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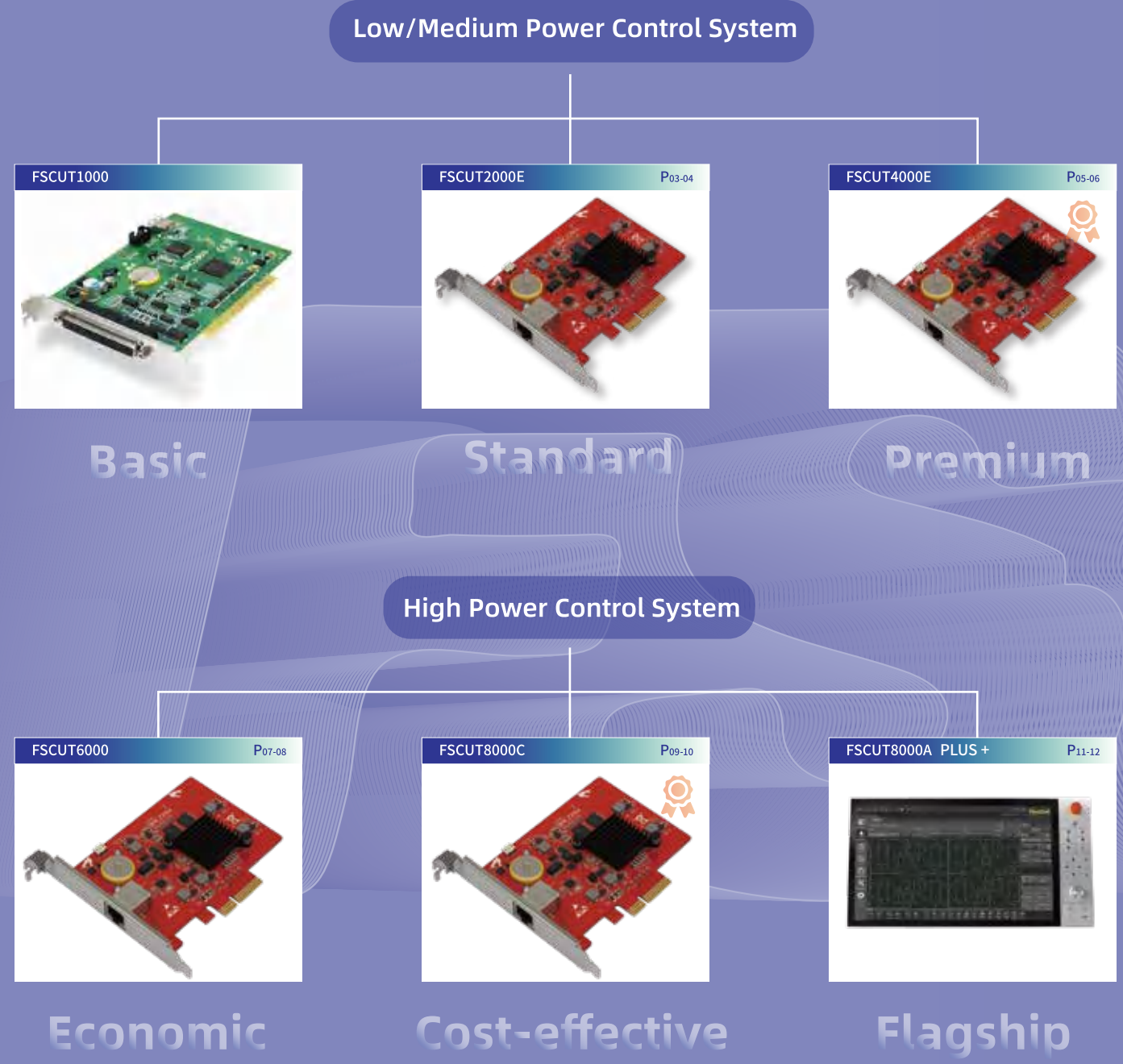


FSCUT Laser Cutting Control System

Product Brochure V2024-03



2D Cutting Product Line



2D FSCUT Selection Guide

	Low/Medium Power Control System			High Power Control System			
	Basic	Standard	Premium	Economic	Premium	Flagship	
	FSCUT1000	FSCUT2000E	FSCUT4000E	FSCUT6000	FSCUT8000C	FSCUT8000A PLUS+	
System	Safe Operation Monitor				★	★	
	High-Speed Find Edge		★	★	★	★	
	One-Path FlyCut		★	★	★	★	
	Circle Center		★	★	★	★	
	Nest	Simple	★	★	★	CypNest	CypNest
Feature	Inkjet Print		★	★			
	Limitless Coil		★	★	★		
	QR Code Import		★	★	★	★	
	Multi-Station Machining		★	★	★	★	
	Visual Remnant					★	★
Technique	Pierce Stage	2-Stage	3-Stage	3-Stage	5-Stage	9-Stage	9-Stage
	Fast Cutting		★	★	★	★	★
	Slag-Free Cutting				★	★	★
	Smooth Microjoint			★	★	★	★
	Auto Recut					★	★
	Smart Piercing					★	★
	Co-edged Piercing Monitoring					★	★

Note: Slag-Free Cutting, Auto Recut, and Smart Piercing functions require BOCI BLT cutter.

1000W~4000W

Low/Medium Power **Standard** Control System

FSCUT2000E

Hardware

BMC228B

Master Motion Controller
Quantity / 1



WKB

Wireless Keyboard
Quantity / 1



BCL4566E

I/O Terminal Board
Quantity / 1



Software

CypCutE

2D Cutting Software



CypNest

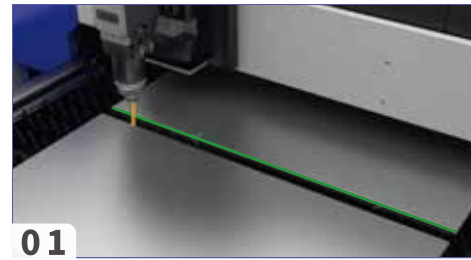
2D Nesting Software



Starter

Features

01



Quick CutOff

Quick cut off the plate and get remnant

Quick cut waste off by X/Y direction to get the remnant for reuse.

