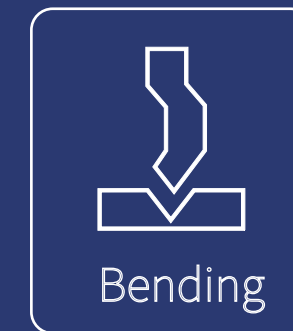
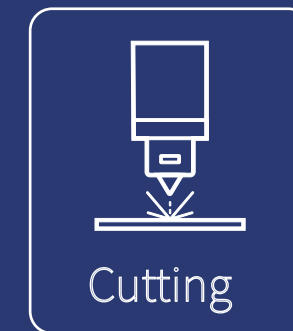


# HSG



Intelligent Manufacturing Changes Future

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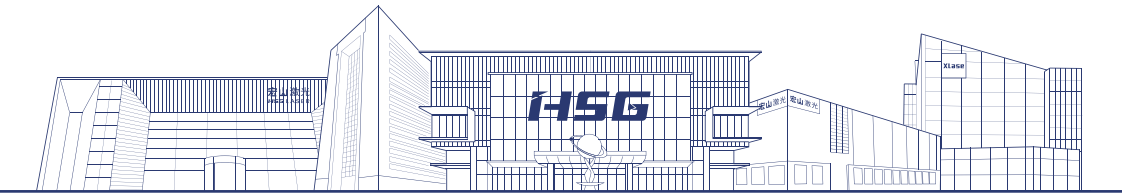
- About HSG Laser
- Technical Strengths
- Featured Products
- After-sales Service
- Customer Cases

HSG

# COMPANY PROFILE



# Global Presence



**13**

13 branches/subsidiaries/  
sub-subsidiaries across the globe



**100+**

Serve 100+ countries  
and regions



**30+**

Global service outlets



China Headquarters



Japanese subsidiary



German subsidiary

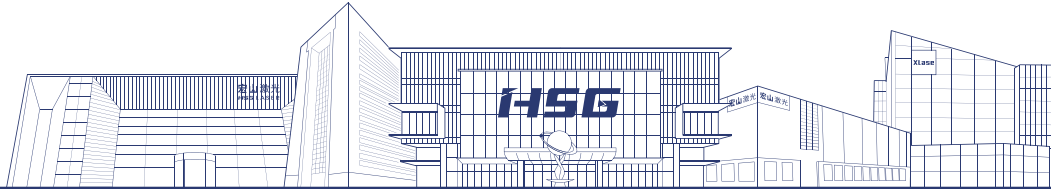


US subsidiary



The HSG logo, consisting of the letters 'HSG' in a bold, italicized, white font with a blue outline, set against a background of a blue globe with white grid lines and glowing blue lines connecting various points on the globe.

# Company Profile



➤ HSG Laser, dated back to 2006, is a hi-tech enterprise that integrates research, development, production and sales of metal forming equipment.



**4**  
Manufacturing Bases in China



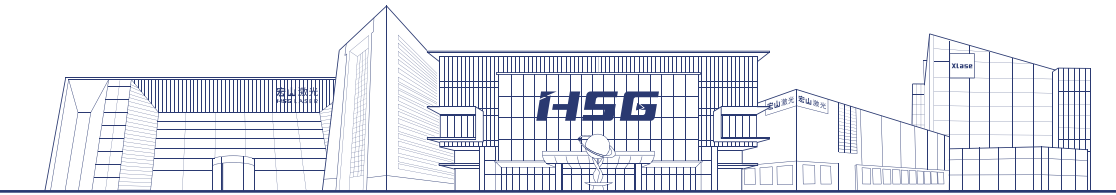
**96000m<sup>2</sup>**  
Occupied Area



**8000+** Sets  
of Annual Output



# Technical Strengths



➤ Since the establishment, HSG Laser always stress on its independent development of software and hardware and has founded 3 R&D centers, applied for 300+ patents and got multiple quality certifications overseas.



**3**  
R&D Centers



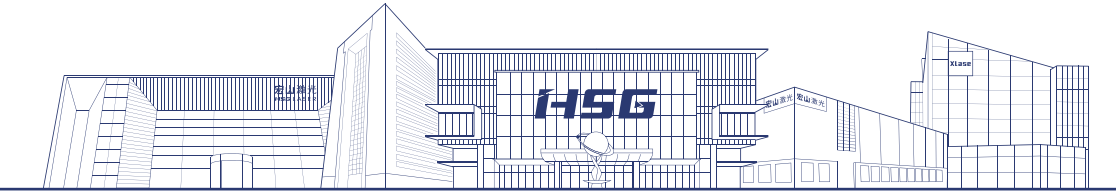
**9**  
R&D Laboratories



**China**  
Optical R&D Laboratory



**Japan**  
Optical R&D Center



## ■ Technical Patents

➤ Till 2021.12, HSG Laser has applied for 360+ authorized patents, 73 software copyrights and 80+ registered trademarks at home and abroad.



## ■ Quality Certification



Above data had been collected by the end of Dec. 2021.

# R&D RESULTS





# Optical System



➤ HSG Laser, based on Japanese optical technology, has developed high-power bus cutting heads, tube beveling head, 3D five-axis cutting head.

(Patent No.: CN201910873478.8, CN202010240391.X, WO2021051734A1, etc.)



## P

10kW-40kW  
High-power Intelligent Laser Cutting Heads

- \* Laser path reshaping, real-time focus control
- \* Intelligent bus height adjusting system
- \* Airflow optimization and lens temperature monitoring
- \* Optical materials and filming technology to prevent pollution



## LA4

Tube Beveling Head  
1500-6000w

\*Cut 0-45° bevel

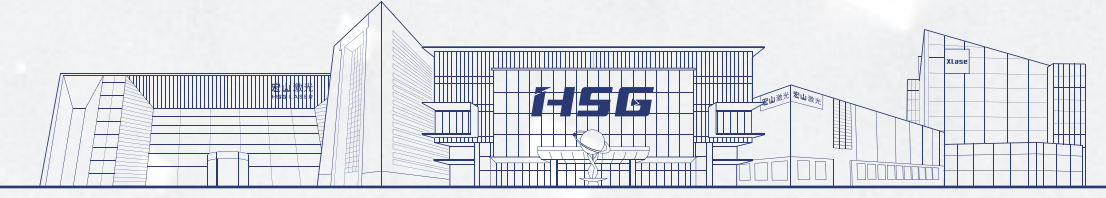


## LA5

Five-axis Linkage Laser Cutting Head  
1500-3000W

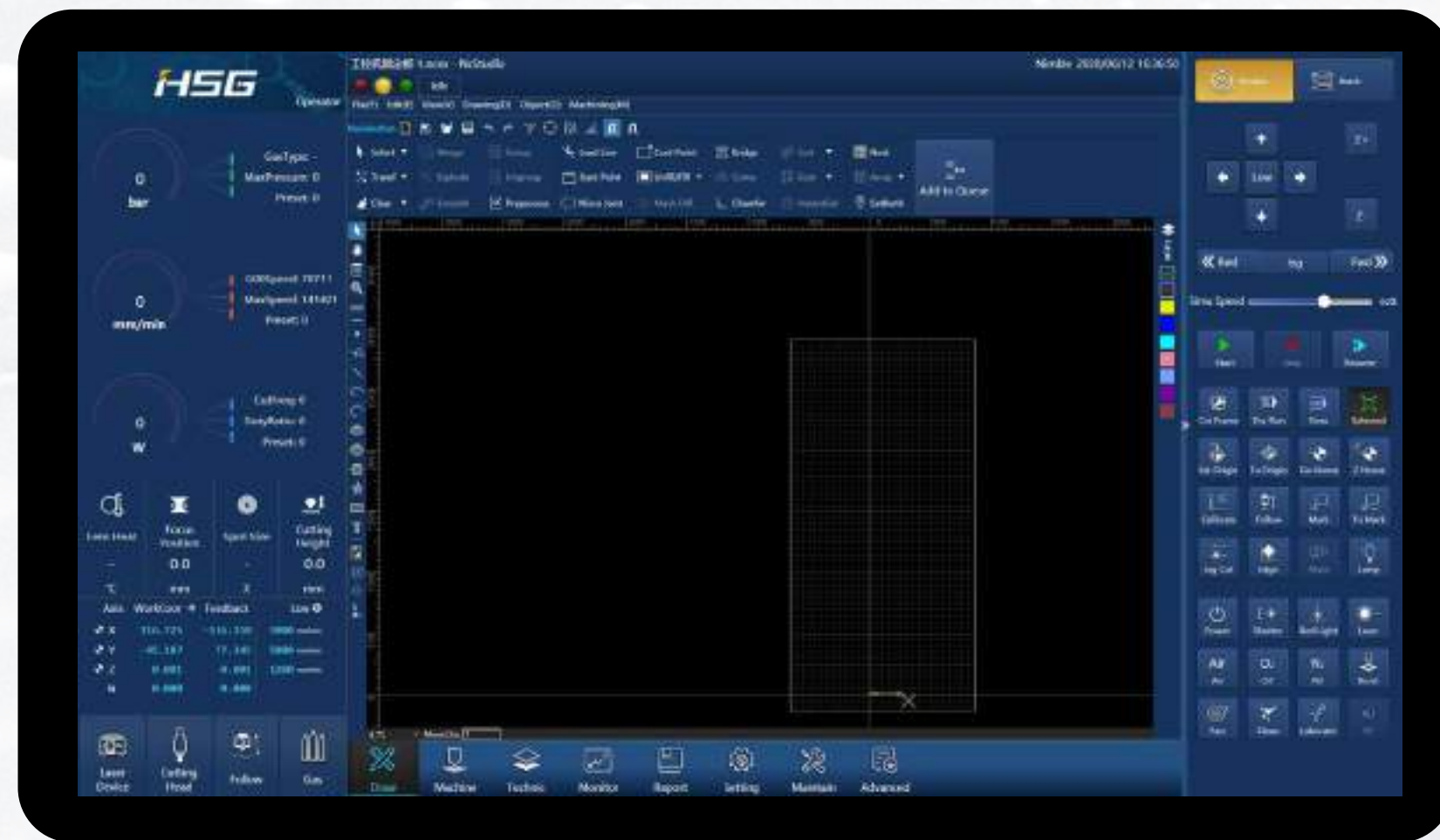
- \* N\*360° rotation and ±135° swing
- \* Move from one plane to another safely

