

XTC Compact Tube Laser

The Morgan Rushworth XTC Compact Tube Fibre Laser Cutting Machine combines intelligent automation, modular design, and high-speed tube processing. With ultra-fast automatic loading and the flexibility to switch between fully automatic and semi-automatic operation, the XTC range is available in three capacities to process round tubes from 8-120mm, 10-160mm, or 10-240mm diameter.

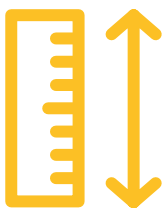


It adopts a side-mounted machine bed structure, with the front chuck featuring a retractable function. When combined with a composite dual-function chuck, it enables zero scrap cutting, thereby minimising material waste. Additionally, it is equipped with a high-speed pneumatic chuck specially customised for small tubes. A full-servo floating support system is utilised at both the loading and unloading ends, working in tandem to enhance cutting accuracy and processing efficiency.

FEATURES AND BENEFITS



**Up to
7.5m Infeed**



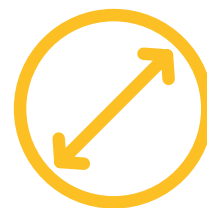
**Up to
6m Outfeed**



**3, 6 or 12kW
Laser Power**



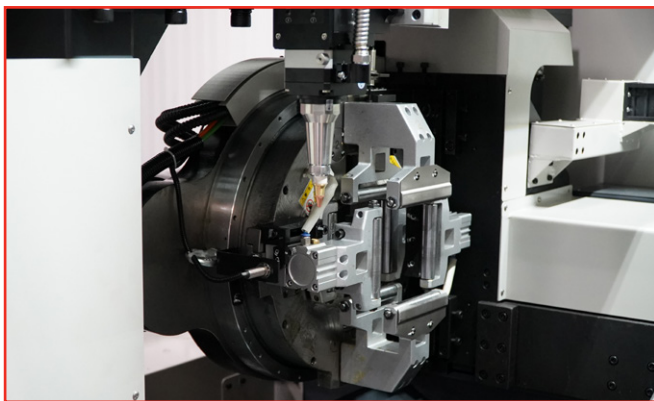
**Up to 2.0G
Acceleration**



**Up to 240mm
Tube Diameter**



**Up to 2,000kg
Bundle Weight**



CUTTING TORCH AND CHUCK



SEMI-AUTO LOADING SYSTEM



MID-CUT



CNC CONTROL

MACHINE FEATURES

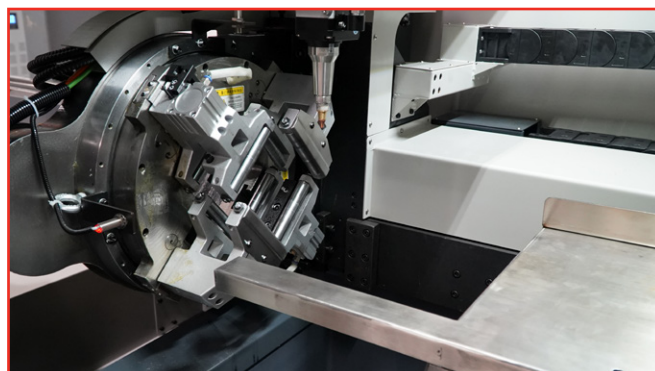
- High performance Raycus Laser Source
- Fibre optic beam delivery system
- BOCI Autofocus Laser Cutting Head
- Applicable tube types : Round tube, square tube, rectangular tube, oval tube, D-shaped steel, T-shaped steel, H-shaped steel, channel steel, angle steel, etc.
- Material Receiving and Collecting System
- CE compliant complete machine enclosure and light barrier system
- FSCUT3000DE Control System
- BOCHU TubePro Tube Cutting Software
- TubesT-Tube Nesting Software
- Combi Loader Semi-Automatic Loading System
- Zero scrap cutting with pneumatic clamping system to avoid final parts being stuck in the chuck.
- 2 Chuck Machine
- Scrap collection draw
- 2m Outfeed

