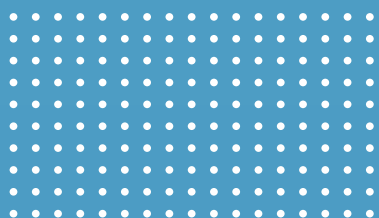


*Tube laser
cutting
machine*



TL 8525

HIGH PERFORMANCE - HIGH CAPACITY



TL 8525

HIGH PERFORMANCE - HIGH CAPACITY

The flexible TL 8525 comes equipped with a number of high-performance features to offer optimised tube cutting for even the most complex of applications.

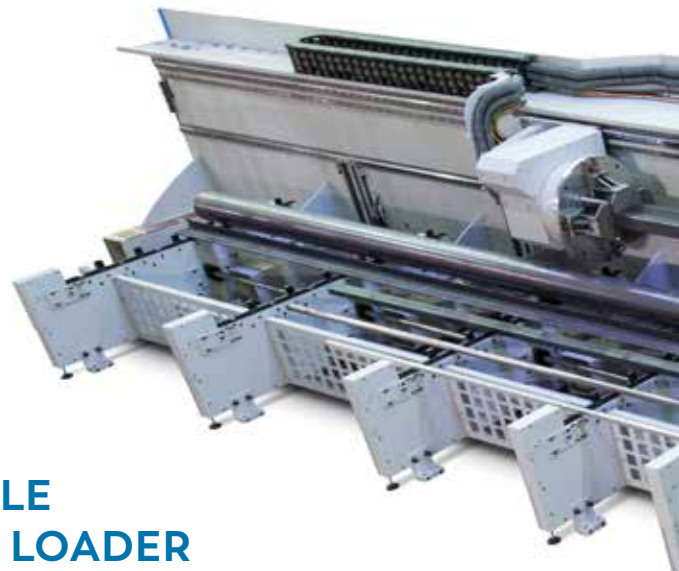
STURDY DESIGN

A welded steel frame and gantry provide high rigidity, crucial in maintaining optimum part accuracy over the full cutting area.



FLEXIBLE FRONT LOADER

A 6-position front loader allows quick and easy movement to the next tube size and permits loading additional tubes while cutting.



INFEED RISERS

Servo-controlled infeed risers automatically adjust for any type of profile. The risers pick the tube off the magazine loader and deliver it to the chuck all while maintaining the correct seam orientation.

CHUCK AND STEADY REST

The self-centering chuck and the steady rest automatically adjust to different tube geometries.

FUME EXTRACTION

A high-power fume extraction system automatically removes 4000m³ of fumes hourly from the cutting area.

TUBE POSITION CONTROL

To ensure accuracy and increase productivity, tube position is measured using two cameras and cutting position is adjusted accordingly.

BEVEL HEAD

The multi-axis cutting head delivers high-precision bevel cutting in round, square, rectangular and irregular-shaped tubes.



OUTPUT CONVEYOR

A servo-controlled table with tilt function releases cut parts onto a conveyor with multiple compartments.



HIGHLIGHTS

TOP PRODUCTIVITY

With a large 8200 mm infeed station, TL 8525 can process tubes up to a diameter of 250 mm round or square:

- 400 mm Z-axis permits the cutting of larger profiles;
- cut thin- or thick-walled tubes;
- produce complex contours and cutouts: bends with notches, locking tabs, relief cuts;
- produce prototypes and short-run batches up to high volumes and kit production.



LOWER COST PER PART

A shorter, simpler manufacturing process, optimised part handling and material utilisation save time and secondary operations, lowering the cost per part.

ADVANCED CUTTING HEAD

A 45-degree 3D tilt-axis cutting head is standard. The bevel head efficiently creates weld preparation cuts. The wide cutting head range, with a 1190 mm long X-axis, permits processing behind the steady rest unit.

The cutting head has crash protection and an automatic system to control the distance between the nozzle and the material surface.



