

LASER CUTTING MACHINE

ULE



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CONTACT US

COMPANY PROFILE

Established in 2002, ADH Company is situated in Ma'anshan City, Anhui Province, just 30 kilometers from Nanjing Lukou Airport. Our expansive 2,000,000 square meter facility specializes in manufacturing press brakes, hydraulic shearing machines, laser cutting machines (including automatic production units), CNC turret punches, intelligent flexible bending centers, and sheet metal automation equipment. As a leading high-tech manufacturer prioritizing R&D and innovation, we hold numerous patents and industry certifications.

2002

Founded

6000 +

Annual Production

120 +

R&D Personnel

100 +

Exported Countries



Mission

We are committed to research and development, improving product and service quality, in order to establish a globally renowned sheet metal manufacturing machinery center.



Vision

Our goal is to become a highly respected sheet metal support service provider, earning the trust of customers and the pride of employees.



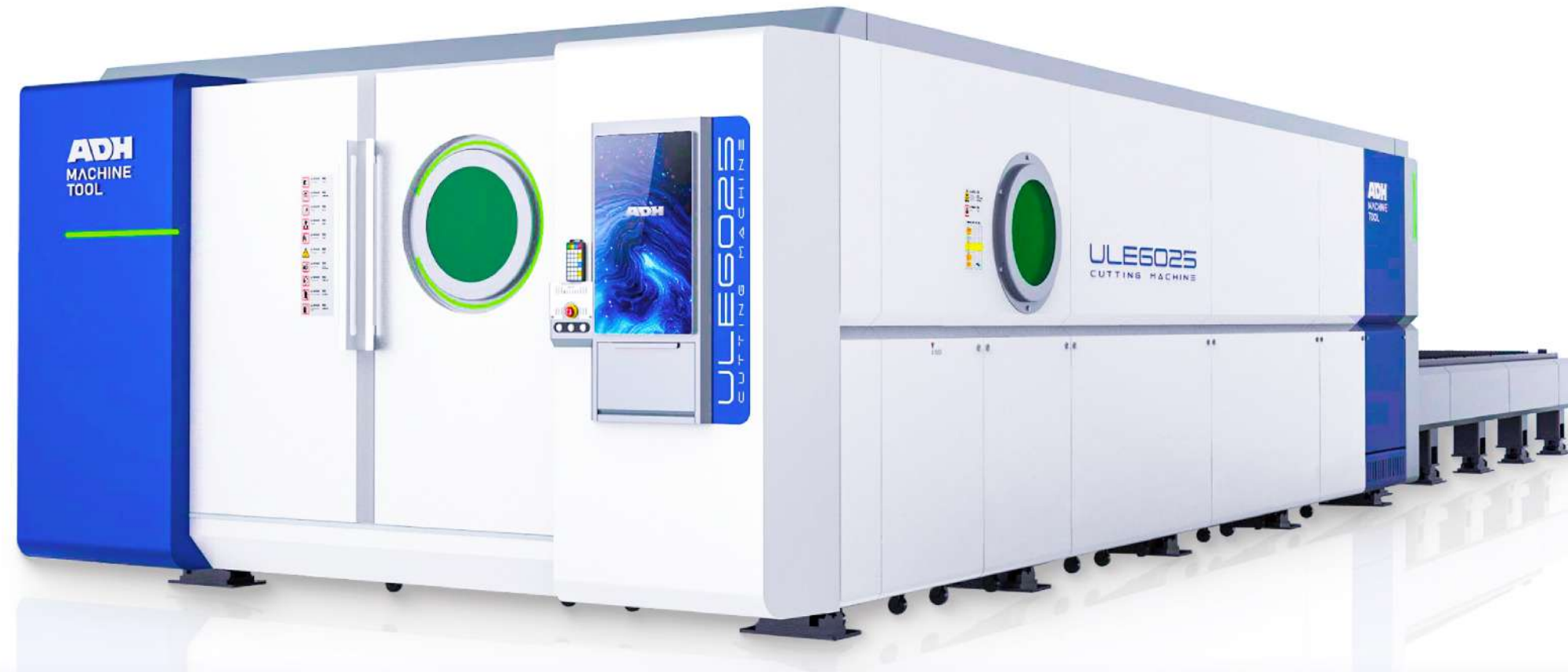
Values

Innovation, Lean Manufacturing, Integrity, Win-Win.

