



**POWER  
YOUR NEXT MOVE!**

# CORTE LÁSER



QLTEK®

# L SERIES

LIGTH-DUTY TUBE LASER CUTTING  
MACHINE

Note: The appearance of the pictures in this solution is for reference only, and the actual equipment shall prevail.

# Factory



**400,000**

400,000+m<sup>2</sup> Production Area



**1,500**

1,500+ Employees



**8,000**

8,000+ alta potencia

**QLTEK®**



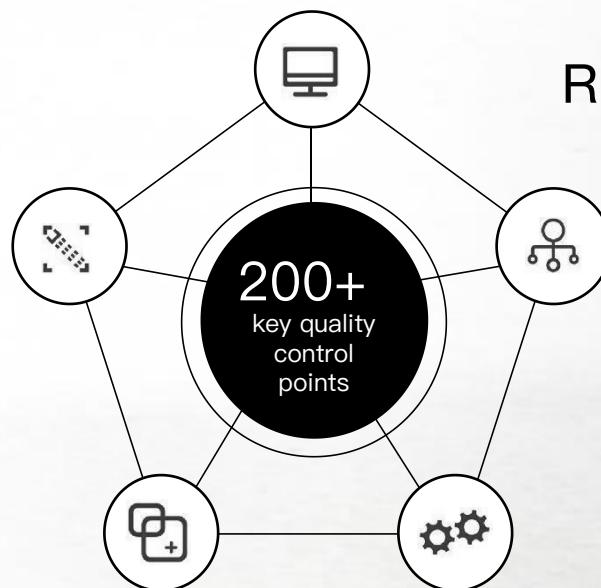
## Quality Control

At QLTEK, quality isn't a goal, it's a comprehensive system.

Thanks to our QSB (Quality System Benchmarking) end-to-end process management system and 5200 Grid quality control, we guarantee excellence at every stage of manufacturing.

**SYSTEM**  
Operating and programming software.

**OPTICAL MODULE**  
Laser and cutting head.



**REINFORCED STRUCTURE**  
Bed, beams and base.

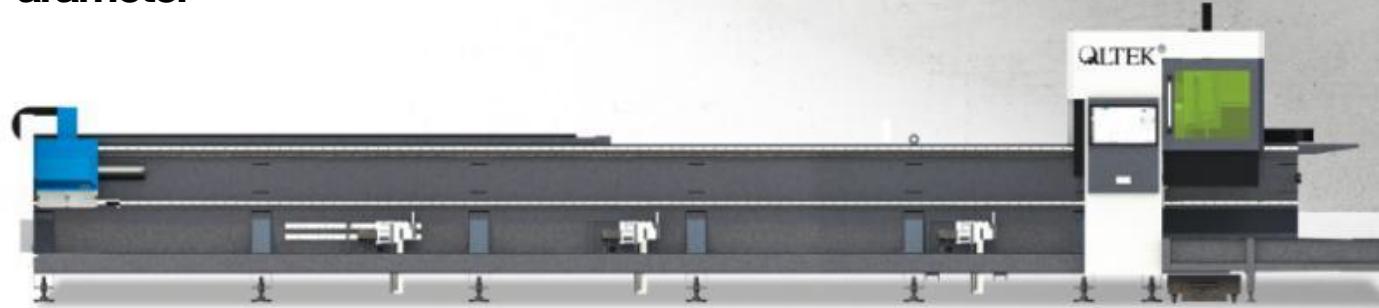
**DRIVE UNIT**  
Guide rails, racks and gears.

**Each module is designed to deliver precision, reliability, and optimal performance in demanding industrial environments.**

## Quality Control



## Technical Parameter



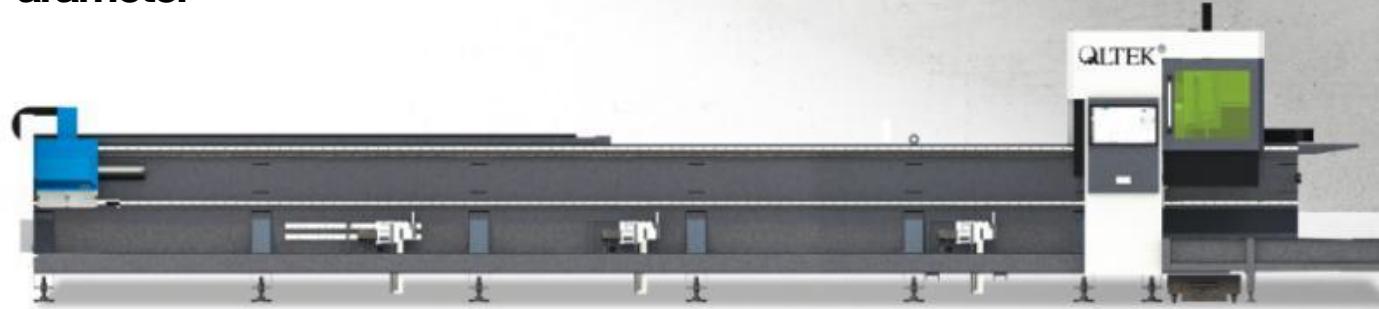
L SERIES	L2
Maximum tube length	6500mm(21.33')
Maximum rotation speed of chuck	100r/min
Max. linkage speed	100m/min(≈328ft/min)
Maximum mass of single pipe	230kg(≤38kg/m)
Waste material length	≥85mm(0.28')
Standard pipe processing range	Round tube: Φ15 mm-Φ240 mm(0.59"-9.45") Square tube: □15 mm-□240 mm(0.59"-9.45") Channel steel:5#-20#Angle steel:∠20-∠100,∠110-∠160,Nesting Software is required as an option.)
X-axis travel	300mm(0.98')
Y-axis travel	6500mm(21.33')
Z-axis travel	400mm(1.31')
B/C axis travel	Infinite rotation
X/Y axis positioning accuracy	±0.05mm/m
X/Y axis re-positioning accuracy	±0.03mm
Machine overall dimensions	9900*2080*2200mm(32.48'*6.82'*7.22')
Power	3kW