02

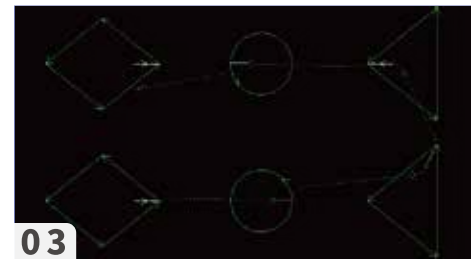


Frame Border Contour

Frame profiled

Frame for non-rectangular sheet metal.

03

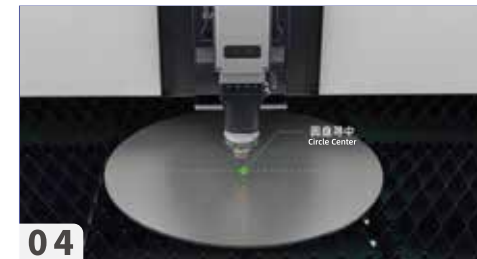


One-Path Flycut

Efficiency improved

Efficient Flycut path is supported for all figures.

04



Circle Center

Center on circular plate

Center on circular plate before machining.

05



Fast Cutting

Speed up sheet cutting

Improve efficiency on sheets by smooth piercing and fast cutting.

06



Avoid Collision in Travel

Reduce the risk of cutting head collision

Adjust lift height according to part status when travel.

1 ~ 4 kW laser cutting

1500W~8000W

Low/Medium Power **Premium** Control System

FSCUT4000E

Hardware

BMC228B

Master Motion Controller
Quantity / 1



WKB

Wireless Keyboard
Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



Software

CypCutE

2D Cutting Software



CypNest

2D Nesting Software

Starter



Features



Avoid Collision in Travel

Mitigate the risk of collision

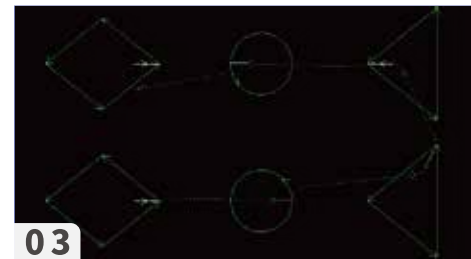
Adjust lift height according to part status when travel.



Frame Border Contour

Frame profiled

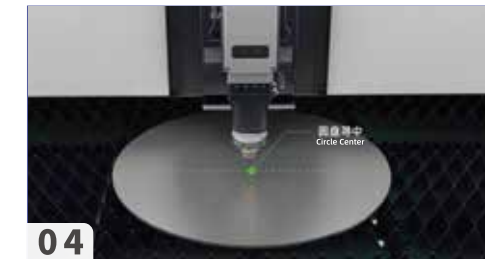
Frame for non-rectangular sheet metal.



One-Path Flycut

Efficiency improved

Efficient Flycut path is supported for all figures.



Circle Center

Center on circular plate

Center on circular plate before machining.



Fast Cutting

Speed up sheet cutting

Improve efficiency on sheets by smooth piercing and fast cutting.



Smooth Microjoint

Easy to batch unload, piece of cake

Smooth cutting section and easy unloading ensure high efficiency.

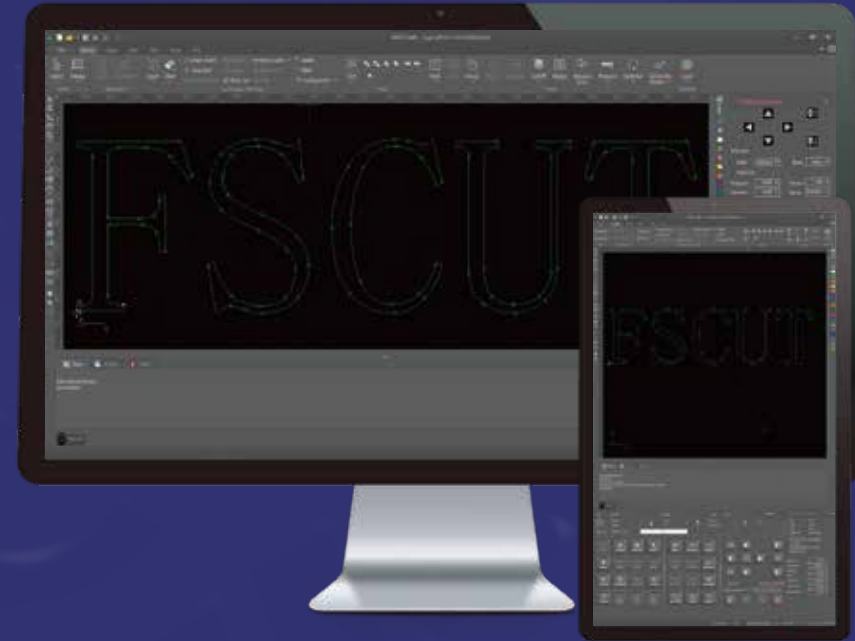
1.5 ~ 8 kW laser cutting

6000W~15000W

High Power Control System

Economic

FSCUT6000



Hardware

BMC228B

Master Motion Controller
Quantity / 1



WKB

Wireless Keyboard
Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



Software

CypCutPro

2D Cutting Software



CypNest

2D Nesting Software

Starter



Features

01

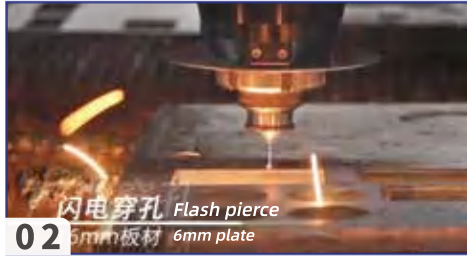


Fast Cutting

Speed up sheet cutting

Improve efficiency on sheets by smooth piercing and fast cutting.

02



Flash Piercing

Speed up piercing on thick plates

Improve efficiency on thick plates by variable frequency fast piercing.

03



Deslag Pierce

Enhance performance on thick plates piercing

Enhance performance on thick plates piercing by removing pierce slag.

04



Smart LaserOff

Improve performance of inner and outer contour cutting

Gently end processing according to cutting techniques to get a smooth inner and intact outer.

05



Self-adjust Vibration Suppression

Suppress cutter vibration in processing

Suppress cutter vibration by Z axis real time self-adjusting.