LASER CUTTING MACHINE

Exchange Table

ULE Series



- Dual-table continuous cutting
- Precise high-reflective material cutting
- Heavy-load support design
- Temperature-stable cutting environment
- Automatic lubrication system
- Low energy consumption operation

PRODUCT DETAILS



Frame

- Heavy-duty steel frame with precision welding and heat treatments ensures undistorted rigidity, stability, and long-term accuracy for consistent high-performance cutting operations.

Crossbeam

- Die-cast integrated structure with CNC high-temperature annealing ensures lightweight durability, deformation resistance, and enhanced cutting accuracy for dynamic operations.
- Finite Element-Optimized Design: Combines high rigidity and lightweight construction through advanced analysis, enabling high-speed stability and minimized gantry load for long-term precision.



Control System

- The control system ensures ease of use with straightforward calibration, adjustable speed control, and simplified installation, improving operational efficiency and reducing setup time.
- Equipped with Cypcut software, the system offers robust functionality, individual speed adjustments, and an advanced cutting process database for precise performance optimization.



Cutting Head

- Automatically adjusts focus based on material thickness, reducing cutting time and enhancing precision.
- Patented structure prevents plate warping and ensures stability during high-speed operations.
- Minimizes material deformation for smooth edges and improved cutting integrity.



Servo Motor

- Delta servo motors, known for exceptional speed, precision, and real-time feedback, enhance operational efficiency and ensure high-quality performance in demanding applications.

Electrical Parts

- Schneider Electric parts ensure reliable performance and compliance with European electrical standards, enhancing operational safety and longevity.



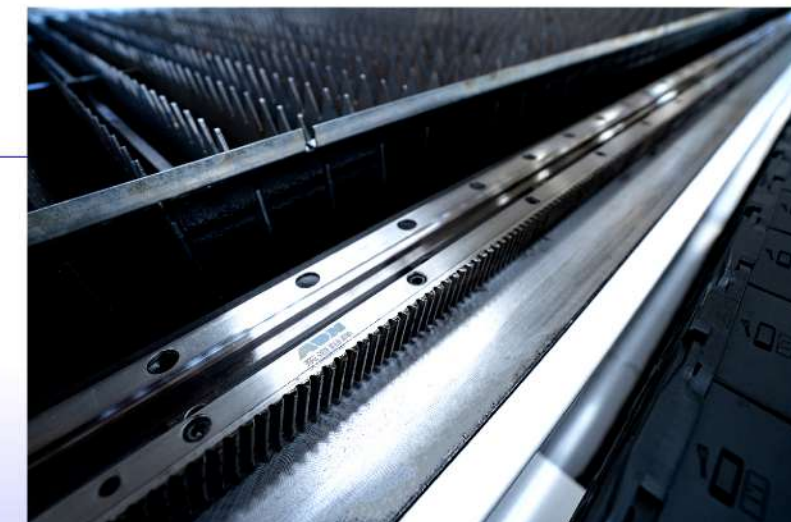
Automatic Lubrication

- The timed automatic lubrication system ensures precise oil dispensing based on operational duration, enhancing service efficiency and reliability.
- Optimizing lubrication cycles improves equipment performance and prolongs machine lifespan, reducing maintenance costs and downtime.



Gear, Rack, Linear Guide

- Precision-ground YYC gear/rack system reduces vibration, enabling high-speed transmission with $\pm 0.02\text{mm}$ repeat accuracy for long-distance operations.
- Hiwin linear guides ensure smooth motion and rigidity, maintaining $\pm 0.05\text{mm}$ positioning accuracy under demanding production conditions.



