Application example

**Embedding threaded bolts in housing**

**Task**

Two brass threaded bolts for fixing should be applied to a plastic housing for an automobile door locking device. As the plastic part is produced in high numbers, the fastening bolts must be inserted into the housing by an efficient method.

**Solution**

Using ultrasonics, standard commercial SonicLok® threaded bolts and bushes can be prefitted and embedded in a prepared hole. Depending on the size of the bolts and geometric shape of the plastic part, noise insulation measures in the form of personal hearing protection or a complete noise protection housing may be required.

**Configuration advantages**

In contrast to the embedding of threaded inserts using heat or injection-moulded insertion, embedding with ultrasonics is convenient, quick and efficient. As a result of the low volume of melted plastic, the cooling time can be kept to a minimum and no dangerous heat stresses, which can lead to cracks, occur in the plastic. SonicLok® thread inserts are standard commercial products available cheaply on the market in various design shapes and sizes.

The application was created on a USP3000 20kHz ultrasonic welding system with MAG generator and TC55 process controller with noise protection cabin.