06



Smooth Microjoint

Easy to batch unload, piece of cake

Smooth cutting section and easy unloading ensure high efficiency.

6 ~ 15 kW laser cutting

POWER RUN LINK SENSOR

6000W~100000W

High Power Control System

Premium

FSCUT8000C



Hardware

BMC228B

Master Motion Controller
Quantity / 1



WKB

Wireless Keyboard
Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



Software

HypCut

2D Cutting Software



CypNest

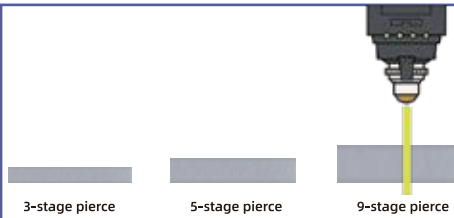
2D Nesting Software



Professional

Features

01



9-Stage Piercing

Improve piercing capability on thick plates

Support ultra thick plates piercing.

03



Smooth Microjoint

Easy to batch unload, piece of cake

Smooth cutting section and easy unloading ensure high efficiency.

05



Cutting Path Monitor

Stable and efficient cutting

Monitor cutting quality by BLT internal sensor, real-time adjust parameters to improve performance and efficiency.

02

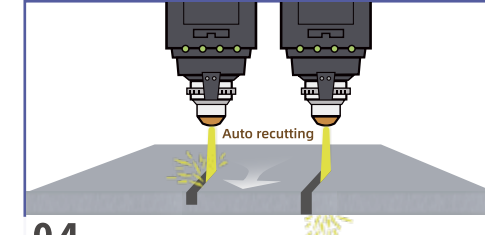


Smart LaserOff

Improve performance of inner and outer contour cutting

Gently end processing according to cutting techniques to get a smooth inner and intact outer.

04

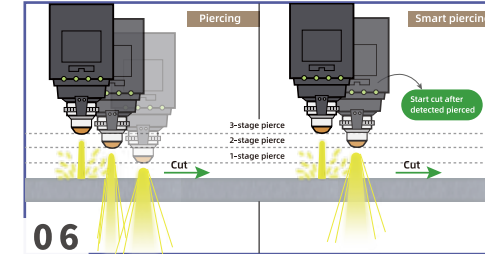


Auto Recut

Stable and efficient cutting

When real-time in-head sensor detects the plate was not cut through, the cutting head will automatically do recut.

06



Smart Piercing

Improve piercing quality and efficiency

Faster piercing with better quality.

6~100 kW laser cutting

POWER RUN LINK SENSOR
6000W~100000W

High Power
Control System

Flagship

FSCUT8000A
PLUS +



Hardware

HyPanel AIO

HyPanel AIO Quantity / 1



WKB

Wireless
Keyboard
Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



Software

HypCut

2D Cutting Software



CypNest

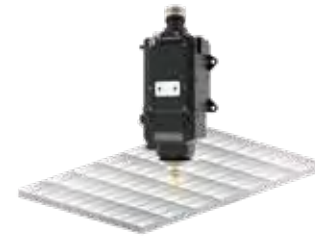
2D Nesting Software



Professional

Features

01



Co-edged Piercing Monitoring

Improve cutting efficiency

Detect whether piercing is required at co-edged positions. Extend protective window lifespan.

02



Smart LaserOff

Improve performance of inner and outer contour cutting

Gently end processing according to cutting techniques to get a smooth inner and intact outer.

03

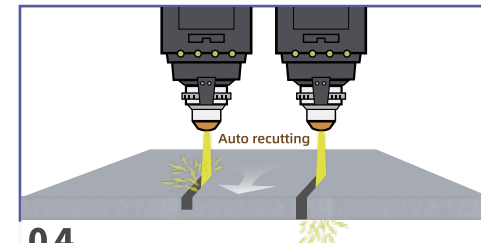


Smooth Microjoint

Easy to batch unload, piece of cake

Smooth cutting section and easy unloading ensure high efficiency.

04



Auto Recut

Stable and efficient cutting

When real-time in-head sensor detects the plate was not cut through, the cutting head will automatically do recut.

05

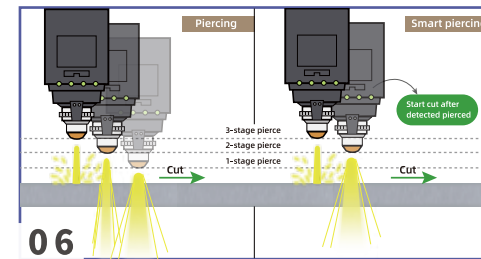


Cutting Path Monitor

Stable and efficient cutting

Monitor cutting quality by BLT internal sensor, real-time adjust parameters to improve performance and efficiency.

06



Smart Piercing

Improve piercing quality and efficiency

Faster piercing with better quality.

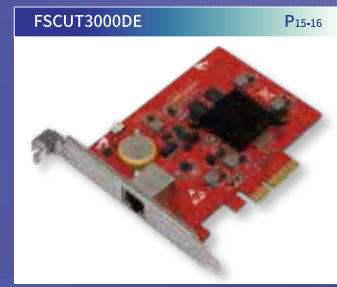
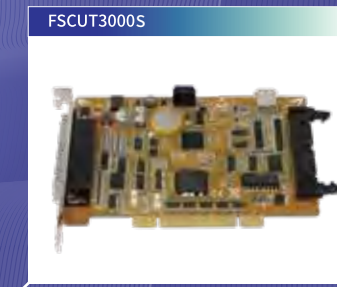
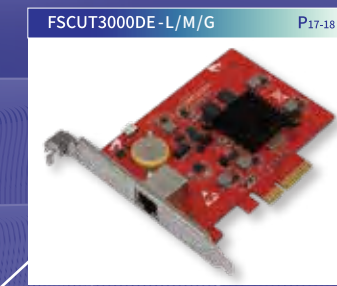
6~100 kW laser cutting

