

TPS 6000 TUBE & PROFILE SYSTEM

Continuous Tube & Profile Welding



FEATURES

- ▶ High Efficiency, Maintenance-free IPG Fiber Laser
- ▶ 3-Axis Precision Controlled Motion
- ▶ Integrated Seam Tracker Motion Control
- ▶ Computerized Process Gas Control
- ▶ Steel/ Aluminum Construction for Stability
- ▶ Fully Integrated with Single GUI



APPLICATIONS

- ▶ Tube & Profile Continuous Welding
- ▶ Oil & Gas Industry
- ▶ Construction Industry
- ▶ Food and Pharmaceutical Equipment
- ▶ Automotive Components
- ▶ Heat Exchangers
- ▶ Furniture Frames

IPG TPS 6000 is an integrated welding system for the production of tubes and profiles. Embodying an IPG welding head and seam tracking unit integrated with a precision 3-axis motion platform, the TPS 6000 provides high integrity, oxidation-free, low HAZ seam welds on carbon-steel and stainless steel continuously-formed tubes with wall-thickness from 0.7 to 4 mm.

Using IPG's high efficiency, maintenance-free lasers, operating and consumables costs are typically less than 25% of the traditional CO₂ alternatives. The TPS 6000 is a compact design unit fabricated from steel and aluminum for mechanical stability and easy integration into the customer's fabrication line.

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Typical Process Specifications

Laser Power Options	CW Fiber Lasers up to 12 kW CW Power
Beam Delivery Options	IPG's FLW-D50 Welding Head Beam Delivery Typically Includes: Selectable Collimator/ Focus Lenses Electronic Control of Shield Gas Flow (Optional) Water-cooled Optics Side Camera for Seam Tracking & Coaxial Camera for Beam Centering & Process Inspection
Motion System	3 PLC Controlled Axis X-Axis (Parallel to the Tube) 300 mm Y-Axis (900 to the Tube) 100 mm (Controlled by Seam Tracker) Z-Axis (Vertical) 750 mm
Controls/ Interface Options	Stand-alone Industrial PC Controller Color Touchscreen Display for Imaging and HMI Control
Communications	Interface to Customers Equipment Controller via Field Bus or Analog Signals Laser Interlock Connections for Integration with Customers' Safety Cell
Dimensions: TPS, mm Laser, mm	950 x 1450 x 2050 856 x 806 x 1106 (depending on laser selection)
Weight, kg lbs	515 1135

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