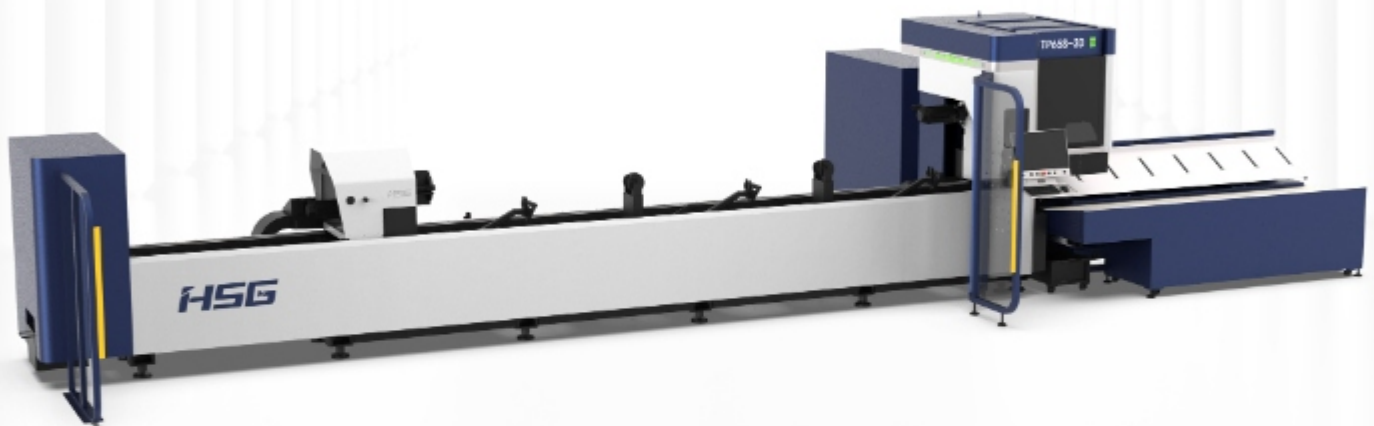


CUTTING WITH MAX. 45° BEVEL

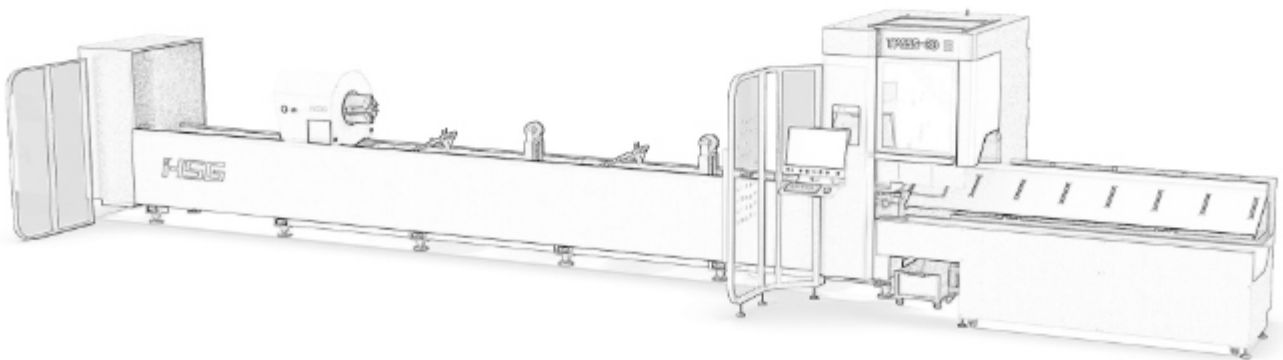
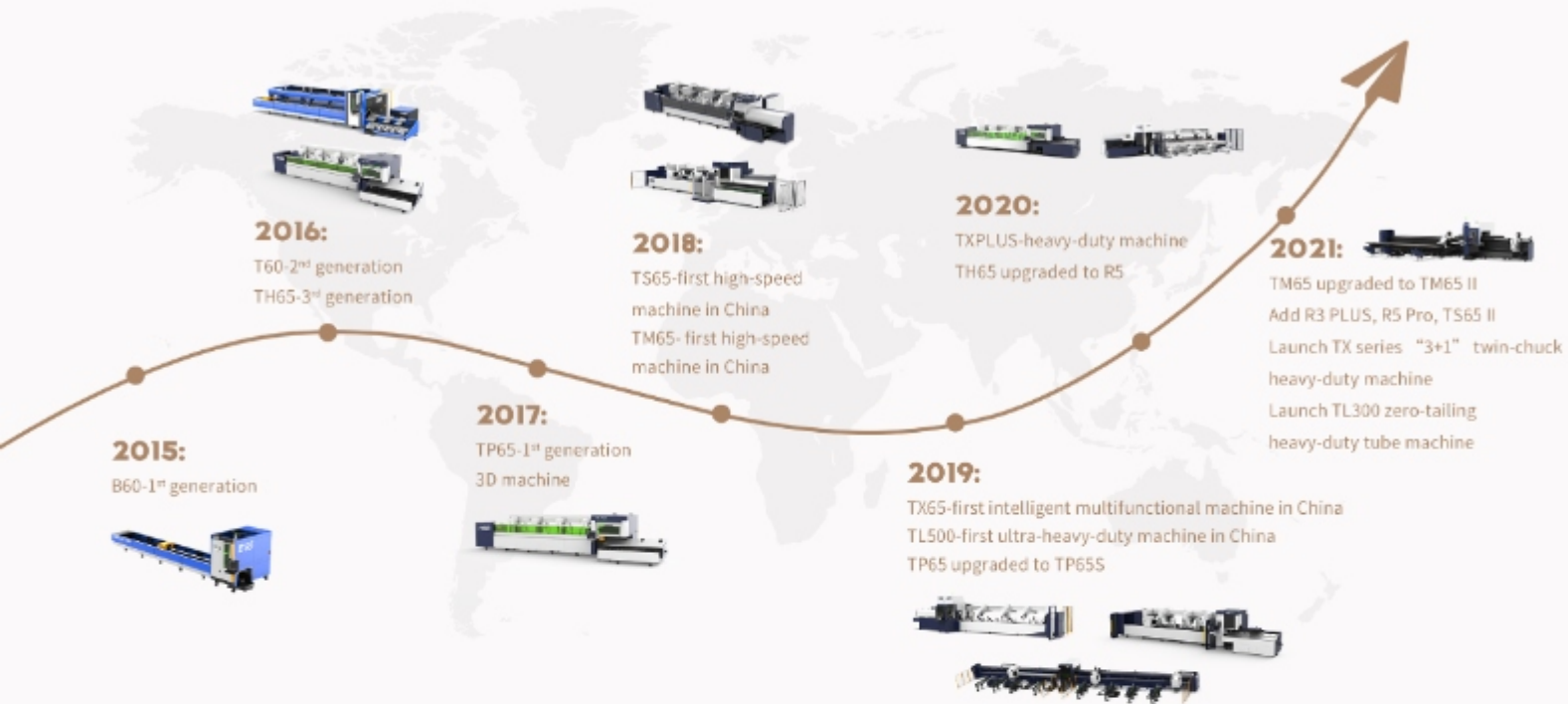