Tube Cutting Product Line

Heavy-duty Tube

Regular Tube

Small Tube



Tube Cutting Controller Selection Guide

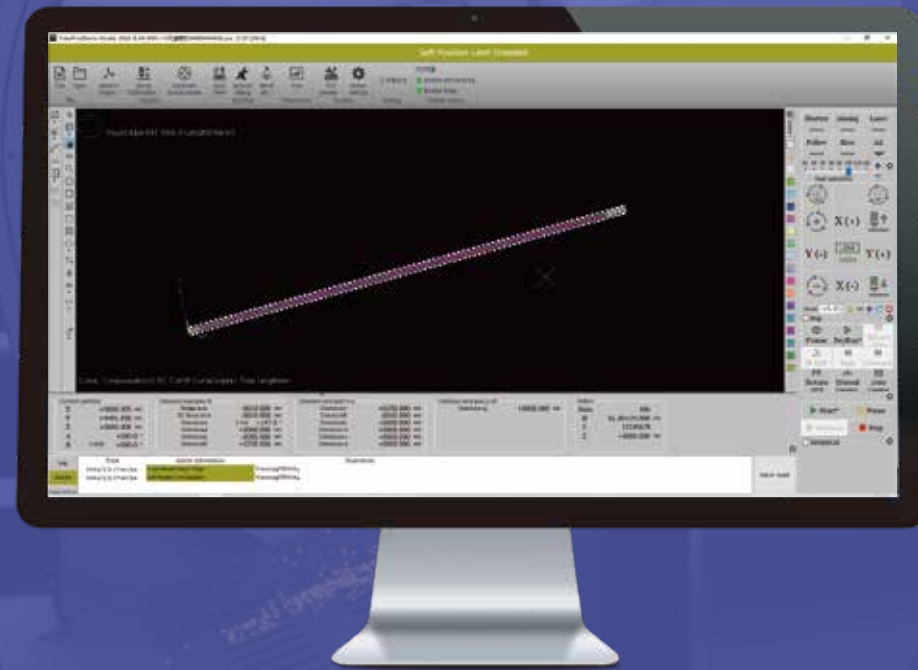
	Small Tube			Regular Tube				Heavy Tube		
	Single-Chuck Pulling / 2-Chuck Tube Cutting			2-Chuck Tube Cutting				Multi-Chuck Zero-Tail Cutting		
	3000DE-A	3000DE-D	3000DE-H	3000S	3000DE-L	3000DE-M	3000DE-G	5000B	5000A	
Controller	Real-Time EtherCAT	★	★	★		★	★	★	★	★
	Dodge Interference	★	★	★	★	★	★	★	★	★
	Interpolation Follow	★	★	★		★	★	★	★	★
	BLT Laser Head		★	★	★		★	★	★	★
	Holder Follow	★	★	★				★	★	★
	Chuck Size (>120)				★	★	★	★	★	★
	Hardware	Master Motion Controller	Master Motion Controller	Master Motion Controller	Control Card	Master Motion Controller	Master Motion Controller	Master Motion Controller	IPC	IPC
Advanced	3-Chuck									★
	4-Chuck									★
	7-Axis Pulling									★
	Bevel Cutting			★						★

Selection Notes: Small Tube (A+Focus Changing=D; D+Bevel=H) 2-Chuck (L+Focus Changing=M, M+Holder Follow=G)

Small Tube System

Regular

FSCUT3000DE (A/D/H)



Hardware

BMC228B
Master Motion Controller
Quantity / 1



WKB
Wireless Keyboard
Quantity / 1



BCL4566E
I/O Terminal Board
Quantity / 1



Software

TubePro
3D Cutting Software



TubeST
3D Nesting Software

Regular



Features



Sort by Face

Decline rotations, improve efficiency

By comparison, sorting by sides effectively decline the rotations.



Bevel Cutting (option)

Facilitate welding process

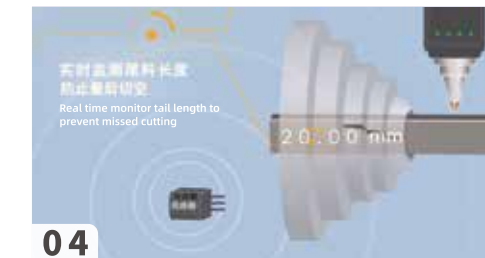
Saddle, K-shaped, Y-shaped, V-shaped, and X-shaped bevel supported.



Centering Mechanism

Keep stable cutting

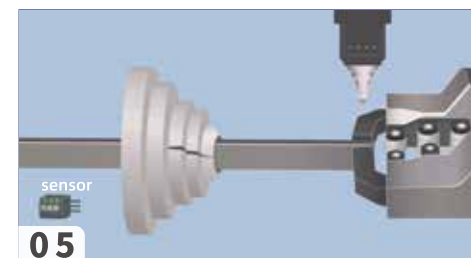
Tubes well clamped by centering wheel, kept stable to be cut precisely.



EmptyCut Prevention

Real time monitor tail length to prevent missed cutting

Real time monitor tailing length by sensor to prevent missed cutting.



Single-Chuck Smart Pulling

Self-adapted tube length to pull tube flexibly

Balance clamp length and vibration for best and efficiency performance.



Flycut

Generate flycut line to cut efficiently

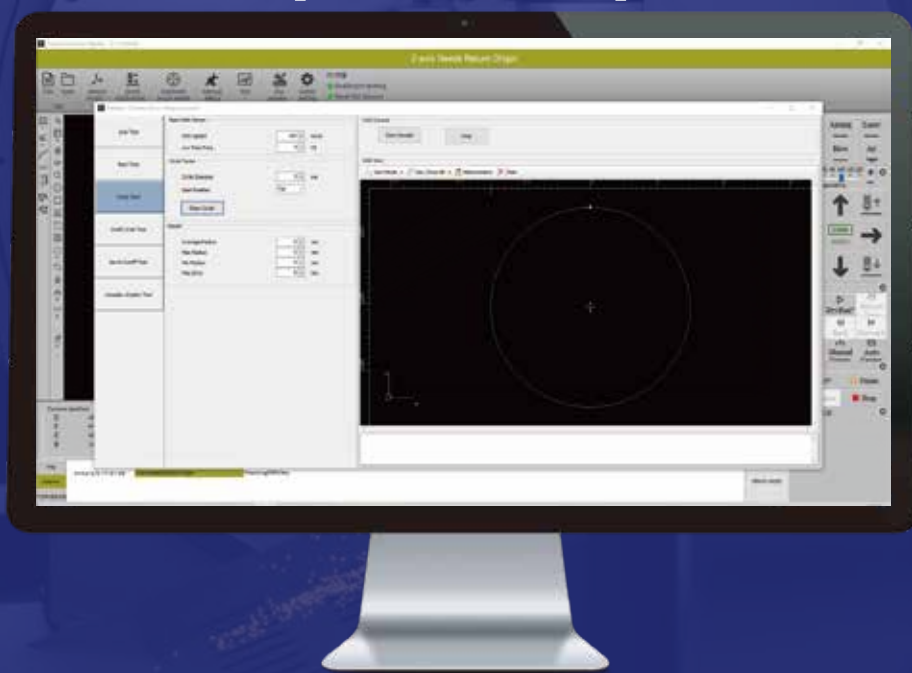
Less cutting speed changes when cutting intensive figures.