Note: The data in this table are standard configuration technical parameters, and can also be customized according to the technical requirements.

## Configuration List

No.	Item	Brand / Specification	Remarks
1	Tube laser cutting machine	L series	QLTEK
2	Rotary chuck	QLTEK	QLTEK
3	Laser cutting head	QLTEK	China
4	X/Y high-precision reducer	MOTOREDUCER	China
5	X/Y high-precision helical rack	SOTER	China
6	Linear guide rail	DTX	China
7	Fiber laser	RAYCUS	China
8	Servo motors	INOVANCE	China
9	CNC control system	L1: QLTEK 5.0EA / L2: QLTEK 5.0G	China
10	Proportional valve	SMC	Japan
11	Water chiller	TONGFEI	China

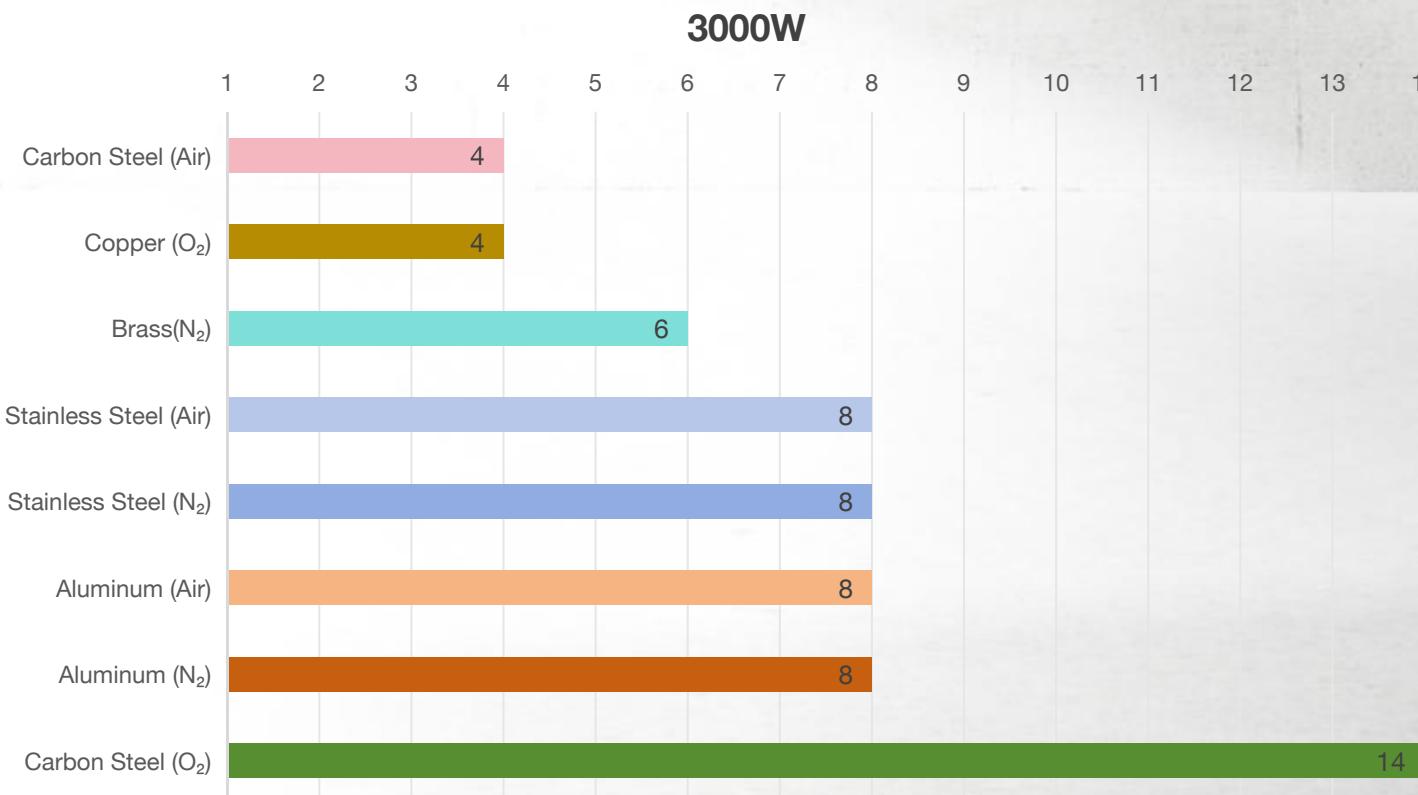
## Technical Parameter



L 2 SERIES semi Automatico parametros	Ficha tecnica de alimentación
Types of pipes	Round pipe; Square pipe; Rectangular pipe
Cross-sectional size range (unit: mm)	Round pipe: Φ20-Φ220 Square pipe: □20-□200 Rectangular pipe: 20≤Side Length≤200
Pipe length range (unit: mm)	5800-6100
Maximum number of pipes placed (unit: piece)	5
Maximum single-piece loading capacity of the loading (unit: kg)	230