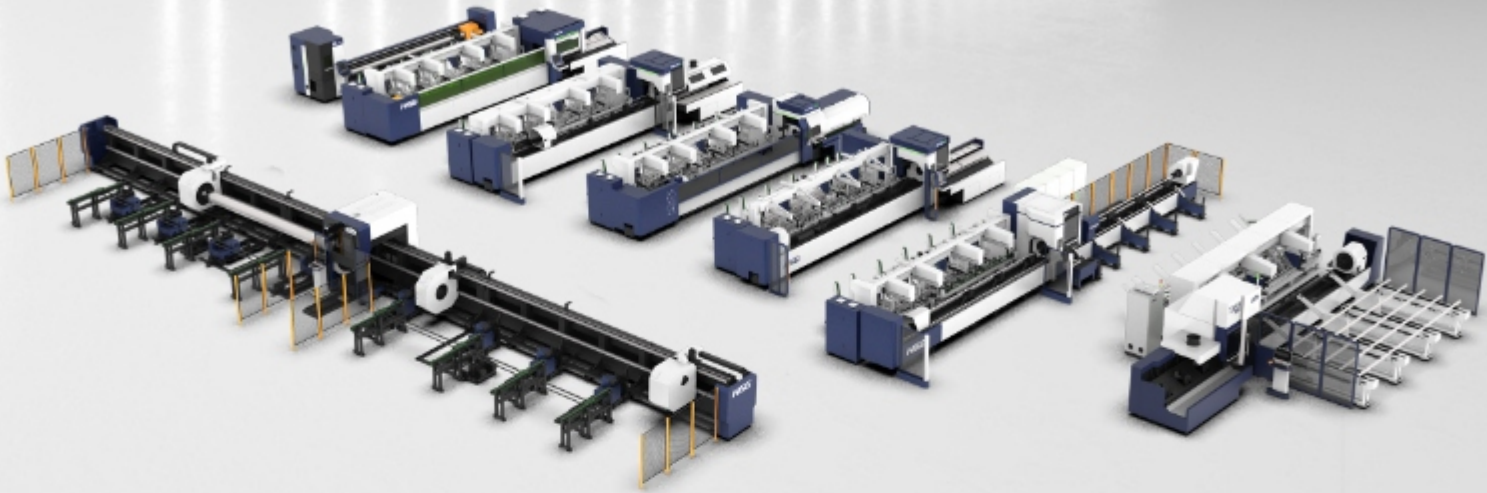
TPS

Professional Bevel Tube Laser Cutting Machine 1500-4000W

Technical Parameter	TP65S	TP80S
Power	1500-4000W	1500-4000W
Max. No-load Speed	140m/min	140m/min
Max. Chuck Speed	120r/min	120r/min
X/Y-axis Positioning Accuracy	±0.03mm/m	±0.03mm/m
X/Y-axis Repositioning Accuracy	±0.03mm	±0.03mm
Max. Acceleration	1.2G	1.2G
Max. Cutting Capacity	Round tubeΦ20-273mm, square tube □20*20-200*200mm, rectangular tube: diagonal≤254mm	Round tubeΦ20-273mm, square tube □20*20-200*200mm, rectangular tube: diagonal≤254mm
Max. Length of Tube	6500mm	8000mm
Min. Length of Tailing	220mm	220mm
Max. Weight of Single Tube	200kg	200kg
Overall Dimensions (L*W*H), without Loading Racks	12500*3000*2600mm	13700*3000*2600mm

DEVELOPMENT HISTORY





OUR CURRENT TUBE LASER CUTTING MACHINES



Many different models



High degree of automation



Real 0 tailing



Balance tiny tubes (50kg) and ultra-heavy (1000kg+) tubes well

	Model	Max. Range of Chucks	Max. Weight of Single Tube	Min. Tailing Length	Bevel Cutting