# Bus-based Control Systems

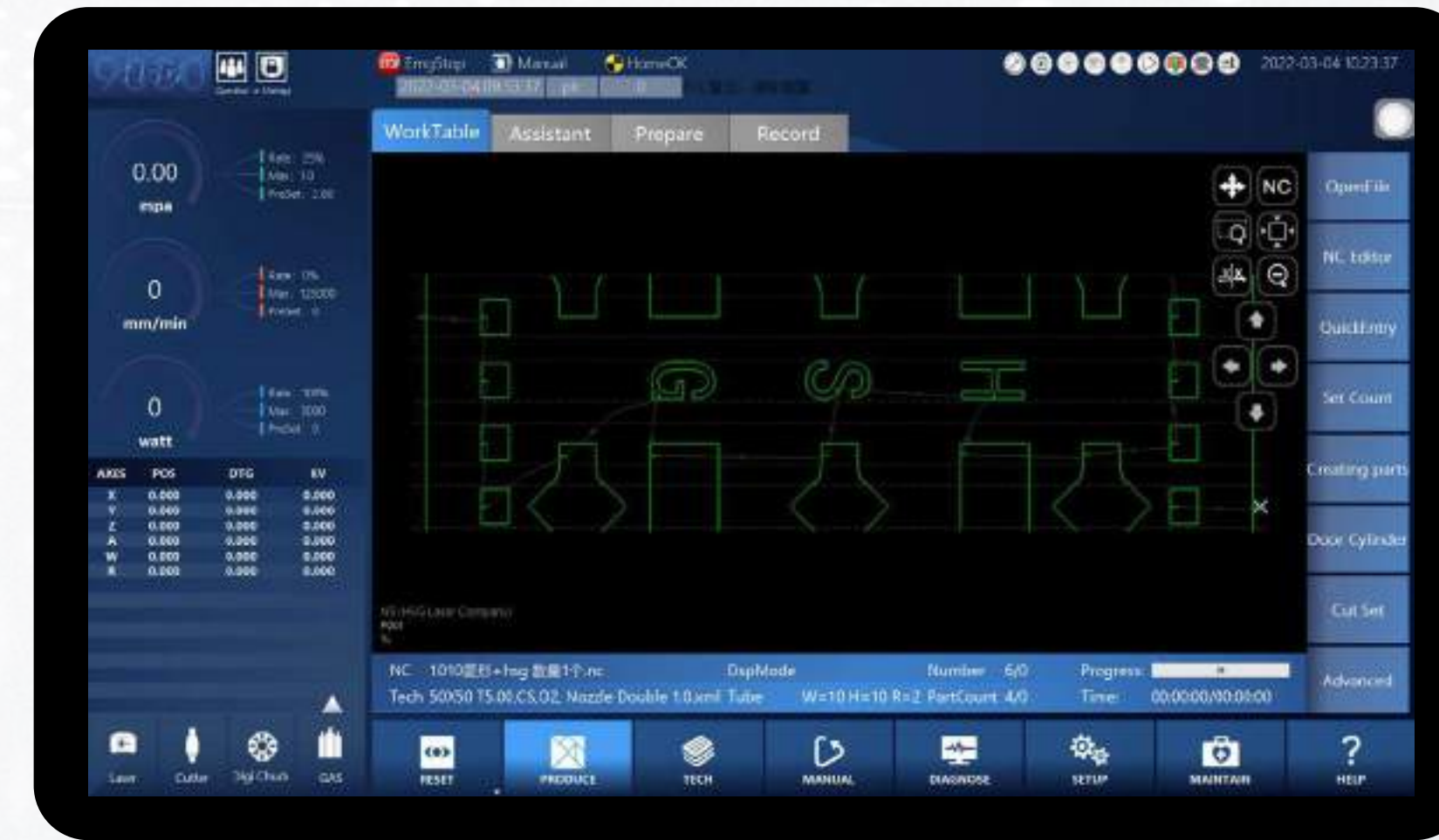


- After research on multi-axis moving control, CNC algorithm, CAM cutting software and system interface development, HSG Laser has introduced bus CNC systems as follows, which have distinct advantages in typesetting & nesting, production order control, increase of machining speed and decrease of interpolation cycle.

(Patent No.: CN110064851B, CN108393591B, CN108465944B)

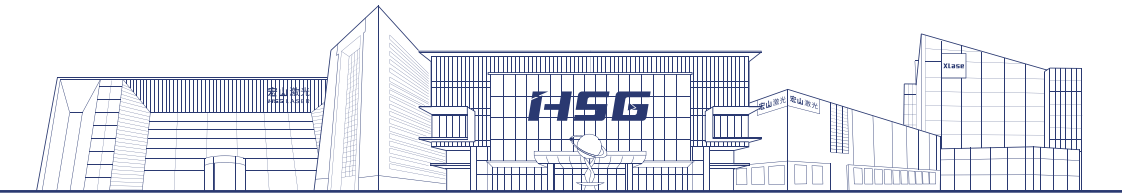


**Alpha T**  
Bus CNC System  
(Sheet Metal Cutting Machine)



**HSG-X**  
Bus CNC System  
(Tube Metal Cutting Machine)

# Self-developed Chucks

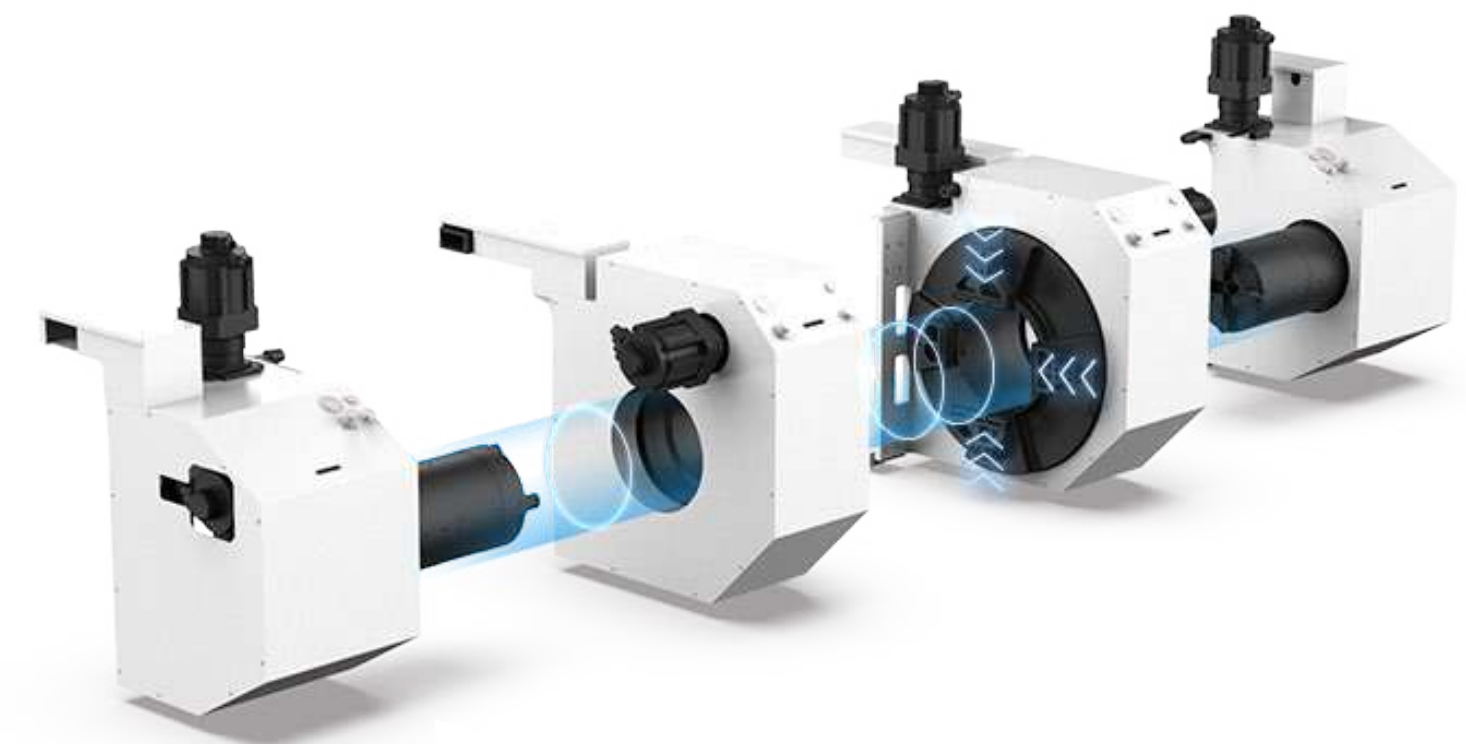


- In view of practical applications, HSG Laser studies on pneumatic transmission and wireless data control technology to develop multiple kinds of chucks for tube cutting machines.

