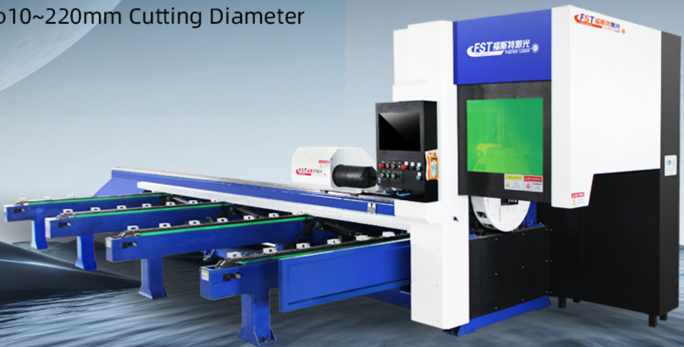
AUTOMATIC
TUBE LASER CUTTING MACHINE

FST-6022T

1500W-6000W

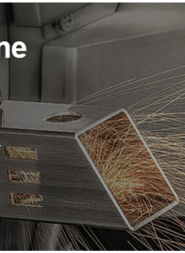
ϕ10~220mm Cutting Diameter



- Automatic production
- Reduce labor costs
- Unmanned cyclic feeding
- Greatly improve efficiency

FST-6022 Automatic Laser tube cutting machine

Automatic Laser tube cutting machines are advanced equipment designed for the precise and efficient cutting of metal tubes and pipes. It supports a wide range of tube types for loading, just place multiple tubes on the conveyor belt to achieve automatic loading. Suitable for heavy pipe, stable and efficient. These machines utilize high-powered laser beams to achieve clean, accurate cuts with minimal material wastage.



FOSTER LASER

SELLING POINT

01

HIGH PRECISION CUTTING:

The laser tube cutting machine ensures precise and clean cuts, reducing the need for post-processing.
It can handle intricate designs and complex geometries with ease.

02

EFFICIENCY:

Equipped with advanced automation features, it significantly reduces production time and labor costs.
The machine can cut tubes and pipes at high speeds without compromising on quality.

03

MULTIFUNCTIONALITY:

Capable of cutting a wide range of materials, including stainless steel, carbon steel, aluminum, brass, and copper.
Suitable for cutting various shapes such as round, square, rectangular, and oval tubes.

04

AUTOMATED OPERATION:

Features like automatic loading and unloading, and intelligent nesting software optimize material usage and minimize wastage.
User-friendly interfaces and CNC control systems make the operation straightforward.

05

HIGH STABILITY AND DURABILITY:

Constructed with robust materials and components, ensuring long-term durability and minimal maintenance.
The machine' s stability during operation ensures consistent cutting quality.

06

COST SAVINGS:

Reduces material wastage and energy consumption, leading to cost savings in the long run.The multifunctional capability of cutting different types and shapes of tubes and pipes eliminates the need for multiple machines.

07

FLEXIBILITY AND CUSTOMIZATION CAPABILITY:

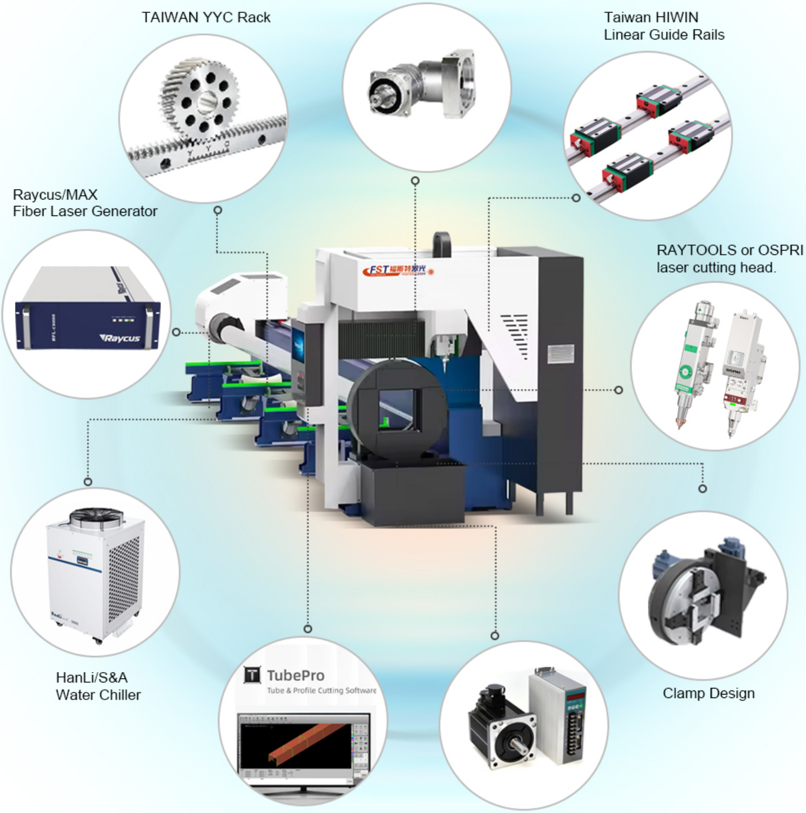
Allows for easy adjustment and customization of cutting parameters to meet specific project requirements.
Can be integrated with other manufacturing processes for streamlined production.

