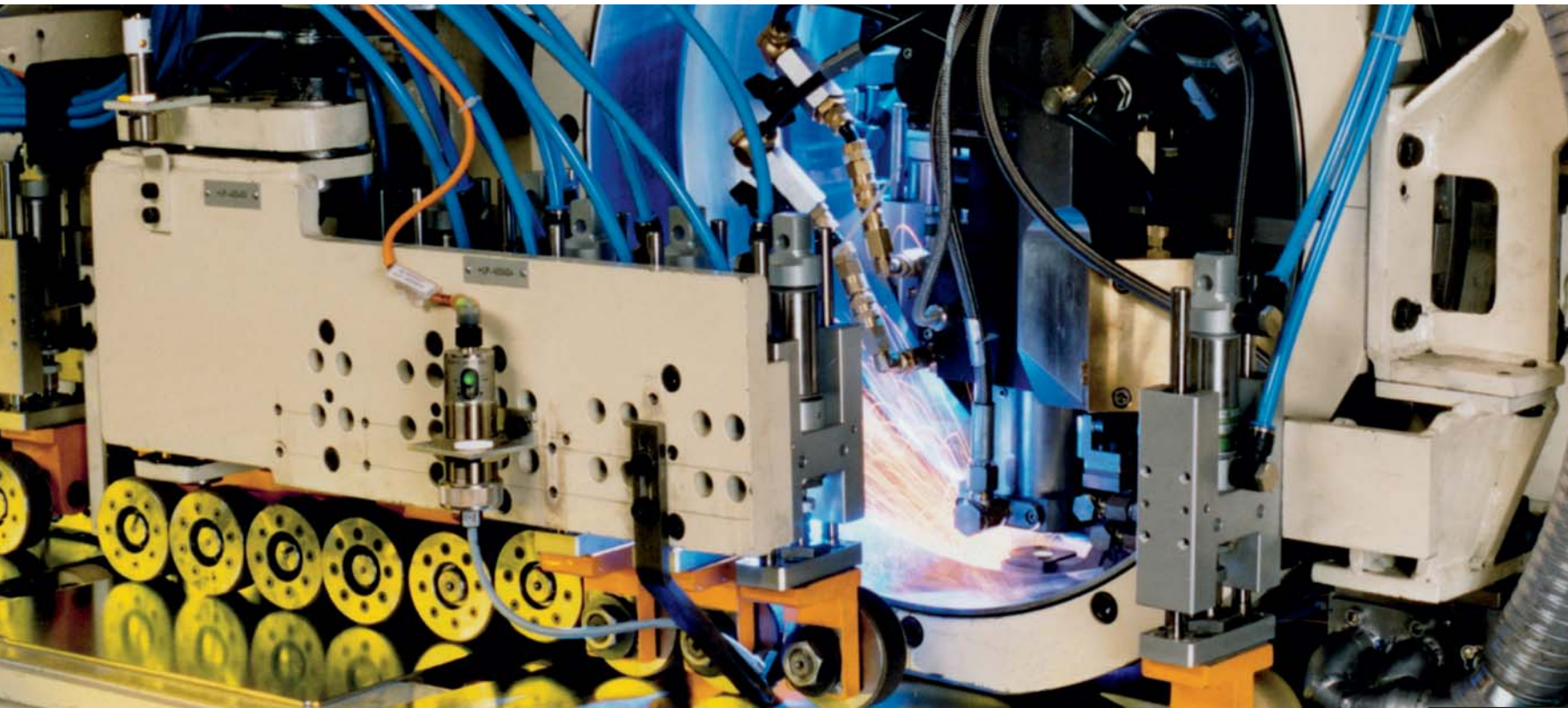


Laser Welding Systems



A company
of ThyssenKrupp
Steel

ThyssenKrupp Lasertechnik



ThyssenKrupp

Our business



The ThyssenKrupp Lasertechnik is a 100 % subsidiary of the ThyssenKrupp Steel AG.

The ThyssenKrupp Lasertechnik is well experienced in the development and manufacture of laser welding applications for the steel and automotive industry.

Based on our know-how in plant construction, our laser welding systems have been developed for the production with optimized piece costs.

Our engineering performance in the laser welding area is carried out in close cooperation with our customers. It comprehends the constant further development of existing and field-tested system concepts and – using all the resources provided by the ThyssenKrupp group companies – the new development of alternative system concepts.

Coils



Coil laser welding system



Coil laser welding system, joining process

Technology

Perfect joining of two coil ends in inspection and optimization lines or in continuously running coating plants. With laser cutting and laser welding in one system, joining most different materials – even high-strength – and different thicknesses is possible in the mix without any tool wear.

Best - Weld - Technology

Due to the unique design of the machine we can ensure the best set-up for a perfect weld seam.