EtherCAT system for **small tube pulling** cutting machine

Tube Standard System

2-Chuck

FSCUT3000DE (L/M/G)



Hardware

BMC228B
Master Motion Controller
Quantity / 1



WKB
Wireless Keyboard
Quantity / 1



BCL4566E
I/O Terminal Board
Quantity / 1



Software

TubePro
3D Cutting Software

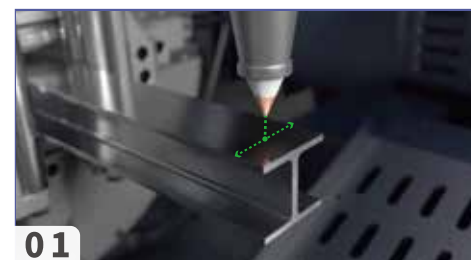


TubeST
3D Nesting Software



2-Chuck

Features



Special Steel Centering

Realize precise cutting of special steel

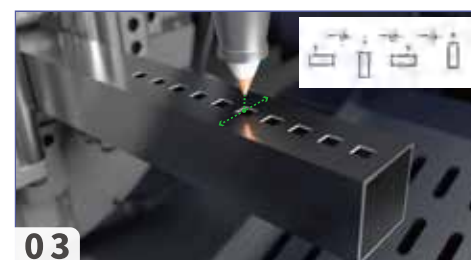
Capable of centering L-shaped, U-shaped, H-shaped steel.



Square/Rectangle Profile Offset

Effectively offset regular cutting margin

Four sides with the same margin can be adjusted, allowing raw material size more flexible.



Single Side Centering

Increase precision of hole on tube

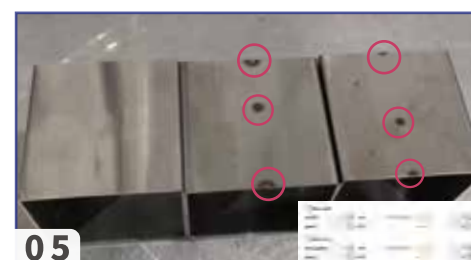
Increase cutting precision of hole on tube.



Error Determination

Guarantee motor movement accuracy and part size accuracy

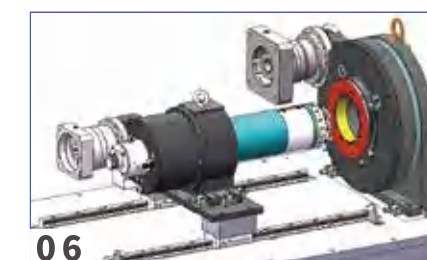
Compare instruction track with feedback track to help technician tell the difference of main axes servo gain.



Slow Start/End

Smoothen tube section

Avoid starting burnt point on opposite side and ending bump formed by early falling.



Pause PLC Resume

Enhance automation, decrease waste

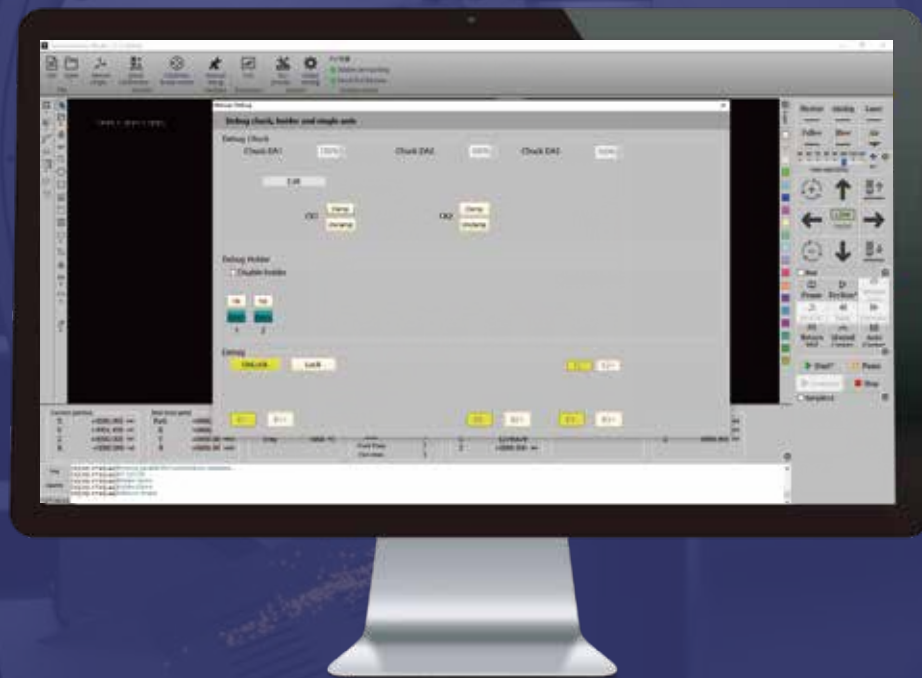
Loose middle chuck when cutting end to extend Y axis move distance and save material.

System for standard 2-chuck tube cutting machine

Heavy-duty Tube System

2-Chuck Premium

FSCUT5000B



Hardware

HypTronic3

CNC Host
Quantity / 1



WKB

Wireless Keyboard
Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



Software

TubePro

3D Cutting Software



TubeST

3D Nesting Software

Professional



Features

01



Communicate with external PLC by Modbus

Transfer data by Modbus

Communicate with loading machine by Modbus to read tube length and auto load.

