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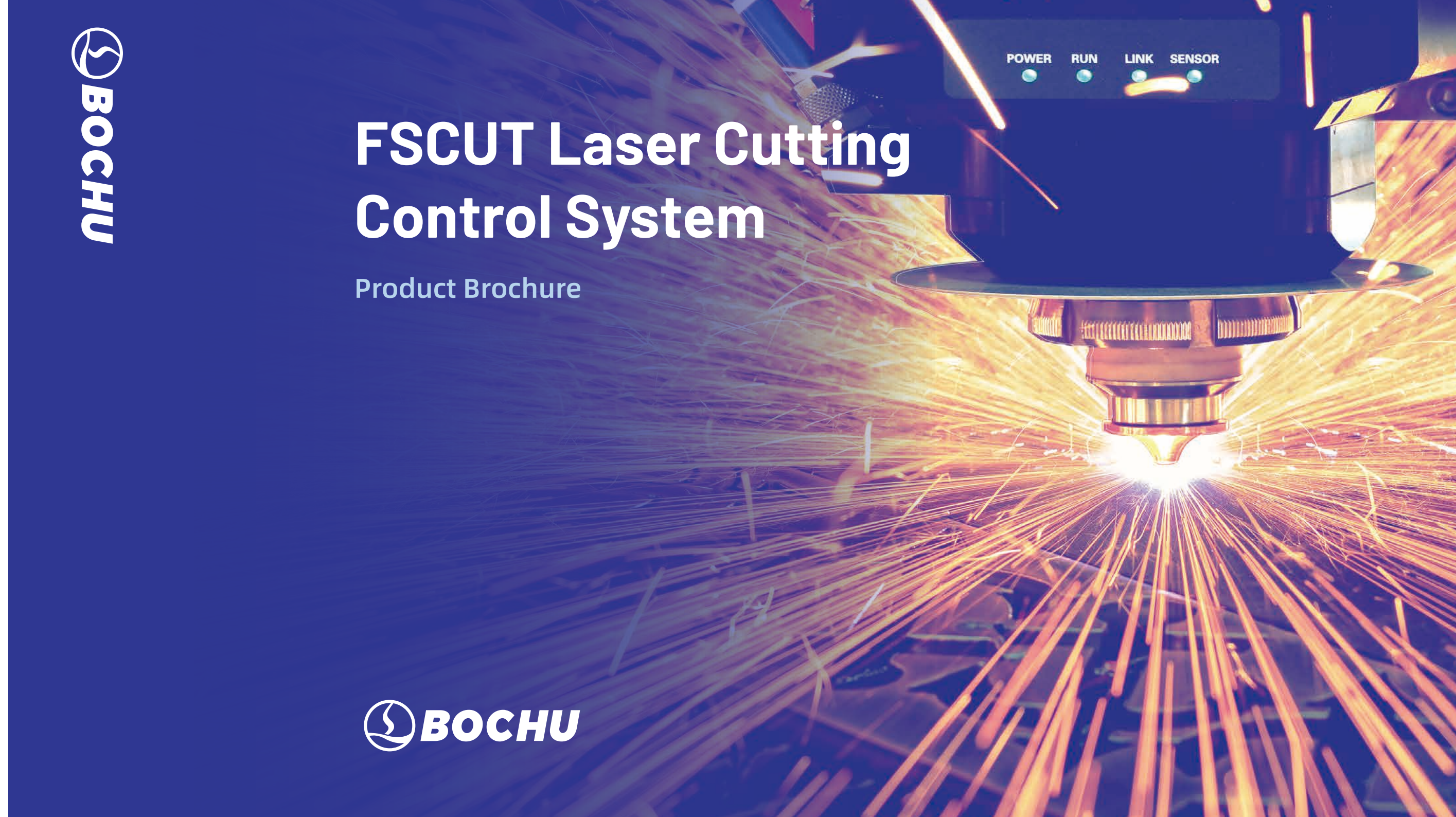
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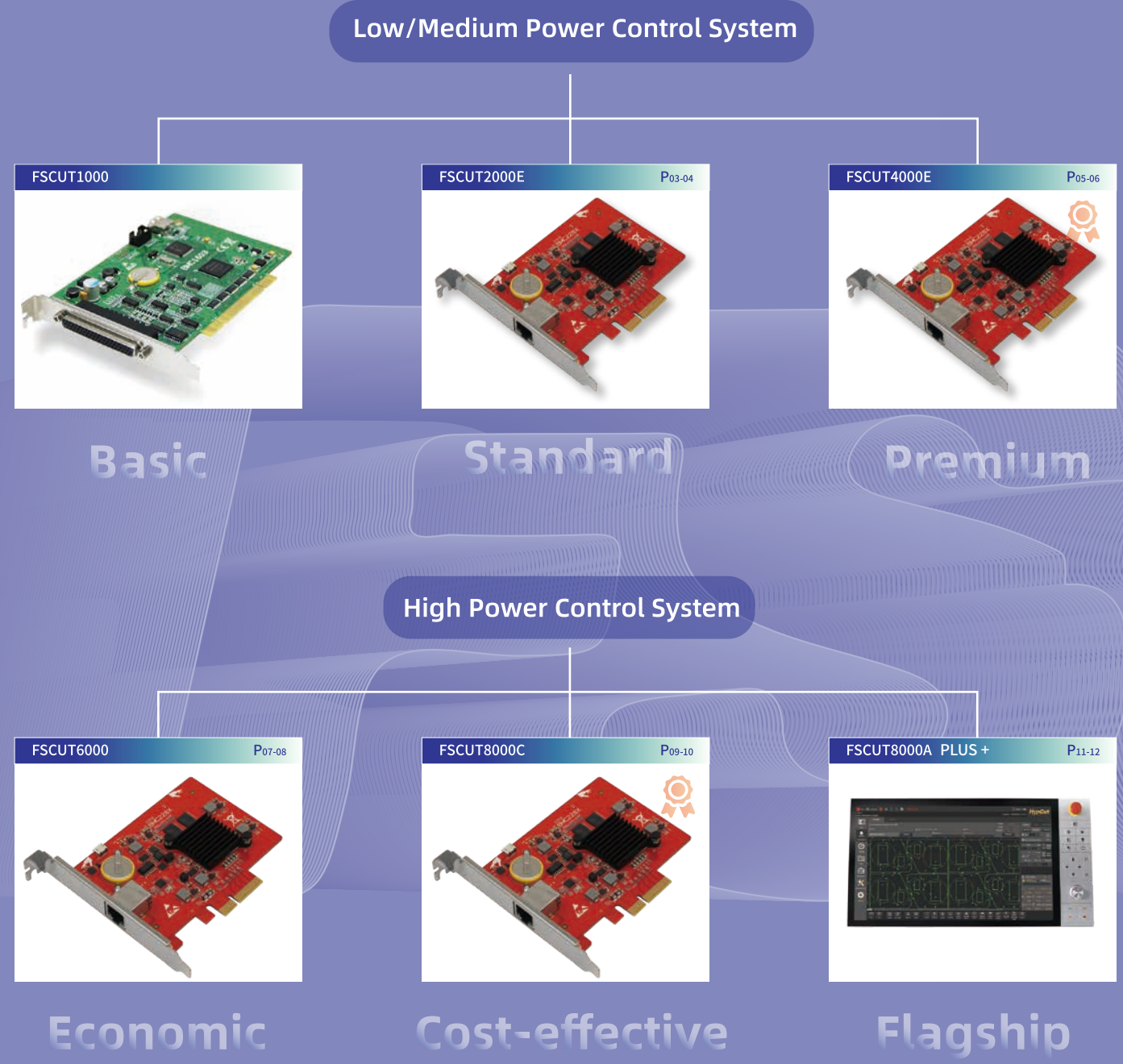