(Patent No.: CN110524126B, CN110907080B, CN110802334B, etc. )



Patent Certificate of 3+1 Chucks  
(International certification is underway)



## 3+1 twin chucks

Chucks with multi-point supporting specially engineered for  $\leq 1500\text{kg}$  heavy tube and 12000mm entire tube

Round tube:  $\bigcirc 50\text{mm}-500\text{mm}$

Square tube:  $\square 50\text{mm}-350\text{mm}$

Weight of single tube: 1500kg

## Four Heavy-duty Chucks

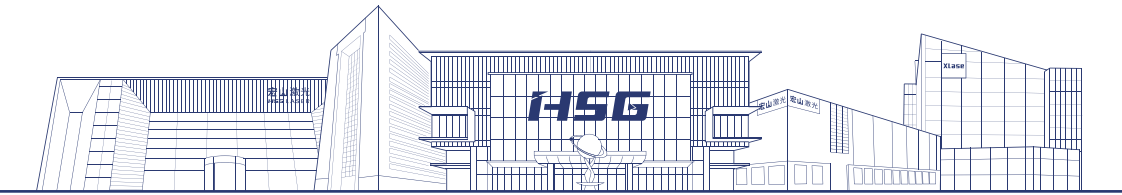
Four pneumatic chucks specially engineered for  $\leq 3000\text{kg}$  heavy tube

Round tube:  $\bigcirc 80\text{mm}-660\text{mm}$

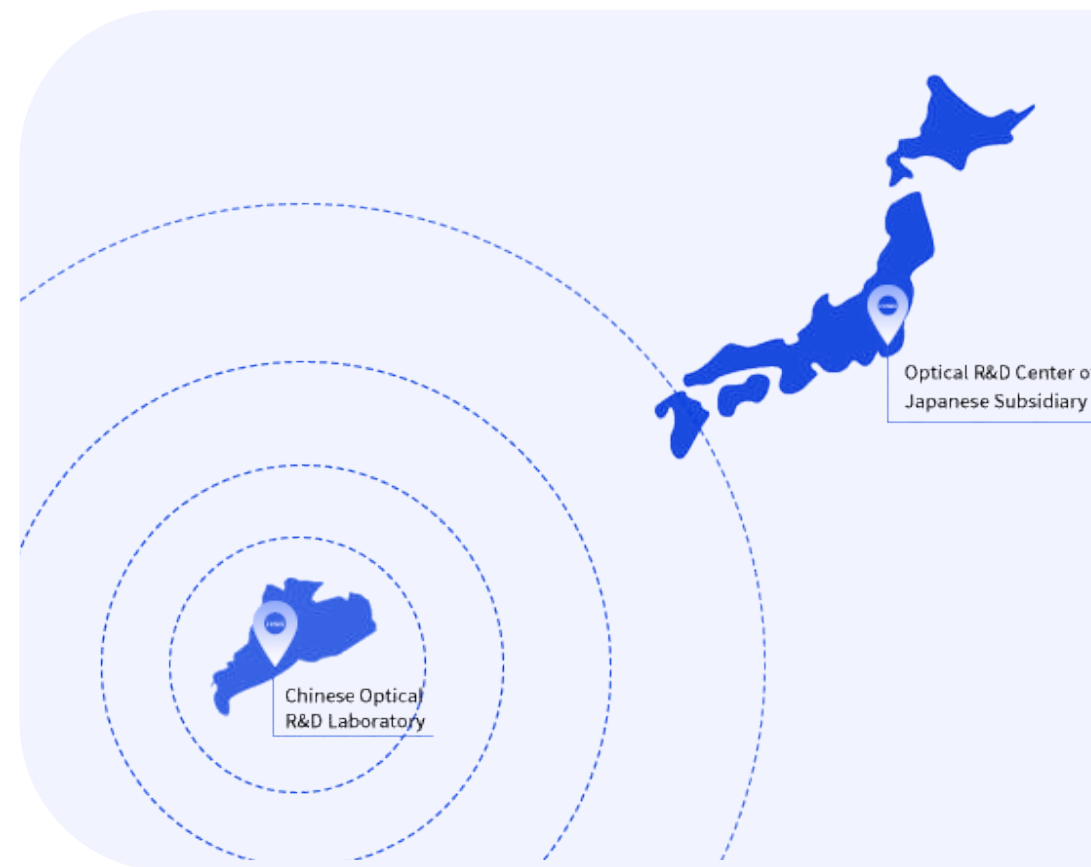
Square tube:  $\square 80\text{mm}-450\text{mm}$

Weight of single tube: 3000kg

# 3D Five-axis Cutting



➤ LA5 cutting head has the function of  $N \times 360^\circ$  rotation and  $\pm 135^\circ$  swing and moves from one plane to another safely.



Optical R&D Center of Japanese Subsidiary

Chinese Optical R&D Laboratory

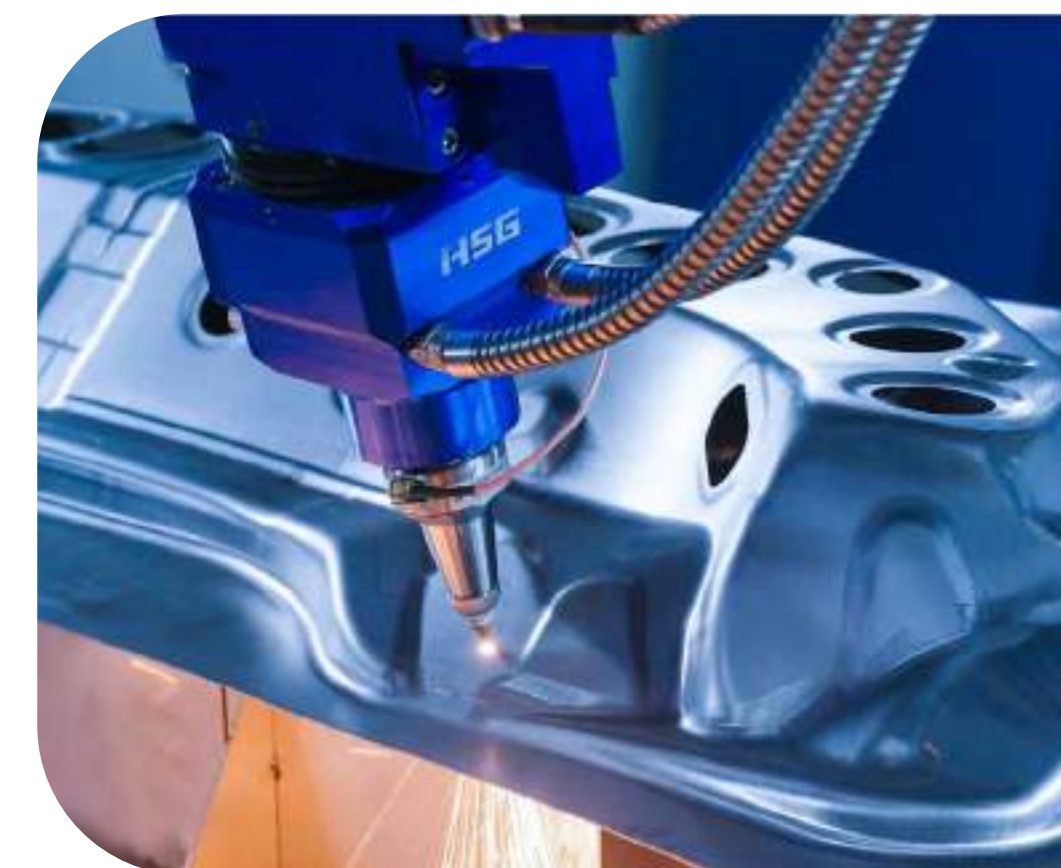
Based on optical technology of HSG's Japanese subsidiary