02

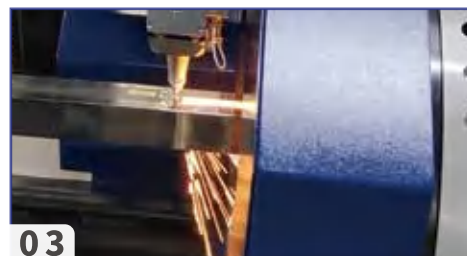


Axis for Measuring Tube Length

Measure tube length with machine

Measure tube length with loading machine for auto loading.

03



Dodge

Enhance cutting performance, save material

Dodge by moving cutter or chuck, reducing waste.

04



Following Holder

Hold tube still, improve cutting accuracy

Move holder up and down as tube rotating to keep it supported, reduce error caused by tube shaking.

05

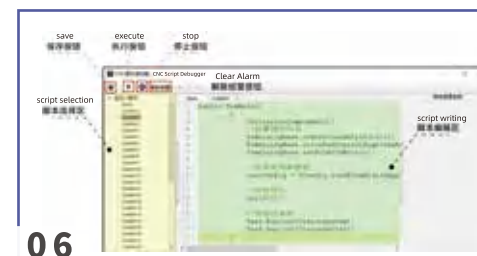


Dual Y Cutting

Improve cutting precision of holes on heavy tubes

Cut holes on heavy tube without tube moving, improving cutting precision.

06



Script

Greatly strengthen system suitability

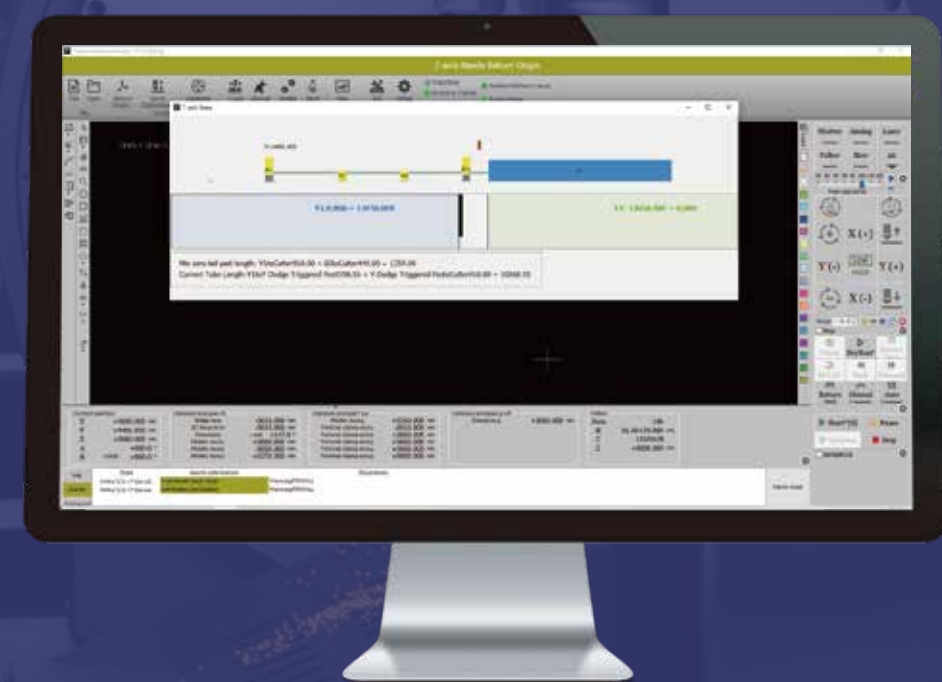
Write your own code to execute complex action, increase automation.

EtherCAT system for 2-Chuck extruded tube cutting

Heavy-duty Tube System

Full Function

FSCUT5000A



Hardware

HypTronic3

CNC Host
Quantity / 1



WKB Wireless Keyboard

Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



Software

TubePro

3D Cutting Software



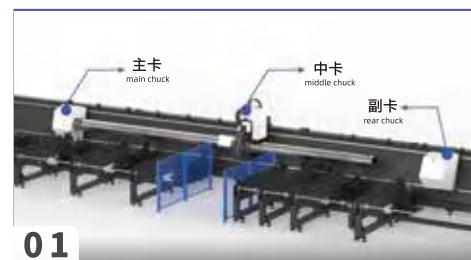
TubeST

3D Nesting Software



Professional

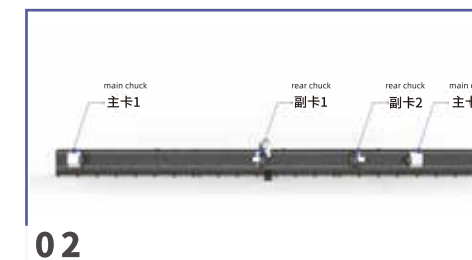
Features



3-Chuck Cutting

Suit for full stroke 3-chuck cutting machine

Support 3 chuck full stroke moving, improve accuracy by preventing tube shaking.



4-Chuck Cutting

Support 4-chuck dual chuck pulling

Support 4-chuck heavy tube cutting, loading and unloading.



7-Axis Pulling

Support 3-chuck dual chuck pulling

Dual pulling main chuck added on 2-chuck machine, easy to unload.



Tapping/Riveting

Integrated process, enhanced efficiency

Choose tap module due to tapping hole, integrate changing, tapping and riveting.



Bevel Cutting

Support bevel parts cutting

Matched with drawing generated by nest software to cut bevel part.



Saw Blade Machine

Pierce and saw through profiled tube

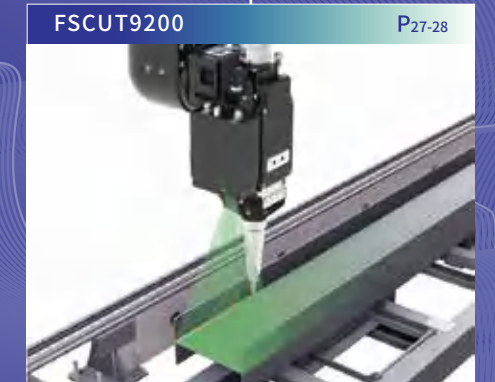
Laser + Saw Blade two in one, pierce and cut off the same time.

EtherCAT system for heavy-duty tube cutting

Plane Bevel Controller



Structural Steel Controller



Plane Bevel Controller

BOCHU 2D mid & high power range laser bevel cutting solution combines CNC controller, rotary axis, and laser cutting head. Featuring efficient and user-friendly mechanical calibration, precision compensation, bevel nesting, BOCHU solution provides extensive support for industries such as steel structure, shipyards, subcontracting, engineering machinery and so forth.