# FSCUT Laser Cutting Control System

Product Brochure



# 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+
<b>System</b>						
Safe Operation Monitor					★	★
High-Speed Find Edge		★	★	★	★	★
One-Path FlyCut		★	★	★	★	★
Circle Center		★	★	★	★	★
Nest	Simple	★	★	★	CypNest	CypNest
<b>Feature</b>						
Inkjet Print		★	★	★		
Limitless Coil		★	★	★		
QR Code Import		★	★	★	★	★
Multi-Station Machining		★	★	★	★	★
Visual Remnant					★	★
<b>Technique</b>						
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

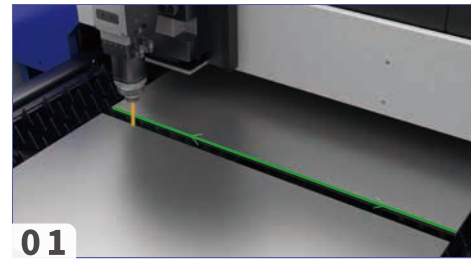
2D Nesting Software



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

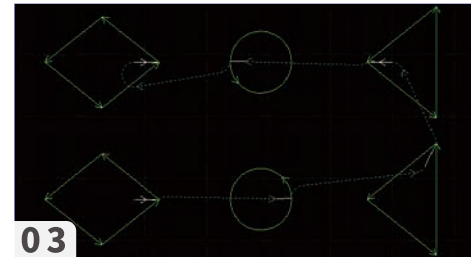


### Frame Border Contour

Frame profiled

Frame for non-rectangular sheet metal.

03

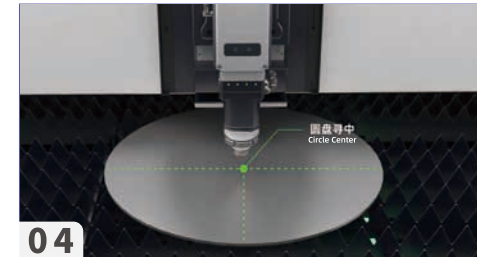


### One-Path Flycut

Efficiency improved

Efficient Flycut path is supported for all figures.

04



### Circle Center

Center on circular plate

Center on circular plate before machining.