Laser Source

- Choose from leading brands (Raycus, n-Light, IPG) with over 30% electro-optic conversion efficiency, ensuring powerful and energy-saving performance.
- Achieve enhanced cutting capabilities and efficiency with direct, synchronized laser control, delivering notable maintenance cost savings of 15-20%.

Gearbox

- The machine is equipped with DESBOER gearboxes from Japan, known for high torque, precision, and durability, ensuring reliable operation and efficiency.



Water Chiller

- Equipped with over-temperature alarms, flow protection, and water level protection to prevent hazards and ensure reliable operation.
- Comprehensive safety features protect against overheating and flow issues, enhancing durability and operational efficiency.



Air Cooler

- Maintains stable temperatures within electrical cabinets to prevent overheating and protect electronic components from potential damage.
- Enhances system efficiency and longevity by ensuring optimal operating conditions for cabinet components.



OPTIONAL



Precitec Cutting Head - Germany

- The PROCUTTER high-power fiber cutting head from PRECITEC, Germany, ensures stable performance with electric focus adjustment, simplifying machine configuration and perforation. Its compact design and high cutting speed enhance productivity in various applications.



IPG Laser

- Features 1070-1090nm wavelength and high beam quality ($M^2 < 1.4$) for accurate cutting on aluminum and copper, with over 30% electro-optic efficiency.
- Modular plug-and-play design simplifies installation and upkeep, paired with a compact structure that reduces maintenance costs by 15%-20%.



Gantry Beam

- Optimized through finite element analysis, our gantry beam achieves perfect balance between lightweight construction and impact-resistant rigidity for optimal dynamic performance.
- Made from die-cast aluminum alloy with CNC high-temperature annealing treatment, ensuring deformation resistance and enhanced cutting accuracy through superior strength-to-weight ratio.



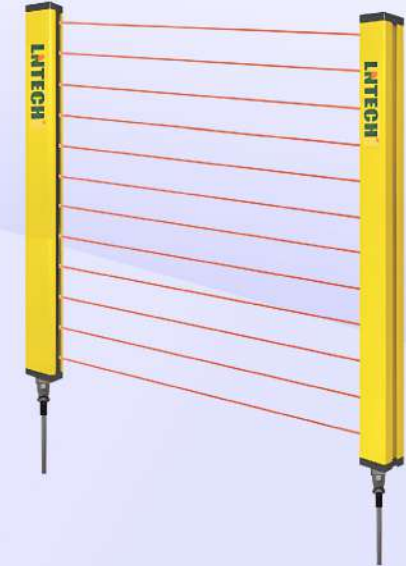
Air compressor

- Ensures efficient cutting with ≥ 13 kg pressure and ≥ 1.5 flow rate, supporting high-demand operations seamlessly.
- Meets strict compressed air standards for seamless integration, reducing setup complexity and ensuring reliability.



Dust collector

- Advanced dust collection complies with environmental standards, efficiently capturing fine particles for safer operations and reduced maintenance.



LNTECH Laser Protection

- LNTECH's optional Laser Protection boosts personal safety by incorporating robust anti-electromagnetic and anti-light interference functions, delivering dependable performance across diverse environments.

Specifications

ULE Series

SPECIFICATIONS	
Model	ULE
Laser power	3000W/6000W/12000W/20000W//30000W/40000W
Cutting range	2.3*1.5(m)/4*1.5(m)/4*2(m)/6*2(m) /6*2.6(m)/8*2.6(m)/12.5*2.6(m)
Maximum moving speed	150m/min
Maximum acceleration	1.5g
Positioning accuracy	±0.05mm
Repeated positioning accuracy	±0.02mm
Operating voltage	380V/50Hz
Cooling method	water-cooled