Structural Steel Controller

BOCHU structural steel solution, meeting the cutting and bevel cutting demand of flanges and webs, as well as tasks like scallop cutting and deburring, bolt holes processing and marking, combined with BLT laser cutting head and Tubest Structural Steel Version, contributes to stable performance, efficiency improvement and cost reduction of structural steel industry.

Plane Bevel Controller

FSCUT9100



Hardware

AB Axes

Swinging Mechanism Suit
Quantity / 1



HypTronic3

CNC Host
Quantity / 1



BCL4568E

I/O Terminal Board
Quantity / 1



WKB

Wireless
Keyboard
Quantity / 1



Software

FACut

Plane Bevel Version



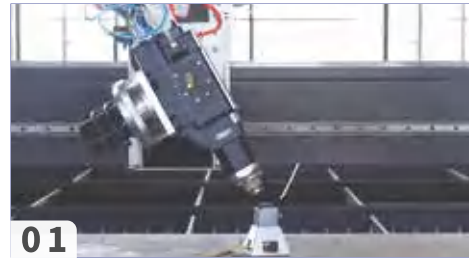
CypNest

Professional

2D Nesting Software



Features

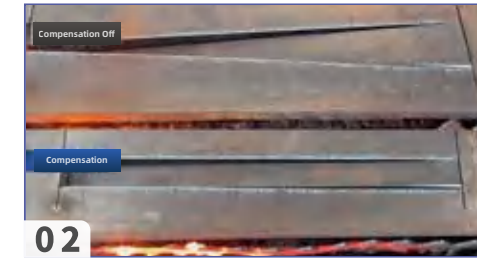


01

Vision Calibration

High precision, short processing time,
and easy maintenance

Quick calibrate rotation axis parameter.



02

Compensation

Instant compensation to improve precision

Collect surface data for compensating deformation to improve cutting precision.



03

Bevel Editing

Support V/Y/X/K and other special
bevel type

Enable to draw complex graphics with
toolpath break and bevel extend.



04

Bevel Nesting

Support mixed nesting of 2D cutting and
bevel cutting part

CypNest can connect with Tekla,
Tribon (AM), improving efficiency.



05

Convex Head Cutting

Support Convex Head Cutting

Support hole cutting on convex head,
usually used in pressure vessel and wind
power industries.



06

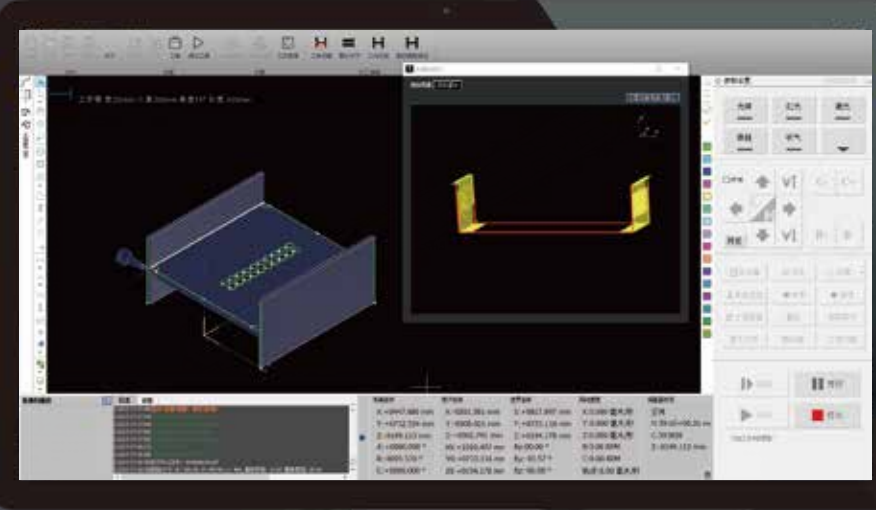
Additional Beveling

Support Additional Beveling

Support additional bevel cutting after 2D
cutting, maximize material savings.

Structural Steel Controller

FSCUT9200



Hardware

BC Axes
Swinging Mechanism Suit
Quantity / 1

HypTronic3
CNC Host
Quantity / 1

BCL4568E
I/O Terminal Board
Quantity / 1

WKB
Wireless Keyboard
Quantity / 1

BCW400B
Contour Scanner
(Structural Steel)
Quantity / 1

Software

FACut
Structural Steel Version

TubeST
3D Nesting Software
Structural Steel Version

Features

01 **Multiple Machine Types Supported**
Adapt to various scenarios
Support both gantry and pulling machine.

02 **3 in 1 Cutting**
One machine, multiple usage
Support structural steel cutting, plane bevel cutting and 2D cutting.

03 **Vision Calibration**
High precision, short processing time, and easy maintenance
Quick calibrate rotation axis parameter.

04 **Contour Scanning**
Real-time measurement and compensation
BCW Contour scanner real-time measures and make compensation for error between drawing and material position.