LA5 five-axis linkage cutting head

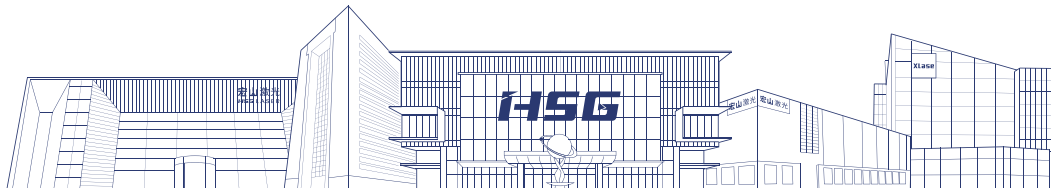


360° anti-collision device

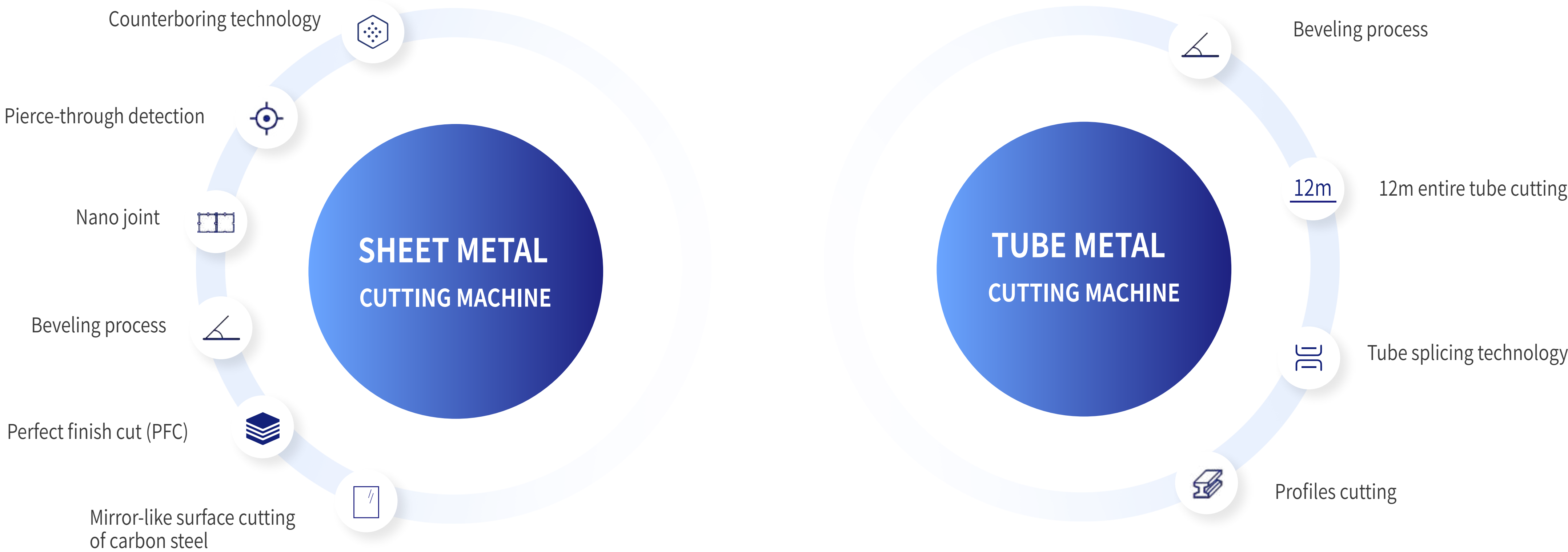


3D moving control & 3D machining technology

# Core Technologies



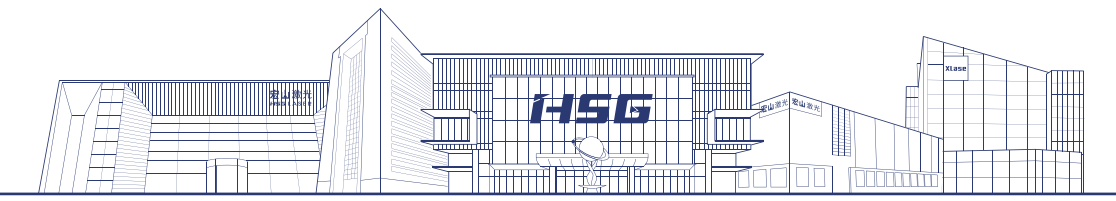
➤ HSG Laser has developed lots of sheet and tube cutting technologies based on actual demands of global customers. Our purpose is to enable our machines to work well and bring users better service.



**Knock-out Machines**



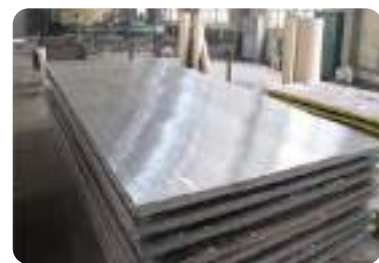
# High Power—GX Pro Series



## ➤ Efficient and Stable to Cut Thick Sheet

To cope with the thicker sheet, HSG Laser upgrades GX Series, a hot-sale model overseas, to GX Pro Series High-power Laser Cutting Machine. With power of 12000-30000W, the machine can cut 100mm thick sheet at most. As one of representative products in HSG Laser, GX Pro is much popular among oversea users.

### Applicable Industry



Metal Processing



Mechanical Equipment



Agricultural Machinery



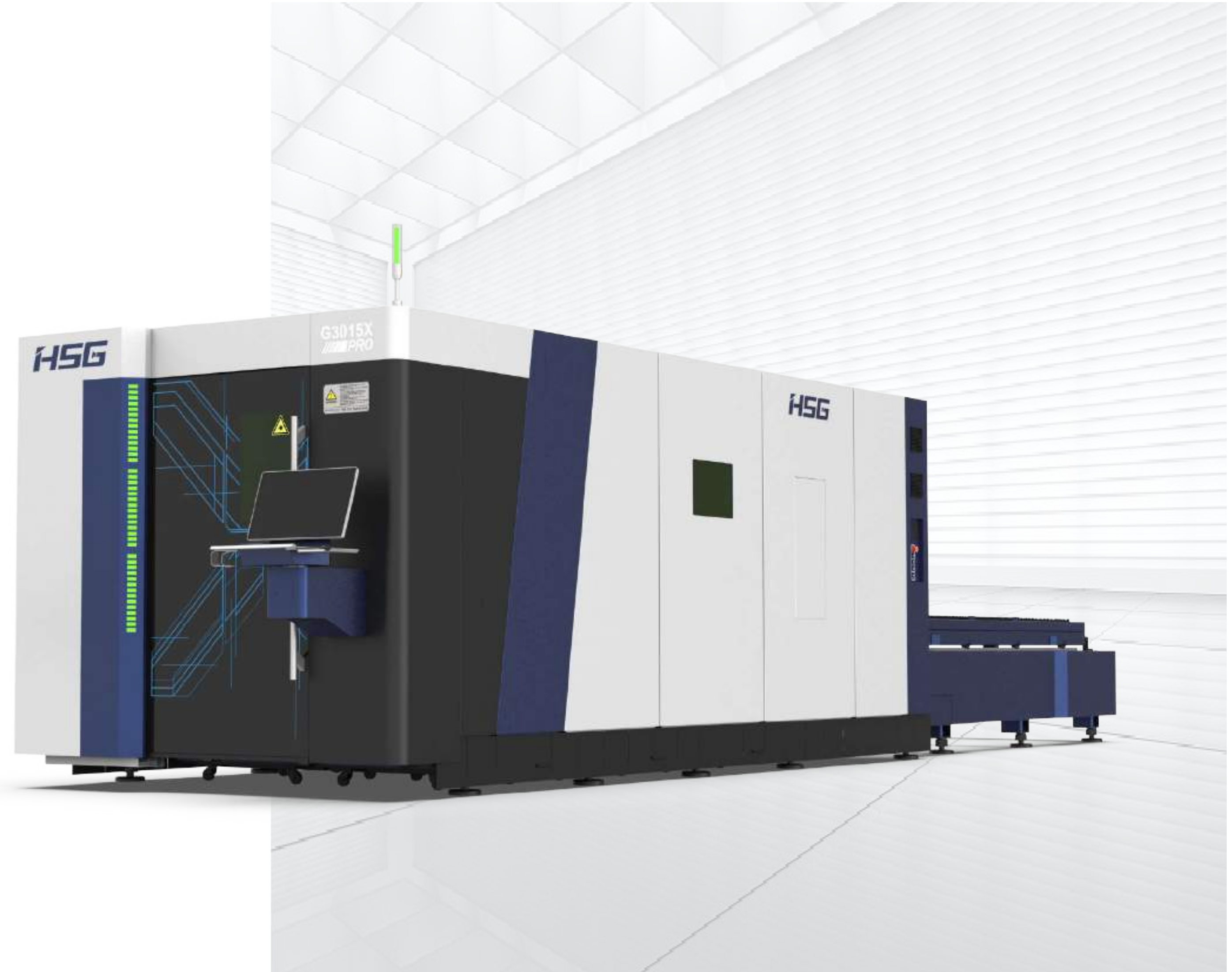
Mining Machinery



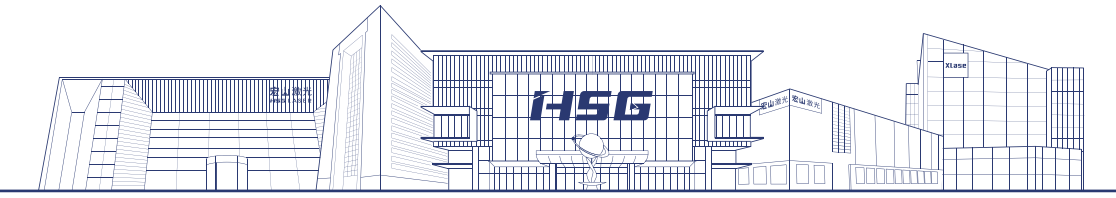
Steel Structure



Shipbuilding



# Heavy-duty Tube—TX Series



## ➤ Cut Heavy and Long Tube

With bus-based control system and 3+1 twin-chuck clamping of heavy tube, TX series is therefore honored with national invention patent. With the ability to cut and unload 12000mm entire tube, this machine speeds up heavy tube processing, avoids material waste and makes entire tube cutting possible.

