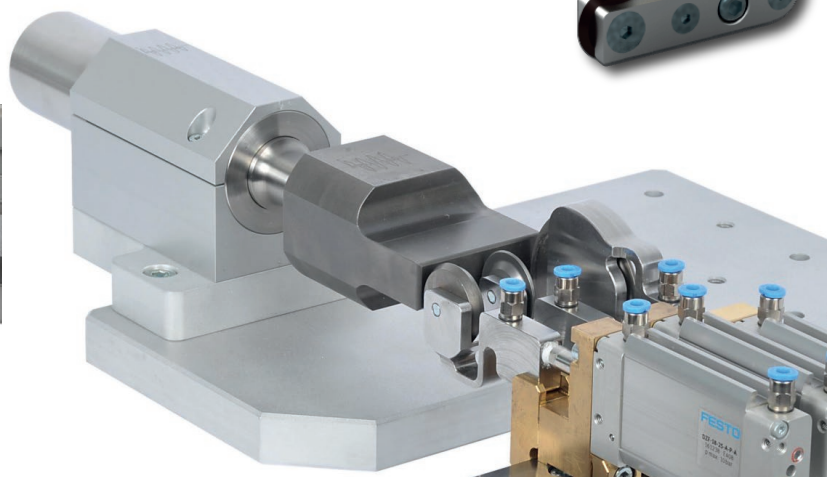
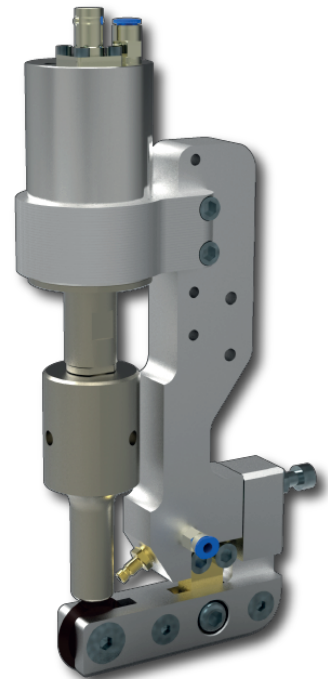
Most of these components were specially developed for the textile industry with its particular requirements. Responding to the needs of the market, new cutting and welding tools that are not based on ultrasound have additionally been designed and included in the program.

As we have bundled all work steps at our factory – from application engineering and design, manufacturing through to control cabinet construction and programming – we are in a position to develop cost-effective customized special solutions using standard components.

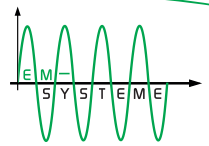
### Cutting and sealing systems

Easy handling is what makes the products of the **LS series** so popular. Aside from durability, the easy integration in the machine offers a clear advantage. When changing the material width, it is possible to operate the system exclusively from one side, as the sonotrode and the cutting wheel share one suspension.

This design is not suitable in applications where the sonotrodes should be lifted from the cutting wheel automatically, and different systems will have to be used. Possible options include pneumatic feed units or, for example, the pneumatic cutting wheel supports of the **PSH-25 series**, which have been specially designed for narrow strips. Due to the narrow width of the bracket, it is possible to cut strips with a minimum width of 16 mm.



Alternatively, diverse feed units are available that are also suited for the implementation of cutting solutions. The presented systems have been designed for continuous cutting.



## Ultrasonic components

### Generators

The generator is the centrepiece of the ultrasonic system. It generates the electrical voltage that drives the vibrator. In addition, it houses the control for the process and the interface to the "outside world".

The desktop generator housings do not have any external ventilation to prevent contamination of the inside of the device or clogging of the filter.

This is a major advantage in particular in high-dust productions. The generators of the **ProteUS** series are housed in an IP65 enclosure. This type of enclosure can be used for carbon fibre processing.

With the operating modes time- and energy-dependent control as well as the option of continuous sound applications, the generators are true multi-purpose devices. They can be delivered in 20, 30, 35 and 40 kHz frequencies.

