

TPS 6000 Tube & Profile System

Continuous Tube & Profile Welding

NEW SYSTEM



Applications

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



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



IPG's 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 Average Power
Beam Delivery Options	<p>IPG's FLW-D50 Welding Head</p> <p>Beam Delivery Typically Includes:</p> <ul style="list-style-type: none"> 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	<p>3 CNC Controlled Axis</p> <ul style="list-style-type: none"> X-Axis (Parallel to the Tube) 300 mm Y-Axis (90° to the Tube) 100 mm (Controlled by Seam Tracker) Z-Axis (Vertical) 600 mm
Controls/ Interface Options	<p>Stand-alone Industrial PC Controller</p> <p>Color Touchscreen Display for Imaging and HMI Control</p>
Communications	<p>Interface to Customers Equipment Controller via Field Bus or Analog Signals</p> <p>Laser Interlock Connections for Integration with Customers' Safety Cell</p>
Dimensions:	
TPS, mm	950 x 1450 x 2050
Laser, mm	856 x 806 x 1106 (depending on laser selection)
Weight, kg	515
lbs	1135

+1 (508) 373-1100
 sales.us@ipgphotonics.com
www.ipgphotonics.com

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