ADH MACHINE TOOL

PRESS BRAKE

WADG

ADH MACHINE TOOL

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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	6000 +	120 +	100 +
Founded	Annual Production	R&D Personnel	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.

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Electric

WADG Series

- Dual lead screw design, accuracy ±0.005mm.
- Italian servo technology, highly efficient and fast response.
- No hydraulic oil required, 95% transmission efficiency, 70% energy saving.
- Independent patented pure electric drive, environmentally friendly and clean.
- Servo control switching and positioning, doubles efficiency.
- Safety light curtain protection, safe operation.
- High-rigidity steel frame and German-made ball screw, durable and stable.

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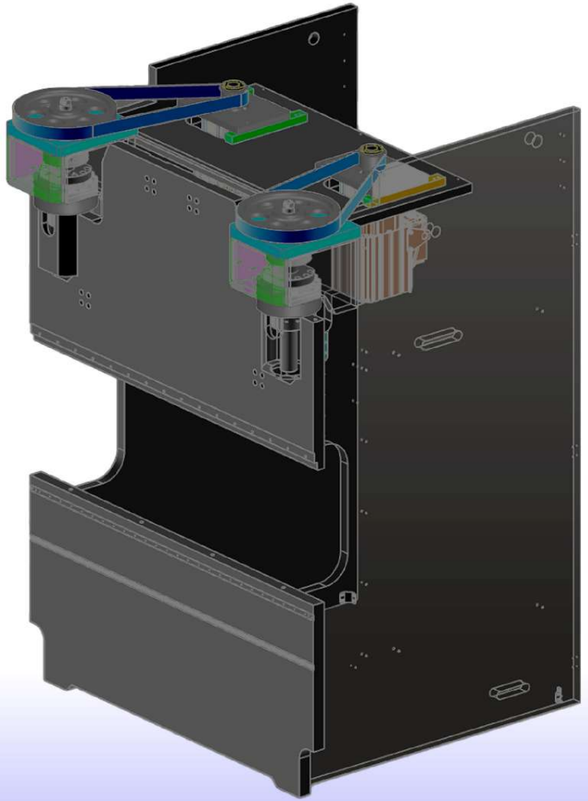
PRODUCT DETAILS

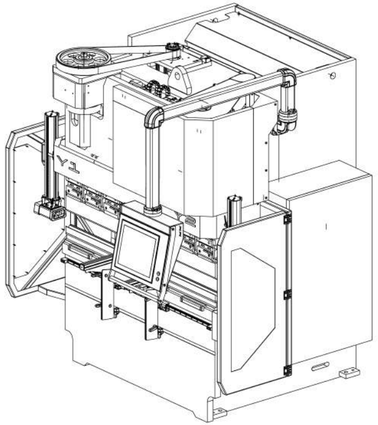


High Rigidity Frame

- Welded steel plates with CNC machining ensure rigidity, parallelism, and durability, minimizing deformation for consistent bending precision and long-term stability.

Special Connection Of The Upper Slider And The Lead Screw

- The left and right ball screws are tightly connected to the frame via bearing blocks, and the upper ram uses self-lubricating rectangular guide rails articulated with the screw nuts. This unique design prevents tilting or eccentric loading when the ram moves up and down, effectively protecting the ball screws and ensuring smooth machine operation.



Fast Clamp

- The precision quick clamp utilizes a gooseneck punch and a double-V die for rapid clamping and accurate positioning, ensuring effortless operation.
- The die can be installed and replaced from both the bottom and the side, reducing replacement time, increasing efficiency, and enhancing load-bearing capacity.

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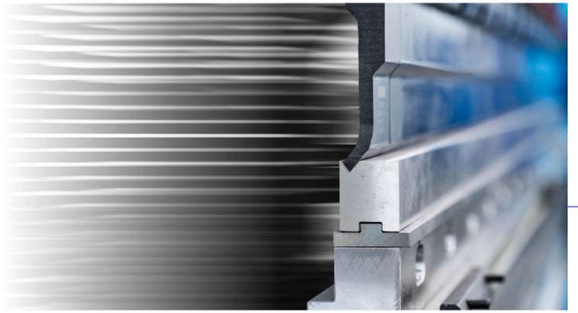
Synchronous Control Device

- The Synchronous Control Device ensures precise synchronization via dual grating rulers and hinge structure, preventing guide wear and load damage, while grating feedback enhances positioning accuracy.



Punch & Die

- Durable die materials ensure long-lasting performance, reduce downtime, increase productivity, and offer customizable options to meet diverse manufacturing needs.

Electrical Parts

- Advanced system bus control and terminal module communication ensure efficient wiring, faster signal transmission, strong anti-interference, and scalability for reliable machine performance.

Self-lubricating System

- An electric grease pump and metering dispenser system inject grease at timed intervals and in precise amounts, effectively reducing friction and preventing wear on the lead screw. It also prevents corrosion and dust ingress, significantly extending the service life of the lead screw.

Dual Linear Guide Front Support

- Front material support frame with dual linear guide rails, moves flexibly and can be stopped at any position, effectively improving parallelism and stability, comprehensively a ssisting bending work, making operation more comfortable and efficient.