Maximum single-piece loading capacity of the loading (unit: kg)	1200

Note: The data in this table are standard configuration technical parameters, and can also be customized according to the technical requirements.

## Cutting Ability



## List of accessories and Gas use for reference

Catagoria	Name	Qty/Pcs
Kits de accesories	Protective lens	≥10
	Nozzles	≥10
	ceramic ring	≥1
	Tool Box	1 set
	Fiber Protective Glass	1 set
	glasses scarf	1 set
	RFC Cable	1
	Bottom protection seal	1
	ceramic body	1
	Isopropanol	1
	Lens Cleaning Tissue	1 set
	Laser dimming photo paper	1
	Dust-free cotton swab	1
	Dust-free cloth	1

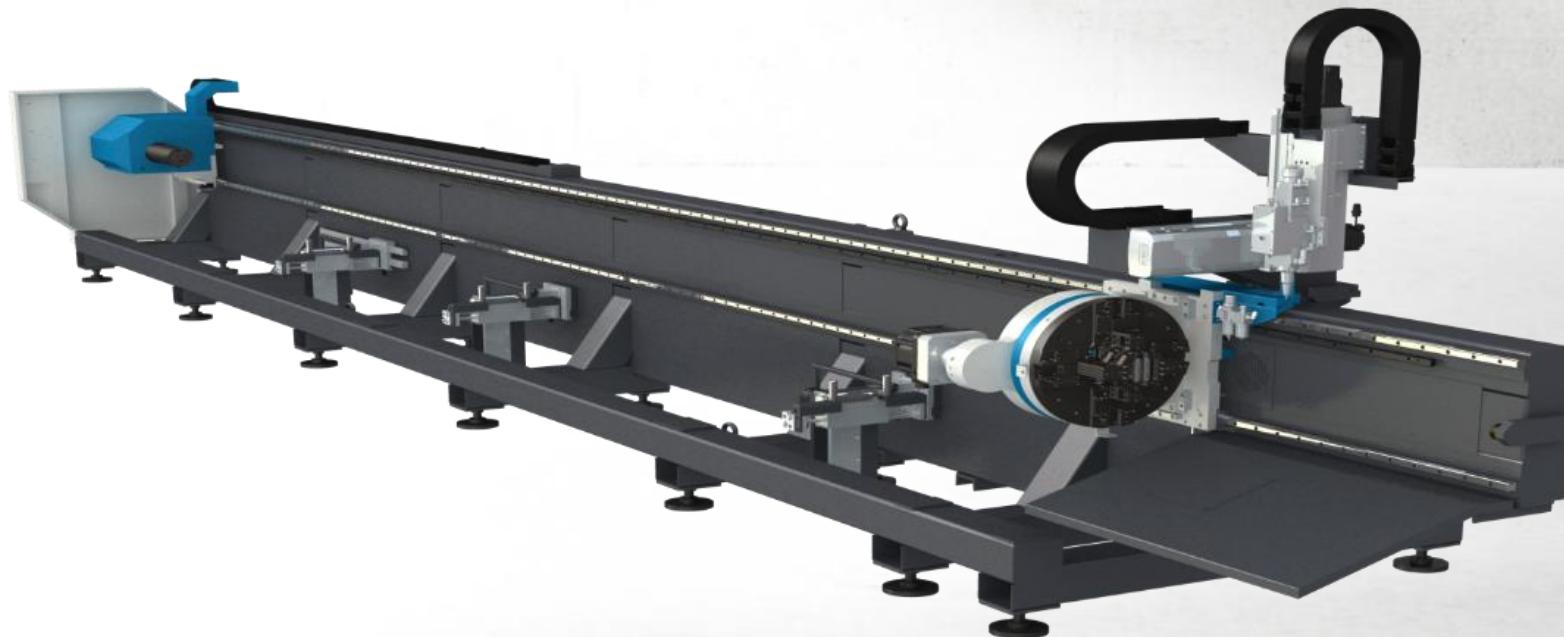
GAS	Gas pressure	Consumption( L/H)
Nitrogen (can cut stainless steel, aluminum, brass.)	1.4~1.8MPA	120-240 L/H
Oxygen (can cut carbon steel and copper)	0.5MPA~0.8MPA	30-80 L/H
Compressed air (more economical, can cut carbon steel, stainless steel, aluminum, and brass)	1.6MPA	120-240 L/H

## Typical customer

Customer-centric, practical, customer problem solving, customer value maximization