08

ENVIRONMENTAL FRIENDLINESS:

Produces less noise and emissions compared to traditional cutting methods, making it an environmentally friendly option.

02 FOSTER LASER
DISPOSITION



Japan Shimpo
Reducer

TAIWAN YYC Rack

Taiwan HIWIN
Linear Guide Rails

Raycus/MAX
Fiber Laser Generator

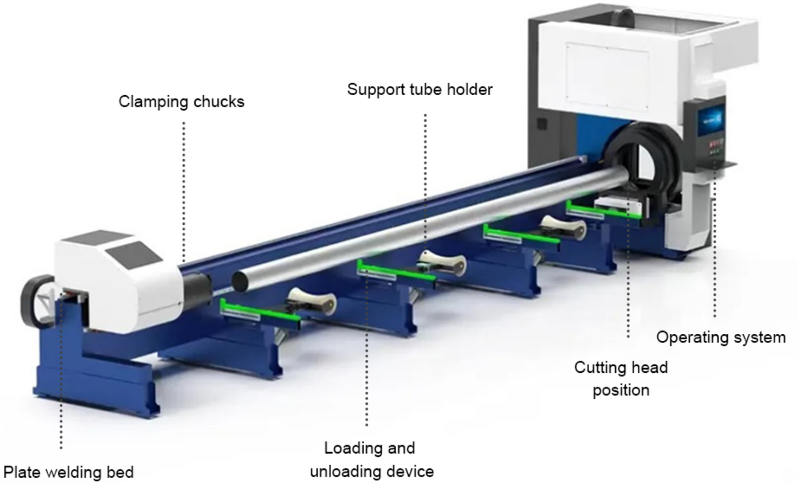
RAYTOOLS or OSPRI
laser cutting head.

HanLi/S&A
Water Chiller

Clamp Design

TubePro
Control System

Delta/Fuji /Yaskawa
Servo Motor Driver



FOSTER LASER

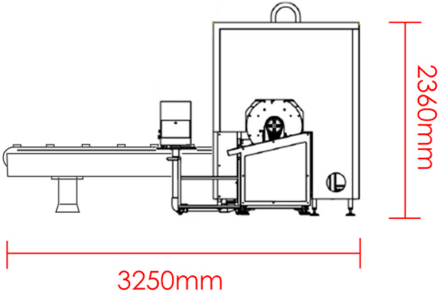
PARAMETERS

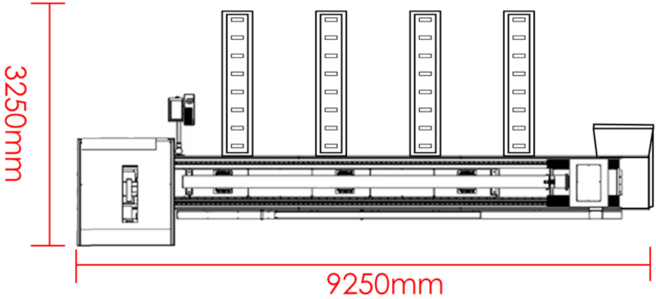
Model	FST-6022AT
Working area(mm)	6000*φ10~220mm
Laser Power	1500W/2000W/3000W/4000W/6000W etc.
Working table	Tube Y: 6000mm X: 250mm Z:200mm
Cooling Method	Water Cooling Protection
Cutting head	Raytools/OSPR/Au3tech/WSX/Precitec,
Automatic feeding rack	6 pieces
Control system	Bochu

Laser source	Raycus/Max/Reci/IPG
Maximum Acceleration	1G
Positioning Accuracy	±0.05mm
Maximum Rotational Speed	85r/min
Machine Size	9250*3250*2360mm
Table Maximum Load(KG)	300KG
Power Parameters	Three-phase AC 380V 50Hz（Can be customized)
Machine weight	4.5T

What does the Affordable Metal Tube Laser Cutting Machine FST-6022T cut?

