

PRODUCT

DATA SHEET



Bending
Cutting
Welding
Marking

2024-2025

HIGHTECH INDUSTRY GROUP

BUILD . TO LEAD .

HTZ5

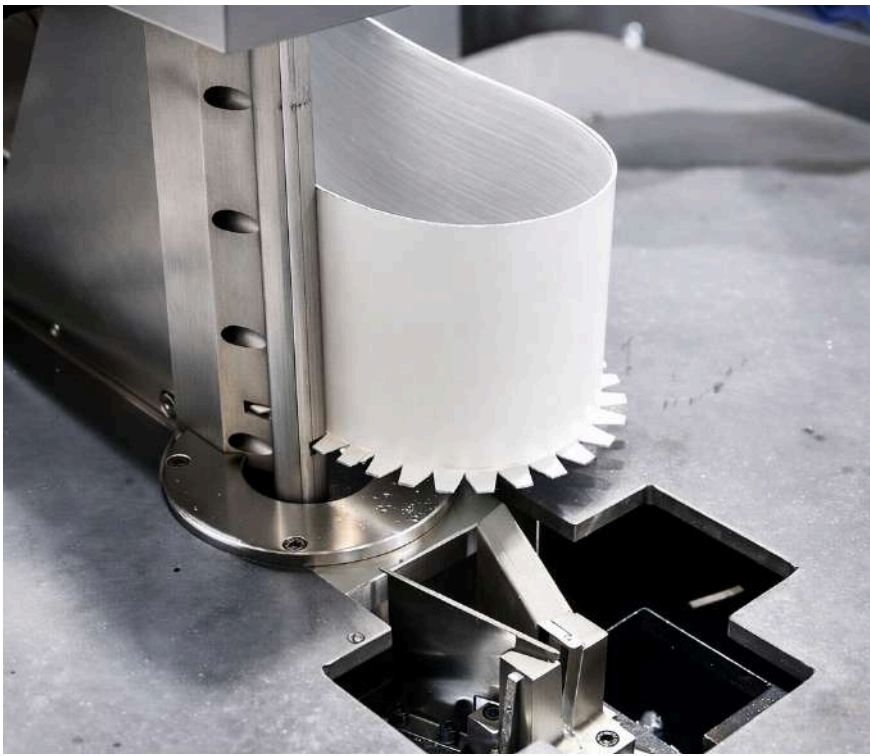
CHANNEL LETTER BENDING MACHINE



High Precision and Smooth Operation
Features advanced servo motion control, high-precision ball screws, and linear guide rails, ensuring smooth feeding and precise bending and slotting.

Efficient Automated Production
Double-blade alternating bending and automated feeding enable fast, stable, and fully automated operation, significantly improving production efficiency for professional signage manufacturing.

Wide Material Compatibility
Supports aluminum, galvanized steel, and stainless steel. Aluminum processing includes cutting teeth for easier backing plate fixing.



BENDING SYSTEM

OUR DOUBLE-BLADE ALTERNATING BENDING COMBINED WITH AUTOMATED FEEDING ALLOWS FOR FAST, STABLE, AND FULLY AUTOMATED OPERATION. THIS SETUP MAKES HANDLING EACH PROJECT SMOOTH AND EFFORTLESS, SAVING TIME AND REDUCING MANUAL EFFORT.

DESIGNED SPECIFICALLY FOR PROFESSIONAL SIGNAGE MANUFACTURING, THIS SYSTEM SIGNIFICANTLY BOOSTS PRODUCTION EFFICIENCY. IT HELPS YOU COMPLETE MORE WORK IN LESS TIME WHILE MAINTAINING CONSISTENT, HIGH-QUALITY RESULTS.