Economical	R3/R3 PLUS	R3: $\varnothing 20-219\text{MM}$ R3 PLUS: $\varnothing 20-325\text{MM}$	R3: 100KG R3 PLUS: 200KG	R3: 85MM R3 PLUS: 110MM	X
	R5/R5 PRO	$\varnothing 20-254\text{MM}$	200KG	R5: 190MM R5 PRO: 50MM	X
Professional	TM65/TM65 II	TM65: $\varnothing 10-100\text{MM}$ TM65 II: $\varnothing 10-160\text{MM}$	50KG	TM65: 125MM TM65 II: 50MM	X
	T565 II	$\varnothing 12-273\text{MM}$	200KG	130MM	X
	TP5	$\varnothing 20-273\text{MM}$	200KG	220MM	✓
	TX PLUS	$\varnothing 20-325\text{MM}$	600KG	80MM	X
Special Applications	NEW TX	$\varnothing 20-360\text{MM}$	1200KG	0	X
	TL300	$\varnothing 20-254\text{MM}$	300KG	0	X
	TL500	$\varnothing 80-426\text{MM}$	1500KG	0	X



TOP 1

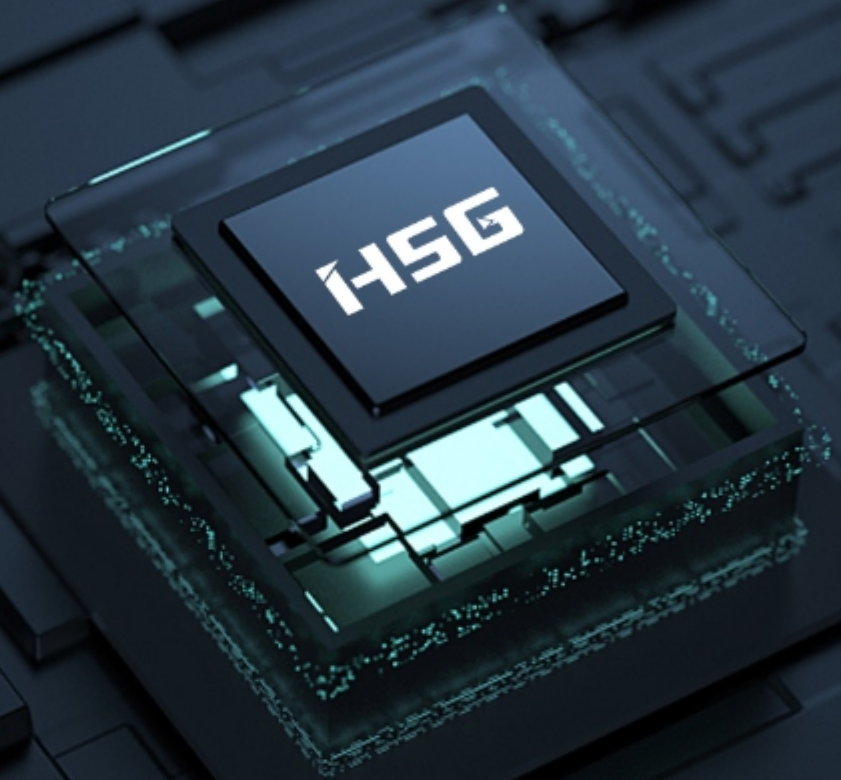


WHY CHOOSE TPS?

- 🏆 One of our tube machines with high cutting capacity
- 🏆 Cut with both 45° bevel and various special-shaped tubes
- 🏆 Balance cutting speed and quality well with SPEED+ cutting
- 🏆 Fit for metal processing, fitness equipment, goods shelves, truss, bicycle, aerial cage, vehicle frame, etc.