Material	1500W	2000W	3000W
Carbon Steel (mm)	1-10mm	1-10mm	1-16mm
Stainless Steel (mm)	1-6mm	1-6mm	1-8mm
Aluminum (mm)		1-4mm	1-6mm





THE COST

NON-AUTOMATIC
TUBE LASER CUTTING MACHINE

VS

AUTOMATIC
TUBE LASER CUTTING MACHINE

Assumptions:

General non-automatic laser pipe cutting machine: each shift requires 2 operators, 3 shifts a day, and the salary of each employee is $20/ hour.

Automatic laser pipe cutting machine: only 1 monitoring operator is required, the salary is the same $20/ hour, but the machine can work 24 hours without interruption.

A year is calculated on 250 working days.

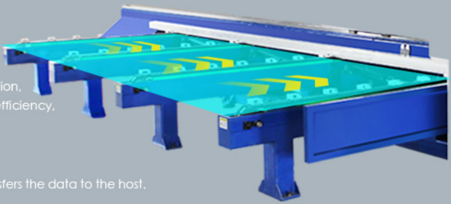
Class	Non-automatic Tube Laser Cutting Machine	Automatic Tube Laser Cutting Machine
Number of workers	2 people	1 people
Salary per day	960USD	480USD
Total monthly	20,000USD	10,000USD
Annual total	240,000USD	12,000USD

The use of automatic laser pipe cutting machine, saving 1 labor cost, saving 120 thousand dollars per year.

FOSTER LASER

DETAILS

Automatic Mechanical Loading System FST-6022T



☑ Modular split design

Modular split design, easy disassembly and assembly, rapid production can be modular expansion at any time.

☑ Fully automated production

Unattended cycle feeding, intelligent feeding, sorting, correction, 24 hours all-weather production, greatly improve production efficiency, reduce labor costs.

☑ Length measuring module

Controls positioning of the pipe to the desired length and transfers the data to the host.

☑ Support a variety of pipe

Support round tube, square tube, rectangular tube, Angle steel, channel steel, H beam, I beam and other profiles automatic feeding.

☑ Inelligent sorting

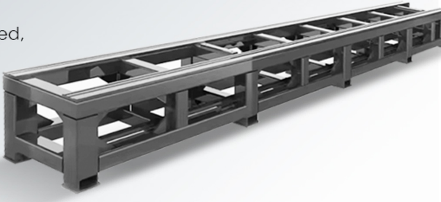
Efficient feedingSaving labor cost and improving working efficiency.

☑ Loading Size

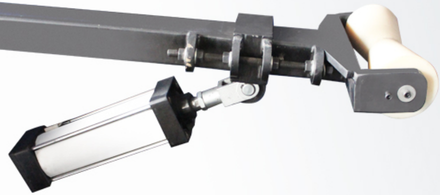
The loading size range of material is oval tubes and round pipes φ 10-220mm, square pipe 15-150 mm. it can load a single pipe weighing 300 kg. The first loading time is less than or equal to 70 seconds-subsequent loadingtime is less than or equal to 20 seconds.

HEAVY-DUTY MECHANICAL STRUCTURE

Adopting high-quality carbon steel welding bed,
it is more stable and durable.
Which has strong structural rigidity,
small deformation, and low
vibration to ensure cutting accuracy.



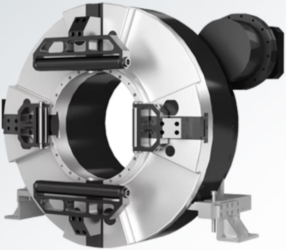
FRACTIONAL AUTOMATIC SUPPORT INSTALLATION



It employs intelligent tube support design,
which can solve the deformation problems
in the process of long tube cutting.