The generator of the **XSD** series mit 30 kHz and 100 W is ideal for less complex desktop applications.



### Converters

The converter, or sound converter, converts the electrical into a mechanical vibration. This is done by piezo elements housed inside the converter.

For improved strength, we exclusively use titanium, instead of aluminium, in the connection area of our converters. This also increases the tool life significantly.

### Sonotrodes

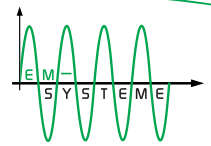
Sonotrodes are the vibratory tools in ultrasonic technology. These tools are designed and constructed to vibrate in the respective resonance frequency of the system. We use selected materials exhibiting very good vibration properties.

These are normally special aluminium and titanium alloys, as well as some steel

grades. The materials are selected depending on the area of use and the requirements. Due to the high requirements, sonotrodes can only be measured and thus manufactured using suitable devices.

We manufacture all our sonotrodes in house.





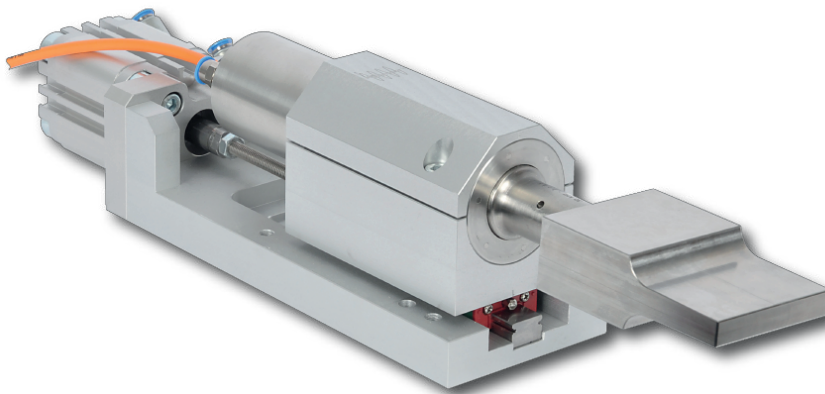
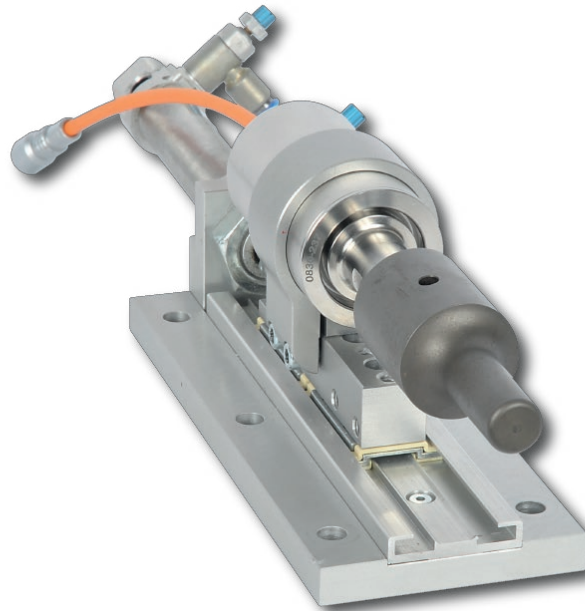
## Pneumatic feed units

Pneumatic feed units are used for approaching the sonotrode to the product. Depending on the use, this can be an indexed or a continuous process. Each design proves its strengths in the respective application.

### VETEX

Its special field are high-dust environments. In all areas that require high reliability, while maximum precision is less important, **VETEX** is the means of choice.