### Applicable Industry



Engineering Machinery



Rail Transit



Steel Structure



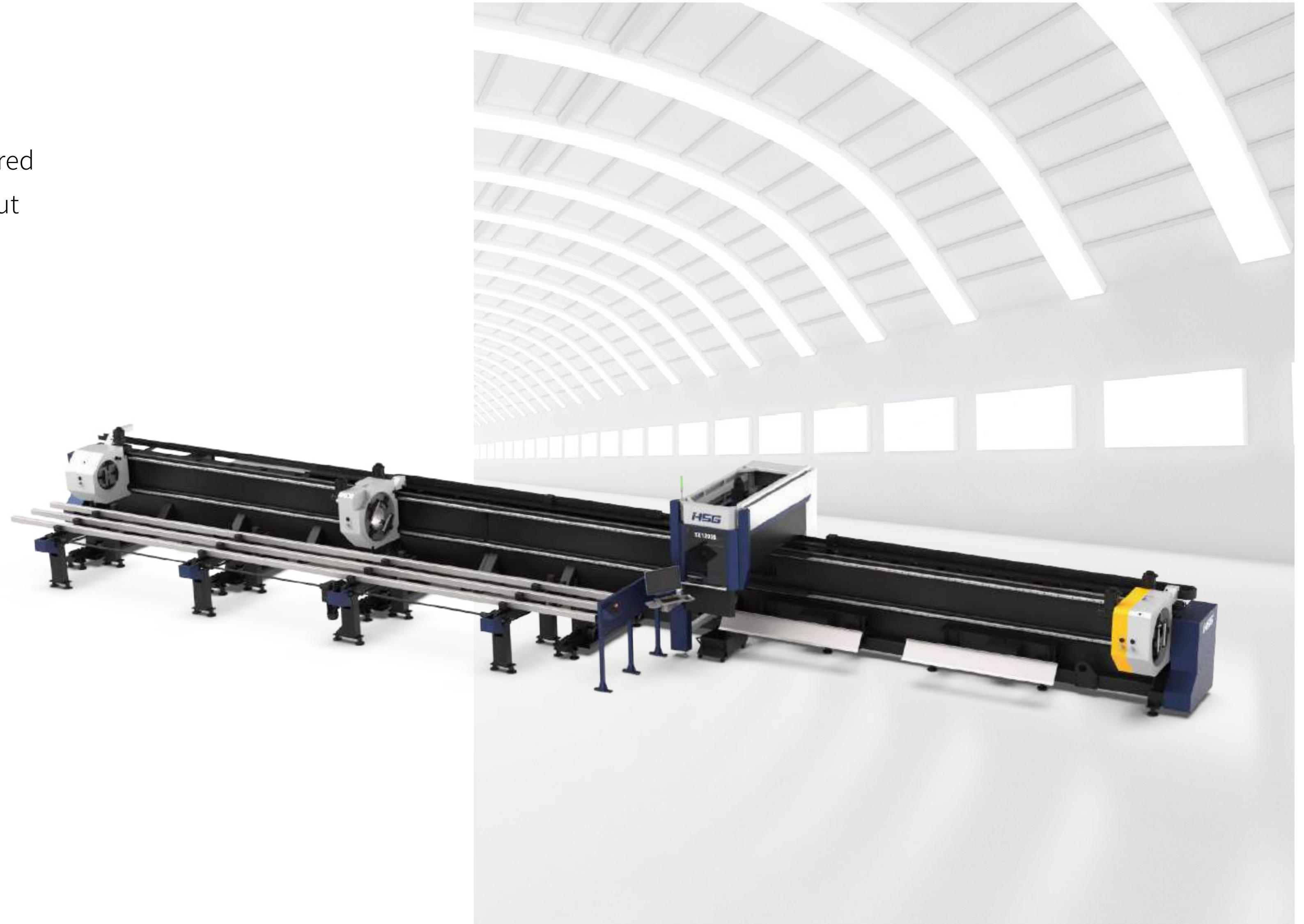
Stereo Garage



Elevator Manufacturing

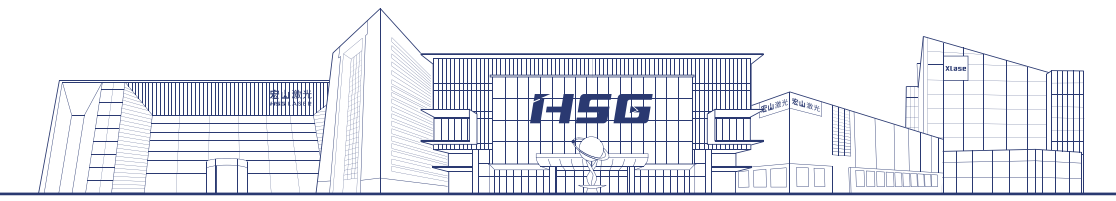


Recreation Facility





# 3D Five-axis Cutting—Cell Series



## ➤ 3D Five-axis Cutting Technology Thanks to Continuous R&D Investments

With independent research on multi-axis moving control, CNC algorithm and optical technology required by 3D five-axis cutting, HSG Laser launches Cell 3015G Series 3D Five-axis Laser Cutting Machine. Its LA5 cutting head features 360° rotation and  $\pm 135^\circ$  swing, self-adaptive focusing and anti-collision function, so that it can adapt to the changing sheet thickness and protect itself roundly.

### Applicable Industry



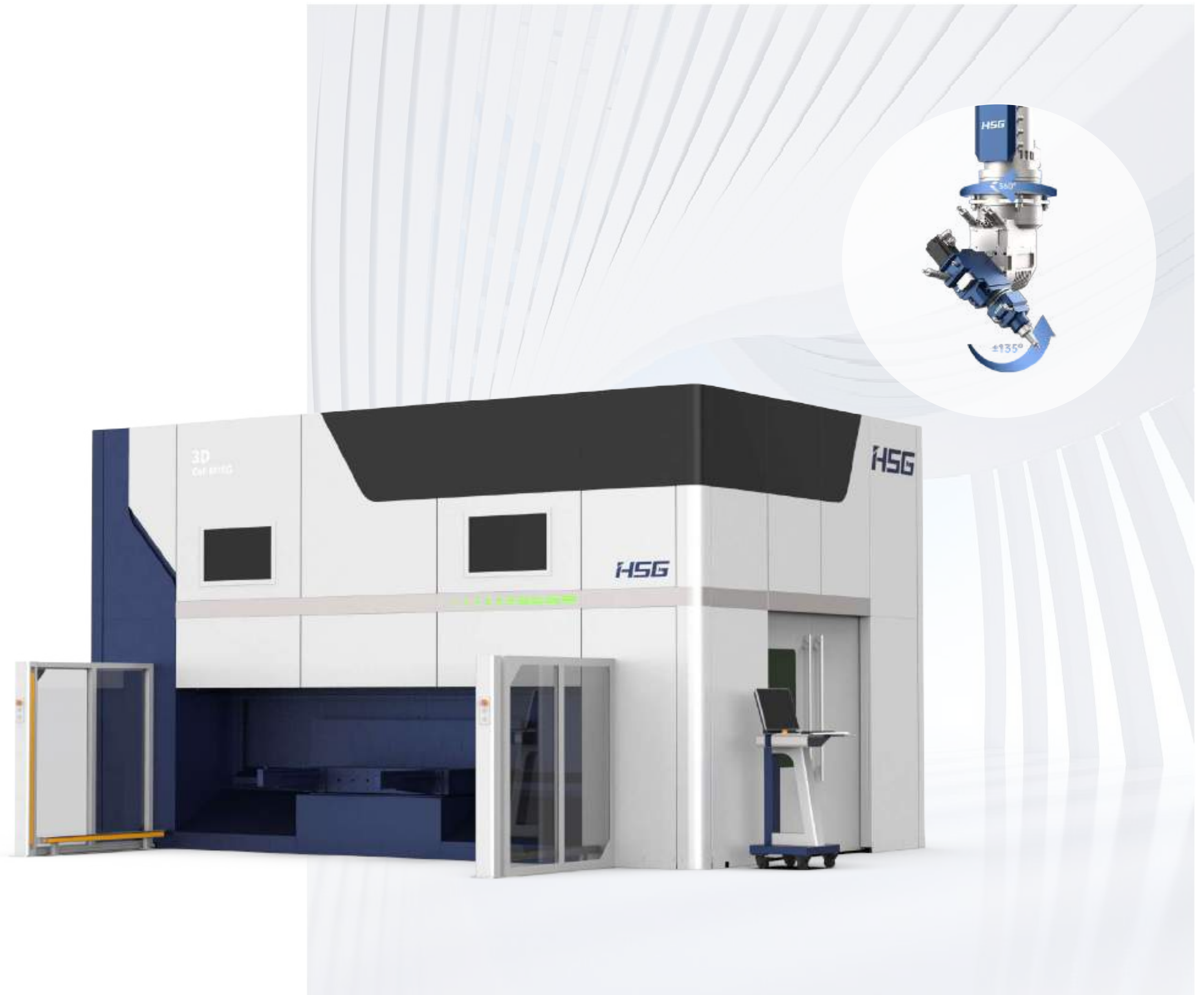
Automobile Manufacturing



Special-shaped Tube Cutting



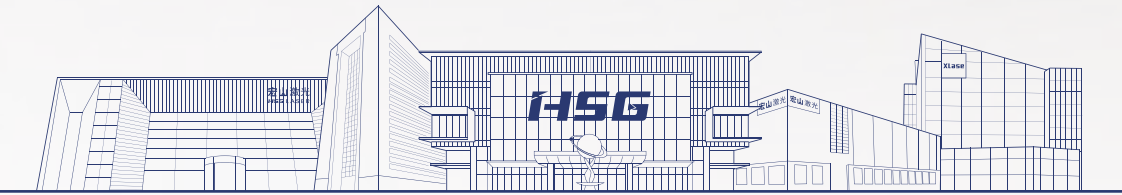
Mold Making



# Featured Products



# Sheet Metals Laser Cutting Machines







## High Power



High Power 12000-30000W

### GX-PRO





-  Alpha T Bus Control System
-  Bus Follow-up Response Technology
-  Optional Linear Motor
-  Bus-based Laser Cutting Heads