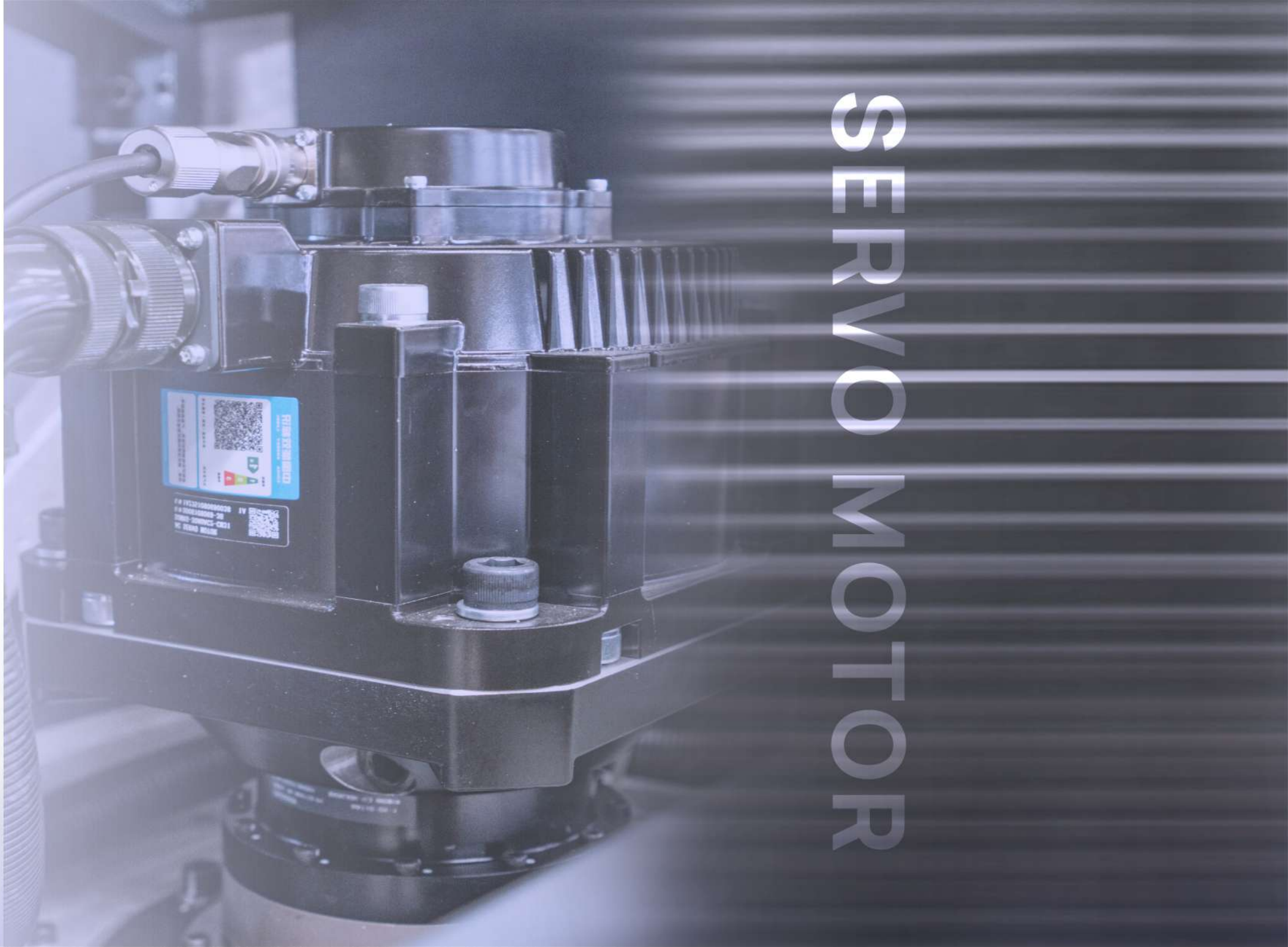
CONFIGURATION	
Component Function Names	Brand/Manufacturer
Bed	ADH
Control system	Cypcut/Hypcut
Laser	Raycus/MAX
Cutting head	Raytools/BOCHU
Servo motor	Delta/INOVANCE
Gearbox	DESBOER
Gear, rack	YYC
Linear guide	Hiwin
Water chiller	Hanli/TONGFEI
Electrical components	ADH
Automatic lubrication device	ADH