HIGH LEVEL OF AUTOMATION

The TL 8525 incorporates automatic tube loading, tube centering and automatic set up and adjustment of the chuck and steady rest. An automatic bow and twist compensation system adapts for any material deformations.

EASY PROGRAMMING

CADMAN-T software optimises part nesting, adds cut lines for easy scrap removal and visualises the part and complete cutting process in 3D.

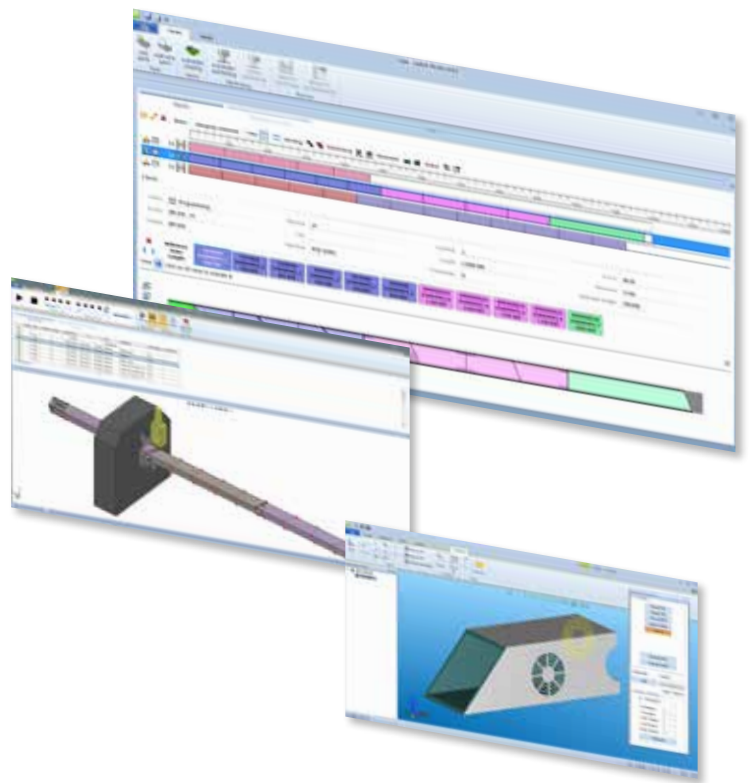
HIGHLY FLEXIBLE

To provide versatility to cut round, square, rectangle or other profiles, TL 8525 is equipped with key features typically offered as options on comparable tube laser cutting machines.

PART PROGRAMMING WITH CADMAN-T

The powerful tube laser software enables you to:

- import 3D-drawings in SAT, STEP format direct from a CAD system;
- design parts from scratch;
- add joints, notches, V-sections, tabs and slots or copy elements and operations to an imported file
- design or import a 2D geometry to create any type of cutout;
- simulate the exact part and the entire cutting process in 3D.



APPLICATION SOLUTIONS

From basic tube cutting to more creative designs, with a TL 8525 it's all possible:

- simple joints for complex structures;
- tubes in a range of materials, including copper and brass;
- rectangular, square, round or oval tubes;
- angles, tabs and slots that perfectly self-align, reducing assembly time.



SPECIFICATIONS

TL 8525

MACHINE SPECIFICATIONS

Travel - speed	X1-axis: 1190 mm – 60 m/min X2-axis: 8975 mm – 60 m/min Y-axis: 360 mm – 60 m/min A-axis: up to 60 rpm Z-axis: 400 mm – 45 m/min
Accuracy X1-axis*	0,025 mm Automatic twist & bow compensation
Front loader	6-position front loader reversible 6 servo-controlled infeed risers
Laser power	2 kW – optional 4 kW fiber laser

TUBE DIMENSIONS

Maximum outside diameter/diagonal	Round: 250 mm Square: 250 x 250 mm
Maximum tube length	8200 mm
Tube weight	40 kg/m
Part length	3000 mm - optional 6000 mm

AUTOMATION OPTIONS

Bundle feeder
Seam detection
Outfeed extension
Data reporting

Specifications subject to change without prior notice.

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