## 3D Five-axis







3D Five-axis Cutting 3000W

### CELL

-  FANUC Five-axis Linkage Control System
-  LA5 Five-axis Linkage Cutting Head
-  Double-station Turn Table
-  Two Interlocking Safety Doors




### GX

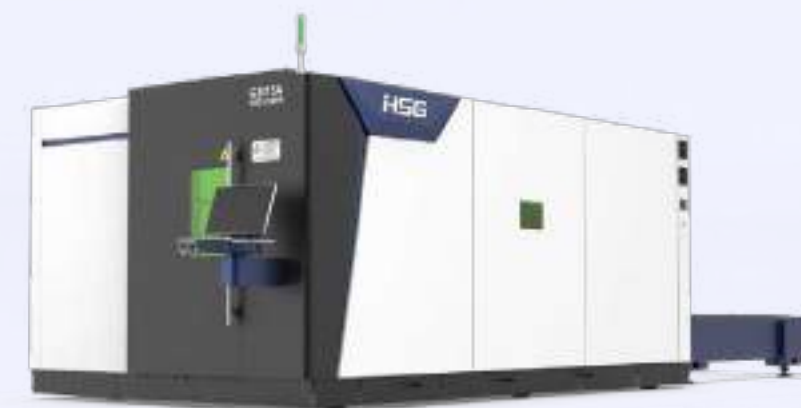
-  Alpha T Bus Control System
-  Fully-protective Structure, Eco-friendly Cutting
-  40HQ Standard Container Transport
-  German WITTENSTEIN Alpha Speed Reducer



Double Exchange Platforms 3000-6000W




### GA

-  Alpha T Bus Control System
-  Bus Follow-up Response Technology
-  Pre-crash Beam and Extruded Aluminum Beam



Double Exchange Platforms 3000-6000W

### GC




-  Alpha T Bus Control System
-  Production Process Database
-  Professional Nesting Software

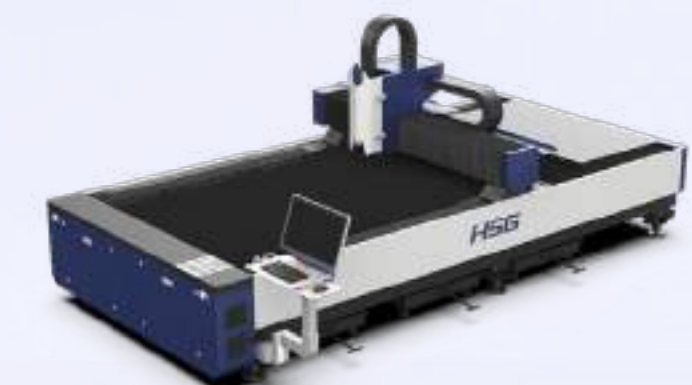


Single Platform 1500-6000W

## Medium power

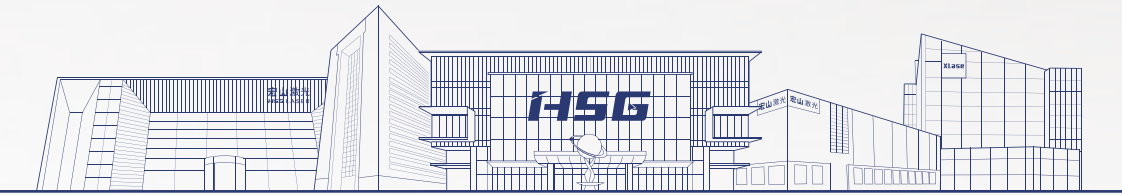
### C3015

-  Alpha T Bus Control System
-  Extruded Aluminum Beam
-  Ship Four C3015 in One 40HQ Standard Container



Economical Single Platform 1500-6000W

# Tube Metals Laser Cutting Machines



≤1500kg

3+1 twin chucks



Heavy-duty Tube

## TX

- 3+1 Twin-chuck Clamping
- Sectional-type Machine Bed
- Dust Removal

## TS

- Cut Tubes at High Speed
- Tube Splicing Technology
- Intelligent Digital Chucks
- Automatic Unloading Device



High Speed

## TM

- Born for Cutting Small Tube
- Automatic Loading and Unloading Device
- DIN6 Transmission Precision
- Millisecond-level Follow-up Response Technology



Tiny Tube

## R3

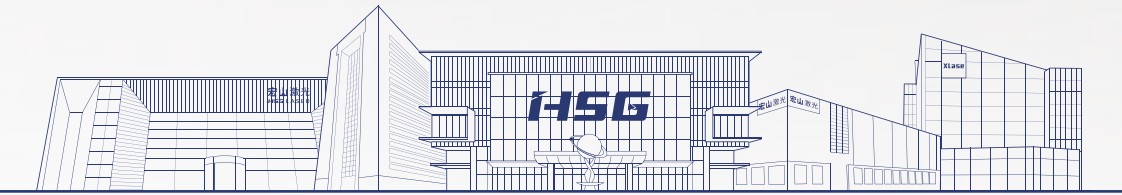
- HSG-X Bus-based Control System
- DIN6 Transmission Precision
- Cut with Short Tailing
- 40HQ Standard Container Transport



Economical





Double chucks

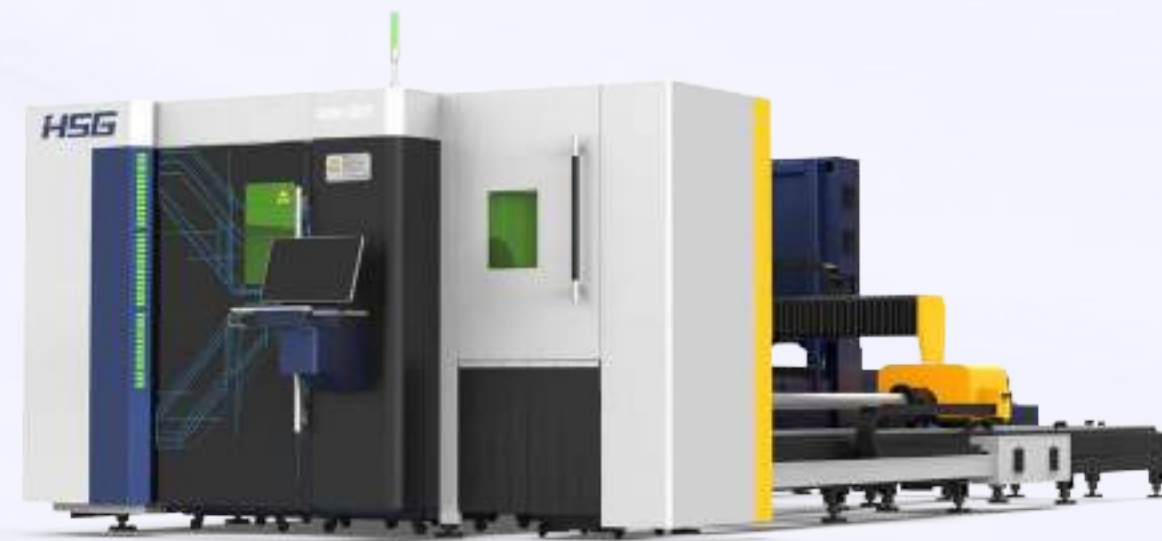
# Sheet & Tube Metals Laser Cutting Machines



Medium Power





## ■ GXE

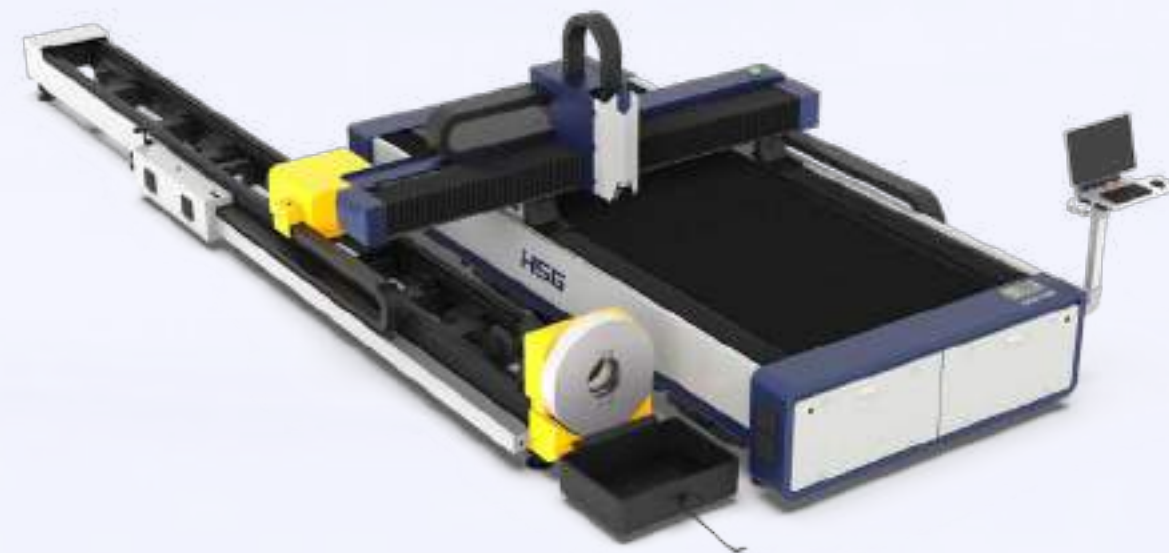
-  Alpha A Control System
-  Double Fully-automatic Pneumatic Chucks
-  German WITTENSTEIN Alpha Speed Reducer
-  Double Exchange Platforms Taper Pins Positioning



