

KUKA



Joining Solutions_KUKA flexibleCUBE laser



The innovation in robotic laser manufacturing

KUKA flexibleCUBE laser

Cost-effectiveness and quality are the decisive factors in modern production. Laser machining is an innovative variant in this context. The speed of the process and the low heat input contribute to high productivity and reduced reworking compared with conventional processes. With the development of the compact cell KUKA flexibleCUBE laser, KUKA Industries offers the ideal solution for your first steps on the way to the production of tomorrow. The KUKA flexibleCUBE laser can be selected with a range of different processes, including laser cutting and welding or the special laser cladding process.

Pre-assembled KUKA flexibleCUBE laser – Laser technology in confined spaces

As a first step into laser machining or as a production expansion of existing automation systems – the KUKA flexibleCUBE laser can be simply and seamlessly integrated. Targeted planning, fast start-up, intuitive operator control and simple maintenance – these are KUKA Industries' long-term contribution to process reliability in modern manufacturing.

Flexible KUKA flexibleCUBE laser – Well thought-out to the very last detail

Versatile and modular standard packages with custom-tailored automation options allow the user to create simple solutions for specific manufacturing tasks and react dynamically to changes in the manufacturing environment. The KUKA flexibleCUBE laser meets the challenges facing it and ensures a competitive edge.

Reliable KUKA flexibleCUBE laser – The high-quality solution in laser technology

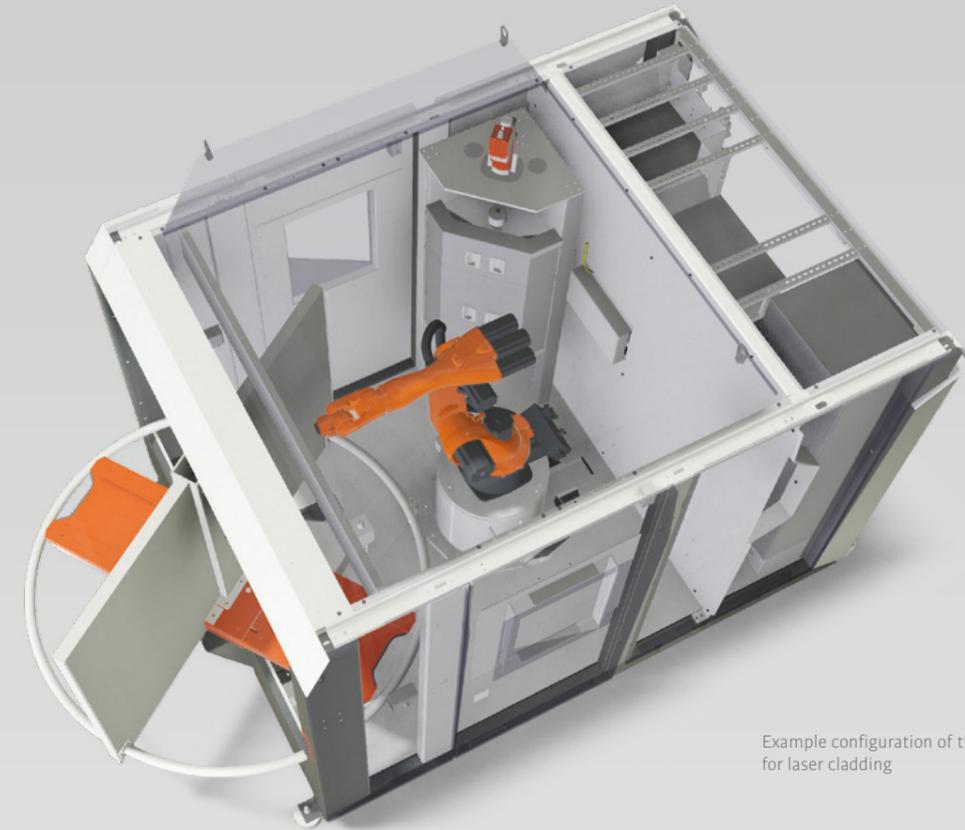
The KUKA flexibleCUBE laser is characterized by optimally coordinated components from the KUKA product family, use of the latest fiber-coupled lasers, and tried-and-tested standards from the field of laser machining.

Future-oriented KUKA flexibleCUBE laser – Custom-tailored and a safe long-term investment

High availability and simple operation, combined with a wide range of expansion options, make the KUKA flexibleCUBE laser the ideal manufacturing partner and a safe long-term investment.



Are your components larger and heavier?
With the **KUKA flexibleCELL laser**, the standardized welding cell from KUKA Industries, we have the perfect solution for your application in this case too.



Example configuration of the KUKA flexibleCUBE laser for laser cladding

Cell
Passive, laser-proof safety enclosure on a stable, transportable base frame with dimensions (L x W x H) of approx. 3,300 mm x 2,200 mm x 2,700 mm, including two electrically secured and monitored maintenance and service doors, a passive laser safety window as well as central power infeed and a modern cell and process visualization system. Networking of all components enables central display and operator control of the system. Active protection with the patented LaserSpy® is possible.

Robot
KR CYBERTECH nano robots are among the most compact robots on the market in the low payload category.

Special optics for laser cladding
The KI MWO I Powder laser optics have been specially designed for 3D laser coating applications with filler materials in powder form combined with robot systems. The optics are robust and hermetically sealed against dirt. The main area of use is applications for repairs, wear protection, corrosion protection and the manufacture of 3D components.

Laser, specially for laser cladding
A modern, fiber-coupled diode laser is fully integrated into the cell as a 19-inch rack. The laser contains all components, from fiber coupling to monitoring and control of the laser, and offers maximum efficiency.

Powder feeder
The powder feed system consists of a housing with an integrated vibrating chute and top-mounted powder container. Using different nozzles, the system can be optimized for virtually any powder. At the end of the feeder, the powder is air-fed using a carrier gas. The carrier gas adheres to the powder in the discharge hopper and leaves the housing as a gas/powder mixture. The vibrating chute ensures an even and constant flow of powder.

Together with our affiliated companies, KUKA Robotics and KUKA Systems, we can be found locally all over the world:

Argentina	Malaysia
Australia	Mexico
Austria	New Zealand
Belgium	Norway
Brazil	Poland
Canada	Portugal
Chile	Russia
China	Sweden
Czech Republic	Switzerland
Germany	Singapore
Hungary	Slovakia
France	Spain
Great Britain	South Africa
India	Taiwan
Italy	Thailand
Japan	Turkey
Korea	USA

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