05

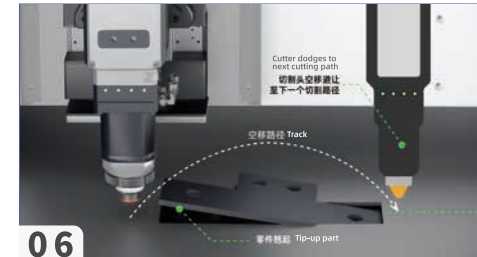


### Fast Cutting

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

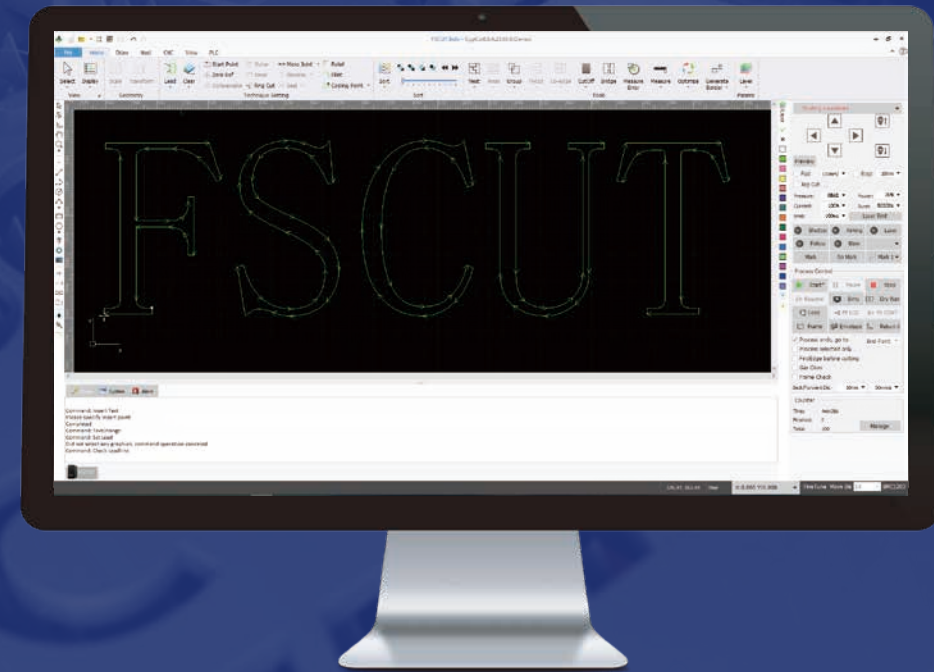
Adjust lift height according to part status when travel.

# 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

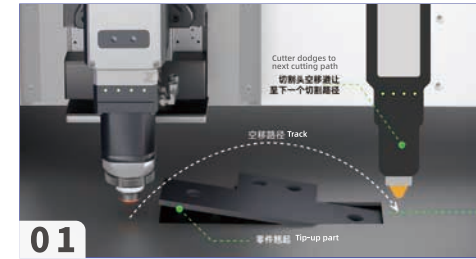
**CypCutE**  
2D Cutting Software



**CypNest** Starter  
2D Nesting Software



## Features



### Avoid Collision in Travel

Mitigate the risk of collision

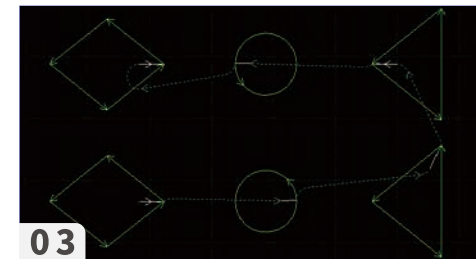
Adjust lift height according to part status when travel.



### Frame Border Contour

Frame profiled

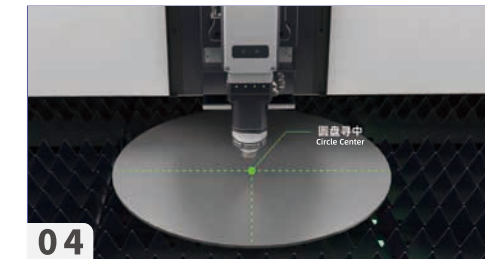
Frame for non-rectangular sheet metal.



### One-Path Flycut

Efficiency improved

Efficient Flycut path is supported for all figures.



### Circle Center

Center on circular plate

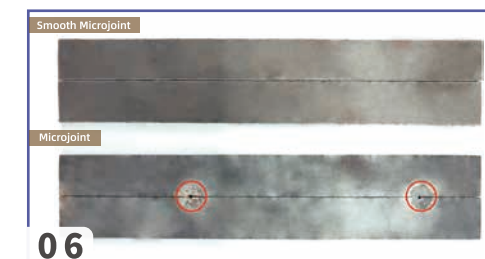
Center on circular plate before machining.