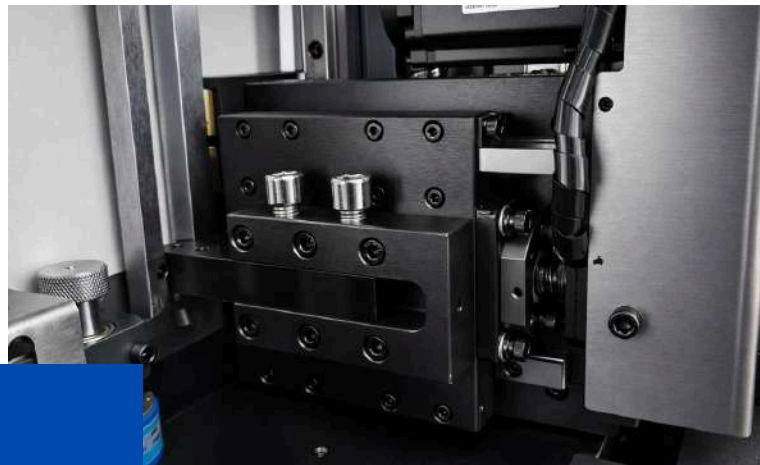
PARTS

FEEDING SYSTEM

CIRCULATION CLAMP FEEDING SYSTEM,ENSURES ACCURATE STRIP FEEDING WITH $\pm 0.01\text{MM}$ TOLERANCE.

STABLE OPERATION WITHOUT SLIPPING OR DISTORTION.

DESIGNED FOR LONG-TERM PERFORMANCE AND DURABILITY.



CUTTING SYSTEM

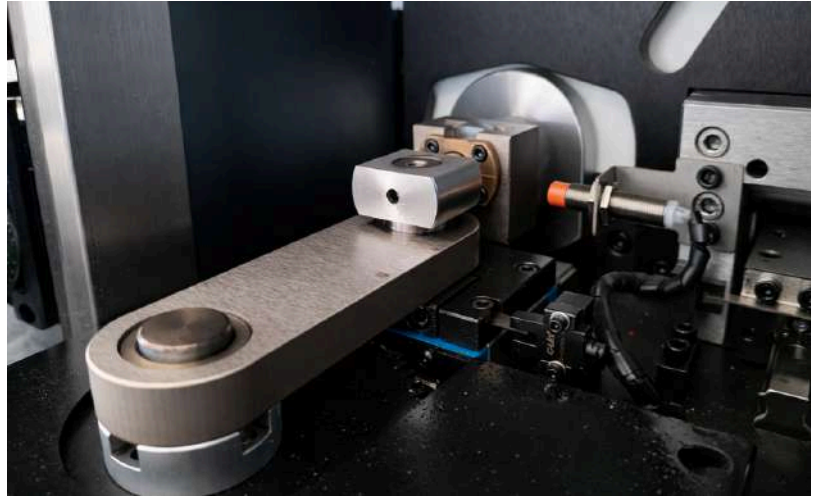
STAINLESS STEEL CUTTING

IMPORTED CARBIDE PLANER BLADE WITH AUTOMATIC TOOL ALIGNMENT, REINFORCED 2.5 MM LEAD SCREW, AND SERVO DRIVE FOR FAST, STABLE, AND PRECISE CUTTING.