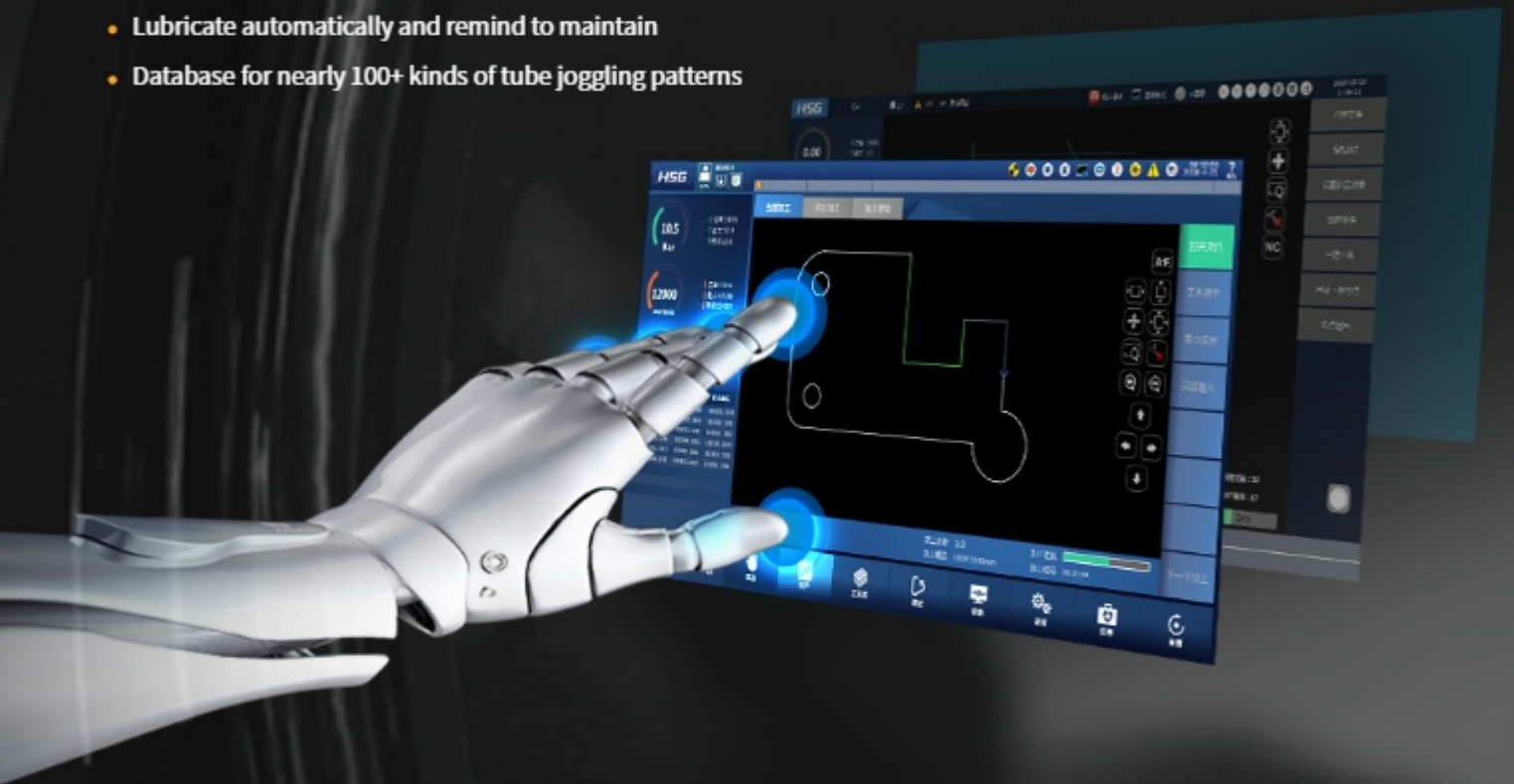
OUR FAMILY OF TUBE CUTTING CONTROL SYSTEMS



Year	Generation	Name	Features	Applicable Models
2015	I	HSG-X8800	Stable and reliable	TH65
2016	II	HSG-X8900	Allow functional customization	TS65
2017	III	HSG-X9000 BUS CNC SYSTEM	Upgrade from automation to intellectualization	R3/R3 PLUS, R5/R5 Pro, TM65/TM65 II, TX PLUS
2018	IV	HSG-X9500	Serve subdivided areas	TPS
2019	V	HSG-X9800	Special for four chucks and 0 tailing	TL300, TL500, NEW TX
2020	VI	HSG-XMT	First multi-touch operating system in China	TS65 II

HSG-X9500 INTELLIGENT CONTROL SYSTEM

- 21.5-inch touch screen
- Show real-time cutting data
- Detect core accessories, give warning if abnormal
- Lubricate automatically and remind to maintain
- Database for nearly 100+ kinds of tube joggling patterns



1
Simply-designed UI

2
Intelligent detection
and control

3
Integrated components
management

4
Give alarm if abnormal



Active obstacle avoidance

Max. 45° bevel

Flying cutting with leapfrog

Efficiency improved

3D FIVE-AXIS LASER CUTTING HEAD

- Self-developed by HSG LASER
- Easy to cut bevel in batch by five-axis linkage CNC technology
- Improve efficiency by 50% while cutting square tubes by minimizing its moving path



SPEED+ CUTTING TECHNOLOGY



- Our unique SPEED+ cutting technology, with X/Y/B-axis fast interpolation, can improve cutting efficiency by 40% while cutting intensive minimal graphs compared with conventional cutting pattern.

