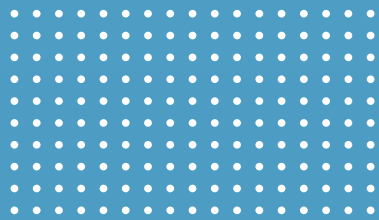


*Tube laser  
Cutting  
machine*



# TL 8525

HIGH PERFORMANCE - HIGH CAPACITY



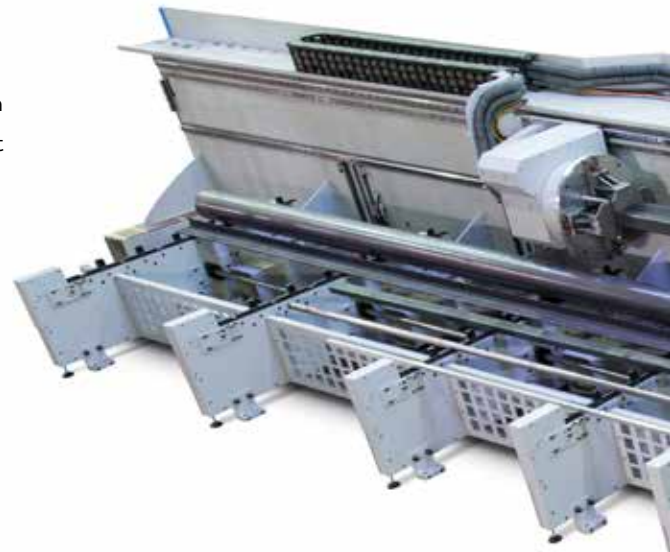
# TL 8525

HIGH PERFORMANCE – HIGH CAPACITY

The flexible TL 8525 comes equipped with a number of high-performance features to offer optimized 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 the loading of 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 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 approximately 2300 cfm (cubic feet per minute) 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 maximum loading length of 27.8 feet, TL 8525 can process tubes up to a diameter of 9.8" round or square.

- 15.7" 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, optimized part handling and material utilization 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. Its wide 46.8" X-axis cutting head range permits processing the tube behind the steady rest. 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 optimizes part nesting, adds cut lines for easy scrap removal and visualizes 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:

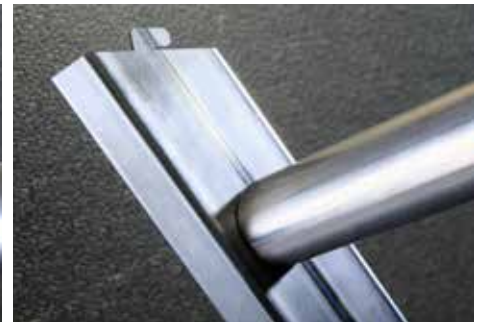
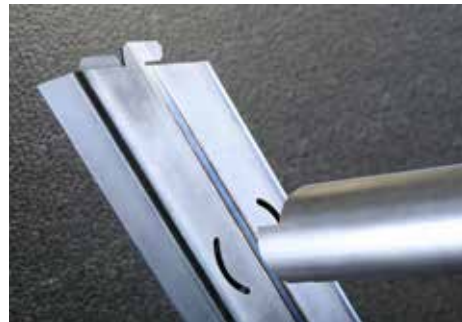
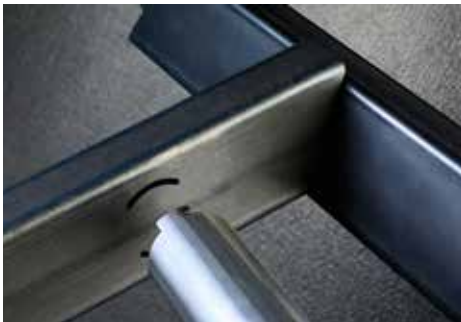
- Import 3D-drawings in SAT, STEP format directly from a CAD system
- Design parts from scratch
- Add joints, notches, V-sections, tabs and slots or copy elements and operations to an imported file
- Design or import a 2D geometry to create any type of cutout
- Simulate the exact part and the entire 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, round or oval tubes
- Angles, tabs and slots that perfectly self-align, reducing assembly time



# SPECIFICATIONS

## TL 8525

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### MACHINE SPECIFICATIONS

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Travel - speed	X1-axis: 46.8" – 2362"/min X2-axis: 353.3" – 2362"/min Y-axis: 14.1" – 2362"/min A-axis: up to 60 rpm Z-axis: 15.7" – 1771"/min
Accuracy X1-axis*	± 0.001" Automatic twist & bow compensation
Front loader	6-position front loader reversible 6 servo-controlled infeed risers
Laser power	4 kW fiber laser

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### TUBE DIMENSIONS

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Maximum outside diameter/diagonal	Round: 9.8" Square: 9.8" x 9.8"
Maximum loading length	27.8 feet
Tube weight	27 lbs/ft
Part length	10 feet – up to 20 feet using optional outfeed extension

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### AUTOMATION OPTIONS

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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.*

