apra-norm Elektromechanik GmbH

www.apra.de

apra-norm GmbH with headquarters in Mehren in Rhineland-Palatinate is a systems supplier for electronic housings. Since 1969, the company has developed into a group of companies reaching 25 market segments. "We are and always have been very value-centered. Family and partnership are important to us," says Stefan Meffert. He heads up the Group's business along with his wife Ulrike, his sister-in-law and two other partners.

INDUSTRY
Metal processing

NUMBER OF EMPLOYEES
> 400

SITE
Mehren (Germany)

TRUMPF PRODUCTS

- TruLaser Weld 5000
- TruLaser Robot 5020
- TruTops Monitor

APPLICATIONS

- Laser welding

Challenges

As apra-norm also produces high-quality laser source housings for TRUMPF, the company was reaching its capacity limits. The demand for laser technology is growing constantly, increasing the order volume. Added to this is a lack of skilled welding and grinding technicians. The conventional welding and grinding technology, which left employees sitting for hours on a housing, is therefore no longer the method of choice for apra-norm.

"We used to need two hours to manually weld the very complex housing for TRUMPF, consisting of 40 single parts. Now the straight welding time is only five minutes."

NORBERT SCHMITZ
PRODUCTION MANAGER AT APRA-NORM ELEKTROMECHANIK GMBH

Solutions

The TruLaser Weld 5000 is the solution for apra-norm. The automated laser welding system saves apra-

norm a lot of time. Production Manager Norbert Schmitz says: "We used to need two hours to manually weld the very complex housing for TRUMPF, consisting of 40 single parts. Now the straight welding time is only five minutes. The preparatory work has increased due to pre-riveting. Regrinding, on the other hand, is completely unnecessary." apra-norm now only needs 45 minutes instead of three and a half hours for the entire procedure, including preliminary and post-processing work of a housing. CEO Stefan Meffert is enthusiastic: "Staff who used to be busy with welding can now work on other orders. At the same time, production for TRUMPF is running on the laser welding system. This means that we do not have to hire twice as many people despite the increase in volume – which would have been impossible with the difficult employment situation."

Implementation

Together with TRUMPF, apra-norm selects the ideal individual concept for their TruLaser Weld 5000 and for their application. A version of the laser welding system is created with a parallel-to-production loading concept for particularly short non-productive times. The system is also highly flexible, making it not only ideal for laser housing production, but also for many other applications. While the laser welding robot processes the housing in the cell, the second side of the rotary table is loaded externally. The integrated sensor system with which the user can monitor the degree of contamination without a visual inspection is time-saving as well. In addition, three different laser welding procedures are possible without the need for reconfiguring: heat conduction welding, deep penetration welding and FusionLine.

Forecast

Looking back as well as ahead: the partnership between TRUMPF and apra-norm started more than 30 years ago with the purchase of a punching machine. This was followed by two STOPA high bay storage racks, several bending machines, a small bending cell, and more. apra-norm launched into laser welding with a TruLaser Robot 5020 eight years ago. In addition, apra-norm monitors the new machines with TruTops Monitor. The software makes machine data transparent such as idle states, error messages, causes of malfunctions, breaks and maintenance periods. This means that apra-norm can optimize processes more easily and quickly. In future, apra-norm is aiming to use a third laser welding cell and continue to develop the fully networked production.