OPTIONAL EQUIPMENT

- Bevel Head
- Weld Seam Detection
- PA Controller & Lantek Software
- 4m / 6m Outfeed
- Head Scanning
- IPG Laser Source
- Filtration & Extraction



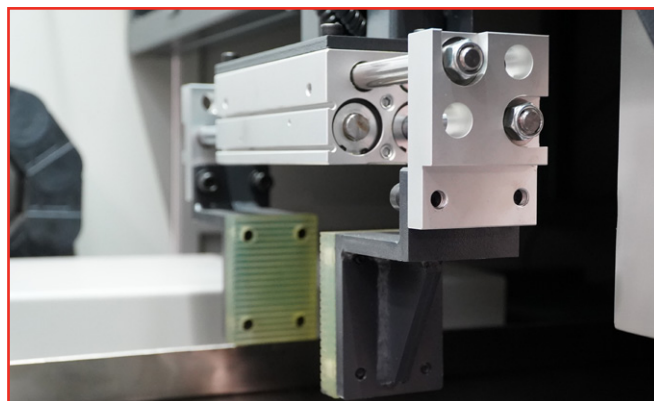
REAR CHUCK



PART COLLECTOR



SERVO CONTROLLED INFEEED



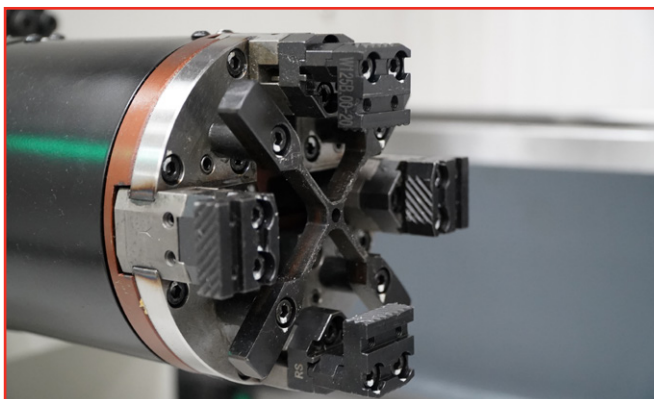
SERVO CONTROLLED OUTFEED



PARTS COLLECTOR BIN



SCRAP / SMALL PARTS WHEELED COLLECTION BIN



REAR-CHUCK (CLOSE-UP)