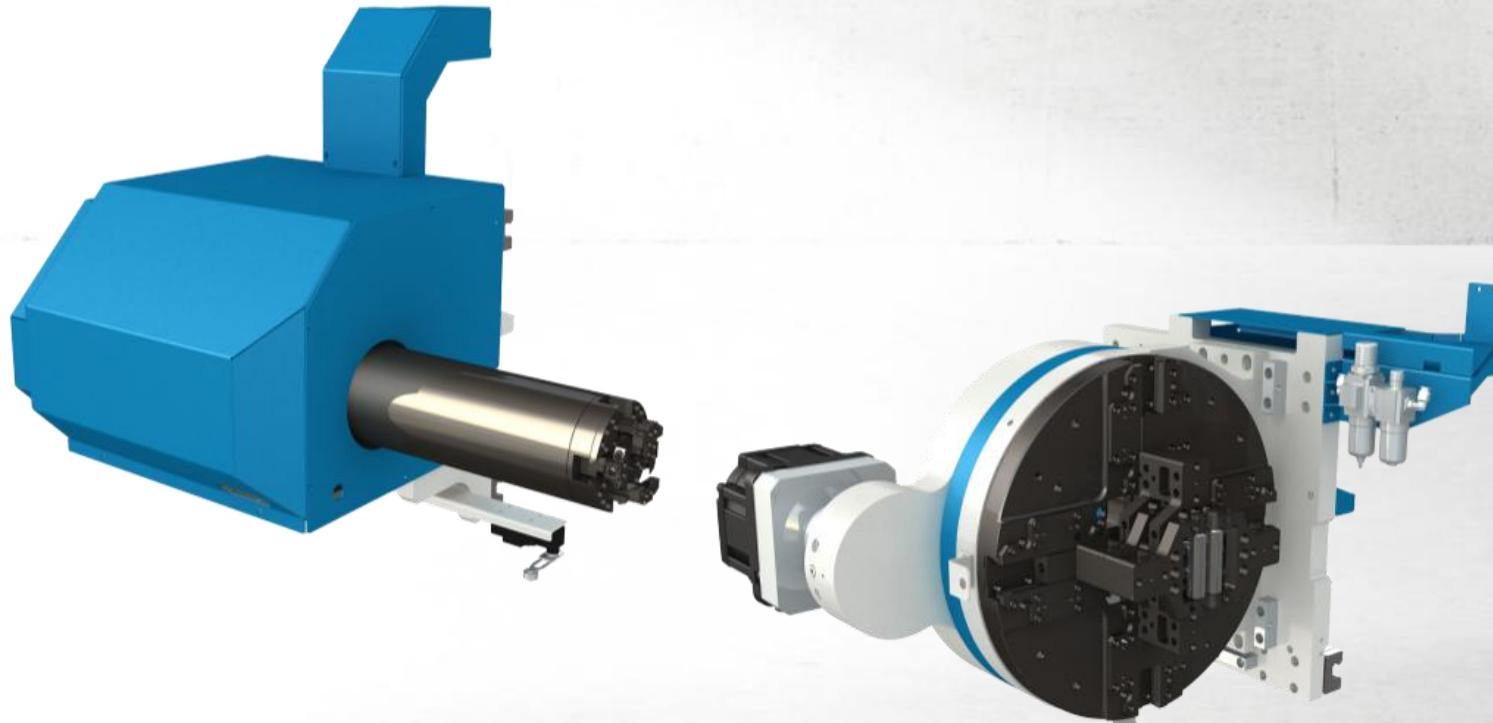


## Bed Structure



- ◎ Adopts an "L"-shaped structural design. The side-hanging structure is stable, and material loading is convenient;
- ◎ The bed body processed after welding and annealing to eliminate internal stress features high stability, which can maintain the machine tool's accuracy for a long time;
- ◎ It is equipped with an auxiliary support device to reduce jitter during pipe cutting.