### 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.

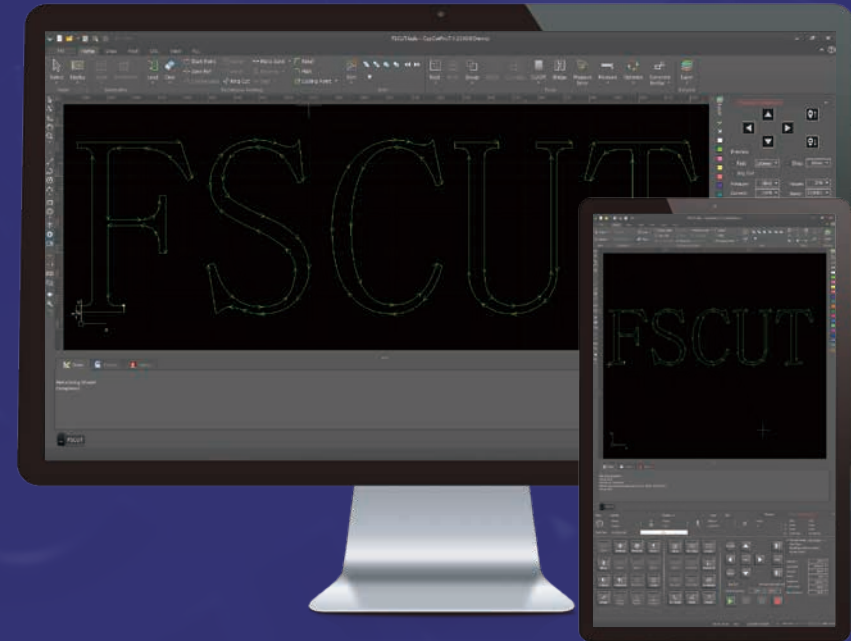
# 1.5 ~ 8 kW laser cutting

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

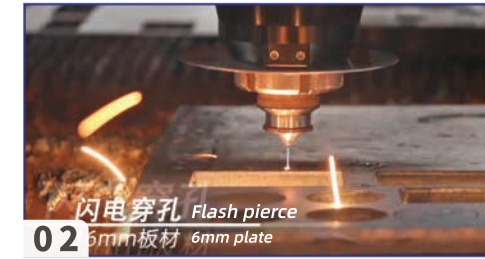


01

#### Fast Cutting

Speed up sheet cutting

Improve efficiency on sheets by smooth piercing and fast cutting.

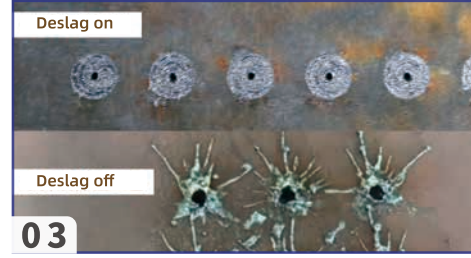


02

#### 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.

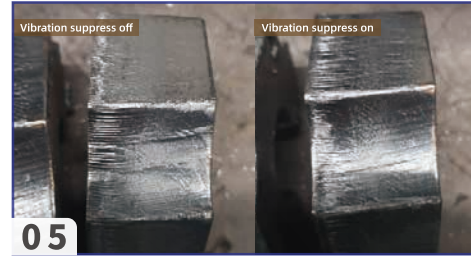


04

#### 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.

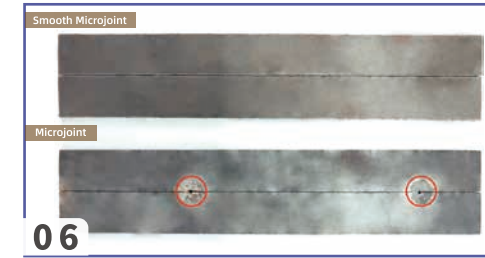


05

#### 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

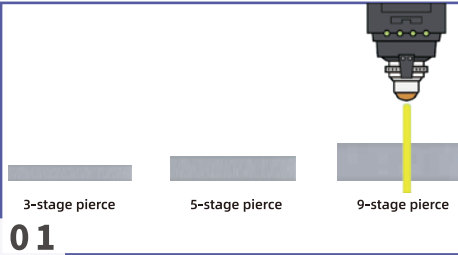
**HypCut**  
2D Cutting Software



**CypNest Professional**  
2D Nesting Software



### Features



#### 9-Stage Piercing

Improve piercing capability on thick plates  
Support ultra thick plates piercing.



#### Smart LaserOff

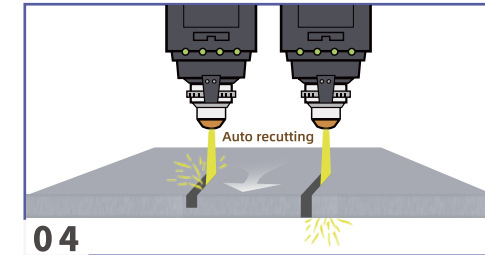
Improve performance of inner and outer contour cutting

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



#### Smooth Microjoint

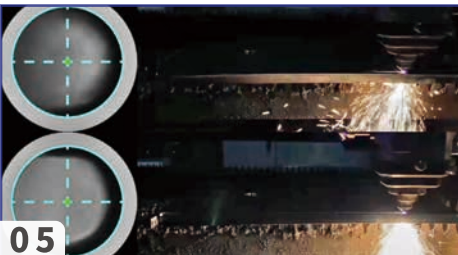
Easy to batch unload, piece of cake  
Smooth cutting section and easy unloading ensure high efficiency.



#### Auto Recut

Stable and efficient cutting

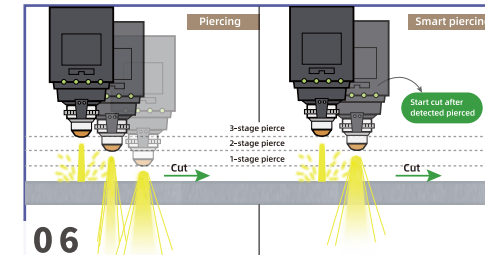
When real-time in-head sensor detects the plate was not cut through, the cutting head will automatically do recut.



#### Cutting Path Monitor

Stable and efficient cutting

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



#### Smart Piercing

Improve piercing quality and efficiency

Faster piercing with better quality.

