

Emerson supports rear/tail light manufacturer Odelo in meeting new market requirements in the automotive industry

RESULTS

- Company's well-known limits have been overcome with the help of Clean Vibration Technology from Branson
- It is now possible to weld high quality contours, which would have been considered impossible years ago



CUSTOMER

Odelo, a world leading rear/tail light manufacturer, develops products for all German premium vehicle manufacturers. In the past year there has been a trend away from a functional rear/tail light to a design object. Through this design, factors such as an appealing aesthetic look and a new design have increasingly come to the foreground. With their motto "We are bundling Light with Emotion" the Odelo Group has captured this trend exactly. Branson and Odelo maintain a long-standing cooperative relationship, and together have addressed the new challenges facing the automotive industry by developing innovative solutions.

CHALLENGE

Previous methods for joining rear/tail lights to the moldings led to aesthetic limitations through the buildup of particles, which affected the aesthetic appearance of the nearly transparent panes of the rear/tail lights and thereby negatively affecting the product. The automobile customer demands modern rear/tail lights to be particle free, visible and uniformly welded. Further demands for today's rear/tail light systems are more complex contours, such as 3D moldings or level changes in the joining plane. Construction challenges arise from the increased tolerance requirements, especially in the area of light transfer from multi-part lights, combined with temperature resistant formulations of plastics. New rear/tail lights with sensitive LED's and electronic components require the highest care during the joining process.

"We have been working with Branson for over 20 years. Together we have conquered several serious challenges and driven many innovations in machine/tool technology. Especially highlighted is the current machine series GVX with Servo technology. Without this it would have been difficult to impossible to realize current projects. Over the years, a collaborative, reliable and extremely fruitful cooperation has developed with Branson, which we greatly appreciate."

SOLUTION

In a close cooperation between Odelo and Branson, solutions were developed for the joining of rear/tail lights and the Clean Joining Technologies of Branson was selected.

The special vibration welding (Clean Vibration Technology) is one of the joining technologies of Branson, that offers a highly developed, energy saving possibility for joining two and three dimensional moldings. It is characteristic for this method that before the actual joining, a pre-warming process is used. Through the pre-warming, the vibration weld can be delayed until the viscous phase. In this way, the creation of particles and “melting filaments” can be avoided, which otherwise may appear in the joining phase.

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Emerson Automation Solutions

Branson Ultrasonics Corp.
41 Eagle Road
Danbury, CT 06810, USA
T: 203-796-0400
F: 203-796-0450
www.bransonultrasonics.com