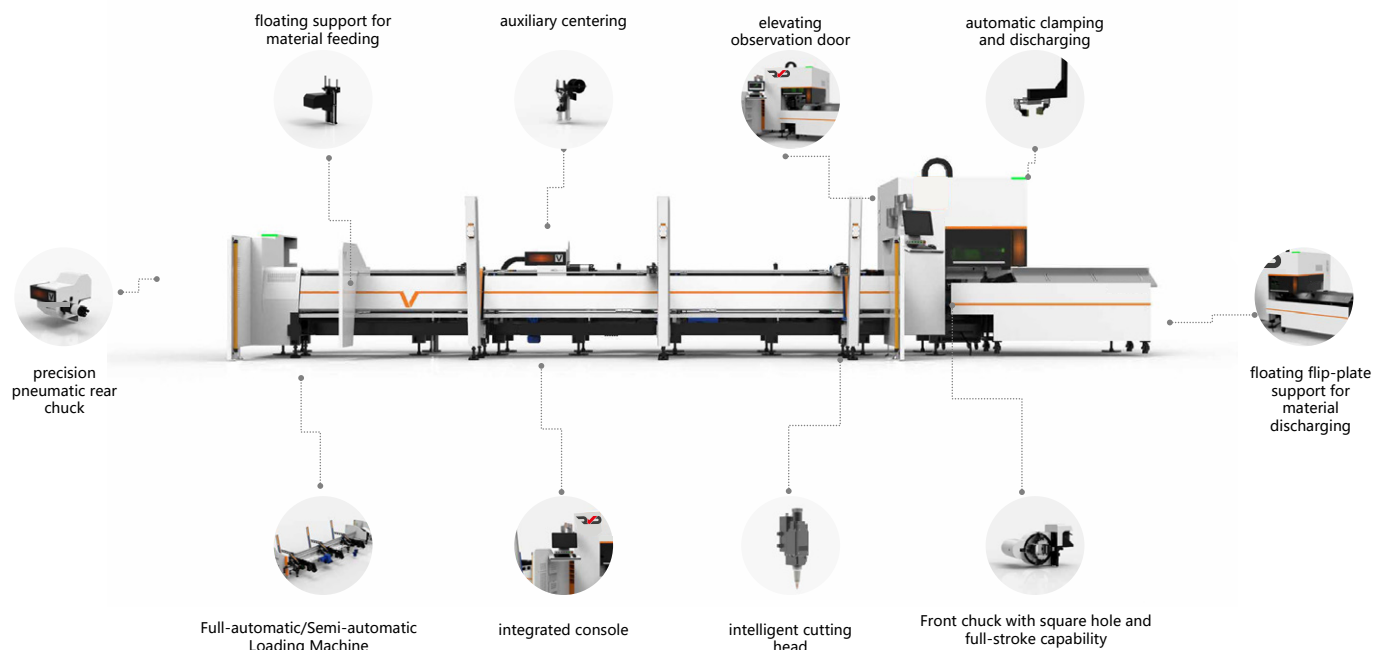
AUTO BUNDLE LOADING SYSTEM



DUAL LOADING SYSTEMS



HEAVY DUTY LOADING SYSTEM



**Maximum
Acceleration
2.0G**

The XTC cutting equipment is equipped with 2.0g acceleration dynamic performance, enabling precise positioning and efficient cutting. This significantly increases the cutting speed and reduces non-cutting (air travel time) optimising processing efficiency. Additionally, it effectively avoids laser energy waste caused by inefficiency and material ablation issues during small tube cutting.

**Maximum
Positioning Speed
120m/min**

The XTC significantly boosts cutting efficiency with a maximum positioning speed of up to 120m/min. Its rapid positioning and path switching capabilities drastically reduce non-cutting time such as material feeding and air travel, comprehensively optimising overall processing efficiency.

**Maximum
Rotation Speed
200RPM**

With a maximum rotational speed of 200r/min, the laser cutting head achieves rapid and flexible movement. This is particularly evident in tasks such as rotational air travel, tube truncation, and complex corner cutting, where it demonstrates exceptional dynamic response and efficient processing capabilities.

Dual Fully-Automatic / Semi-Automatic Loading Systems

The XTC is equipped with an innovative hybrid system that combines fully-automatic and semi-automatic loading for small tubes. This system is meticulously designed to meet the processing needs of various types of tubular materials in bulk, including round tubes, square tubes, rectangular tubes, and oval tubes.

It seamlessly integrates every link in the tube processing workflow, from automatically loading the tubes, precisely conveying them, to efficiently performing cutting operations, and finally organizing the collection of the processed tubes, thus establishing a one-stop closed-loop processing process.

This innovative design significantly enhances production efficiency while granting greater flexibility to the manufacturing process, making tube processing more convenient, efficient, and intelligent.



High Sealing Performance	Strong clamping force	Wear-resistant and durable
The chuck adopts an advanced fully enclosed structural design, significantly reducing the risk of dust generated during cutting entering the interior of the chuck. This effectively avoids issues such as unstable clamping or jamming caused by dust accumulation. Additionally, its routine maintenance is extremely simple, greatly reducing downtime and maintenance costs, and improving overall work efficiency.	The chuck possesses excellent clamping performance, fully ensuring stable clamping of the tubing. At the same time, the clamping force supports visual adjustment, allowing users to easily adjust the clamping force to ensure that thin-walled small tubes are both stable and do not deform during clamping. This provides a safe and reliable clamping solution for various types of tubing.	The chuck is made of high-quality wear-resistant materials, which allows the equipment to maintain excellent performance even under long-term, high-intensity working conditions. Additionally, the core components have undergone careful hardness modulation treatment, not only improving the durability of the parts but also ensuring that the chuck remains stable and reliable under high-speed, high-precision working conditions.