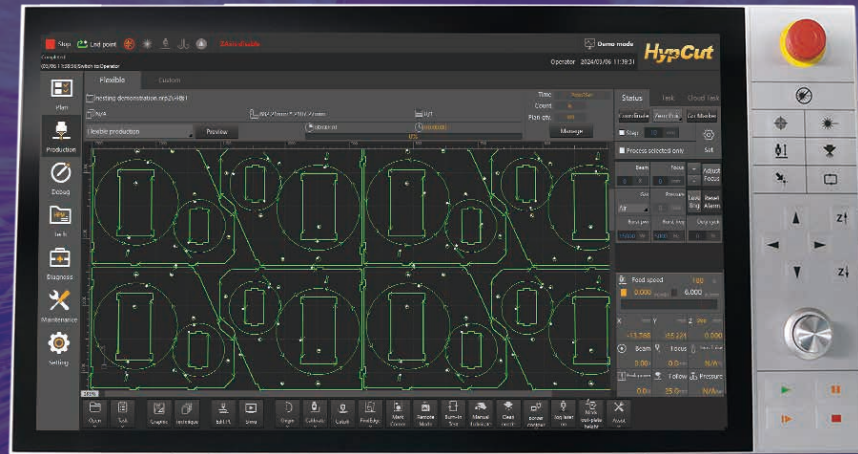
6~100 kW laser cutting

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

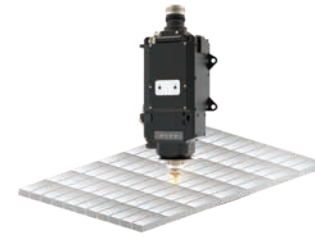
Professional

2D Nesting Software



### Features

01



#### Co-edged Piercing Monitoring

Improve cutting efficiency

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

02

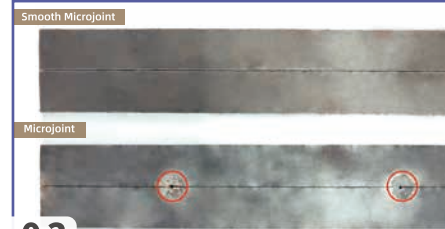


#### Smart LaserOff

Improve performance of inner and outer contour cutting

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

03

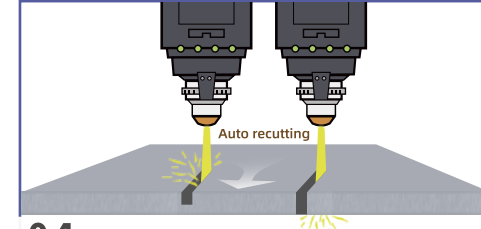


#### Smooth Microjoint

Easy to batch unload, piece of cake

Smooth cutting section and easy unloading ensure high efficiency.

04

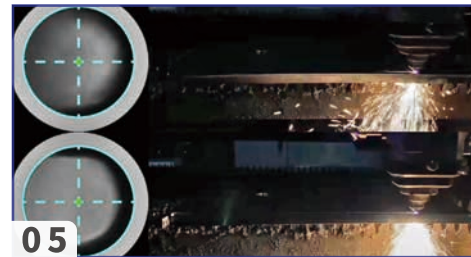


#### Auto Recut

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

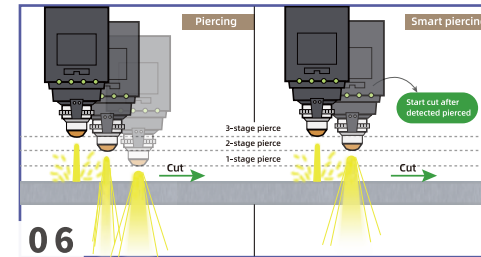


#### Cutting Path Monitor

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

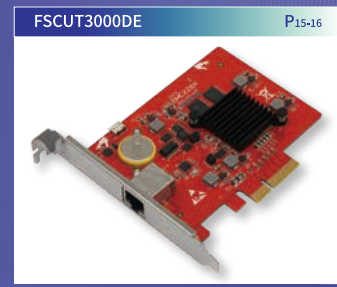
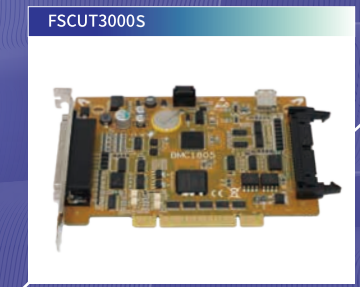
Faster piercing with better quality.