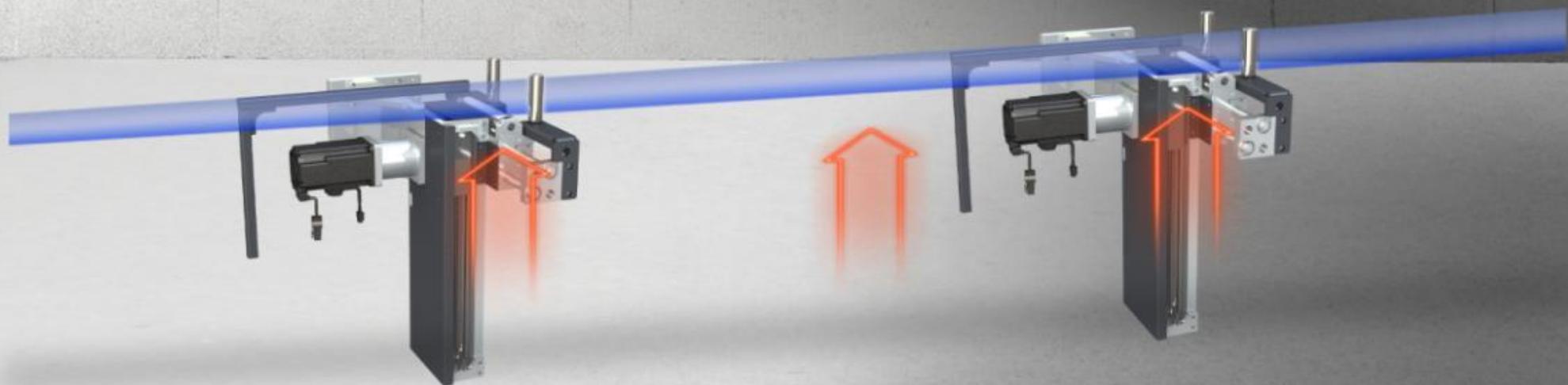
## Precision Square Chuck

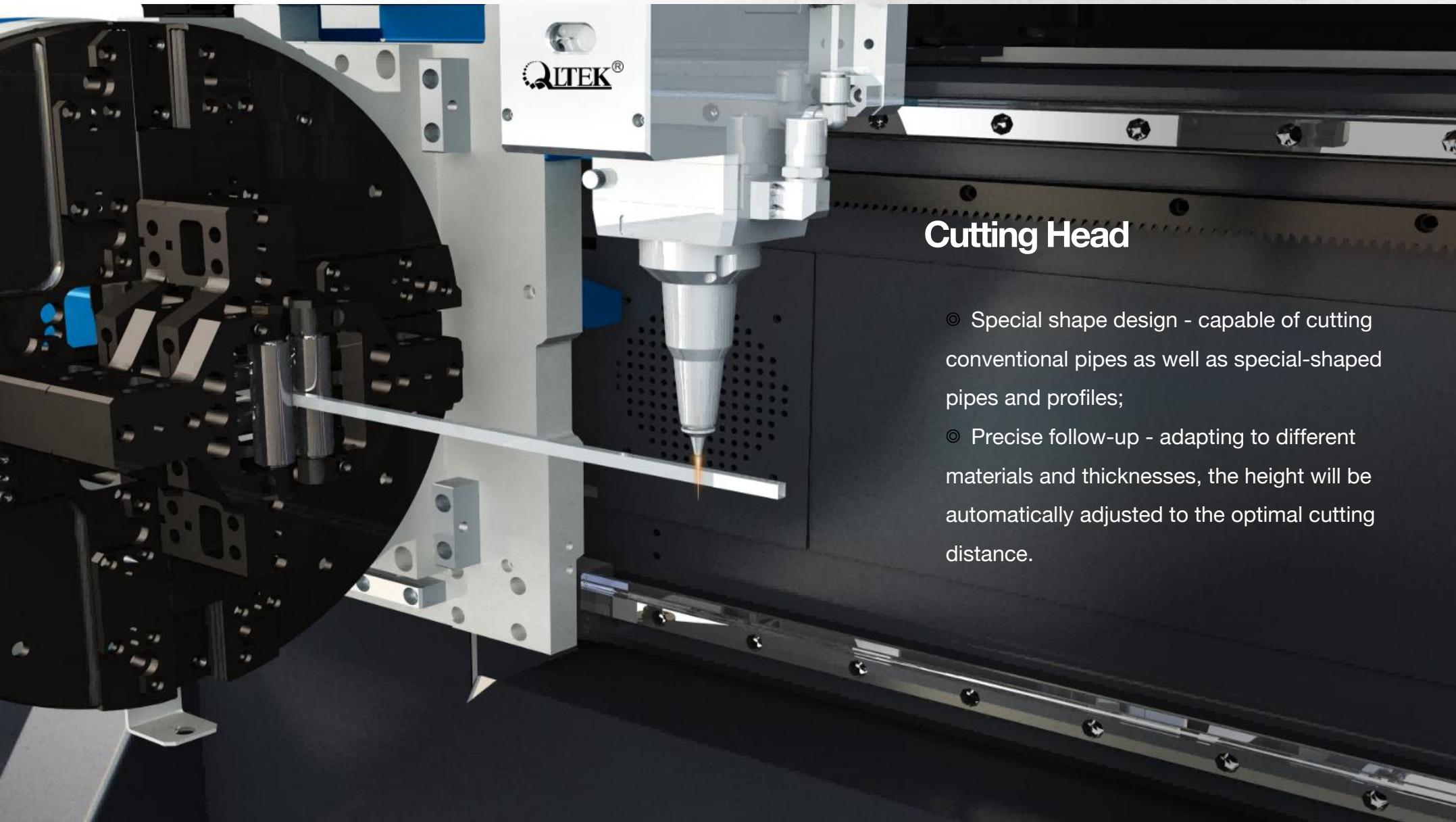


- ◎ Larger clamping range for square tubes. Continuous clamping during cutting.
- ◎ Square inner hole design with professional-grade precision chuck. The clamping range for square tubes and round tubes is the same.
- ◎ Full-stroke structure, no need to replace the claws, making it more convenient to use.