CUTTING SPECIAL-SHAPED TUBES



Drop-shaped tube



Triangular tube



Trapezoidal tube



D-shaped tube



Fan-shaped tube



L-shaped tube



Concave tube



H-shaped tube



HIGH-PRECISION INTELLIGENT DIGITAL CHUCKS

- 🌀 Round tubes $\Phi 20-273\text{mm}$
- 🌀 Square tubes $\square 20*20-200*200\text{mm}$
- 🌀 Rectangular diagonal $\leq 254\text{mm}$
- 🌀 Max. weight of single tube 200kg



One-button start of exchange



One-button start of exchange

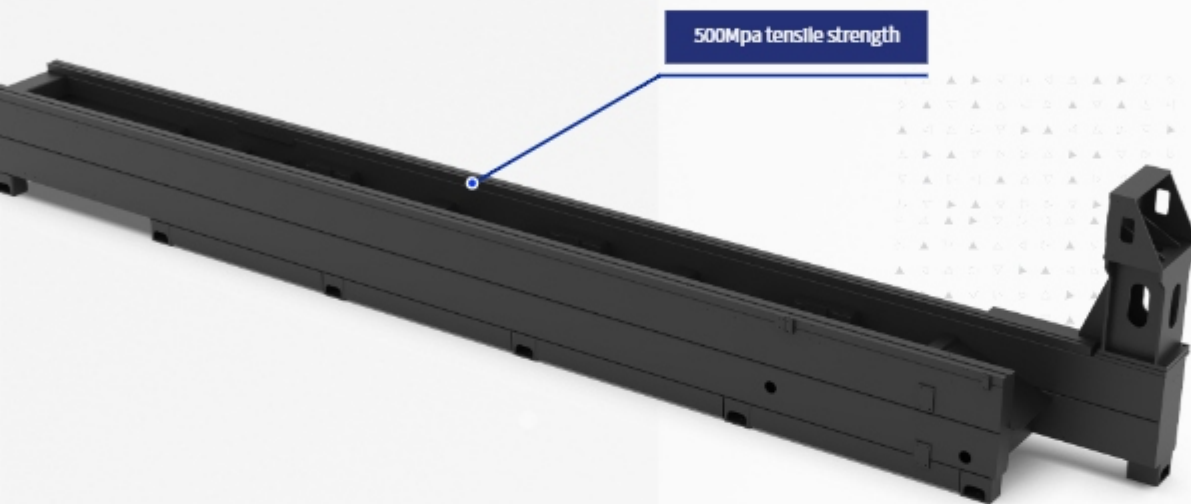
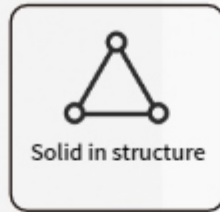


