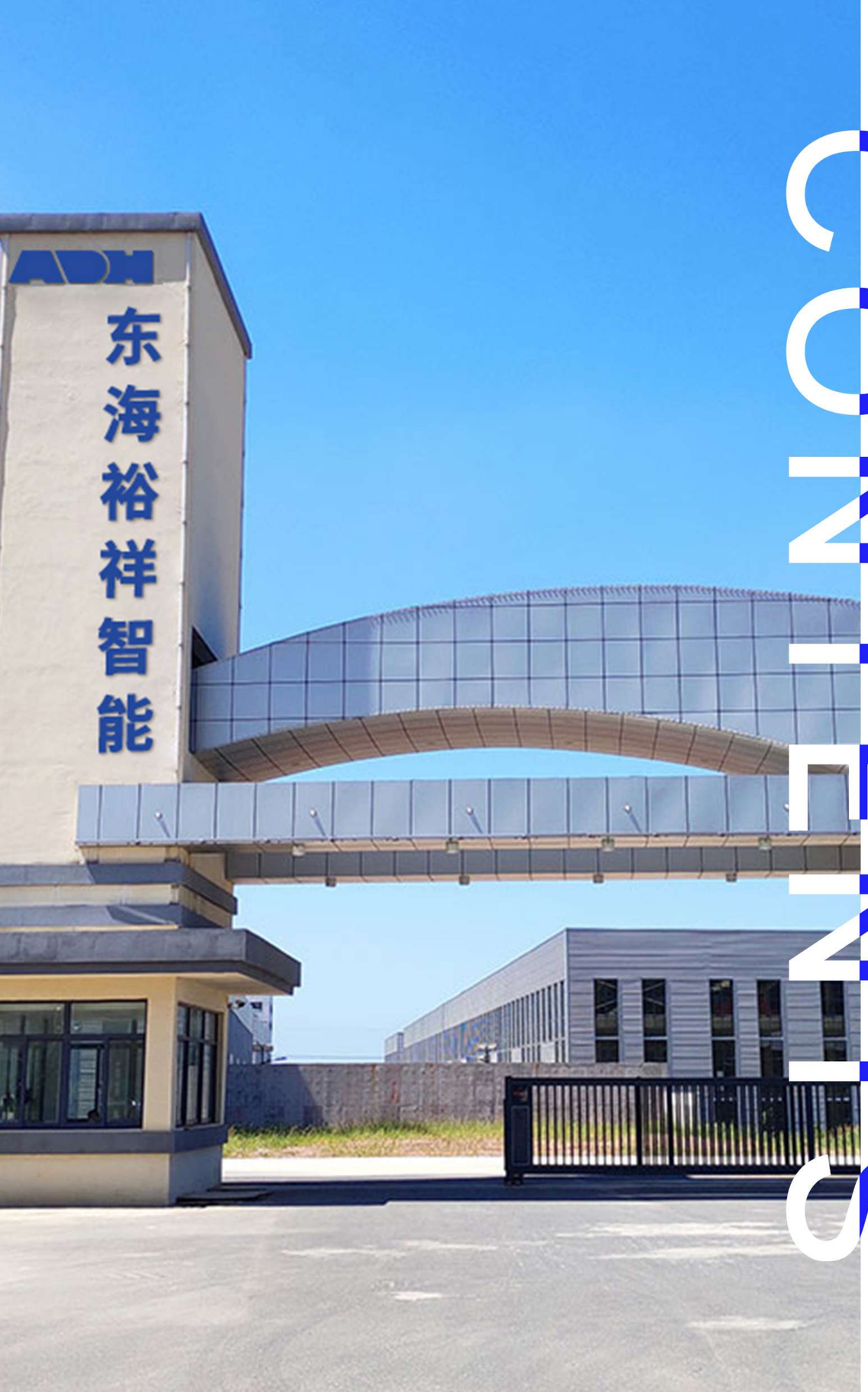
PANEL BENDER



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