## Follow-up Support

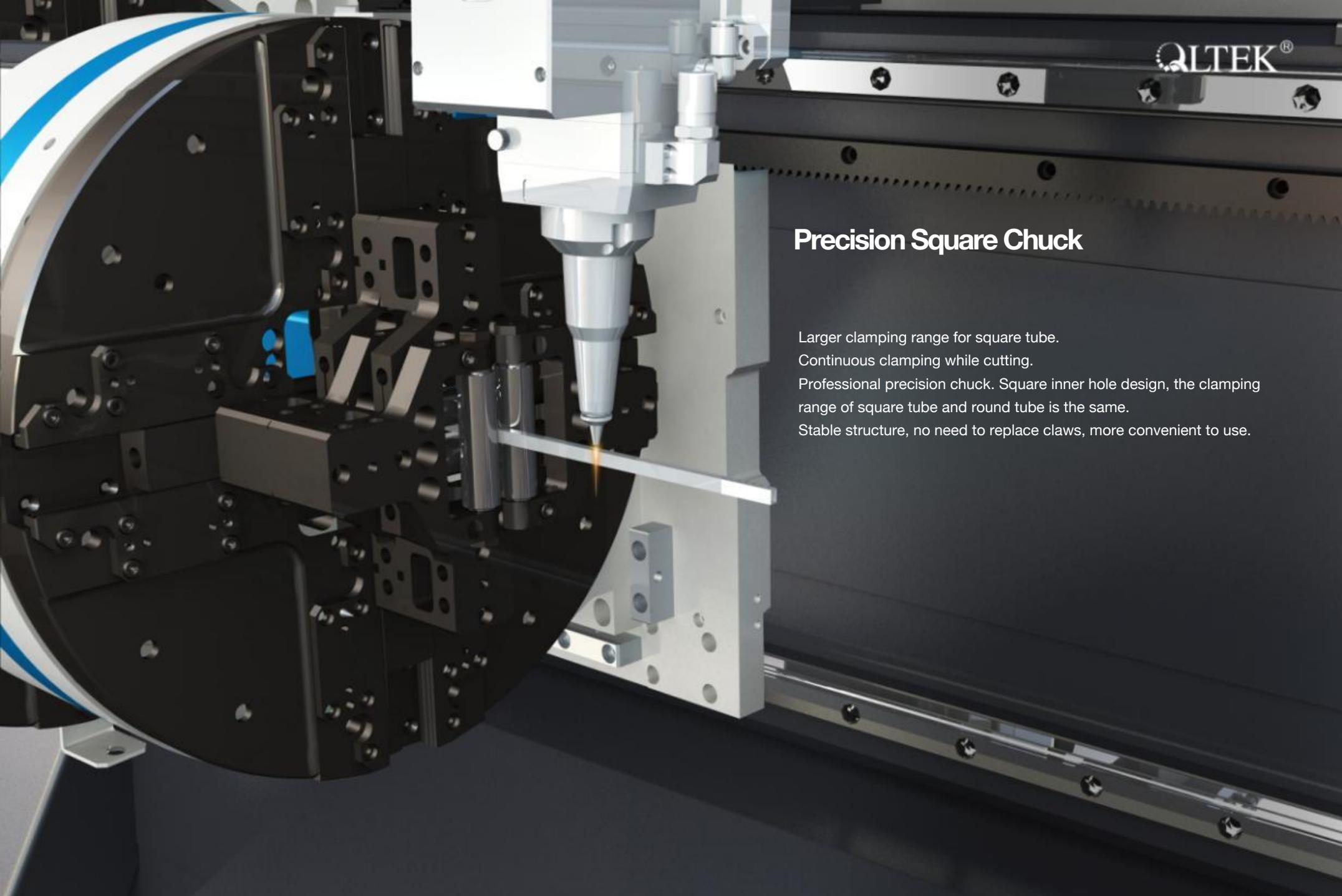
- ⊕ Convenient adjustment
- ⊕ Advanced and stable
- ⊕ The position of the supporting pipe can be quickly adjusted according to the shape of the pipe to reduce the deviation from unstable supporting.





## Cutting Head

- ◎ Special shape design - capable of cutting conventional pipes as well as special-shaped pipes and profiles;
- ◎ Precise follow-up - adapting to different materials and thicknesses, the height will be automatically adjusted to the optimal cutting distance.



## Precision Square Chuck

Larger clamping range for square tube.

