

## Application example

### Cutting a gateau

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



#### Task

The industrial process of dividing soft gateaux into portions imposes heavy demands, both in terms of the cutting process and the quality of the knives. The cut surfaces must look neat and the product must largely be prevented from sticking to the knife surface. Above all, the soft gateau must not get pushed out of shape by the cutting process.

#### Solution

Many products that conventional technology struggles to cut neatly and divide into portions can be cut efficiently using ultrasonics. The following 20 kHz ultrasonic components are used for this purpose:

- A double-length sonotrode with a thin cutting area and ground knife edge
- A converter tightly sealed inside a stainless steel housing
- A modular MAG generator

The components are integrated into a special system and operate intermittently.

#### Configuration advantages

The ultrasonic vibrations significantly reduce the friction between the product and the knife sonotrode so that virtually no material sticks to the knife. Even at very high cycle speeds, this still results in an extremely neat cut. Thanks to the reduced friction, the gateau is barely pushed out of shape at all during cutting. The components can be integrated into a production system or a 3D robot without any difficulty. The MAG generator detects when a sonotrode is faulty and shuts the system down immediately. As a result, cutting quality is perfectly assured.



The application was solved using 20 kHz ultrasonic cutting components (such as a double-length sonotrode, a tightly sealed converter and a MAG generator), which were incorporated into a special system.