6~100 kW laser cutting

# 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			★						★

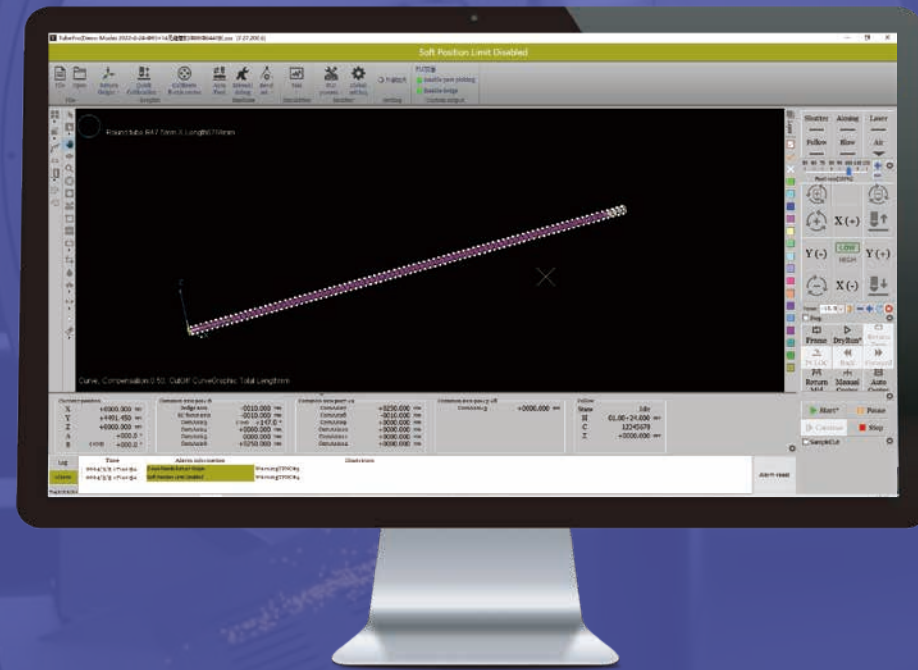
**Selection Notes:** Small Tube (A+Focus Changing=D; D+Bevel=H)    2-Chuck (L+Focus Changing=M, M+Holder Follow=G)



# 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



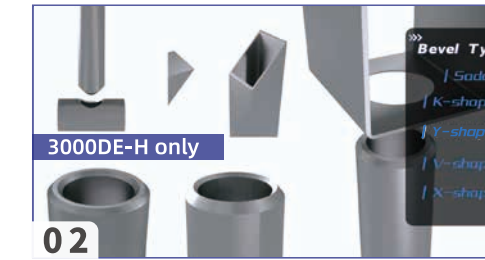
## Features



### Sort by Face

Decline rotations, improve efficiency

By comparison, sorting by sides effectively decline the rotations.



### Bevel Cutting (option)

Facilitate welding process

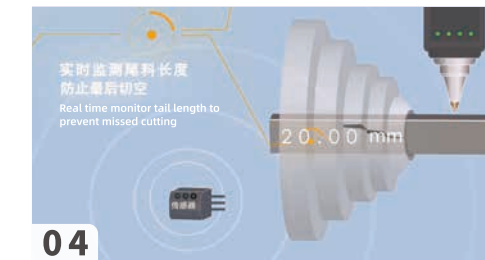
Saddle, K-shaped, Y-shaped, V-shaped, and X-shaped bevel supported.



### Centering Mechanism

Keep stable cutting

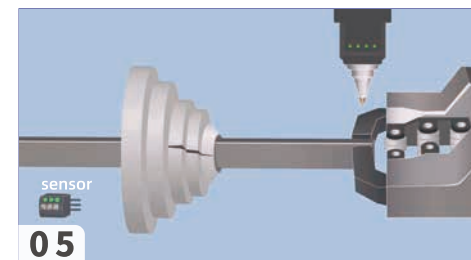
Tubes well clamped by centering wheel, kept stable to be cut precisely.



### 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

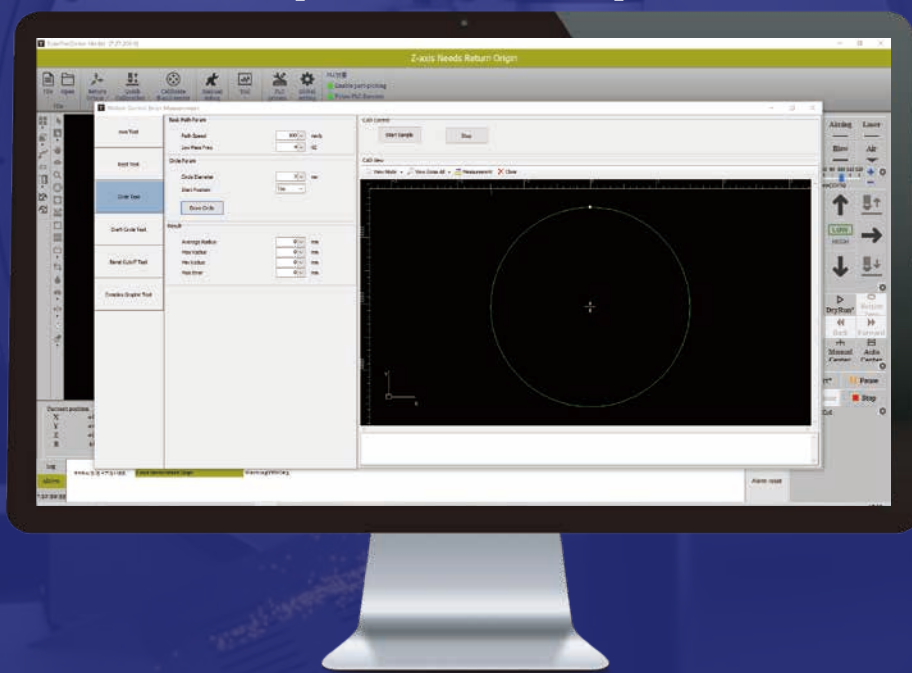
Less cutting speed changes when cutting intensive figures.

