

TruLaser Weld 3000

Automated laser welding for interchangeable components –
simple, fast, and flexible





40% smaller welding optics. Automated welding of more components.

Automated production of a larger range of parts.

Automate more components with a single system. The TruLaser Weld 3000's welding optics, which are approximately 40% smaller, can reach even hard-to-access areas, such as inside deep housings, boxes, crates, or in confined fixtures. This expands your range of parts. The reduced interference contour creates new possibilities for varying orders, high product diversity, and cost-effective small-batch production.

With proven methods, you can handle various tasks in heat conduction and deep penetration welding. BrightLine Scan supports tolerance compensation and bridges gaps up to 0.4 mm. BrightLine Weld reduces spatter formation during deep penetration welding. For larger gaps up to approximately 1.5 mm or materials requiring filler material, FusionLine introduces filler wire precisely.

This allows you to achieve high-quality welds, and reduce rework while flexibly manufacturing stainless steel, structural steel and aluminum. This increases the utilization of your machine and creates capacity for additional orders.

At least twice as fast to the first weld part

You can set up new components faster. TeachLine AI supports you with programming and corrections. The AI reduces manual steps and shortens setup times. This makes it easier to switch between variants and use your system more productively. You achieve quality welding results faster, even when experienced specialists are in short supply.

TeachLine AI relieves the burden on your experts and reduces dependence on individual operators. Less experienced employees can find their way around more quickly. Your specialists gain time for more demanding tasks.

Increased process reliability for high-quality welds. Even with filler wire.

You benefit from high-quality welds and stable processes. BrightLine Scan increases gap bridging and supports tolerance compensation. BrightLine Weld distributes the laser power across an inner and outer core. This reduces spatter during deep penetration welding and ensures reproducible results.

You can also flexibly process larger gaps and materials requiring filler material. FusionLine combines laser energy with targeted material input via filler wire. This expands your application possibilities and supports reliable manufacturing. This allows you to use laser welding even where additional material input is required.

Work ergonomically and maintain an overview.

Large laser-safe windows and workspace monitoring allow better visibility into the machine interior, while automatically opening doors make access easy.

The freely movable operator trolley allows for flexible and easy positioning of the screen and machine controls. The intuitive user interface guides the user clearly through the process.

Smart View gives you a transparent overview of the machine. This allows you to recognize relevant information faster, make data-driven decisions, and identify potential for increased availability and productivity.

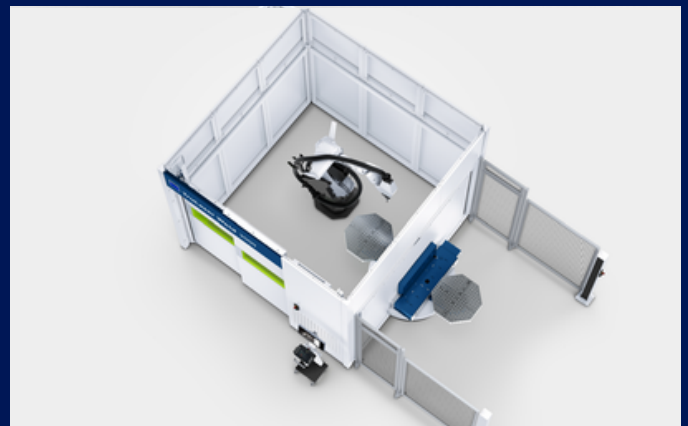
A 24% smaller footprint. More flexibility for your manufacturing.

By saving space, you create new possibilities. With a protective enclosure measuring 3.65×3.65 m, the TruLaser Weld 3000 requires approximately 24% less floor space than the smallest version of the TruLaser Weld 5000. This allows you to integrate the cell even into production environments with limited space. Depending on the component and production requirements, you can choose between a welding table, a rotary tilt positioner, and a compact rotary tool changer.

They adapt accessibility, loading, and parallel operation to your requirements. Depending on the positioning solution, workspaces of up to 3,000 mm in diameter and 1,250 mm in height are available. This allows you to use your space more efficiently and keep your production flexible.



With the rotary-tilt positioner, you can weld even hard-to-reach component areas in a single setup. Two NC axes integrated into the robot control make this possible.



The compact rotary tool changer allows for the external loading and unloading of components weighing up to 1,300 lbs while the robot welds inside. Optional rotary axes further enhance component handling flexibility.

TeachLine Touch and TeachLine AI: More productivity for your manufacturing



70%

Reduced time expenditure and less operator involvement through automatic path correction

Operators can bring new components into production faster and increase the productivity of your plant. With manual teaching, you approach each weld point individually and correct it on the machine. This ties up time and experienced personnel. With TruTops Weld, you program offline while your machine continues production. TeachLine Touch easily makes corrections directly on the machine screen. Simply move weld points with the tip of your finger. TeachLine AI provides additional support with AI. This function detects deviations between the program and the actual component and automatically corrects the robot path.

These features reduce the effort required for programming and setup by up to 70%. Depending on the component and complexity, you can complete the setup of your first welded part twice as fast, flexibly switch between variants, and utilize your skilled workers for value-adding tasks.

TruLaser Weld 3000		
Robot		KR 70 R2100
Number of axes		6
Nominal payload	mm x mm	70
Repeatability	mm	± 0,05
Reach	mm	2100
Possible cabin dimensions		
Standard (L/B/H)	mm	3650 x 3650 x 3215
Option (L/B/H)	mm	4800 x 4800x 3215
Equipment		
Positionierer	mm	Welding table, rotary tilt positioner, compact rotary changer
Laser		TruFiber 3001 S, TruFiber 4001 S