Fiber laser cutting machine

TAURUS FL

EXCEEDING LIMITS

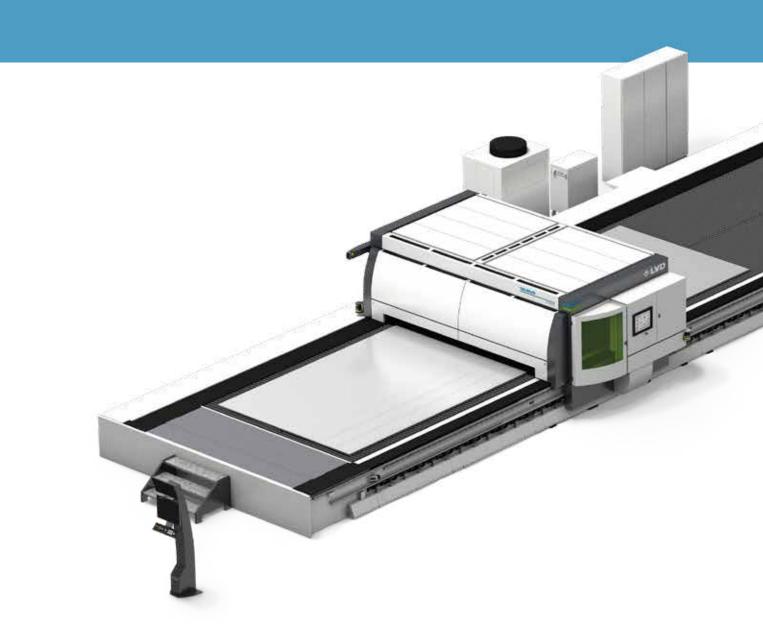


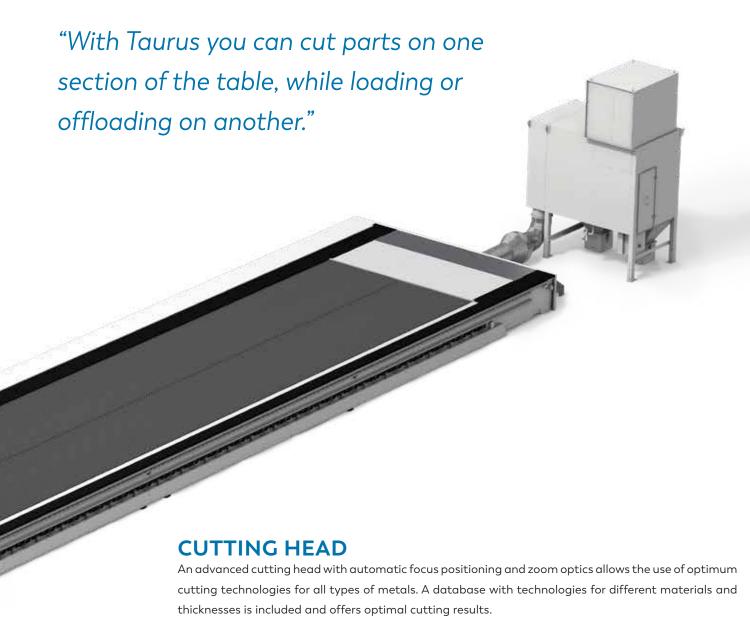


TAURUS FL

EXCEEDING LIMITS

Taurus, LVD's large-format laser cutting machine, answers the call for processing extra-large sheets with a unique modular design. As its name implies, Taurus is rugged and hardworking, producing high-quality straight or bevel cuts over the entire cutting area at optimal speeds.





LARGE-SCALE ADVANTAGES

Taurus is a modular system that can be configured to meet your needs. The machine bed length begins at 12 m and can be expanded in increments of 2 m to a maximum of 40 m. The fiber laser accommodates extra-large or multiple sheets. It improves sheet utilisation and nesting efficiency and enables the user to cut parts on one section of table, while offloading on another, keeping downtime to an absolute minimum.

ACCESSIBILITY

Only the gantry has an enclosure, which make Taurus extremely accessible. The operator has use of two touch panels for convenient access to the control at all times. The cutting zone has a detachable front panel for full access to the cutting zone for maintenance, check-ups, parts evacuation. A smaller door at the side ensures quick access for basic operator tasks. With a handheld control unit the operator can safely move all axes for setup or to load the nozzle changer.



