LASER WELDING OF PLASTIC

SOLUTIONS FOR INDUSTRY
Complete Solutions - One Supplier

ELECTRONIC
SOFTWARE
FIXTURE
SET-UP ENGINEERING
MEASUREMENT
ENGINEERING
APPLICATION
AUTOMATION
**MPS Compact**
- Small footprint
- Integrated laser source
- Pneumatic sliding door
- Available for seated or standing work position
- CNC controller (Beckhoff)

**MPS Flexible**
- Large working chamber
- Integrated laser source
- Pneumatic sliding door
- CNC controller (Beckhoff)

**MPS Rotary**
- Rotary indexing table Ø 800 mm
- Integrated laser source
- Partition heights (150 mm, 300 mm)
- Safety light barrier
- CNC controller (Beckhoff)

**Clamping Device Standard**
- Accuracy clamping
- Fixed base plate with glass plate or welding mask
- Movable carrier plate for mounting the work piece fixture
- Guides for stabilization at pneumatic cylinder
- Sensor technology for measuring the collapsing height

**Clamping Device Advanced**
- Stable frame
- Servo motor (spindle axis) or pneumatically driven cylinder
- Work piece fixture
- Collapse height measurement
- Torque control (force control)

**Double Clamping Device**
- Stable frame
- Servo motor (spindle axis) or pneumatically driven cylinder
- Work piece fixture for two parts
- Collapse height measurement
- Torque control (force control)
Integration Package
Compact
- Movable base plate with glass plate or welding mask
- Fixed carrier plate for mounting the work piece fixture
- Sensor technology for measuring the collapsing height

Fixture Know-how
- ROFIN has extensive laser and system know-how, and a wealth of application experience
- Complete solutions with customer specific workpiece fixtures

Integration Package
Standard
- High accuracy clamping
- Fixed base plate with glass plate or welding mask
- Movable carrier plate for mounting the work piece fixture
- Two additional guides for stabilization at pneumatic cylinder
- Sensor technology for measuring the collapsing height

Human Machine Interface (HMI)
- Different user levels
- Maintenance menu
- Welding recipe
- Process diagrams
- Process data
- Manual movement via jog (touch screen) for teaching

Integration Package
Advanced
- High accuracy clamping
- Fixed base plate with glass plate or welding mask
- Movable carrier plate for mounting the work piece fixture
- Servo-driven spindle axis

Collapsing Height
- Process control
- Time resolved collapse height monitoring
- Part-specific tolerance band
- User-definable error handling
- Complete process data logging
**Compact Evolution with Galvo**
- Easy-to-integrate fiber-coupled system
- Compact 19-inch rack-mountable (3HU)
- High beam quality of 22 mm mrad
- Diode laser control unit (DLC)

**Quasi-simultaneous Welding**
- Online process control by collapse measuring and/or pyrometer
- No handling necessary
- Compact space
- Simultaneous heating and melting of the complete contour

**Compact Evolution with fixed optics**
- Easy-to-integrate fiber-coupled system
- Compact 19-inch rack-mountable (3HU)
- High beam quality of 22 mm mrad
- Diode laser control unit (DLC)

**Contour Welding**
- Also suitable for 3D contour and large parts
- Low requirements on beam quality
- Online process control via pyrometer

**Pyrometer**
- Real-time temperature measurement
- Coaxial to laser beam

**Software Pyrometer**
- Closed loop process control possible
- Programmable temperature profile