Laser Plastic Welding

- Optimal and closed loop welding process
- Quasi-simultaneous welding
- Short cycle times
- Easy exchange of clamping unit (SMED)
- Easy programming (TS1)
- Precision collapse measurement
- Minimal product specific tooling required
- Retractable welding head on slides
- Integrated lift mechanism
## Laser Plastic Welding

### PCB Specification
- Module weld rib width: 115 mm (other on request)
- Module weld rib length: 135 mm (other on request)
- Enclosure height: ≤ 25 mm (other on request)
- Lid height: ≤ 7 mm (other on request)
- Weld rib: ≥ 0,5 ≤ 1 mm (other on request)
- Lid thickness on weld rib: ≥ 0,5 ≤ 1,5 mm

### Process Specification
- Welding: Quasi-simultaneous
- Welding speed: Up to 6 m/sec
- Field of View: 120 x 140 mm (other on request)
- Collapse measurement resolution: 5 µm (high stability), optional 1 µm
- Positioning accuracy: ± 0,05 mm
- Positioning repeatability: ± 0,02 mm
- Fume evacuation: Integrated tubing and connections
- Airblow functions: Standard (2 ports)
- Product cooling: Optional
- Press force: 250 N to 2kN programmable
- Laser wavelength: 980 nm
- Laser power: 300 W
- Laser spot size: 1,5 mm large focus depth (other on request)

### Technical Specification
- Protection screens: ESD
- Controller: Beckhoff
- Energy requirements: 3 x 400 V + N, 3 kVA
- Compressed air: 6 bar, typ 50 NL/min, according to DIN ISO 8573 3.4.5
- Color: RAL 7035 ESD Safe
- Cabinet Dimensions (L x D x H): 600 x 800 x 2.150 mm
- Frame Dimensions (L x D x H): 650 x 900 x 2,250 mm
- Weight: ca 600 kg
- Interface: TS1
- Standards: CE

### Options
- Different conveyor systems (carrier, PCB, pallet)
- Pendant Tool
- Fume extractor and flow detection
- Laser Power measurement tool
- Press Force measurement tool
- Marking block tool with exchangeable marking plates
- Off-Line, turntable, drawer version

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