

Laser welding for transmission parts

Compact cell for rotation-symmetric components



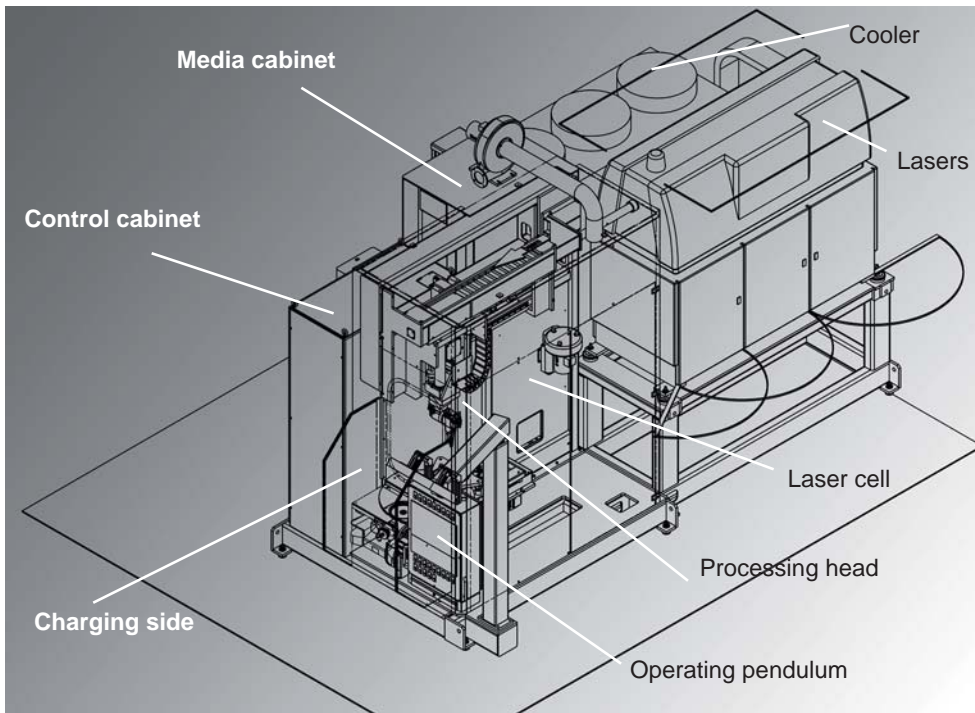
The modified laser cell was developed for the laser welding of rotation-symmetric workpieces such as transmission parts in medium-sized series and mass production. With certain limitations, linear welding can also be produced. The system can be charged manually by a worker or automatically by a robot or other handling unit. Component feed is based on a rotary table with double or quadruple nests for the workpiece seats. A clamping technique follows our tried-and-trusted method, where we lift the workpieces onto a reference plane, then clamp them and weld them in rotation. Components are protected from splashes by a rotatable counter-bearing. Shaft components can also be welded. The work chamber is generously dimensioned for good service accessibility. As a crane hook machine, the system can quickly be put into operation at the customer's..

Brief description

- Manual charging
- Automatic charging can be retrofitted
- Tried-and-trusted clamping technology (several hundred references)
- Suitable for shafts
- Fast start-up at the customer's

Technical data

Component dimensions	Ø 40 - Ø 250 mm
Set-up area:	4850 x 3010 mm
Cycle times:	from 14 seconds
Laser type:	CO ₂ -Laser



System layout with welding cell, laser and cooler



Service accessibility through service door at the side. Optimum access to all components on the interior of the system.

System charging:

Thanks to the rotary table design with external charging and discharging station, the welding cell can be operated with parallel processing time. The charging process can either be carried out manually or automatically. The viewing window on the front provides an optimum view of the welding process. The start of cycle is triggered by two-hand operation.



Tried-and-tested clamping technology with pyramid collet for optimum concentricity and large clamping range. The component is clamped against a pressure bearing for reproducible welding results and optimum protection of the component teeth against welding splashes.

Service position C-axis, at the same time optimum charging position for shafts.



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