

## Application example

### A continuous sealing and cutting process for labels

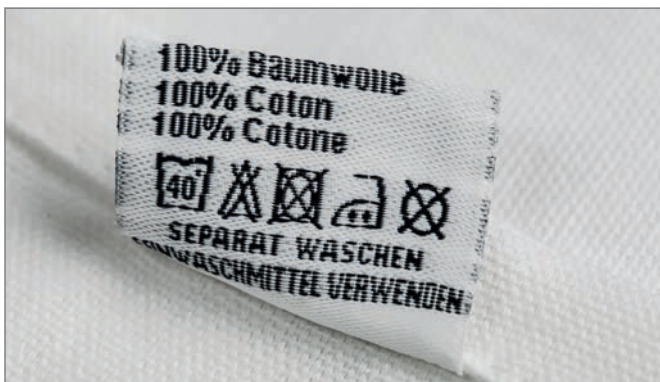
PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

Clothing labels are mass-produced by weaving multiple webs of material. The labels then have to be separated by cutting the webs lengthways and crossways. The edges have to be cut cleanly and sealed to make sure the labels are durable when worn and washed.

#### Solution

The ultrasonic method provides an efficient way of cutting the woven labels crossways and lengthways with suitable components. Longitudinal cutting is performed continuously, which means that the ultrasonic components remain in constant use. The transverse separation of the labels is usually performed intermittently. To allow continuous operation, the converter is cooled electrically with air in an efficient manner.

#### Configuration advantages

The continuous and intermittent ultrasonic cutting processes produce a very neat cut edge, which is simultaneously sealed by the generated heat. Unlike cutting processes that rely purely on heat, the ultrasonic method produces really comfortable labels with lovely soft edges that do not scratch against the skin. What's more, the welded edge stops the label from fraying even after several washes. The modular ultrasonic components can be integrated into production systems and controlled without any difficulty.



The application was solved using 35 kHz ultrasonic components for continuous operation, which were integrated into a special system. SE3512 converter with electrical air cooling and a MAG generator inside a 19" housing.

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