EtherCAT system for small tube pulling cutting machine

# Tube Standard System

2-Chuck

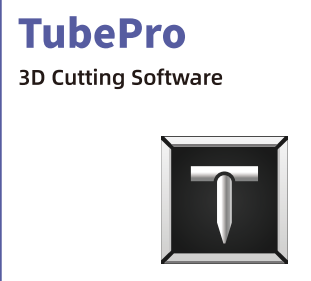
# FSCUT3000DE (L/M/G)



## Hardware

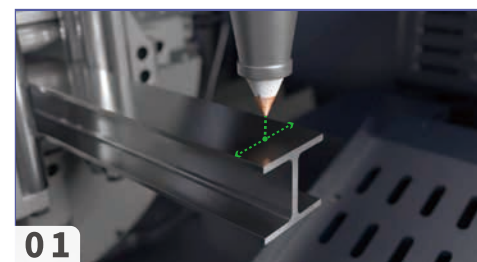


## Software



2-Chuck

## Features



### Special Steel Centering

Realize precise cutting of special steel

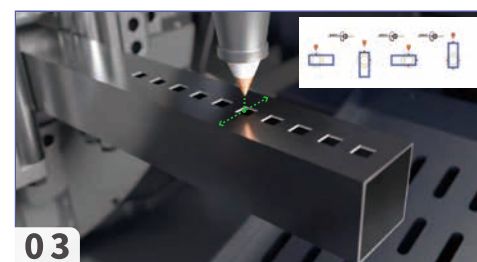
Capable of centering L-shaped, U-shaped, H-shaped steel.



### Square/Rectangle Profile Offset

Effectively offset regular cutting margin

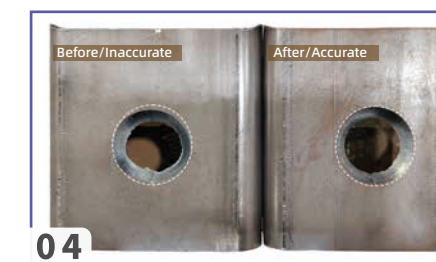
Four sides with the same margin can be adjusted, allowing raw material size more flexible.



### 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

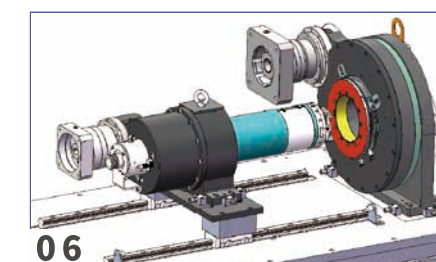
Compare instruction track with feedback track to help technician tell the difference of main axes servo gain.



### 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

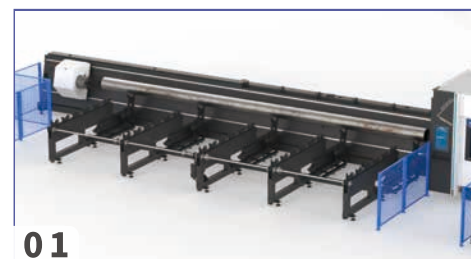


**TubeST Professional**  
3D Nesting Software



### 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.

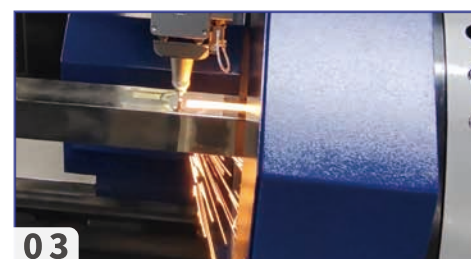
02



**Axis for Measuring Tube Length**  
Measure tube length with machine

Measure tube length with loading machine for auto loading.

03

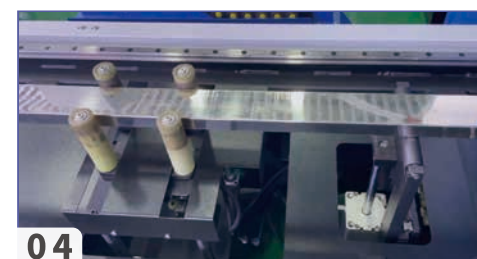


**Dodge**

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

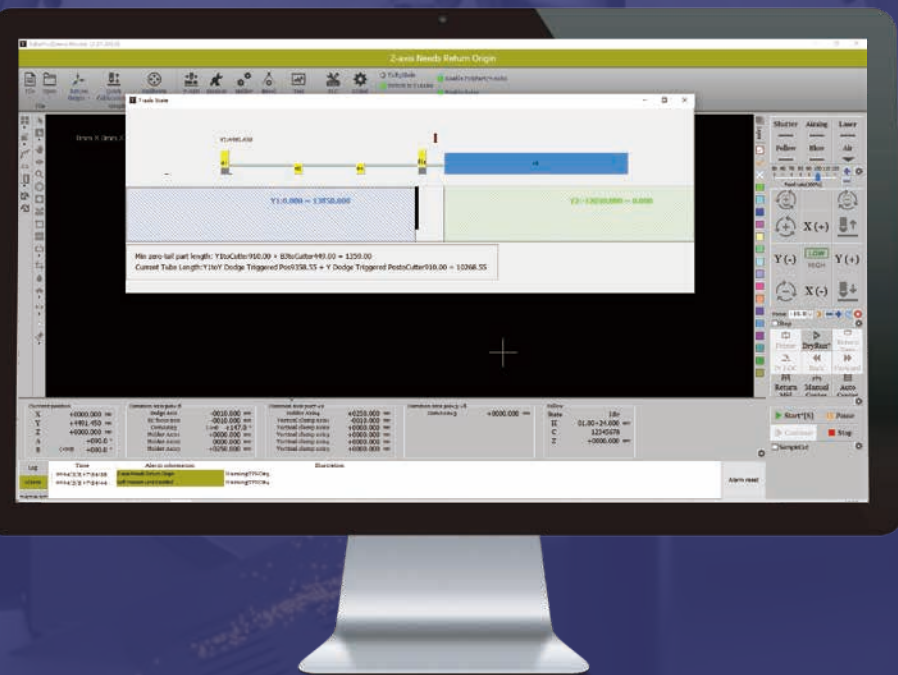
Write your own code to execute complex action, increase automation.