Integrated Material Receiving and Discharging for Seamless Connection

Material Receiving

The material discharging support system features adaptive adjustment capabilities, capable of flexibly accommodating workpieces of different lengths and achieving precise lifting support. After the cutting operation is completed, the support wheels automatically descend, and the workpiece slides smoothly and slowly down the inclined surface design into the material receiving area, effectively avoiding scattering and damage caused by direct impact on the ground or the receiving frame. Compared to processing scenarios without material receiving and discharging functions, this ensures the safety and integrity of the workpiece.

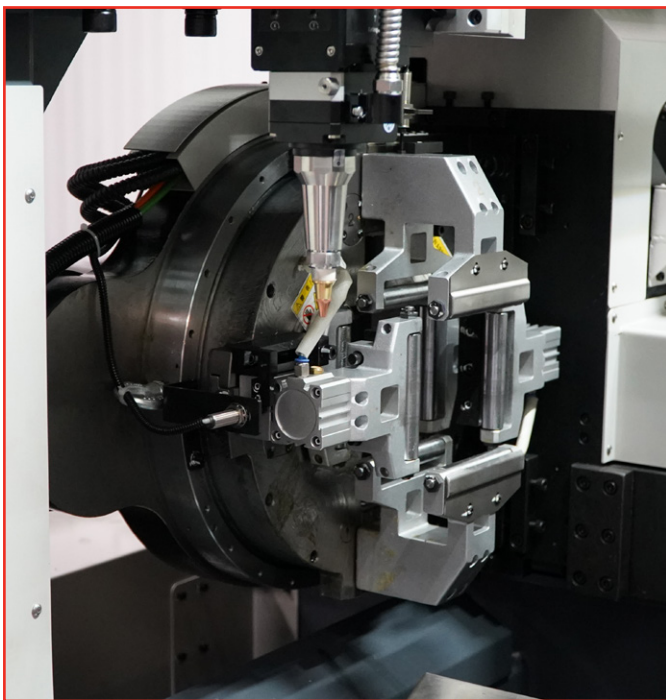


Material Collection

The material receiving area is designed with efficient storage and buffering capabilities, aiming to reduce manual intervention and enhance the automation level of the production process. This area can safely and orderly store a certain number of workpieces, thereby avoiding the cumbersome process of operators needing to frequently and individually pick up workpieces from the discharging area and manually place them in the designated location. By accumulating a certain number of workpieces, the material receiving area achieves the effect of “batch processing,” enabling unified and less frequent material picking and handling operations when the workpieces accumulate to a certain amount.

This optimisation not only significantly reduces manual labour intensity but also improves production efficiency.





Zero Scrap Cutting

The front chuck of the XTC, through its ground breaking and innovative design, seamlessly integrates automatic avoidance cutting technology with a composite dual-clamping function, bringing about a revolutionary transformation in the field of pipe cutting. It can effortlessly achieve a zero scrap/offcut cutting effect, comprehensively enhancing cutting efficiency and material utilisation.

As the processing workflow nears its end, the front chuck of the XTC demonstrates exceptional intelligent characteristics by automatically initiating an avoidance program. This allows the cutting head to move freely and flexibly within the space between the front and rear chucks. Subsequently, the clamping jaws of the front chuck quickly and securely grip the pipe, while the rear chuck automatically releases and retracts to its initial position. At this point, relying solely on the single-chuck clamping state of the front chuck, the cutting head can smoothly complete the remaining cutting tasks.

This exquisite design ensures that there are no blind spots in the cutting process. The cutting head can precisely reach any position at the end of the pipe for cutting, truly achieving the goal of zero scrap/offcut cutting. In comparison to the traditional double-chuck pipe cutting method, which can result in up to 220mm of scrap waste, the front chuck of the XTC significantly reduces this figure to 0mm, achieving the ultimate optimization of material utilization. Moreover, while minimizing scrap waste, this design also ensures the cutting precision of the last workpiece, providing a strong guarantee for processing quality.