One-button start of exchange



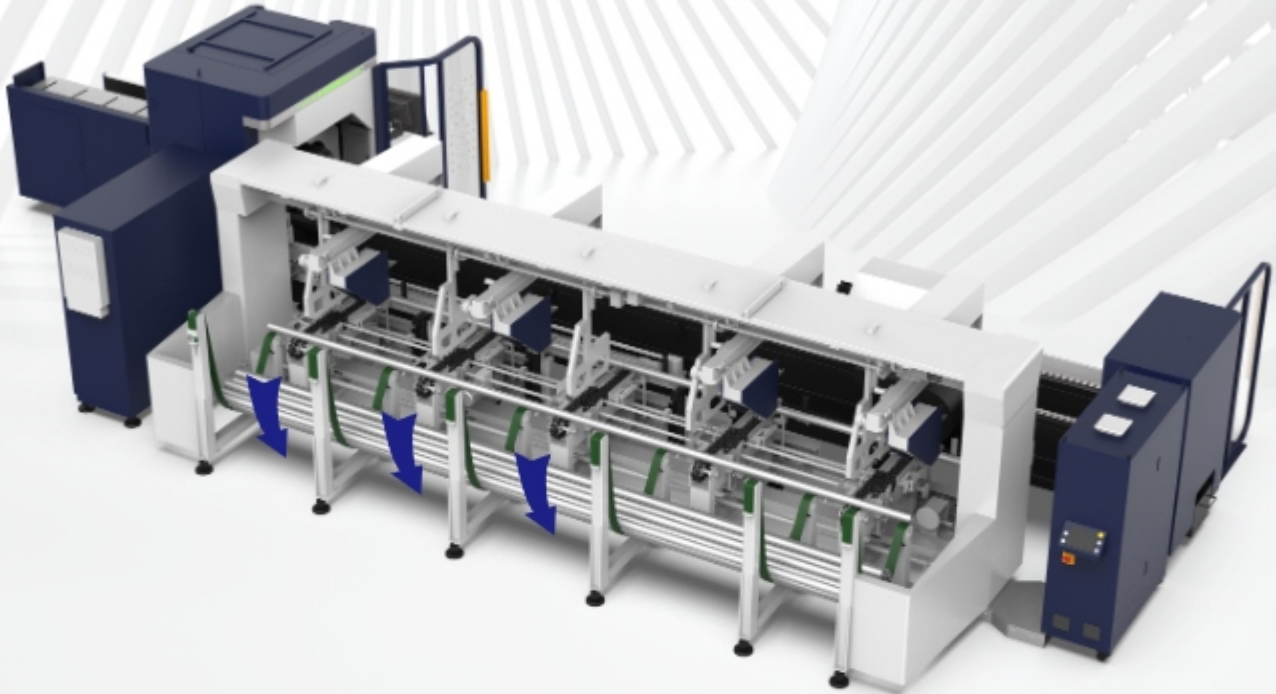
One-button start of exchange

- 🌀 3 times faster than electric chucks by one-key opening & clamping
- 🌀 Clamp conventional tubes, profiles like channel and angle steel, and special-shaped tubes
- 🌀 Detecting sensor for front & rear chuck opening & clamping, preventing any collision
- 🌀 Front & rear chuck ventilation, with no smoke dust



INTEGRATED MACHINE BED

- The machine bed is made of high-quality carbon steel, of which tensile strength is 500Mpa.
- Welding stress is completely relieved by annealing, vibration aging and natural aging, so as to keep itself in shape even after long-term working.



INTELLIGENT UNLOADING DEVICE



Improve processing
efficiency



Save labor costs



Increase material
utilization



Reduce labor intensity

- 🌀 Separate finished products from scraps, and collect offcuts and wastes automatically
- 🌀 Tube follow-up support and righting device can protect tubes from scratch, swing or collision



Simple programming



Wide range of application



Minimize material waste

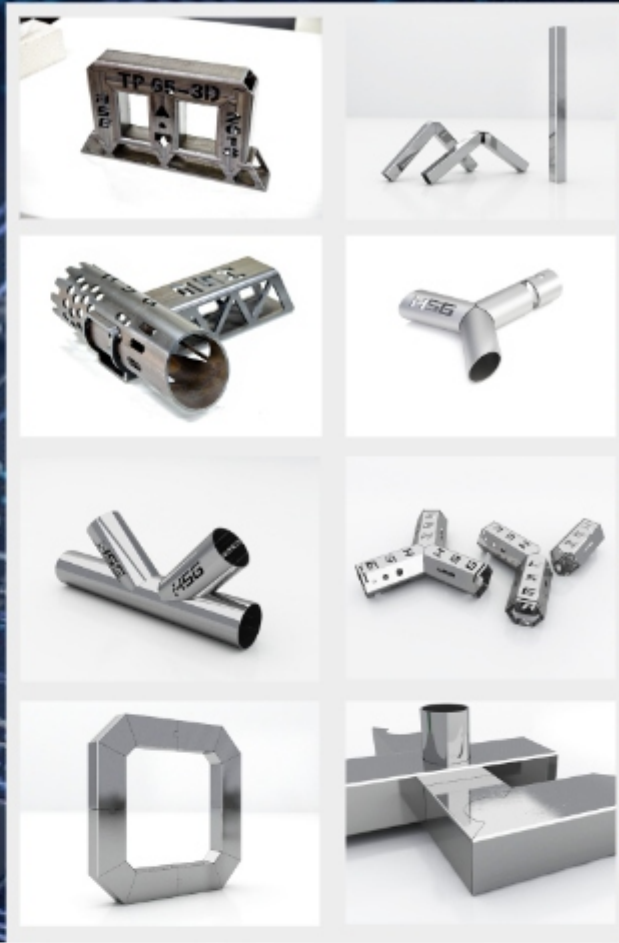


Improve cutting efficiency

SIGMATUBE NESTING SOFTWARE

- ⊞ Automatic programming and nesting for conventional tubes and profiles
- ⊞ In support of bevel cutting and analysis of bevel features
- ⊞ Build cutting path from model
- ⊞ Identify scraps and create production reports automatically

HSG

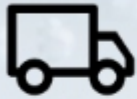


RICH TUBE CUTTING LIBRARY

HSG-X9500 intelligent control system offers nearly 100 kinds of tube joggling patterns, for convenience of subsequent welding.