Double Exchange Platforms 1500-6600W





## ■ GB

-  Alpha A Control System
-  Bus Follow-up Response Technology
-  Professional Nesting Software
-  Production Process Database



Single Platform 1500-6600W

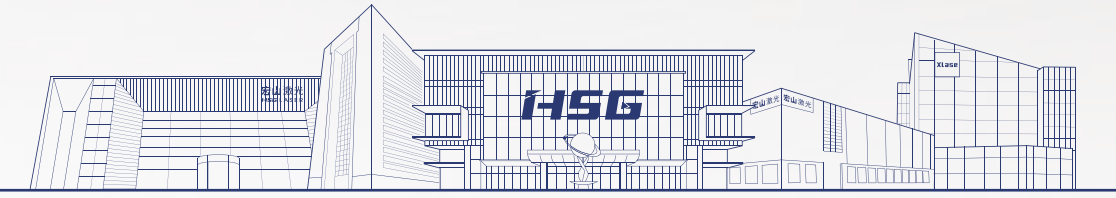
## ■ GE

-  Alpha A Control System
-  325mm Large-caliber Pneumatic Chucks
-  Double Exchange Platforms, Taper Pins Positioning
-  Zoning Ventilation, Eco-friendly Cutting



Double Exchange Platforms 3000-6600W

# Bending Machine and Welding Machines



## Bending

HC



Electro Hydraulic Servo Bending Machine

## Bending Center

BC-P



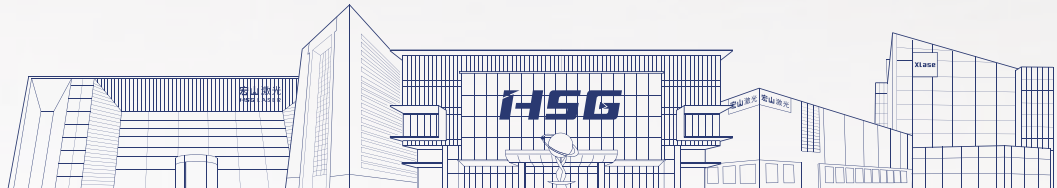
Flexible Bending Center

## Welding

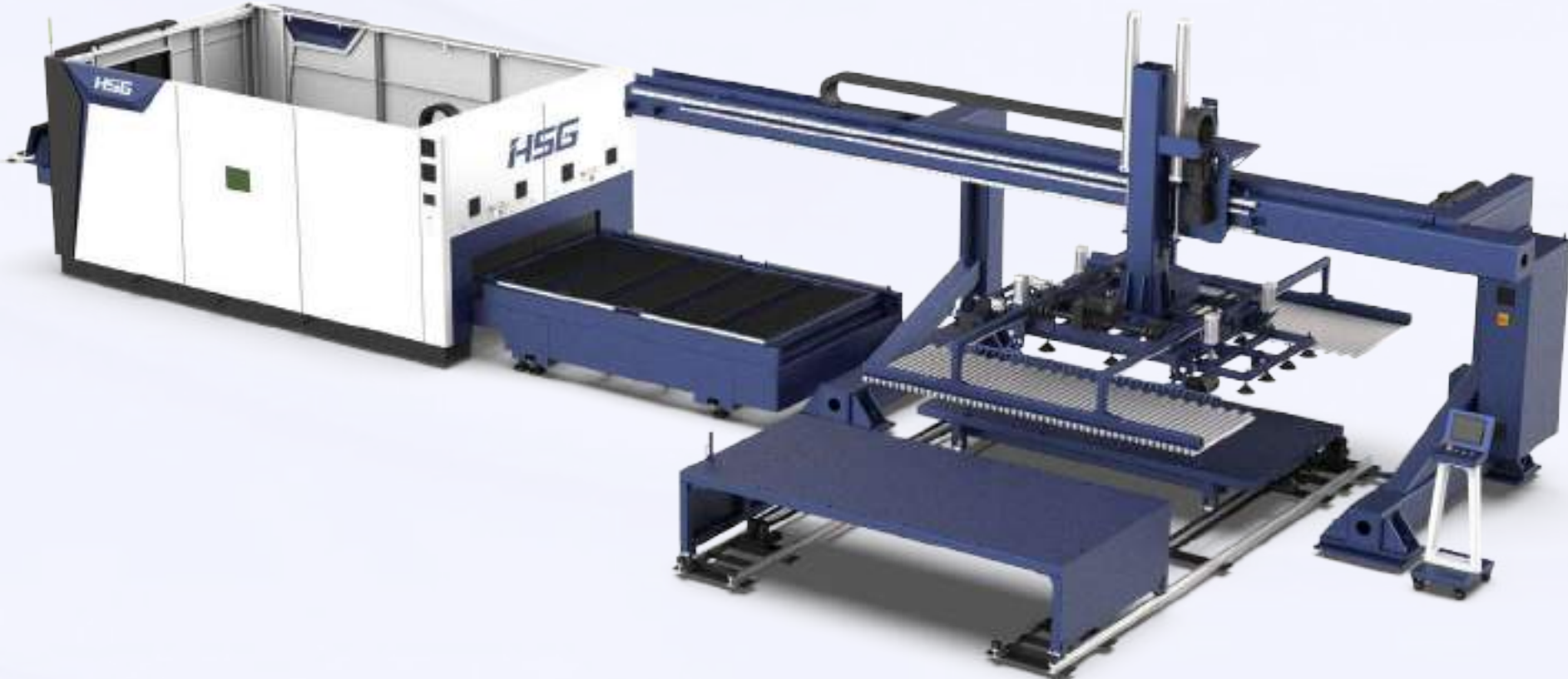
FMW



Handheld Laser Welding Machine

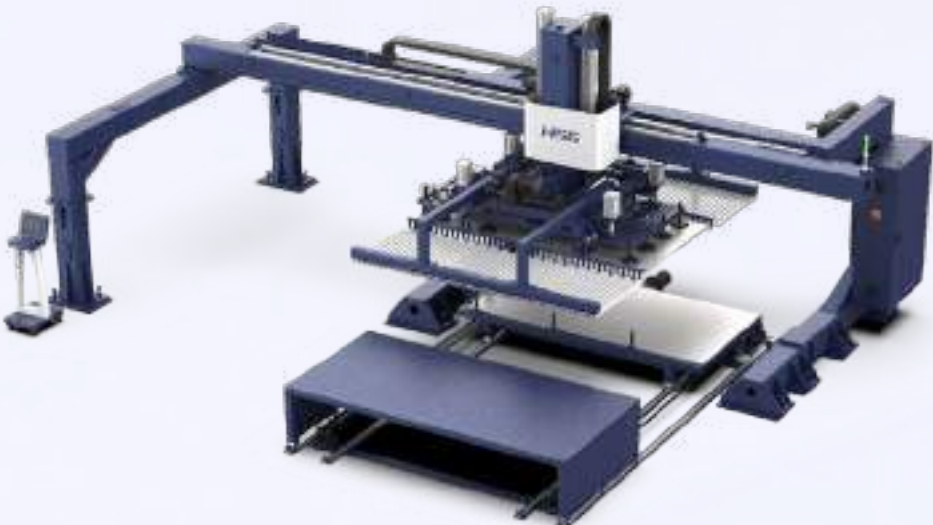


## ■ ALG200



Automatic Loading & Unloading System

## ■ ALG400



Automatic Loading & Unloading System

## ■ ARW



Automatic Pallet Racks

**After-sales Service**





# After-sales Service



## Special Training for Green Hands

We will train all new customers online and offline in terms of cutting technology and operation.



## All-round Assisting Service

HSG after-sales service co-exists with machines for sale. HSG Laser, as a machine housekeeper, will have all machines in its heart. Both online and offline services are part of our all-round service system.



