



Robot Systems

Flexibility in production is achieved by state-of-the-art robot technology in conjunction with highly developed ultrasonic equipment.

Using its experience from projects already successfully completed, SONOTRONIC has the know-how to develop advanced robot solutions for small series runs as well as flexible production solutions on a large industrial scale. There are different ways efficiently to combine robot technology and ultrasonic processing.

One possibility is to load and discharge the work pieces automatically, using robots. In this particular case the robots transport the work pieces to the processing areas where they are welded or punched by ultrasound. A special coupling system on the robots, rapid tool changing and individual programming therefore make for flexible production: different applications can be executed on different work pieces on one single system.

On the other hand, robots can also be used to process work pieces directly using ultrasonic technology. In this case, the ultrasonic welding or punching tools are fixed directly to the robot arms, whilst the work pieces are positioned in the holders provided. A variable holder design coupled with rapid tool change and individual software programming also provide production flexibility here too.

The use of flexible robot systems increases the efficiency of small batch / spare part series production.

Applications:

- [Ultrasonic welding](#), [ultrasonic roll seam welding](#), [ultrasonic cutting](#), [ultrasonic punching](#), [ultrasonic riveting](#) and [ultrasonic embossing](#)
- Thermoplastics
- Applications in all [sectors](#)

Characteristics and advantages:

- Processing flexibility
- Economic, automated production even of small batches (for example, spare part production)
- Different variants of robot installations, for example:
 - Robots for loading and unloading the work pieces automatically
 - Robots equipped with special fast coupling systems for loading and unloading different work pieces automatically
 - Robots equipped with ultrasonic tools for processing work pieces, which are already in holders
 - Flexible production solutions on a large industrial scale