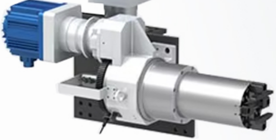
FRONT CHUCK

The middle chuck adopts a fully sealed appearance
dust-proof structure to prevent dust from entering,
and is beautiful and generous with aluminum alloy
panel + stainless steel cover buckle. Full stroke clamping
range without gripper transposition adjustment,
clamping force and load bearing force is strong,
stable performance, high efficiency and clamping accuracy.



REAR CHUCK

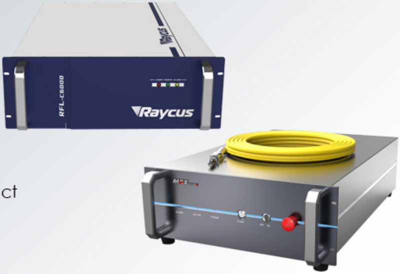
The rear chuck with claw can clamp the special-shaped



pipe, keep the pipe fitting does not slip, and has the function of dust extraction or blowing, the clamping stroke is large, the type of claw is small, easy to use, the clamping force is strong, can realize the heavy pipe fitting processing, and the integral support base structure, improve the support bearing stability.

LASER SOURCE

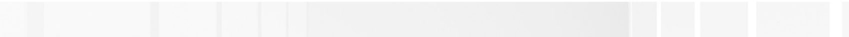
Professional cutting laser source.
With high-quality beam quality,
high light conversion efficiency,
the light emitting mode is more conducive
to achieving a good and stable cutting effect
with high quality.



SERVO DRIVER AND SERVO MOTOR

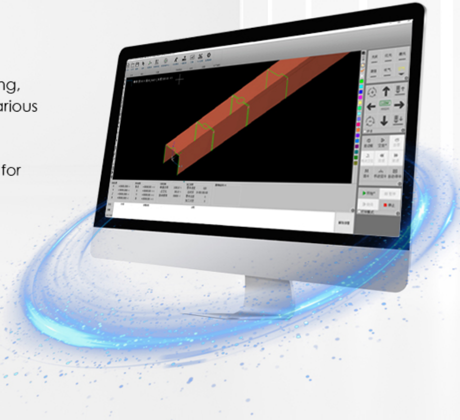
Servo motors stabilise and drive the beam to control the movement of the XYZ axis according to the programmed instructions to complete the cutting operations with complex precision, and the user can adjust the parameters according to their needs.

DELTA 台达 YASKAWA



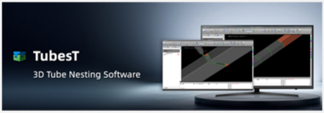
TubePro

Tube & Profile Cutting Software



TubePro designed for professional tube cutting, supports production of tube and profile of various shape. It works with TubesT nesting software seamlessly to realize technique setting, advanced toolpath generation and nesting for standard and special production need.

1.Auto Find Tube Center in Production
2.Workpiece and Floating Coordinates
3.Seven-Axis Tube Delivering
4.Tube Holder
5.Corner Technique
6.Active Control at Corner Cutting
7.Quick Frog-Leap
8.Free Form Tube & Profile Production



TubesT

3D Tube Nesting Software

TubesT is a 3D tube nesting software designed for CypTube/TubePro laser cutting system. From parts drawing and modification, full type compensation, strategic nesting to report generation, using TubesT will meet and exceed your production needs.

TubesT-Lite
3D Tube Nesting Software

TubesT-Lite

3D Tube Nesting Software

TubesT-Lite is a free software to generate toolpath for FSCUT tube cutting system. It's designed for CypTube/TubePro, can import part from external igs file, draw the part of standard shape and array-nest the part on the tube.