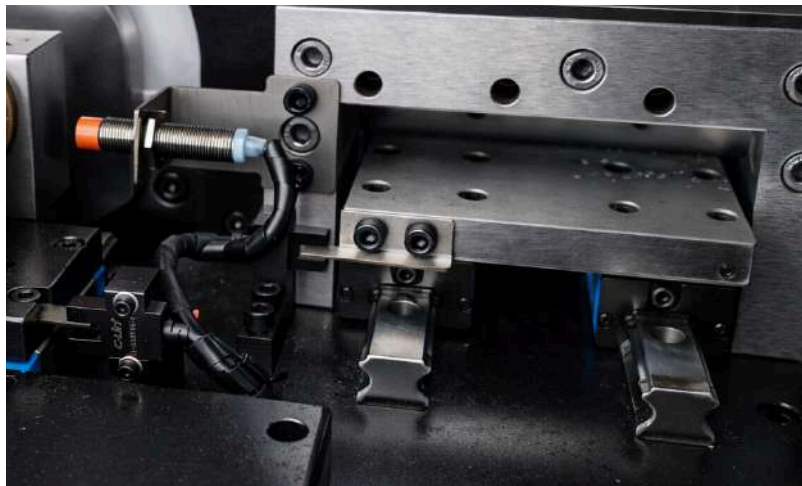
NOTCHING SYSTEM

THE SERVO MOTOR-CONTROLLED V-CUT SYSTEM USES SMOOTH CUTTING TEETH WITH 30° AND 120° ANGLES, DELIVERING HIGH EFFICIENCY, ACCURACY, AND STABLE PERFORMANCE.

IT OPERATES QUIETLY WITHOUT POLLUTION, MAKING IT AN ENVIRONMENTALLY FRIENDLY SOLUTION.



PARTS



FLANGING SYSTEM

THE AUTOMATIC FLANGING SYSTEM WITH A PNEUMATIC ANGLE EDGE IS FLEXIBLE AND EASY TO OPERATE, WORKING SEAMLESSLY WITH THE 3D CHANNEL LETTER CLINCHER.

THIS COMBINATION ENSURES A STRONGER AND MORE SECURE BACKING PLATE INSTALLATION, IMPROVING OVERALL STABILITY AND RELIABILITY.

SCISSORING SYSTEM

THE AUTOMATIC SCISSORING SYSTEM IS EFFICIENT AND EASY TO USE, SUITABLE FOR BOTH ALUMINUM AND STAINLESS STEEL MATERIALS, AND ENSURES CLEAN, PRECISE CUTTING.

WHEN ENABLED, IT AUTOMATICALLY CUTS EACH CHANNEL LETTER AFTER COMPLETION, REDUCING MANUAL WORK AND SAVING BOTH TIME AND LABOR COSTS.





SOFTWARE

DEVELOPED IN-HOUSE FOR CONTINUOUS IMPROVEMENT.

MULTI-POINT GROOVING, CONTOUR OFFSET, GLUE WEIGHT & AREA CALCULATION, TOOL RADIUS COMPENSATION, MATERIAL MEMORY, AND ONE-CLICK MATERIAL CHANGE.

DESIGNED FOR EFFICIENCY AND PRECISION.

DRIVER

HIGH-POWER SERVO SYSTEM CONTROL WITH HIGH PRECISION, FAST SPEED, AND STRONG TORQUE, IMPROVING LETTERING EFFICIENCY.

FEATURES PROPRIETARY SOFTWARE AND DRIVERS FOR ABSOLUTE CONTROL OVER FEEDING, CUTTING, AND BENDING.



PARTS



CYLINDER

THE CHANNEL LETTER BENDING MACHINE IS EQUIPPED WITH DEDICATED FLANGE, V-NOTCH, AND SCISSORING CYLINDERS TO HANDLE ALL KEY FORMING OPERATIONS WITH PRECISION AND RELIABILITY.

THE FLANGE CYLINDER CREATES CLEAN, STRONG EDGES FOR SECURE FACE ATTACHMENT, THE V-NOTCH CYLINDER ENSURES ACCURATE BENDING POINTS, AND THE SCISSORING CYLINDER AUTOMATICALLY CUTS THE FINISHED LETTER, IMPROVING EFFICIENCY AND REDUCING MANUAL WORK.

MOTORS

THE BENDING MACHINE'S MOTOR PROVIDES CONSISTENT, STRONG POWER FOR FEEDING, CUTTING, AND BENDING, ENSURING SMOOTH OPERATION UNDER HEAVY WORKLOADS AND IMPROVING PRODUCTIVITY.

THE MOTOR WORKS WITH THE CNC SYSTEM FOR ACCURATE BENDING AND FEEDING, DELIVERING PRECISE RESULTS WHILE REDUCING ENERGY USE AND LOWERING OPERATING COSTS.



PARTS



ENCODER

THE ENCODERS FEATURE A DURABLE MECHANICAL STRUCTURE DESIGNED. HIGH-RESOLUTION OPTIONS WITH STABLE PULSE OUTPUT AND STRONG ANTI-INTERFERENCE CAPABILITY.