Comparison Table Of Cutting Parameters														
Material	Thickness (mm)	Cutting Speed m/min												
		1kW	1.5kW	2kW	3kW	4kW	6kW	8kW	10kW	12kW	20kW	30kW	40kW(100u)	40kW(150u)
Carbon Steel (Oxygen)	1	8.0-10	15-26	24-30	30-40	33-43	35-44	35-42	35-42	50-60	/	/	/	/
	2	4.0-6.5	4.5-6.5	4.7-6.5	4.8-7.5	15-25	20-28	6.2-10	7.0-12	35-45	/	/	/	/
	3	2.4-3.0	2.6-4.0	3.0-4.8	3.3-5.0	7.0-12	13-17	4.0-7.0	4.2-7.5	30-35	/	/	/	/
	4	2.0-2.4	2.5-3.0	2.8-3.5	3.0-4.2	3.0-4.0	3.0-4.5	3.5-5.5	3.5-5.5	22-26	/	/	/	/
	5	1.5-2.0	2.0-2.5	2.2-3.0	2.6-3.5	2.7-3.6	3.0-4.2	3.3-4.5	3.3-4.5	15-18	23-28	23-30	23-28	23-30
	6	1.4-1.6	1.6-2.2	1.8-2.6	2.3-3.2	2.5-3.4	2.5-3.5	3.0-4.2	3.0-4.2	10-13	18-20	18-23	18-20	18-23
	8	0.8-1.2	1.0-1.4	1.2-1.8	1.8-2.6	2.0-3.0	2.2-3.2	2.5-3.5	2.5-3.5	8-10	14-16	14-18	14-16	14-18
	10	0.6-1.0	0.8-1.1	1.1-1.3	1.2-2.0	1.5-2.4	1.8-2.5	2.2-2.7	2.2-2.7	6-7	9-12	10-14	9-12	10-14
	12	0.5-0.8	0.7-1.0	0.9-1.2	1.0-1.6	1.2-1.8	1.2-2.0	1.2-2.1	1.2-2.1	3-5	3.2-10	9-12	3.2-10	9-12
	14	/	0.5-0.7	0.7-0.8	0.9-1.4	0.9-1.2	1.2-1.8	1.7-1.9	1.7-1.9	3-3.2	3-8	9-10	3-8	9.5-10.5
	16	/	/	0.6-0.7	0.7-1.0	0.8-1.0	0.8-1.3	0.9-1.7	0.9-1.7	2.8-3	3-6	7-9	3-6	7.5-9
	18	/	/	0.4-0.6	0.6-0.8	0.6-0.9	0.6-0.9	0.65-0.9	0.65-0.9	/	3.2-4	5-7	3.2-4	6.5-8
	20	/	/	/	0.5-0.8	0.5-0.8	0.5-0.8	0.6-0.9	0.6-0.9	1.2-2.3	2.1-3.2	4-5	2.1-3.2	4.5-6
	22	/	/	/	/	0.4-0.8	0.4-0.8	0.5-0.8	0.5-0.8	0.9-1.2	1.2-1.5	1.4-1.5	1.2-1.5	1.4-1.5
	25	/	/	/	/	/	0.3-0.55	0.3-0.7	0.3-0.7	0.6-1.3	1.2-2.1	1.2-1.4	1.2-2.1	3.5-4.5
	30	/	/	/	/	/	/	/	/	0.4-1	1.2-1.9	1.2-1.3	1.2-1.9	2.5-3.5
	35	/	/	/	/	/	/	/	/	/	1.4-1.6	1.4-1.6	1.4-1.6	2-3
	40	/	/	/	/	/	/	/	/	/	0.6-1.2	0.6-0.9	0.6-1.2	0.9-1.1
	40 (Non-Q235)	/	/	/	/	/	/	/	/	/	0.3-0.6	0.3-0.6	0.3-0.6	0.3-0.6
	45	/	/	/	/	/	/	/	/	/	0.8-0.9	1-1.2	0.8-0.9	/
	50	/	/	/	/	/	/	/	/	/	0.2-0.3	0.9-1	0.2-0.3	0.7-0.9

