

LASER WELDING OF WATCH DIAL INDICATORS WITH THE ASSISTANCE OF INDUSTRIAL VISION

CHALLENGES

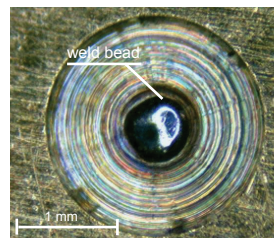
- ▶ Locate the exact positions of the dial indicators feet before welding.
- ▶ Not to damage (scratch) the face and indicators.
- ▶ Protect the lacquer on the face which is very sensitive to heat.
- ▶ Running small and large production volumes on the same machine.
- ▶ Handel various faces and indicators geometries.
- ▶ Easy and fast switch over to different faces and indicators.

ADVANTAGES

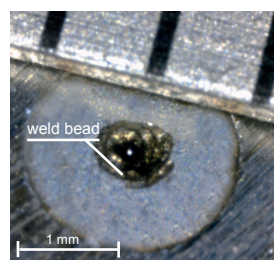
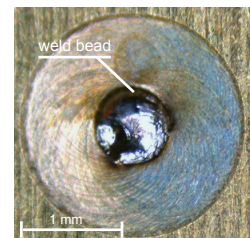
- ▶ Perfect welds of various high-quality materials
- ▶ Ability to weld small diameters

RESULTS

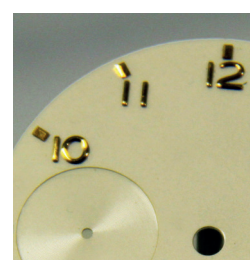
- ▶ 10x greater strength
- ▶ No damage to the face or the indicator
- ▶ Process time 3-5 seconds per indicator



weld seam from above



weld seam detail



CPAUTOMATION PRODUCT

GENERAL SPECIFICATIONS

| | |
|----------------------|----------|
| Welding machine | TLase |
| Speed | < 2 s |
| Positioning accuracy | +/- 1 µm |