- Splicing of male and female head of square tube
- 90° arc splicing
- Splicing of round tube tee
- Splicing of cut-through holes
- 45° splicing of hexagon
- Splicing of angle iron and channel steel

HIGH-STANDARD PACKAGE



Meet ocean shipping criteria

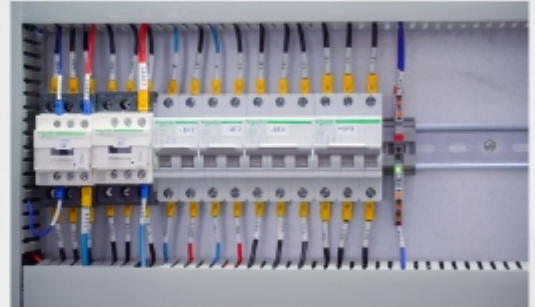


\$1500 higher than other peers in packaging expenses

- 📦 To keep entire machine safe during long-distance sea transport, we adopt high-standard package, incl. aluminum foil, metal framework, fumigation wooden case, anti-rust oil+oilpaper, moisture-barrier bag, waterproof plastic film and filling foam.



STANDARD WIRING



CE

CE-compliant
electrical cabinet



No worry about
wiring error



Much safer In
operation

- 📦 The integrated electrical cabinet caters to EU CE standards and separates weak current from strong current area to prevent electromagnetic interference, dust entry and possible ignition.
- 📦 External control elements are equipped with Phoenix pluggable fail-safe wiring terminal.
- 📦 Every line matches with its own code. The optical fiber line, gas hose, water hose, strong current line and weak current line in wiring duct are arranged in different zones to prevent signal interference and frictional loss among lines.

FAMOUS-BRAND CORE COMPONENTS



JAPANESE BRAND

Speed reducer (incl, gear wheels)



TAIWAN BRANDS

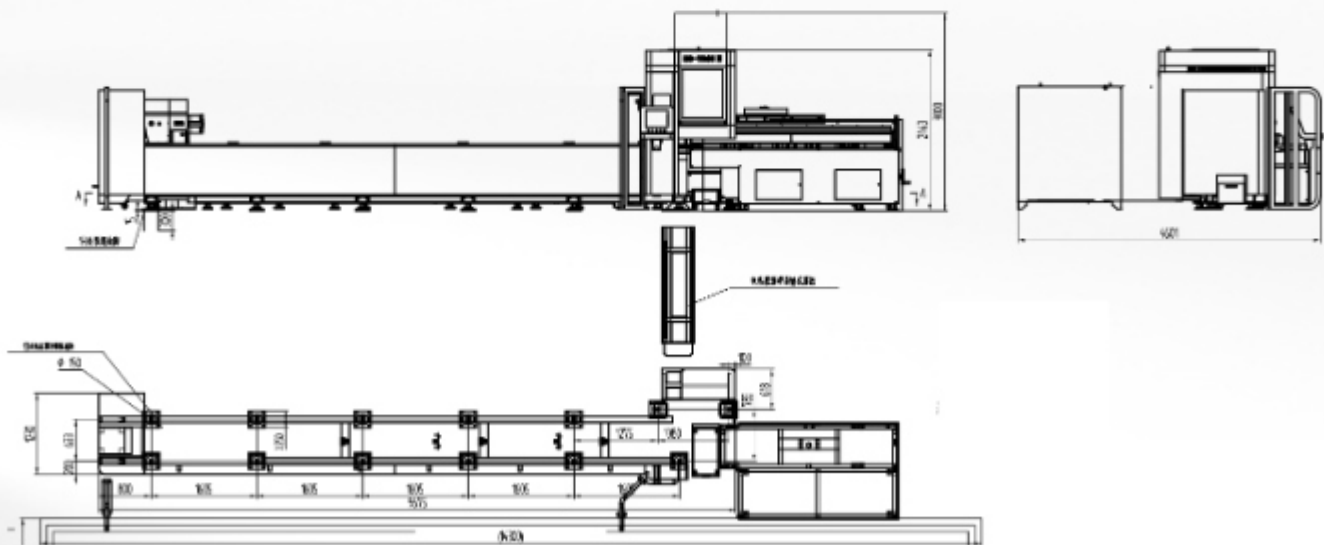
High-precision racks and linear guides



CUTTING SAMPLES



MACHINE FOUNDATION





HSG LASER

Intelligent Manufacturing Changes Future

HI-TECH ENTERPRISE IN CHINA

HSG Laser, founded in 2006 as a hi-tech enterprise focusing on R&D, production and sales of laser equipment, is dedicated to serve global customers with intelligent metal forming solutions.