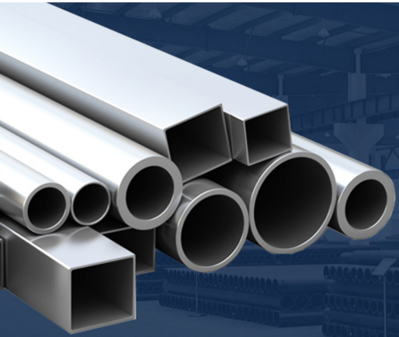
Support profiles of U/T/H/L shapes and free form shapes toolpath generation

LASER CUTTING HEAD

RAYTOOLS
OSPRI

- **Versatile Cutting:** The laser head enables high-precision cutting of tubes, ensuring smooth, burr-free edges.
- **Auto-Focusing:** Equipped with automatic focusing capabilities, the laser head adjusts the focus based on different materials and thicknesses, enhancing cutting efficiency and quality.
- **High power output:** Provides stable high power output, suitable for cutting various types of pipes.
- **Superior Cooling:** Advanced cooling system ensures the laser head maintains a stable temperature during prolonged operation, extending its lifespan.
- **Durability:** Constructed with high-quality materials and craftsmanship, the laser head boasts long-lasting durability and high reliability.
- **Multi-Material Compatibility:** Capable of cutting a wide range of metal materials, including carbon steel, stainless steel, aluminum, and copper, meeting diverse processing needs.
- **Modular Design:** Simple, modular design makes the laser head easy to maintain and replace, enhancing equipment maintenance convenience.
- **Protective Lens:** Equipped with high-quality protective lenses to effectively prevent damage from smoke and splatter during the cutting process.

05 FOSTER LASER
APPLICATIONS



APPLICATION MATERIALS

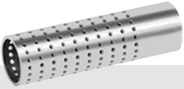
Fiber laser tube cutting machine provides exceptional versatility, capable of working with a wide range of materials including carbon steel, stainless steel, aluminum alloy, brass, copper, galvanized pipe, silicon steel tube, electrolytic pipe, titanium alloy, manganese alloy, etc.. It effortlessly handles various shapes and sizes of metal tubes, accommodating diverse project requirements.

Punch Hole

Use laser or mechanical stamping equipment to punch holes in the pipe or sheet metal.
It is usually used to make holes of a specific shape and size for installation, connection or decorative purposes.

Hollow Out

Using laser cutting technology to cut part or all of the material to form a hollow structure. It is often used to make complex geometric shapes or to reduce material weight.



Hole Perforation

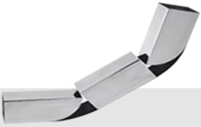
Similar to punching, multiple holes are punched in the material. It is usually used for filtration, ventilation or decorative purposes. Laser cutting machines can accurately punch holes of various sizes and shapes.

Cut Off

Use laser cutting technology to cut the tube or sheet completely. It is usually used for material separation or segmenting.

Shaped Tube

Through laser cutting and other processing techniques, the tube is cut into a specific shape. These shapes can be round, square, rectangular, or other complex geometric shapes for different applications and design needs.



Co-edge

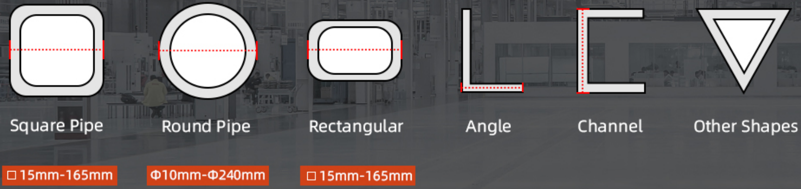
In the laser cutting process, the cutting path is optimized so that multiple cutting edges share the same cutting line. This technology can reduce material waste and cutting time, improving production efficiency.

INTELLIGENT RECOGNITION

With contour recognition system,it can automatically identify standard round, oval, square and other special-shaped pipes.

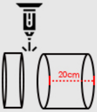
Tubes realize non-inductive and high-efficiency detection, and realize the position deviation of the whole meter section's cutting accuracy within 0.15mm.

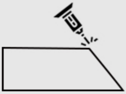
Processing round pipes, square pipes, rectangular pipes Single tube load bearing up to 300kg.



Our machines can be upgraded to bevel cutting, 3D cutting and zero tail material.

This machine tail material is about 20cm





APPLICATION INDUSTRY

The sheet metal laser cutting machine has extensive applications in decoration, infra-structure, construction, microelectronic, advertising, kitchen appliance, automobile andother equipment manufacturing, and other industries.