Backgauge

- Servo motors drive ball screws on X-axis and R-axis for precise positioning, with manual Z-axis adjustment, ensuring accurate material placement.
- Features a high-precision multi-axis linkage system driven by servo motors for fast, reliable positioning, supported by a dual linear guide structure.

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Dual-lead Ball Screw Structure

- Dual-load design enhances operational stability and heavy-duty transmission efficiency, ensuring precise synchronization and resistance to tilting under eccentric loads.
- Combines grating scale feedback and hinge mechanisms for micron-level positioning accuracy, preventing screw deformation during high-precision bending operations.

Servo Drive

- Highly efficient servo drive delivers superior precision, rapid response, and over 70% energy savings for eco-friendly and cost-effective industrial operations.

Light Curtain

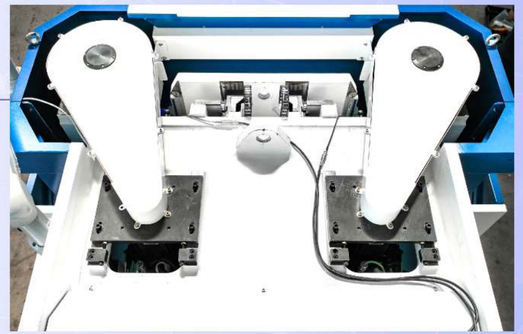
- The safety light curtain immediately halts machinery operation when detecting an intrusion into the working area, ensuring operator safety and preventing accidents.
- Featuring an immediate alarm response, the light curtain enhances workplace safety by stopping equipment when objects obstruct its detection field.

Crowning System

- The crowning system intelligently calculates bending pressure and angles to provide automatic compensation, ensuring precise and consistent bending results.
- A specialized throat deformation compensation device counteracts frame deformation, maintaining superior bending accuracy and overall workpiece quality.

Servo Drive System

- Achieves ±5μm repeatability in Y1/Y2 positioning accuracy with feedback from grating or magnetic rulers for precise bending operations.
- Utilizes pure electric servo drive system, offering fast response speeds and high bending performance, surpassing hydraulic mechanisms.
- Reduces energy consumption by over 70% compared to hydraulic systems while maintaining high-speed and accurate performance.



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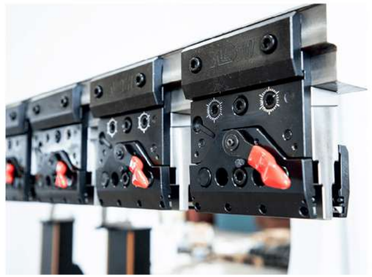
OPTIONAL



Double Sided Quick Clamp

- Dual-sided quick-release mechanism enables tool-free die switching in seconds, minimizing setup downtime while maintaining secure clamping force for consistent bending accuracy.
- Double V-design clamping accommodates various die types, enabling flexible configurations for diverse sheet metal applications.
- Lever-operated clamps provide single-motion fixation, reducing fatigue and streamlining workflow in high-volume production.

Wila Hydraulic Clamping System

- Reduce tool change time by 80% with the Wila Hydraulic Clamping System, enabling quick, push-button loading and secure tool retention for enhanced productivity.
- Experience over 10 years of durability with the Wila "New Standard" Tooling System, designed for safe and efficient operation with Europe-type punches.

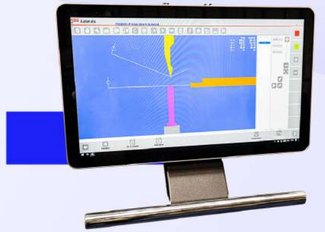
DSP Laser Protection

- EN12622 (CAT.4/SIL3) compliant laser barrier prevents crushing during rapid press closure.
- MCS module manages diverse signals and functions for optimized, safe press brake performance.

CONTROLLER

DELEM DA-66S (Netherlands)

- 2D touch screen programming
- 3D machine simulation
- 24" high-res color display
- Delem Modusys compatible
- USB interface
- Multitasking user apps
- Sensor bending correction
- Profile-S2D software