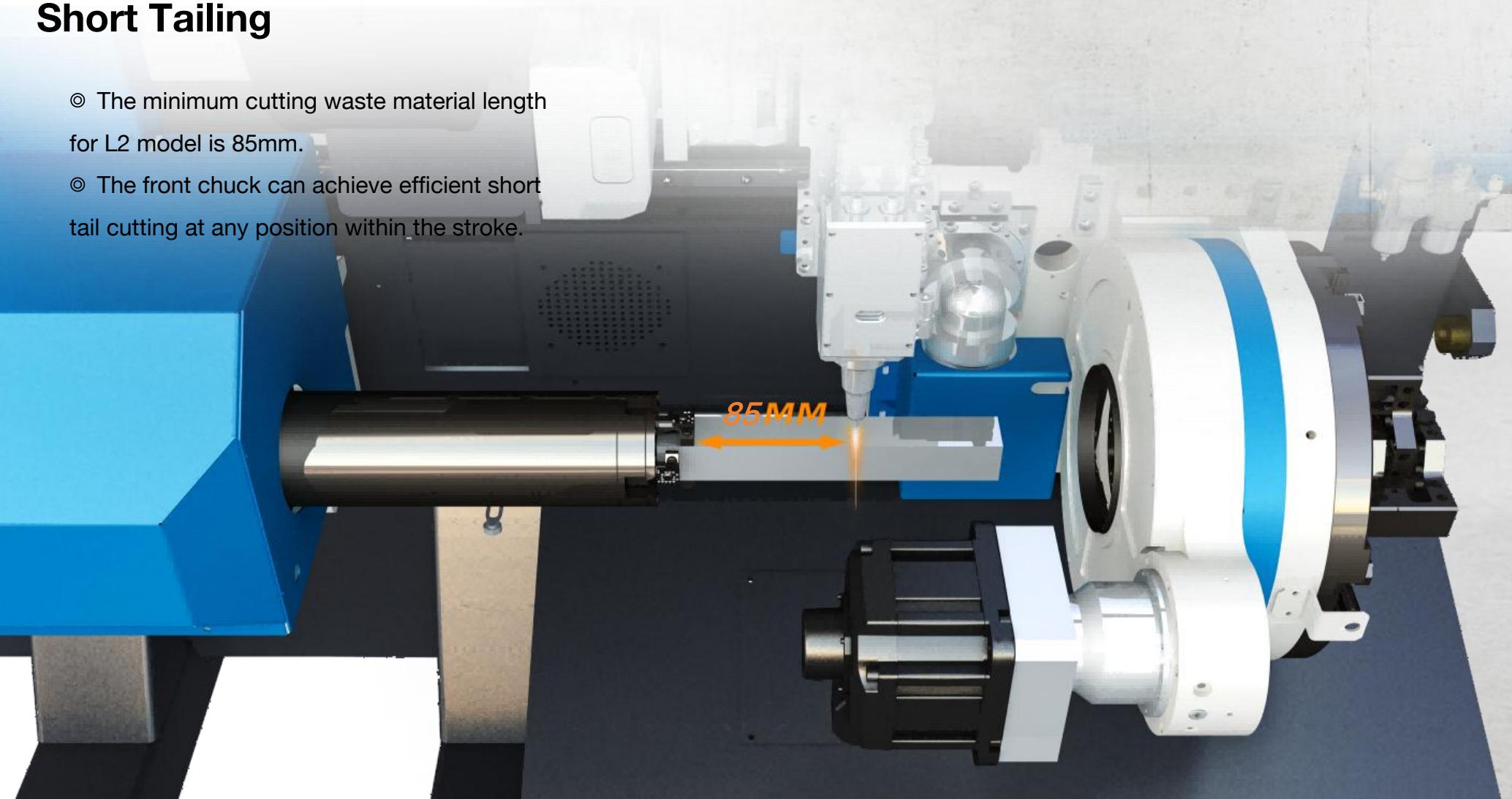
Continuous clamping while cutting.

Professional precision chuck. Square inner hole design, the clamping range of square tube and round tube is the same.

Stable structure, no need to replace claws, more convenient to use.

## Short Tailing

- ◎ The minimum cutting waste material length for L2 model is 85mm.
- ◎ The front chuck can achieve efficient short tail cutting at any position within the stroke.



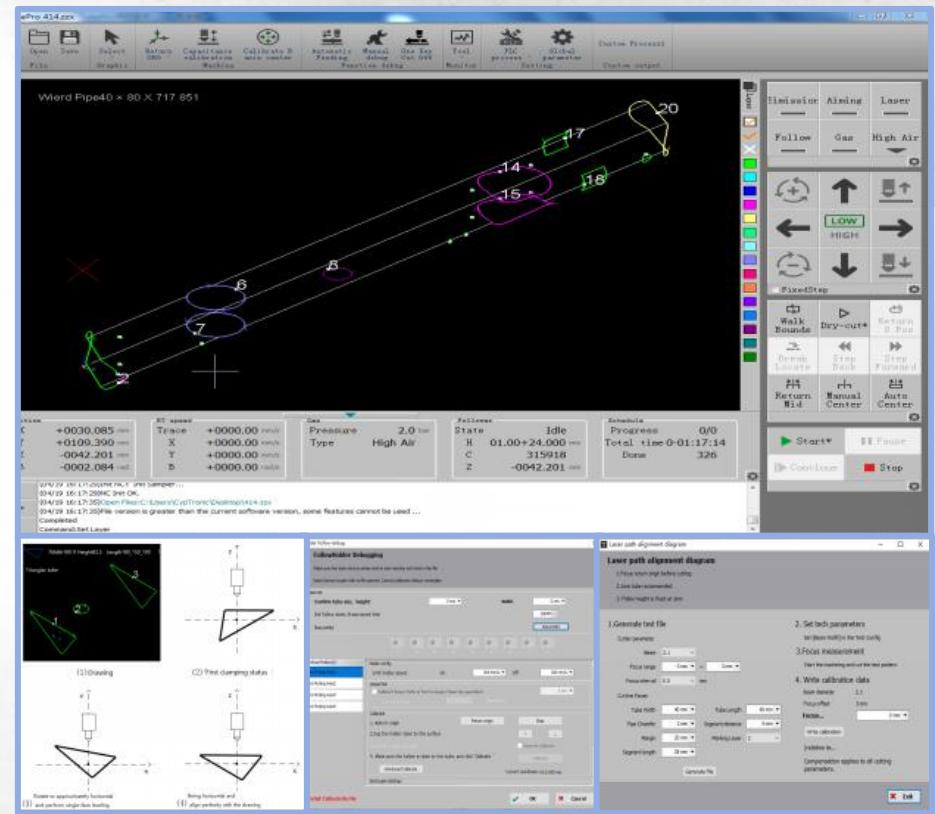
## Semi-Automatic Loader (Optional)