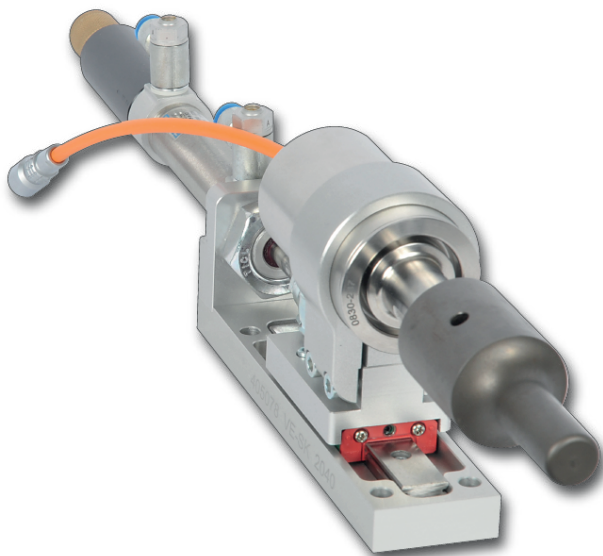
The guide skid is designed to hold different accessories. Aside from blowers, ring nozzles, hold-down devices or protective devices can be screwed on.



### VE-Mini

Small, but precise is the motto here. A compact linear axis with recirculating ball bearing guide permits the realisation of applications, such as e.g. belt cutters.

The feed unit can be provided with a precision stop that accurately limits the welding stroke. It can be used to quickly construct a basic welding station.



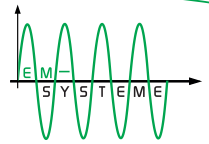
### VE-SK

This feed unit also comes with a recirculating ball bearing guide. It is particularly suited for applications where precision in narrow spaces is key.

In conjunction with a depth limit stop, it is ideal for spot welding or rivet applications.

Additional feed units are available on request.



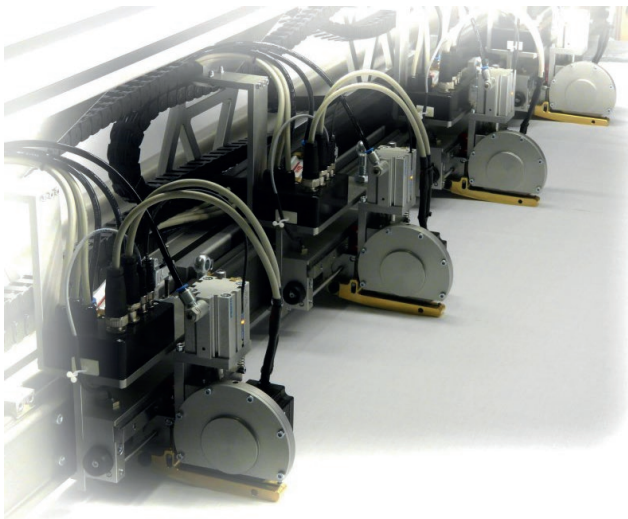


## Handheld devices

Handheld devices remain the first choice for some processes. Aside from the costs, the main arguments for these are speed and flexibility.

Using different sonotrodes, it is possible to realise cutting, welding or cutting and sealing tasks.

An XSD, E-GUS or ProteUS generator is required for operating a handheld device. By default, 40 or 30 kHz is used, alternatively we also offer 35 kHz.



## Alternative cutting processes

### VFK100

We have designed the multiple-face blade head VFK100 for continuous cutting of textiles, non-woven or coated materials. The use of a carbide blade significantly increases the tool life compared to a conventional HSS blade.

Thanks to its unique sophisticated mechanics, the operator cannot cut himself on the blade, which is installed in the recess. The blade is only exposed in the cutting position, which greatly improves safety.

## Vibration cutting

### OS-Cut P150

The vibration cutting head OS-Cut P150 operates at an amplitude of approx. 3.5 mm and a frequency of 150 Hz. The process is therefore ideally suited for cutting flexible materials.

The blades are made of solid carbide metal ensuring a very long tool life. By selecting specialist coatings, it is possible to achieve additional characteristics, such as e.g. reduction of friction to different materials.

An extensive standard blade program completes the system.

We are looking forward to receiving your inquiry – benefit from our expertise and achieve the best results for your product.

