

Application example

Refrigeration cabinet dampener

PLASTIC WELDING

METAL WELDING

CUTTING

CLEANING

SCREENING



Task

A dampening element made from polyoxymethylene, which is created in two parts in the injection-moulding process, is used for vibration dampening in refrigeration cabinets. Both halves of the dampening element are to be joined together.

Solution

The joining problem was reliably solved with a USP3000 20kHz ultrasonic welding system with an output of 3600W. The welding process is monitored with a TCS5 controller. To make a tight weld connection possible with plastic polyoxymethylene with a semi-crystalline structure, the joining area was implemented as a pinch seam.

Configuration advantages

The ultrasonic joining process is rapid, economical, environmentally-friendly and can be automated easily. The modular design of the MAG generator technology also permits high power, as required when welding large components made from semi-crystalline plastics. Thanks to touch-screen operation and intuitive graphics, the TCS5 process controller can be easily programmed. The controller offers various monitoring, logging and analysis functions for quality assurance.



The application was produced on a 20 kHz USP3000 welding system, 3600 W MAG generator and TCS5 process controller with touchscreen operation.