- ◎ Multi-piece Semi-automatic Loader
- ◎ Chain-driven with material distribution stoppers to achieve semi-automatic feeding, liberate manpower, and improve cutting efficiency.

# Software Function

- ◎ The system integrates multiple practical functions:
- ◎ Basic control: Plate surface height tracking (follow-up function), tool retraction, and breakpoint return to ensure processing continuity;
- ◎ Precision optimization: Edge finding, kerf compensation, and common-edge cutting to reduce material loss and errors;
- ◎ Intelligent nesting: Supports automatic import of various parts and path optimization, combined with the frog leap function to reduce invalid movements;
- ◎ Expansion capability: Compatible with marking and small hole marking to meet diversified processing needs.
- ◎ Double guarantee of cutting precision and stability, Equipped with a centering mechanism to assist in clamping pipes, combined with the automatic centering function to measure pipe deviation in real time, ensuring precise cutting trajectories;



# Automatic Nesting

TubesT is a 3D tube nesting software designed for 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.

## Intelligent Nesting

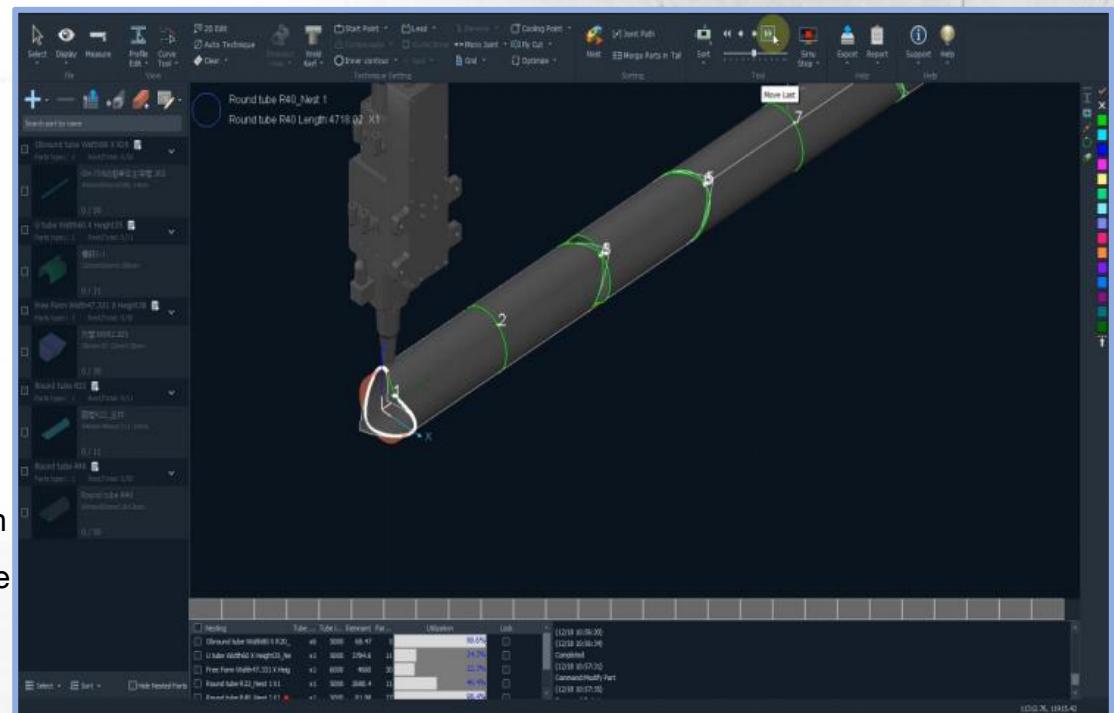
- ◎ TubesT supports nesting of parts of various shape all at once with minimum waste.

## Flexible Common Line

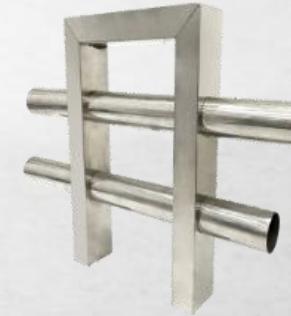
- ◎ Different parts, regardless of applied compensation, can merge common line toolpath in TubesT to reduce cutting times and minimize waste in production.

## Quick Import

- ◎ Parts or assemblies(IGS format) of multiple shapes can be imported in TubesT in a one-time operation to improve efficiency.



## Cutting the Sample





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