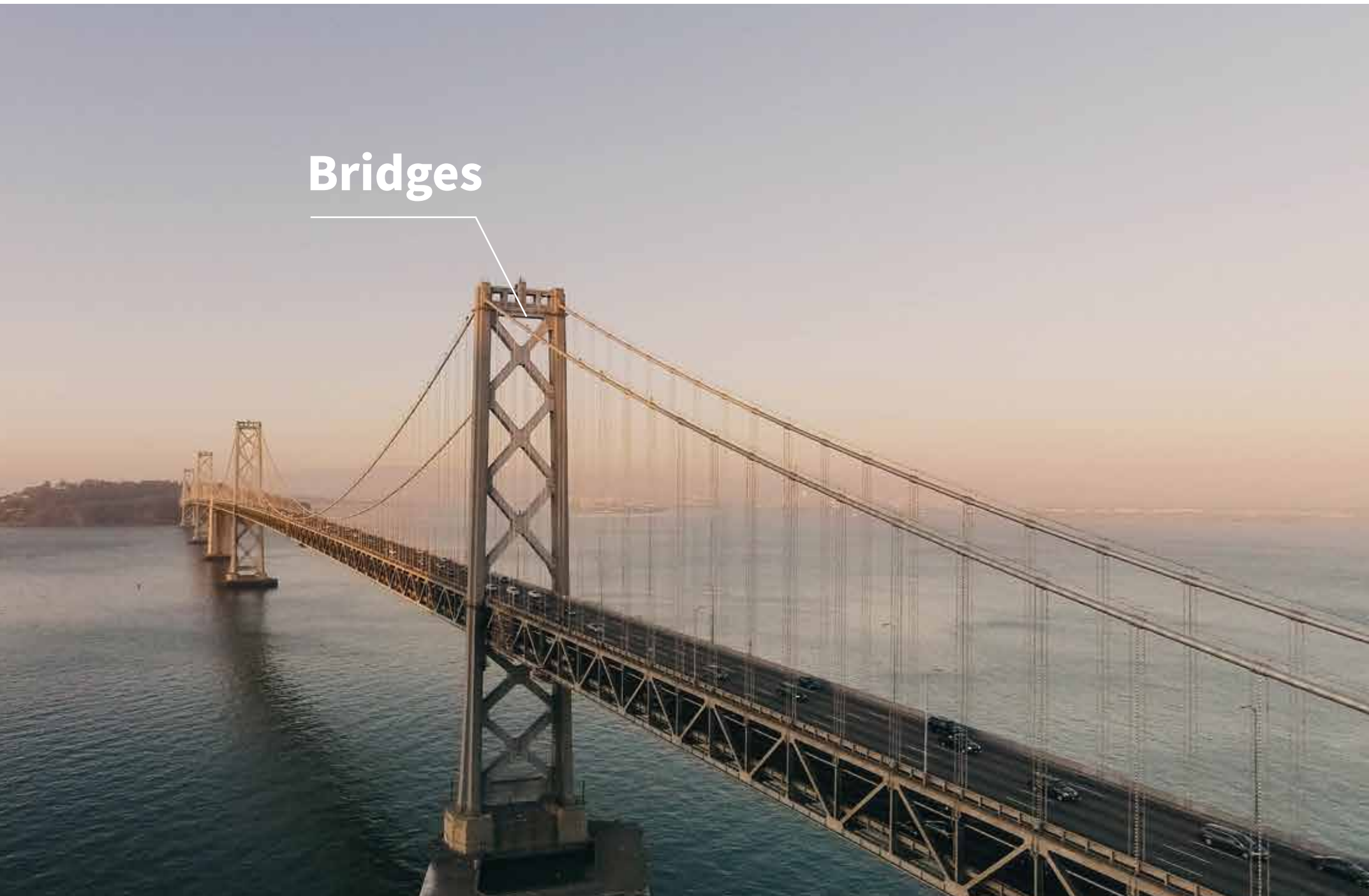
05 **Professional Nesting**
Connect with Tekla, ensuring efficient nesting
Combine Tekla with TubesT Structural Steel Version, offering efficient drawing and nesting.

06 **Multiple Function**
Meet structural steel cutting demands
Cutting and bevel cutting of flanges and webs, scallop and deburring, bolt holes processing and marking. Combined with BLT laser head, stable and precise.

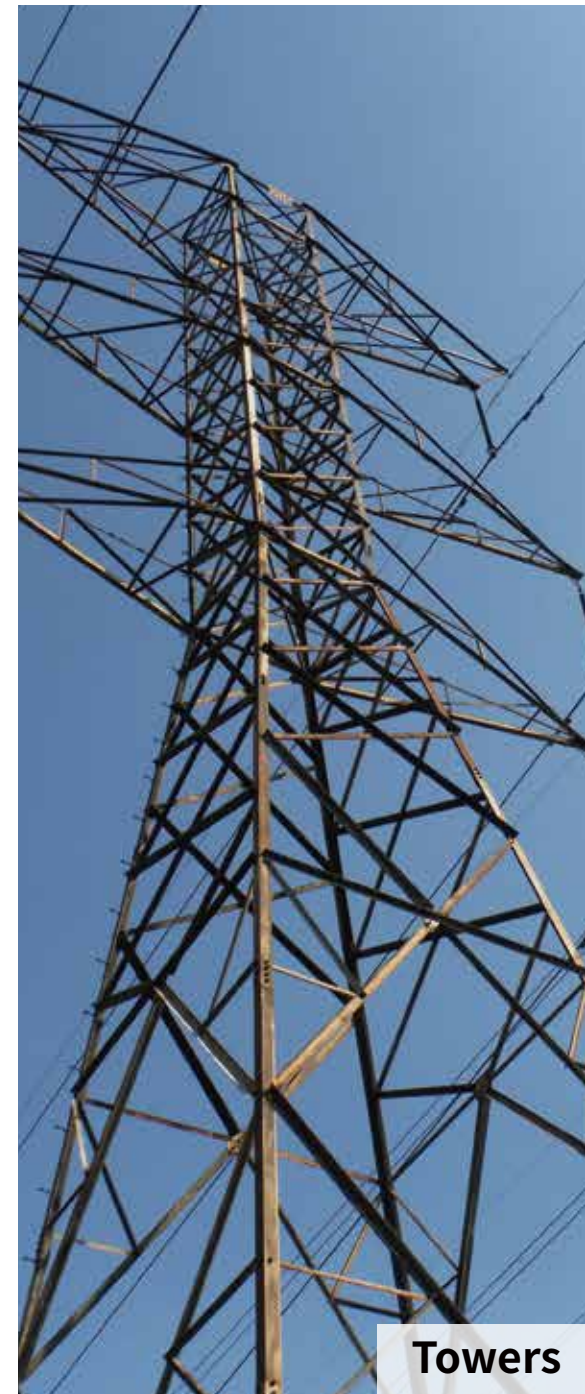
Applications

Applications





Bridges



Towers

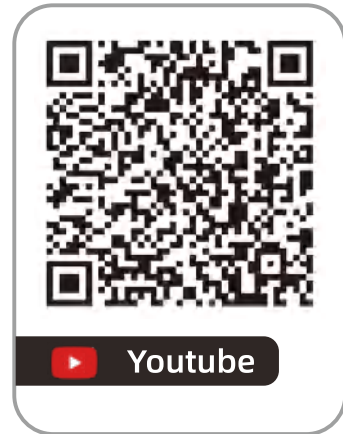


Shipyards



Wind Power

Contact us



Empower your factory with intelligence.