BEVEL CUTTING

Taurus can be equipped with state-of-the-art bevel head technology, fully torque motor-driven with ultra-high positioning accuracy ensuring constant and precise bevel cutting in a wide range of applications. Bevel cutting or 2.5D cutting means the cutting head is not only cutting with a straight angle on the material surface, but can be tilted to a maximum 45° in all directions.

The bevel cutting option offers a fast and cost-effective way to prepare material for subsequent welding operations, smooth material edges or create geometrical shapes.

HIGH DYNAMICS

The mechanical design and drive system ensure high machine dynamics in large-format cutting.

Why Taurus?

- High machine dynamics in large-format cutting thanks to mechanical design and drive system
- Modular laser system (12 to 40 m) for extra-large or multiple sheets
- Easy and secure access to entire working area for maintenance, check-ups and parts evacuation
- Minimal downtime cutting parts on one section of the table while loading/unloading on another
- State-of-the-art cutting head with automatic focus positioning and zoom optics
- Advanced bevel cutting option
- Powerful CADMAN-L software available for full use of the cutting technology



AUTOMATIC NOZZLE CHANGER

An optional automatic nozzle changer has 30 pockets in a turret-style holder positioned close to the cutting head. These pockets can be used for nozzles for straight cutting, bevel cutting and a calibration tool for bevel cutting.

ADVANCED CADMAN® SOFTWARE

A good production flow requires seamless coordination between hardware and software. Therefore, investing in the powerful CADMAN-L software is more of a necessity than a luxury. For bevel cutting, an optional plug-in allows easy import of 3D parts from Solidworks, Solid Edge and Inventor.

Initiated from CADMAN-JOB, CADMAN-L software imports the correct unfolded parts from CADMAN-B, examines the geometry and the cutting path and implements efficient nesting methods. The software can apply scrap destruction and modify the cut path if necessary to avoid collision. It automatically adds micro-joints to parts and allows common line cutting.

CADMAN-L includes process parameter tables for material type and thickness, reducing the risk of operator error and guaranteeing the use of optimal cutting technology.

CUT WITH CONFIDENCE

A range of built-in features allow you to operate the Taurus with confidence:

- Scanners allow secure movement of the gantry to prevent collision with external obstacles
- Multiple Lazer Safe curtains and covers surround the gantry, preventing laser light from escaping the cutting zone
- Interlocks automatically stop laser processing if the gantry covers are opened or if the operator enters the safety zone



SPECIFICATIONS

TAURUS FL

MACHINE SPECIFICATIONS

Machine bed length 12 up to 40 m, modular in increments of 2 m

Sheet length depends on machine bed length
Sheet width 3300 mm straight cutting

2650 mm bevel cutting

X-axis travel min - max 11000 mm - 39000 mm

 $\begin{array}{cccc} Y\text{-axis travel} & 3300 \text{ mm} \\ Z\text{-axis travel} & 200 \text{ mm} \\ \\ \text{Maximum sheet weight on table} & 700 \text{ kg/m} \\ \\ \text{Maximum positioning speed X-Y} & 100 \text{ m/min} \\ \\ \text{Maximum positioning speed Z} & 50 \text{ m/min} \\ \\ \text{Repetitive accuracy} & \pm 0.025 \text{ mm} \\ \\ \text{Positioning accuracy}^* & \pm 0.050 \text{ mm} \\ \end{array}$

MACHINE DIMENSIONS (excluding filter and chiller)

Length Modular, from 18 up to 46 m

Width 6235 mm

Height 2200 mm (filter 4000 mm)

WEIGHT EXAMPLES

Taurus 12030 34175 kg Taurus 24030 60215 kg

IPG LASER SPECIFICATIONS

Maximum performance straight cutting	6 kW	8 kW	10 kW
Mild steel	25 mm	25 mm	25 mm
Stainless steel	25 mm	25 mm	25 mm
Aluminium	30 mm	30 mm	30 mm
Copper	15 mm	15 mm	15 mm
Brass	15 mm	15 mm	15 mm

OPTIONS

Bevel head

Nozzle changer

Outside filter

Specifications subject to change without prior notice.

^{*} Achievable workpiece accuracy depends on the type of workpiece, pre-treatment and sheet size, as well as other variables. According to VDI/DGQ 3441.