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

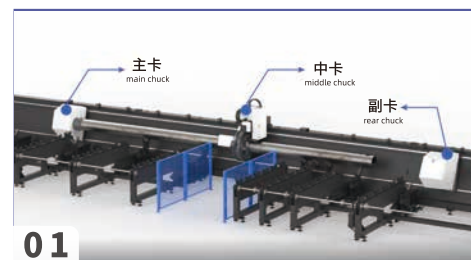
**TubePro**  
3D Cutting Software



**TubeST** Professional  
3D Nesting Software



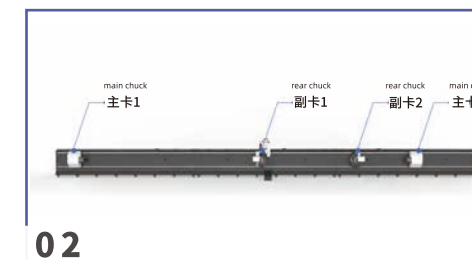
## Features



### 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



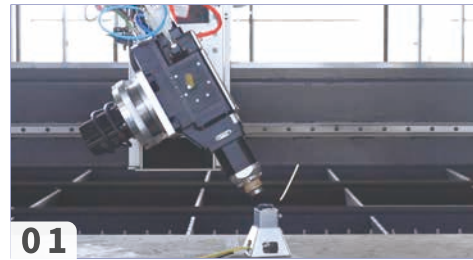
### CypNest

2D Nesting Software

Professional



## Features



### Vision Calibration

High precision, short processing time,  
and easy maintenance

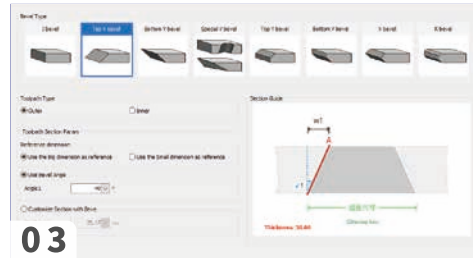
Quick calibrate rotation axis parameter.



### Compensation

Instant compensation to improve precision

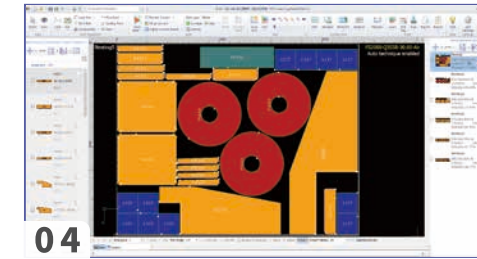
Collect surface data for compensating deformation to improve cutting precision.



### Bevel Editing

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

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



### Bevel Nesting

Support mixed nesting of 2D cutting and  
bevel cutting part

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



### Convex Head Cutting

Support Convex Head Cutting

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



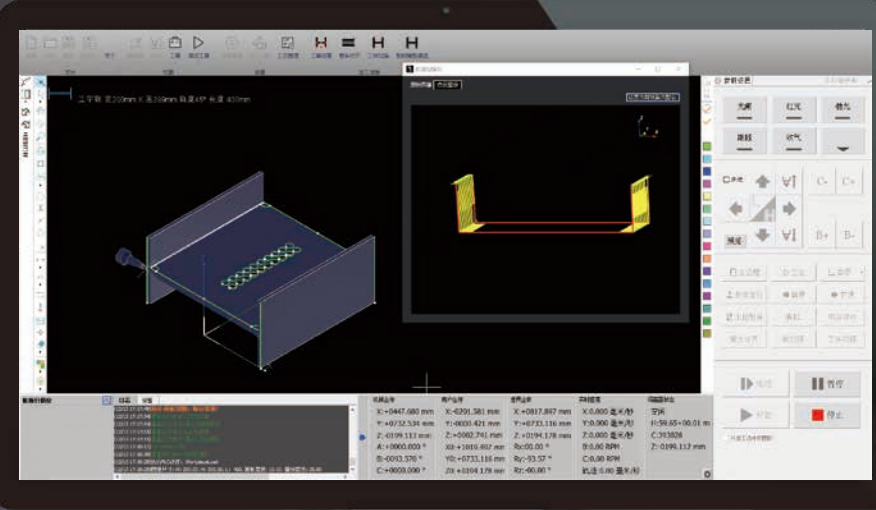
### Additional Beveling

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



High-speed Trains



Construction Machinery



Doors



Furniture



Sanitary Ware

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