33 patents for invention



316 patents in total

SERVE 100+ COUNTRIES AND REGIONS



4

Standardized manufacturing bases in China

80000m² +

Total area of production factories

5000+

Annual productivity

3000+

Global sales in 2020

1500+

Employees

170+

R&D personnel

10

Branches/subsidiaries/sub-subsidiaries

30+

Service outlets overseas







R&D

ACHIEVEMENTS

- * 3D five-axis bevel cutting technology
- * P30 ultra-high-power intelligent laser cutting head
- * Intelligent digital four chucks
- * Alpha T bus system
- * HSG-XMT multi-touch operating system



MACHINES AVAILABLE FOR SALE

-  Sheet metal laser cutting machines
-  Sheet & tube laser cutting machines
-  Tube metal laser cutting machines
-  Bending machines
-  Welding machine
-  Automation devices



STRICT IN QUALITY CONTROL FLOW



PROFESSIONAL AFTER-SALES SERVICE



One-year Warranty

All unit components are warranted for 1-year, except items listed in the Exclusions section below. Our after-sales engineer or local agent will supply new or remanufactured component of equal or better quality to replace the failed one.

Exclusions

Unit components subjected to normal wear during the Warranty Period are not covered by warranty, including:

1. Nozzle
2. Protective lens
3. Ceramic ring

Machine breakdown caused by part handling/misuse or corrosion due to exposure to caustic materials, voids the warranty.

Component failure caused by customer misuse/abuse of the unit (e.g. using incompatible materials or wrong axial position settings), voids the warranty.



TABLE OF TUBE THICKNESS AND CUTTING SPEED							
Material name	Thickness (mm)	IPG CUTTING SPEED (m/min)			Raycus CUTTING SPEED (m/min)		
		1500W	3000W	4000W	1500W	3000W	4000W
Carbon steel (O ₂)	1	6.0-11.0	7.0-12.0	7.0-12.0	6.0-11.0	7.0-12.0	7.0-12.0
	2	5.0-6.6	5.0-7.0	5.0-7.2	5.0-6.6	5.0-7.0	5.0-7.2
	3	3.0-3.6	3.5-5.0	3.5-5.3	3.0-3.6	3.5-5.0	3.5-5.3
	4	2.0-3.0	3.0-4.2	3.0-4.4	2.0-3.0	3.0-4.2	3.0-4.4
	5	1.8-2.4	2.5-3.6	2.5-3.8	1.8-2.4	2.5-3.6	2.5-3.8
	6	1.5-2.0	2.4-3.0	2.4-3.2	1.5-2.0	2.4-3.0	2.4-3.2
	8	1.0-1.3	1.8-2.4	1.8-2.6	1.0-1.3	1.8-2.4	1.8-2.6
	10		1.2-1.8	1.2-1.9		1.2-1.8	1.2-1.9
Stainless steel (N ₂)	1	6.0-20.0	6.0-20.0	6.0-22.0	6.0-20.0	6.0-20.0	6.0-22.0
	2	5.0-9.6	5.5-17.0	5.5-27.0	5.0-9.6	5.5-17.0	5.5-27.0
	3	2.0-4.0	5.0-11.0	5.0-15.0	2.0-4.0	5.0-11.0	5.0-15.0
	4	1.0-3.0	3.0-6.0	3.0-7.5	1.0-3.0	3.0-6.0	3.0-7.5
	5	0.5-1.5	2.0-4.0	2.0-5.0	0.5-1.5	2.0-4.0	2.0-5.0
	6		1.0-3.2	1.0-4.0		1.0-3.2	1.0-4.0
	8		0.6-1.8	0.6-2.6		0.6-1.8	0.6-2.6
	10						
Aluminum alloy (N ₂)	1	6.0-20.0	6.0-20.0	6.0-22.0	6.0-20.0	6.0-20.0	6.0-22.0
	2	3.0-9.0	4.5-16.0	4.5-21.0	5.5-17.0	5.5-17.0	5.5-27.0
	3	1.0-3.0	3.0-6.0	3.0-9.0	5.0-11.0	5.0-11.0	5.0-15.0
	4		1.0-3.6	1.0-4.5		3.0-6.0	3.0-7.5
	5		1.0-2.4	1.0-3.0		2.0-4.0	2.0-5.0
	6		0.5-1.5	0.5-2.5		1.0-3.2	1.0-4.0
	8		0.3-0.7	0.3-0.7			
	10						
Brass (N ₂)	1	6.0-20.0	6.0-20.0	6.0-22.0	6.0-20.0	6.0-20.0	6.0-22.0
	2	2.0-6.0	2.0-11.0	2.0-13.0	2.0-6.0	2.0-11.0	2.0-13.0
	3	1.0-1.8	1.0-6.0	1.0-6.5	1.0-1.8	1.0-6.0	1.0-6.5
	4		1.0-4.5	1.0-5.2		1.0-4.5	1.0-5.2
	5		0.7-2.0	0.7-3.0		0.7-2.0	0.7-3.0
	6		0.5-1.6	0.5-2.0			
Red copper (O ₂)	1	6.0-12.0	6.0-20.0	6.0-22.0	6.0-12.0	6.0-20.0	6.0-22.0
	2	1.8-3.6	3.0-9.0	3.0-10.0	1.8-3.6	3.0-9.0	3.0-10.0
	3		1.0-3.0	1.0-3.5		1.0-3.0	1.0-3.5