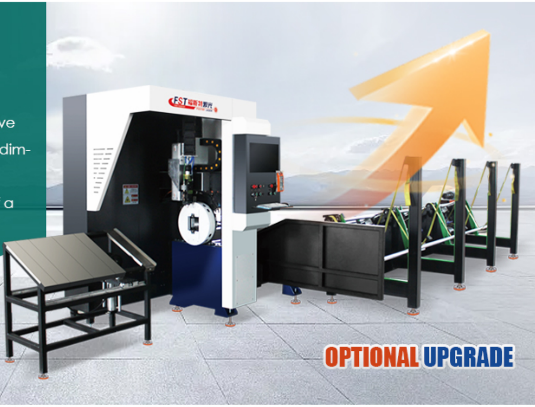
Construction
Automobile
microelectronic
Electric
Aviation
Shipbuilding

FOSTER LASER

OPTIONAL

Automatic Loading And Uploading

The machine is equipped with automatic loading and unloading, which can improve the utilization rate of the machine tool andimprove the work efficiency, save a lot of human resources, and meet the needs of a variety of simple material handling until the full automatic operation.



VOLTAGE STABILIZE

Stable voltage to ensure smooth operation of equipment.**(Optional)**

激光切割专用
Laser cutting wisdom

AIR COMPRESSOR

It is a essential tool for cutting stainless steel and thin carbon steel materials.
More cost saving.**(Optional)**

LASER NOZZLE

3D M8 H19(Optional)

CERAMIC RING

3D M8 D19.5(Optional)

PROTECTIVE LENS

D27.9x4.1(Optional)

FOCUSING LENS

D30-F155(Optional)

FOSTER LASER
QUALITY

QUALITY CONTROL LINES

Foster Laser

Machine Bead

Adjust the height of the feet according to the test results ofthe strip level to ensure the accuracy of subsequent installation.

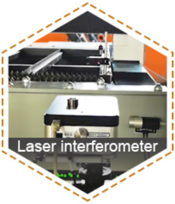
Rail Installation

Use photoelectric autocollimator to detect the straightness and flatness of the guide rail to ensure that the detection value is with in the standard range.

Rack Installation

The relative position of the guide rail and the guide rail is locked and clamped by the measuring rod , Statistics and analysis of measurement data to ensure thatthey are parallel.

Beam inspection



Laser interferometer

Cutting test

Simulate the high-intensity test of various harsh conditions in the actual use of the equipment,and athe same time, according to the requirements of use, rationalize the improvement to ensure the factory pass rate and improve the reliability of the equipment.

The laser interferometer tests the X/Y-axis positioning accuracy to ensure the accuracy of the whole machine.

After the beam is installed,Use athree-coordinate measuring instrument tocheck the coaxiality to ensure the relative perpendicularity of the X/Y/Z three-axis.

Sample inspection

Cutting sample inspection

Packing inspection

Safe multi-layer packaging, or transport in wooden cases.

08 FOSTER LASER
CERTIFICATES

WIPO
WORLD
INTELLECTUAL
ORGANIZATION

10+

Our brand has been registered in more than 10 countries

- Mexico
- Britain
- Brazil
- Germany
- Indonesia
- Italy
- United States

FOSTER LASER

FST
Laser equipment
福斯特

Certificate Achievements

CERTIFICATE

CERTIFICATE OF CONFORMITY
Certificate of Conformity

CERTIFICATE OF CONFORMITY
Supplier's Declaration of Conformity

MACHINERY DIRECTIVE, ELECTROMAGNETIC COMPATIBILITY DIRECTIVE
ATTESTATION OF CONFORMITY

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Proof of RCM Compliance

发明专利证书

发明专利证书

Our company has passed ROHS,CE,FCC,RCM,ISO 9001 and other certifications

FOSTER LASER
PACKING

Cleaning

Packing

Sealing

Forklift Handling

Loading

Shipping

FOSTER LASER

COMPANY

COMPANY PROFILE

Liaocheng Foster Laser Science & Technology Co , Ltd is a professional manufacturer of laser engraving machine , laser cutting machine , laser marking machine laser weldingcleaning machine for 20 years .

Since 2004 , Foster Laser focused on thedevelopment and production of various types of laser engraving cutting / marking /welding/cleaning machine with the advanced management , strong research strength and steady globalization strategy , Foster Laser establish more perfect productsales and service system in China and around the world , make the worlds brand in laser industry.

Our target is scientific management , high quality , high reputation and takes continuous development as our-policy , regards customers as our center , double win with our customers " , and we adhere to our tenet of " take themarket demand as the guide , continue to take innovation and make improvement " . We will try our best to provide thehigh quality products and perfect service for clients.