Comparison Table Of Cutting Parameters														
Material	Thickness (mm)	Cutting Speed m/min												
		1kW	1.5kW	2kW	3kW	4kW	6kW	8kW	10kW	12kW	20kW	30kW	40kW(100u)	40kW(150u)
Stainless Steel (Nitrogen)	1	15-25	20-27	24-30	30-35	32-45	42-52	50-66	60-75	50-60	50-60	50-60	/	/
	2	5-7.5	8.0-12	9.0-15	13-21	16-28	20-33	30-42	40-55	40-45	50-60	50-60	/	/
	3	1.8-2.5	3.0-5.0	4.0-6.5	6.0-10	7.0-15	15-22	20-30	27-38	30-35	40-45	40-50	/	/
	4	1.2-1.3	1.5-2.4	3.0-4.5	4.0-6.0	5.0-8.0	10.0-15.0	14-21	18-25	24-30	30-35	30-35	/	/
	5	0.6-0.7	0.7-1.3	1.8-2.5	3.0-5.0	3.5-5.0	8.0-12	12-17	15-22	15-19	22-24	25-30	25-30	25-30
	6	/	0.7-1.0	1.2-2.0	2.0-4.0	2.5-4.5	4.8-8.0	8.0-14.0	12-15	13-17	18-22	22-25	22-25	22-25
	8	/	/	0.7-1.0	1.5-2.0	1.2-2.0	3.0-4.0	6.0-8.0	8.0-12.0	8-11	13-16	18-22	20-23	20-23
	10	/	/	/	0.6-0.8	0.8-1.2	1.6-2.5	3.0-5.0	6.0-8.0	6.5-8	10-12	14-18	16-21	16-21
	12	/	/	/	0.4-0.6	0.5-0.8	0.8-1.5	1.8-3.0	3.0-5.0	5-6	8-10	12-14	12-14	12-14
	14	/	/	/	/	0.4-0.6	0.6-0.8	1.2-1.8	1.8-3.0	3-4	6-8	8-10	10-12	10-12
	16	/	/	/	/	/	/	/	/	2-3	5-6	7.5-8.5	9-11	9-11
	18	/	/	/	/	/	/	/	/	1.3-2	3.2-4	6-7	8-9.5	8-9.5
	20	/	/	/	/	/	0.3-0.55	0.6-0.7	1.2-1.8	1.2-1.6	3-3.2	5-6	7-8	7-8
	25	/	/	/	/	/	0.2-0.4	0.5-0.6	0.6-0.7	0.7-1	1.5-2	2-3	4.5-5.5	4.5-5.5
	30	/	/	/	/	/	/	/	/	/	1-1.2	1.5-2	3-4	3-4
	40	/	/	/	/	/	/	/	/	/	0.5-0.8	0.6-0.8	1.5-2	1.5-2