THEY PROVIDE PRECISE SPEED, POSITION, AND DIRECTION FEEDBACK, SUITABLE FOR SERVO SYSTEMS.

THEY SUPPORT MULTIPLE VOLTAGE LEVELS AND OUTPUT SIGNALS (SUCH AS TTL, HTL, AND LINE DRIVER)

OIL-WATER SEPARATOR

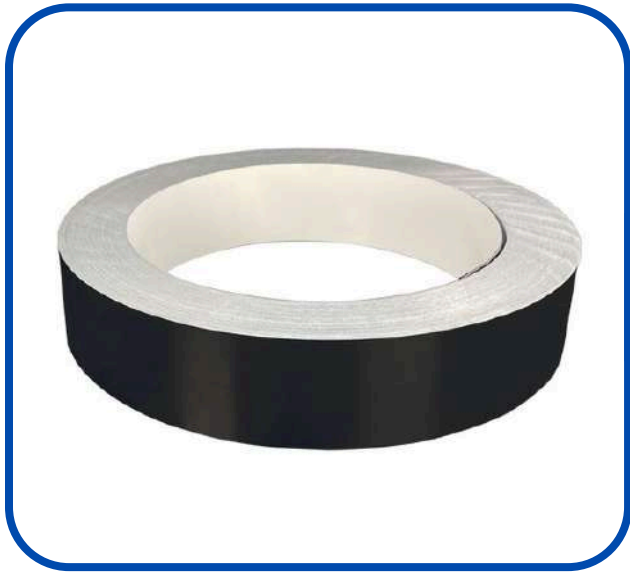
THE OIL-WATER SEPARATOR EFFECTIVELY REMOVES MOISTURE AND OIL FROM COMPRESSED AIR, ENSURING A CLEAN AND STABLE AIR SUPPLY FOR THE BENDING MACHINE.

THIS HELPS PROTECT PNEUMATIC COMPONENTS, REDUCES WEAR AND CORROSION, AND IMPROVES OVERALL MACHINE RELIABILITY AND SERVICE LIFE.



Technical Parameters

Slotting System	Servo planer slotting system
Bending System	Servo double blade altering bending
Feeding System	Circulation clamp feeding system
Working Voltage	Single Phase AC 220V,50/60Hz
Cutting Depth Calibration	Automatic by software
Size Accuracy	±0.1mm
Material Height	30-220mm
Material Thickness	0.8-1.2mm
Minimum Bending Radius	R≥3.5mm
Input File Format	*.AI
Packing Size	226*100*192cm(4.3m ³)
Packing Weight	938KGS
Applicable material	Flat aluminum/Steel / Galvanized plate/Iron



FLAT ALUMINUM COILS
AVAILABLE PROCESSING SIZES: 3CM UP TO 22CM

**APPLICABLE
MATERIAL**



STAINLESS STEEL
AVAILABLE PROCESSING SIZES: 3CM UP TO 22CM



GALVANIZED STRIPS

AVAILABLE PROCESSING SIZES: 3CM UP TO 22CM

APPLICABLE MATERIAL



IRON STRIPS

AVAILABLE PROCESSING SIZES: 3CM UP TO 22CM

ABOUT US

BUILD . TO LEAD .



Based in Weifang, Shandong, our modern manufacturing base covers over 12,000 m² and integrates research, development, production, and testing in one facility – ensuring stability, efficiency, and quality at every stage.

Hightech provides professional installation, training, and lifetime technical support. Our responsive service team and spare-parts centers ensure fast solutions and long-term reliability for every customer.



Equipped with advanced CNC machining centers, laser cutting systems, precision welding equipment, and intelligent assembly lines, Hightech continuously upgrades its technology to meet global industrial standards.



Driven by passion and professionalism, our international team of engineers, designers, and sales specialists works together to deliver innovative machines and trusted partnerships worldwide under the Hightech brand.





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