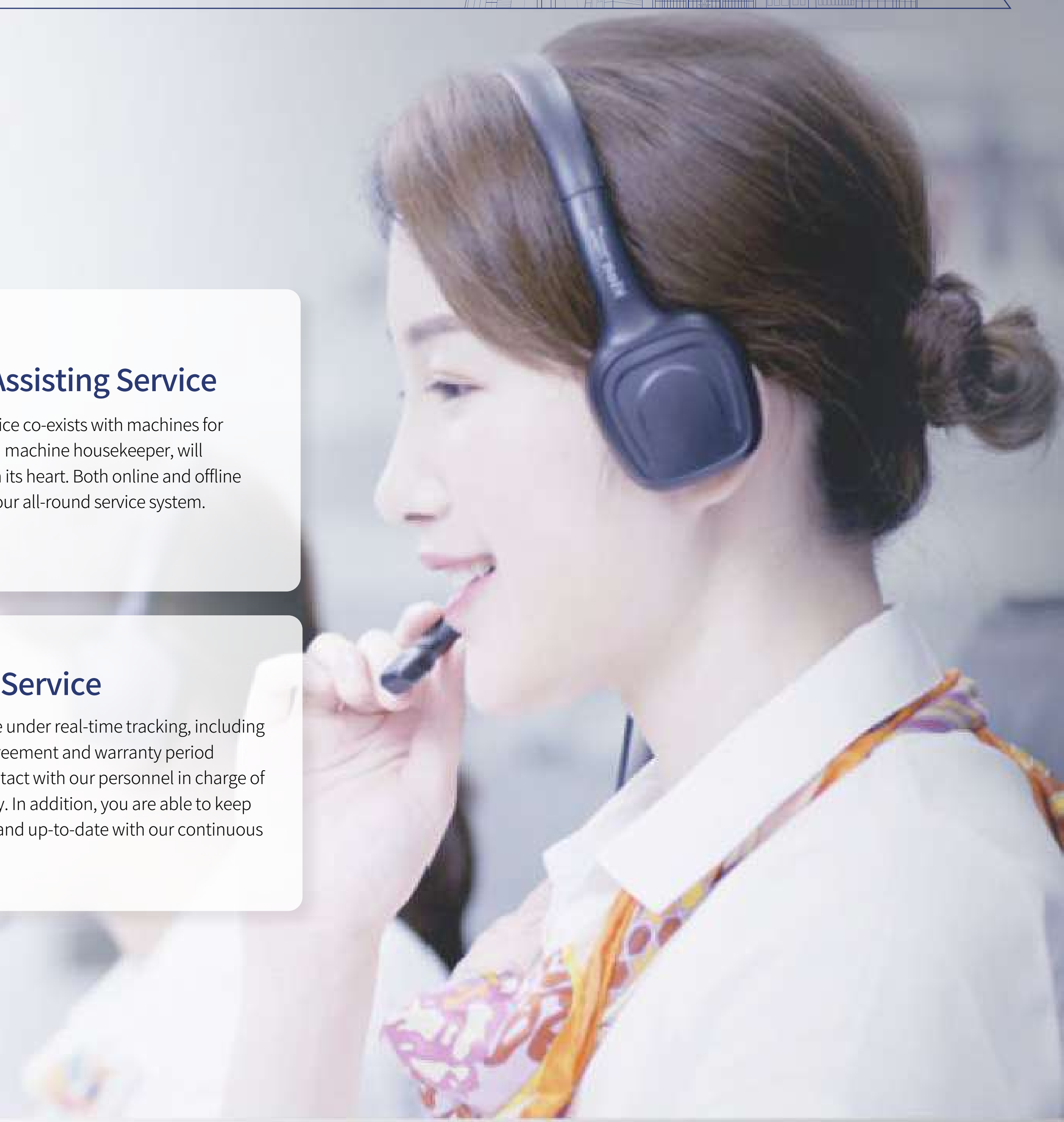
## Considerate Service

Our customer service staff are on duty for 7\*24h throughout the year. They have prepared to serve every customer anytime and anywhere.



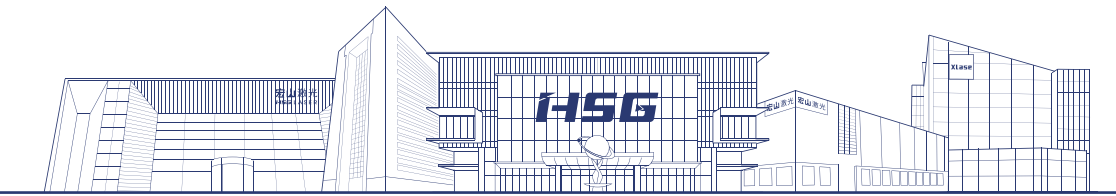
## HSG Cloud Service

All your products are under real-time tracking, including software, service agreement and warranty period validity. You can contact with our personnel in charge of your location quickly. In addition, you are able to keep your machine fresh and up-to-date with our continuous software upgrades.



# Customer Cases





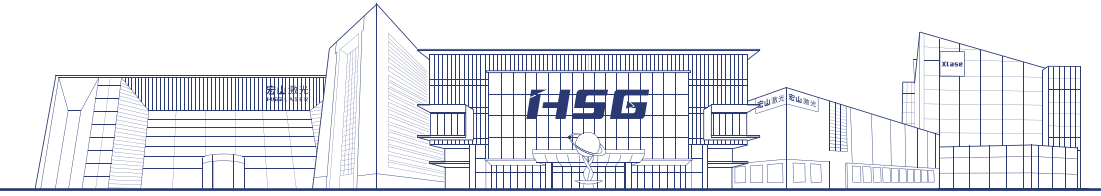
Location:

## Changsha, China

Cutting Material	Diameter/Side length	Wall Thickness	Length
Round tube	120-300mm	$\leq 10\text{mm}$	$\leq 12\text{m}$
Rectangular tube	$\leq 200\text{mm}$	$\leq 10\text{mm}$	$\leq 12\text{m}$
H-shaped steel	$\leq 200\text{mm}$	$\leq 10\text{mm}$	$\leq 12\text{m}$

**1** Cutting material: heavy tubes for construction equipment.

**2** Self material processing achieved from outsourced.



Location:

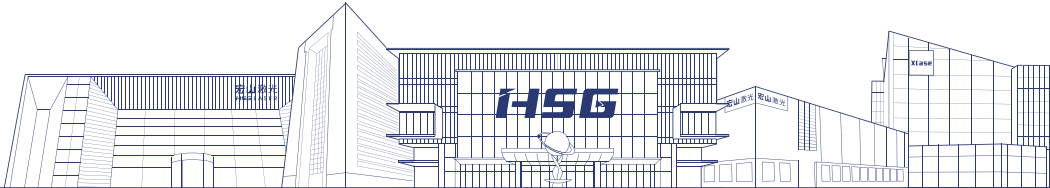
**Turkey**



Location:

**Israel**

# North America

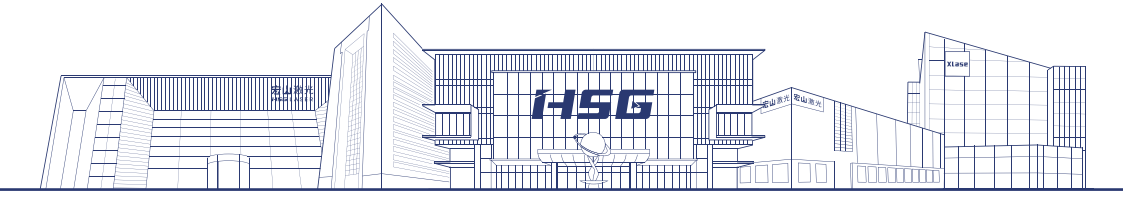


Location:  
**Canada**



Location:  
**USA**

# Europe



Location:

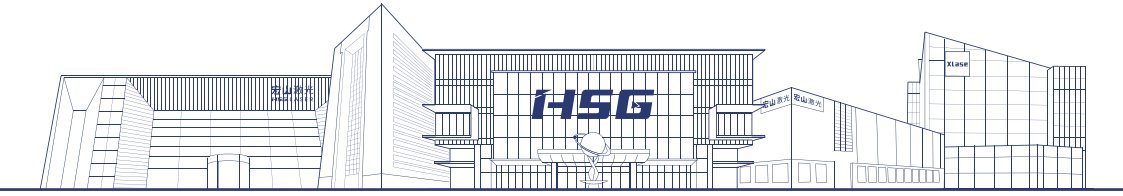
**Bolgaria**



Location:

**Denmark**

# Europe



Location:

**Argentina**



Location:

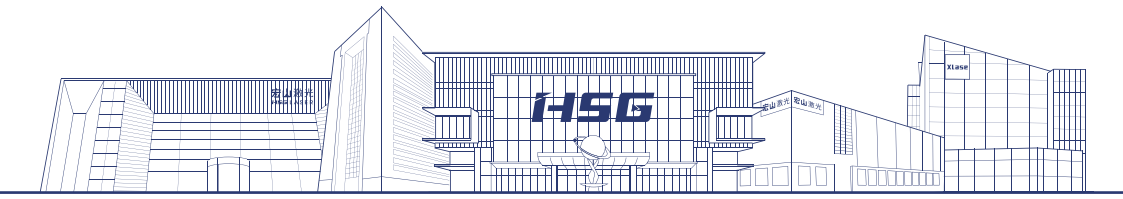
**Colombia**



Location:

**Brazil**

# Customer Cases



Mexico

Saudi Arabia

Turkey

Turkey

Vietnam



# Intelligent Manufacturing Changes Future



| 2022.12 |



FACEBOOK



YouTube



Company website

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Email: [info@hsglaser.com](mailto:info@hsglaser.com)

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Beijiao Town, Shunde District, Foshan, Guangdong, China