Comparison Table Of Cutting Parameters														
Material	Thickness (mm)	Cutting Speed m/min												
		1kW	1.5kW	2kW	3kW	4kW	6kW	8kW	10kW	12kW	20kW	30kW	40kW(100u)	40kW(150u)
Aluminum Sheet (Nitrogen)	1	6.0-10.0	10.0-20.0	15-25	25-38	35-45	42-55	50-65	60-75	45-50	/	55-60	/	/
	2	2.8-3.5	5.0-7.0	7-10.0	10.0-18.0	13-24	20-40	25-38	33-45	30-35	/	40-45	/	/
	3	0.7-1.5	2.0-4.0	4.0-6.0	6.5-8.0	7.0-13	15-25	20-30	25-35	20-25	30-35	30-35	/	/
	4	/	1.0-1.5	2.0-3.0	3.5-5.0	4.0-5.5	9.5-12.0	13-18	21-30	18-20	25-30	25-30	/	/
	5	/	0.7-1.0	1.2-1.8	2.5-3.5	3.0-4.5	5.0-8.0	9.0-12	13-20	14-16	18-20	18-25	25-30	25-30
	6	/	/	0.7-1.0	1.5-2.5	2.0-3.5	3.8-5.0	4.5-8.0	9.0-12	10-12	16-18	18-20	20-25	20-25
	8	/	/	0.6-0.8	0.7-1.0	0.9-1.6	2.0-2.5	4.0-6.0	4.5-8.0	6-8	10-12	15-18	18-22	18-22
	10	/	/	/	0.4-0.7	0.6-1.2	1.0-1.5	2.2-3.0	4.0-6.0	4-6	9-10	12-15	14-17	14-17
	12	/	/	/	0.3-0.45	0.4-0.6	0.8-1.0	1.5-2.0	2.2-3.0	2-3	5-6	10-12	11-13	11-13
	14	/	/	/	/	/	/	/	/	1.5-2.5	4-5	8-10	9-11	9-11
	16	/	/	/	/	0.3-0.4	0.5-0.8	1.0-1.6	1.5-2.0	1.3-2	3-4	6-8	7-9	7-9
	18	/	/	/	/	/	/	/	/	1-1.6	2-3	3-4	5-7	5-7
	20	/	/	/	/	/	0.5-0.7	0.7-1.0	1.0-1.6	0.8-1.2	1.5-2	2-3	4-5	4-5
	25	/	/	/	/	/	0.3-0.5	0.5-0.7	0.7-1.0	0.5-0.7	1-1.2	1.5-2	3-3.5	3-3.5
	30	/	/	/	/	/	/	/	0.5-0.7	0.25-0.3	0.8-1	0.8-1	2-3	2-3
	40	/	/	/	/	/	/	/	/	/	/	0.5-0.8	1-1.5	1-1.5
	50	/	/	/	/	/	/	/	/	/	/	0.4-0.6	0.4-0.6	0.4-0.6

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Material	Thickness (mm)	Cutting Speed m/min												
		1kW	1.5kW	2kW	3kW	4kW	6kW	8kW	10kW	12kW	20kW	30kW	40kW(100u)	40kW(150u)
Copper Sheet (Nitrogen)	1	6.0-10.0	8.0-13	10.0-16.0	20-35	25-35	35-45	55-65	65-75	35-45	40-45	40-45	/	/
	2	2.8-3.6	3.0-4.5	4.5-7.5	6.0-10	8.0-12	20-30	30-40	33-45	30-35	35-40	35-40	/	/
	3	0.5-10	1.5-2.5	2.5-4.0	4.0-6.0	5.0-8.0	12-18	20-30	25-40	18-22	28-30	28-30	/	/
	4	/	1.0-1.6	1.5-2.0	3.0-5.0	3.2-5.5	5.0-8.0	10-18	14-24	15-18	19-22	20-25	/	/
	5	/	0.5-0.7	0.9-1.2	1.5-2.0	2.0-3.0	4.5-6.0	7.0-9.0	9.0-15	12-15	18-19	18-20	25-30	25-30
	6	/	/	0.4-0.7	1.0-1.8	1.4-2.0	3.0-4.5	4.5-6.5	7.0-9.0	8-10	12-15	15-18	20-25	20-25
	8	/	/	/	0.5-0.7	0.7-1.2	1.6-2.2	2.4-4.0	4.5-6.5	5-7	8-10	10-15	18-22	18-22
	10	/	/	/	/	0.2-0.5	0.8-1.2	1.5-2.2	2.4-4.0	4-5	7-8	8-10	10-14	10-14
	12	/	/	/	/	/	0.3-0.5	0.8-1.5	1.5-2.2	1.8-2	2.5-3.5	5-8	8-11	8-11



SERVO MOTOR