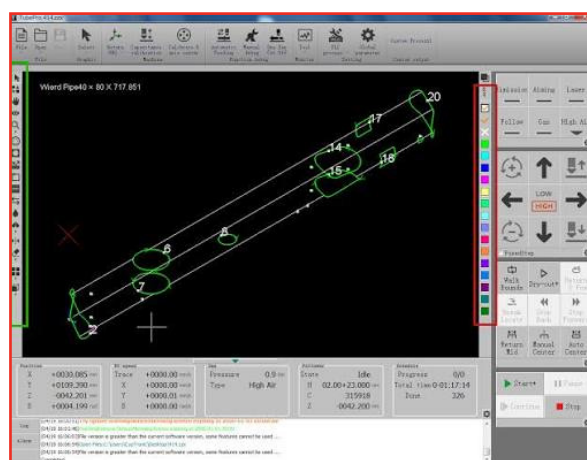
Easy to Learn, Quick to Master

BOCHU TubePro tube cutting software, with its intuitive and user-friendly interface and powerful functional design, has become software with a broader user base.

Intuitive and Simple Interface: The software features a well-organized menu bar, toolbar, and clear icon design, allowing even first-time users to quickly grasp basic operations.

Intelligent Guided Operation: It simplifies the complex process of setting cutting parameters. Through intelligent guidance or preset templates, users can quickly complete the entire process from material selection, graphic import, path planning, to cutting parameter adjustment.

Comprehensive Process Library: The extensive cutting parameter library allows users to quickly adapt to a wide range of tube cutting applications and material thicknesses.



TECHNICAL SPECIFICATIONS

MODEL NUMBER		XTC 6012.3000	XTC 6012.6000	XTC 7512.3000	XTC 7512.6000	XTC 6016.3000	XTC 6016.6000	XTC 7516.3000	XTC 7516.6000	XTC 6023.3000	XTC 6023.6000	XTC 7523.3000	XTC 7523.6000	XTC 7523.12000
STOCK CODE		M7800	M7801	M7802	M7803	M7804	M7805	M7806	M7807	M7808	M7809	M7810	M7811	M7812
Laser Source	kW	3	6	3	6	3	6	3	6	3	6	3	6	12
Max. Tube Length	mm	6,000		7,500		6,000		7,500		6,000		7,500		
Tube Diameter Range (semi-auto loader)	Ø mm	20 - 80								12 - 200				
Box Section Diameter Range (semi-auto loader)	mm	20 x 20 - 80 x 80								12 x 12 - 200 x 200				
Tube Diameter Range (auto loader)	Ø mm	8 - 120				10 - 160				12 - 250				
Box Section Diameter Range (auto loader)	mm	8 x 8 - 120 x 120				10 x 10 - 160 x 160				12 x 12 - 250 x 250				
Axis Acceleration	G	2.0	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0
Max. Single Tube Weight	kg	80	80	80	80	110	110	110	110	300	300	300	300	300
Max. Bundle / Semi-Auto Loading Weight	kg	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	2,000	2,000	2,000	2,000	2,000
Type of Infeed Supports		Servo Controlled												
Type of Outfeed Supports		Servo Controlled												
Chuck Speed	rpm	200	200	200	200	150	150	150	150	120	120	120	120	210
Feed Speed	m/min	120	120	120	120	120	120	120	120	120	120	120	120	120
Absolute Positioning Accuracy	mm	± 0.05												
Repeatability (X & Y Axis)	mm	± 0.03												
Cycle Time	s	10												

CUTTING CAPACITIES

LASER SOURCE					
Material	Gas	Capacity	3kW	6kW	12kW
Carbon Steel	O2	mm	22	25	35
Stainless Steel	N2	mm	12	20	35
Aluminium	Air	mm	10	20	35
Brass	N2	mm	8	10	15
Copper	O2	mm	6	8	15

