

Economical & Reliable Joining of Cylindrical Parts Laser Plastic Welding with LPKF InlineWeld 2000

- Integral laser plastic welding solution for cylindrical and non-rotatable workpieces
- Increased power for high production throughput
- Robust and well-established process technology
- Integrated quality assurance system
- Little required installation space and extensive interfacing options
- Cost-efficient in investment and maintenance



Optimized Radial Joining of Cylindrical Parts

Radial welding of rotationally symmetric plastic parts has never been easier than with the new LPKF InlineWeld 2000. Developed for automated production lines, the system consists of a welding head with a powerful laser source and a rotary arm for fast welding processes, which also allows, for example, the processing of elliptical cylinders. The architecture of the system is highly adaptable, allowing the customer a high degree of part design flexibility. The quality of the radial welding process is monitored and controlled by an integrated pyrometer.

Radial Welding

The InlineWeld 2000 system features a compact laser head equipped with an arm that quickly rotates around the workpiece, selectively directing the laser beam along the junction to be welded. The part itself remains in a fixed position during the welding process. If required, a clamping pressure can be applied by a pressure unit.

The resulting weld seams are strong and robust, whilst the surrounding material remains unaffected by the welding process. This leads to perfect joining results in terms of function, performance and optics – whether you need the application for components for the automotive industry, medical technology or any other industry sector.

Widely Applicable

The system has been specifically designed to meet the customer needs in terms of part dimensions and design. Thanks to a ground-breaking alignment concept and

easy exchangeability of components, a wide range of diameters and welding seams can be processed using the same system. This revolutionary alignment concept guarantees an unbeatable reproducibility and a high degree of standardization among welding systems, also allowing to quickly react if the process requirements change.

Process Monitoring

The welding process is optionally monitored by a pyrometer and regulated by a controller. This ensures a high production throughput and unrivaled part quality.

A Solution to Any Requirement

The InlineWeld 2000 is a fully functional welding system. It can either be integrated into an automated production line or be operated as stand-alone system in production or laboratory environments.

LPKF InlineWeld 2000

Laser class	1 (after integration)
Laser parameters	200 W, spot: 1 mm – 5 mm
Part diameter	5 mm – 80 mm
Welding head dimensions (W x D x H)	331 mm x 370 mm x 1043 mm
Control cabinet dimensions (W x D x H)	800 mm x 500 mm x 1300 mm
Options	Pyrometer, controller, interface box, pressure unit

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