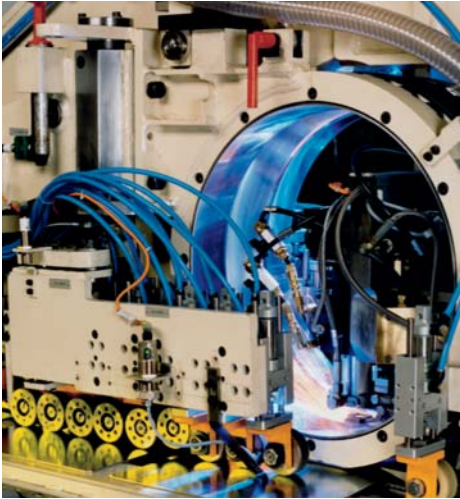
System concept

Due to the little space required by the very compact execution and erection on floor level, this system type is also suited to upgrade existing production systems. Compared with systems with mechanical cut, this system manages with a far more simple clamping technology.

Inductive annealing of the seam is possible.

An automatic quality control is integral part of the machine

Tailored Blanks



The core of the Conti laser welding systems



Conti laser welding systems, gantry handling and blank turning robot



Conti laser welding system, robot handling

Linear or non-linear seam

Conti laser welding systems for linear weld seams, gantry laser welding systems for non-linear weld seams. Depending on the production-specific requirements, the optimal solution can be chosen from a variety of system concepts.

Productivity

Conti laser welding systems for linear weld seams captivate by highest flexibility and biggest output of all systems known worldwide. Gantry laser welding systems for linear and non-linear seams complete the program with regard to most different seam directions, part geometries and piece numbers.

High flexibility

The machine concept of the Conti laser welding system offers a maximum of flexibility for all possible blank forms and blank dimensions without any change of mechanical components.

Modular principle

The modular principle of our machines allows to start with a manual system with low capital expenditure, upgrading this system step by step to a complete system with fully automated handling, cutting edge preparation, dimple stamping for stacking, blank turn-over etc.



Gantry laser welding system, linear and non-linear weld seams, robot handling



Gantry laser welding system, linear and non-linear weld seams, manual handling



Multiple seam blank

Simple manual loading

With the Conti laser welding systems, an exact positioning of the blanks is not necessary. The blanks will be adjusted automatically on their way to the weld position.

Continuous improvement

By the feedback from the operators, production-specific improvements are introduced continuously.

Quality assurance

Multi-sensor-systems allow on-line quality control of the Tailored Blanks.

Rotation-symmetric parts



Laser welded shock absorber tubes and piston rods



Laser welding system, joining and welding piston rods

Technology

By the thin and high-strength laser weld seams and the low heat contribution beside the joining, weld seams can be planned directly next to seals or running surfaces.

Quality assurance

Special parts require special test methods:

- automatic seam geometry measurement
- concentricity inspection
- process and quality data recording.

System concept

Most different diameters or lengths of the parts in combination with a variable number of weld seams can be treated. The modular execution allows the enlargement by joining operations and the integration of further function elements like cleaning or conservation stations.

Fully automated handling with separation of bulk material or from loading equipment guarantee highest productivity.

Service



The customer benefits from our long lasting experience and our enormous know-how in Laser Systems. Process and quality assurance are our daily business and we can provide professional service, especially for High-Power Laser Applications.

The Key Issues are:

- Spare parts management,
- Training,
- Preventive Maintenance,
- Modification and Relocation of machines
- Production support.

We can play a part in our customers quality strategy and help him to achieve and keep process stability and high efficiency for his production systems and maximum quality for his products.

Service and Spare Parts



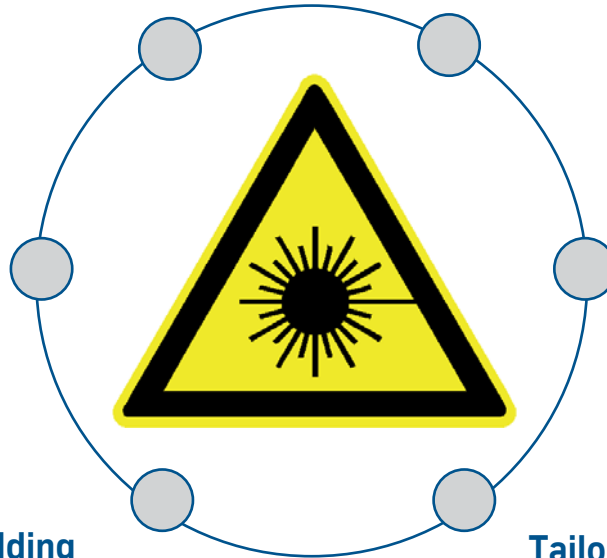
Body Equipment



Special Purpose Machinery



Circular Welding Equipment



Strip Welding Applications



Tailored Blanks Facilities



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General note

Information on quality or usability of materials or products serve for description purposes. Promises with regard to the existence of certain features or a specific purpose always require a special written agreement.