Furthermore , we pay much attention to after-sales service . Good service and good quality is same important forFoster Laser will follow the spint Credibility and Integrity , try best to provide customer more super product andbetter service.

Foster Laser--rellable professional Laser equipment supplier.

Welcome to cooperate with us and achieve win-win !

300+

We currently produce 60 sets of fiber laser cutting machines per month, with a goal of 300 sets per month.

30000 ㎡

Our factory is in Liaocheng, with a 30,000-square-meter standardized workshop.

27+

We currently hold 27 technical patents, with more being added each year.

4

We own four separate trademarks. Foster laser is our worldwide trademark, which is currently being accepted.

界爱上中国智造
rldwide love for Chinese creation
18号
FST
Laser equipment
福斯特
聊城福斯特激光科技有限公司
LIAOCHENG FOSTER LASER SCIENCE&TECHNOLOGY CO., LTD

FST

Laser equipment

福斯特

6024T
FST 福斯特
Laser equipment
A0384
A0384
FST
福斯特激光科技有限公司
FST-6025PH
24T
FST-1080
LASER CUTTING MACHINE
FIBER LASER WELDING MACHINE
FACTORY DIRECT SUPPLIER
LASER CUTTING MACHINE
6PH
CTORY DIRECT SUPPLIER
SER CUTTING MACHINE

FST 福斯特
Laser equipment

FST
福斯特
FOSTER LASER

AFTER SALES SERVICE

FST
福斯特
Laser equipment

FST
福斯特
Laser equipment

FAQ | Welcome to contact us

Q How can I choose the most suitable machine?

A In order to recommend you the most suitable machine model, please let us know the following details: 1.What is your material? 2.The size of material? 3.The thickness of material?

Q When I get this machine, how do I use it?

A We will send operation video and manual for the machine. Our engineer will do training online. If needed, we can send our engineer to your site for training or you can send the operator to our factory for training.

Q If some problems happen to this machine, what should I do?

A We provide two years machine warranty. During the two-year warranty, in case any problem for the machine, we will provide the parts free of charge (except for artificial damage).
After the warranty, we still provide whole lifetime service. So any doubts, just let us know, we will give you solutions.

Q What is the payment terms?

A The payment terms we accept include:Western Union,T/T,VISA,Onlina Bank Payment.

Q How about the shipping ways?

A Transport by sea is the normal way;If special requirement,need to be final confirmed on both sides.

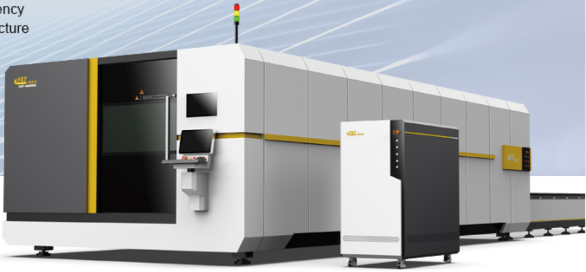
OTHER MODELS

PH Series

FST-6025

FULL ENCLOSED FIBER LASER CUTTING MACHINE

Fast Speed Cutting, Improve Efficiency
Brand New Double-beam Bed Structure



FST-3015

FM Series (Above 6000W)

FLATBED FIBER LASER CUTTING MACHINE

Fast Speed Cutting, Improve Efficiency
Efficient And Practical, Completely Upgraded

FST-3015E

E Series

DUAL-USE SHEET & TUBE FIBER LASER CUTTING MACHINE

Save processing time
Improve processing efficiency

FAT Series

FULLY AUTOMATIC LASER TUBE CUTTING MACHINE

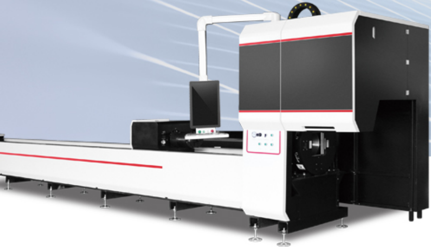
Side-Mounted Laser Pipe Cutting Machine
All Kinds Of Pipes Are With in Reach

FST-6012

FST-6024

T Series

LASER TUBE CUTTING MACHINE



Fully Automatic Self-Centering Pneumatic Chuck
Visible Enclosure
Pneumatic Roller Support