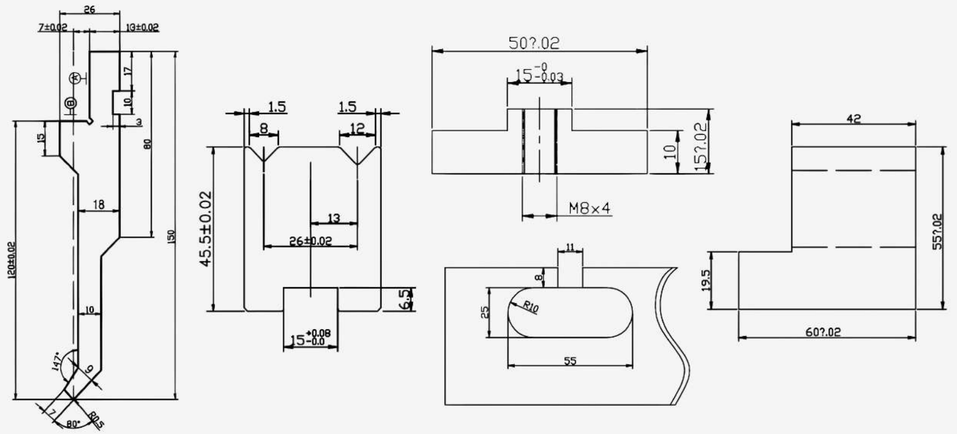


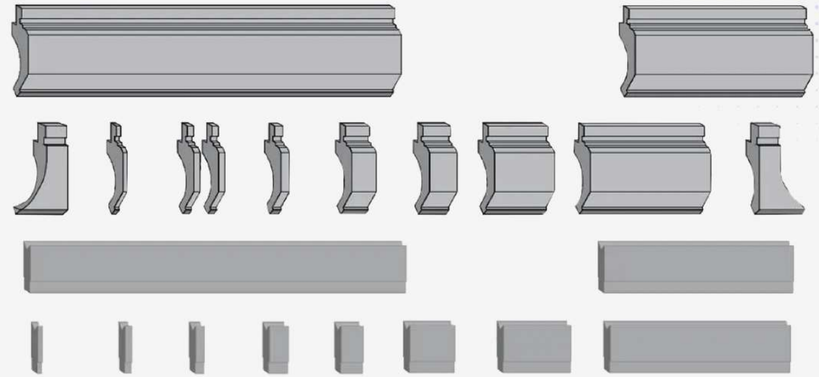
ESA S875 (Italy)

- 19-inch multi-touch industrial PC
- Supports DXF import and 3D bending
- Cloud-based Modbus TCP interface
- Workpiece design and tool management
- Integrated dataM angle measurement

SCS920 (China)

- 21.5-inch capacitive screen
- Standard 6+1 axis (expandable to 8+1)
- Supports expansion functions
- Electro-hydraulic press brake
- All-electric press brake
- Dual-pump press brake





Standard Toolings

- Durable Wila "New Standard" system: 10+ years service, swift tool changes, Europe-type punch compatibility.
- Secure, high-strength tooling from international standard materials with safety groove for reliable, long-lasting performance.

Segmented Toolings

- Modular segments offer customizable assembly, boosting versatility for various bending operations and box shapes.
- Achieve precise box bending and diverse angles with customizable, split punch and die segmented tooling.

Specifications

WADG Series

COMPONENTS	
Name	Brand/Details
Main servo motor	Italy Phase
Rear stopper linear guide	HIWIN
Rear stopper ball screw	HIWIN
Heavy-duty ball screw	Germany IF
Electrical components	Schneider
Bearing	Japan NACHI
CNC system	ADH/ Delem / ESA/ Cybelec
Magnetic scale	GIVI or FAGOR
Timing belt	Italy MACO

EQUIPMENT EORKING ENVIRONMENT	
Name	Parameters
Power requirements	Three-phase four-wire system, 380V, 50Hz
Installation site	Clean, low dust
Maximum temperature	40℃
Minimum temperature	-5℃
Relative humidity	55—85%
Altitude	Below 1000M
Machine noise measurement standards	A-weighted sound pressure level LPA≤82dB(A) A-weighted sound power level LWA≤94 dB(A)
Machine standards followed	GB 17120-2012 GB/T 34376-2017 Q/320585 DTM 01-2017

Model	Bending Force	Bending Length	Aprroaching Speed	Working Speed	Return Speed	X-axis Stroke	X-axis Speed	R-axis Stroke	R-axis Speed	Distance Between Columns	Throat Depth(D)	Stroke(C)	Open Height	Main Motor	Weight	Overall Dimensions
Unit	KN	mm	mm/s	mm/S	mm/S	mm	mm/s	mm	mm/s	mm	mm	mm	mm	KW	Ton	L×W×H mm
10T/500	100	500	180	0.15-30	180	200	400	80	200	510	200	150	420	6	1.2	640*980*1250
20T/800	200	800	250	0.15-30	250	400	500	150	200	680	250	150	420	15	3.3	1200*1560*2450
30T/1250	300	1250	250	0.15-30	250	400	500	150	200	900	250	150	420	20	4.3	1460*1660*2470
40T/1300	400	1300	250	0.15-30	250	400	500	150	200	920	255	150	420	2X15	4.7	1700*2050*2280
50T/1600	500	1600	250	0.15-30	250	400	500	150	200	1250	255	150	420	2X15	5.1	2200*2050*2280
60T/2000	600	2000	250	0.15-30	250	500	500	150	200	1600	300	200	470	2X20	5.9	2700*2150*2380
80T/2500	800	2500	200	0.15-30	200	500	500	150	200	2000	460	200	470	2X25	9.3	3000*2250*2380
100T/3200	1000	3200	200	0.15-30	200	500	500	150	200	2700	460	200	470	2X25	11.5	4000*2450*2580
160T/3200	1600	3200	200	0.15-30	200	500	500	150	200	2700	460	250	520	3X25	12.9	4000*2450*2780