LSS-2 C-gun
Laser Seam Stepper

Applications

- Welding of Car Body Parts
- Consistently Reproducible Welds with High Grade Steel or Aluminum
- Reliable Joining of Hot-formed Materials
- Reliable Welding of High Strength Steel
- Joining of Thin, Light-weight Materials
- Increase of Joining Quality and Component Stiffness
- Low Distortion Joining

Features

- Laser Welding with Simple Clamping Technology
- Power up to 4 kW
- Repeatable Processing with Multi-layer Sheet Joining
- Reduced Processing Time due to Higher Joining Strength
- Wall-plug Efficiency >30%
- Programmable Clamping with Long-term Repeatability
- Higher Component Strength and Rigidity due to Joint Quality
- Laser and C-gun Control in a Single Housing
- Class 1 Laser Capable System*

IPG Photonics' LSS-2 Laser Seam Stepper combines clamping with a laser welding tool (max. 4 kW) and is typically used as a replacement for resistance spot welding. It provides numerous benefits including adjustable clamping force up to 3 kN, improved workpiece strength and stiffness, faster process speed and no need for expensive laser safety cabinets. The LSS-2 Seam Stepper can weld a laser wobble seam up to 40 mm in length in half the cycle time of traditional technology and can be used on a wide variety of materials including hot-formed materials. With an online monitoring and beam switch safety system, the Laser Seam Stepper can be qualified as Class 1* Laser device. Due to the compact and efficient design, the stepper head weighs only 45 kg, saves compressed air and operates at ≤72 dB noise level.

*Integrator must provide an interlocking guard to create a minimum safety distance of 1 meter.

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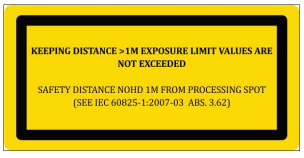
Technical Specifications: C-Gun

Weight, kg	45
Adjustable Clamping Force (Z-hub), kN	0.8-3.0
Opening Width C-gun, mm	130
Welding Seam Length, mm	max. 40
Wobble Amplitude (Wobble), mm	±1
Frequency (Wobble Frequency), Hz	1-25
Welding Speed, mm/s	max. 50
Focal Length, mm	250 or 300
Compressed Air Consumption, l/min	250 (during operation)

Technical Specifications: Laser/ Controller

Weight, kg	400
Wavelength, nm	1070
Mode of Operation	CW/ Modulated
Nominal Output Power, kW	max. 4
Beam Spot Diameter, µm	125, 250, 375, 500
Peak Power Consumption, kW	<14 (without chiller)
Dimensions Controller, L x W x H	806 x 856 x 1517



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

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