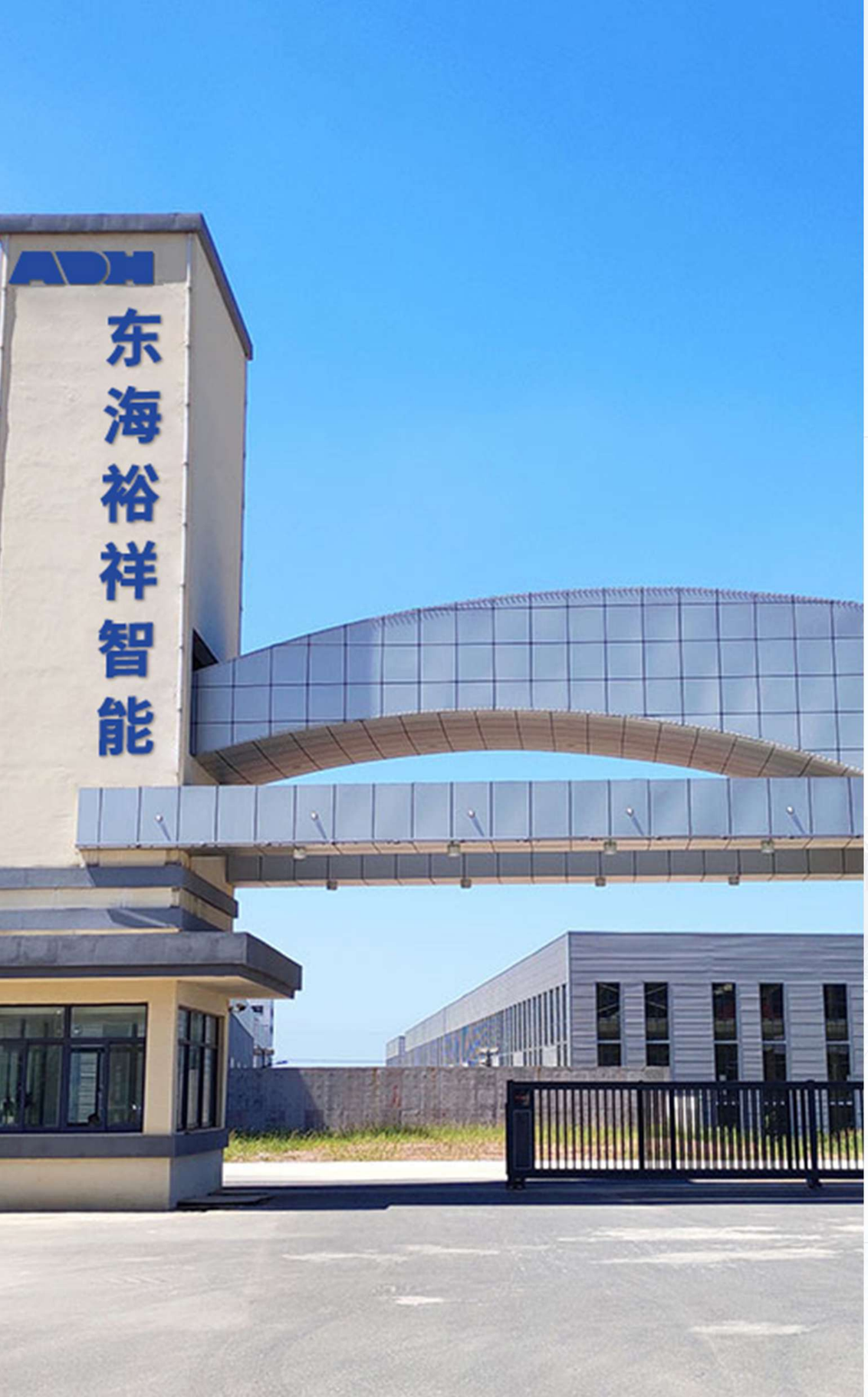


PART 01

COMPANY PROFILES

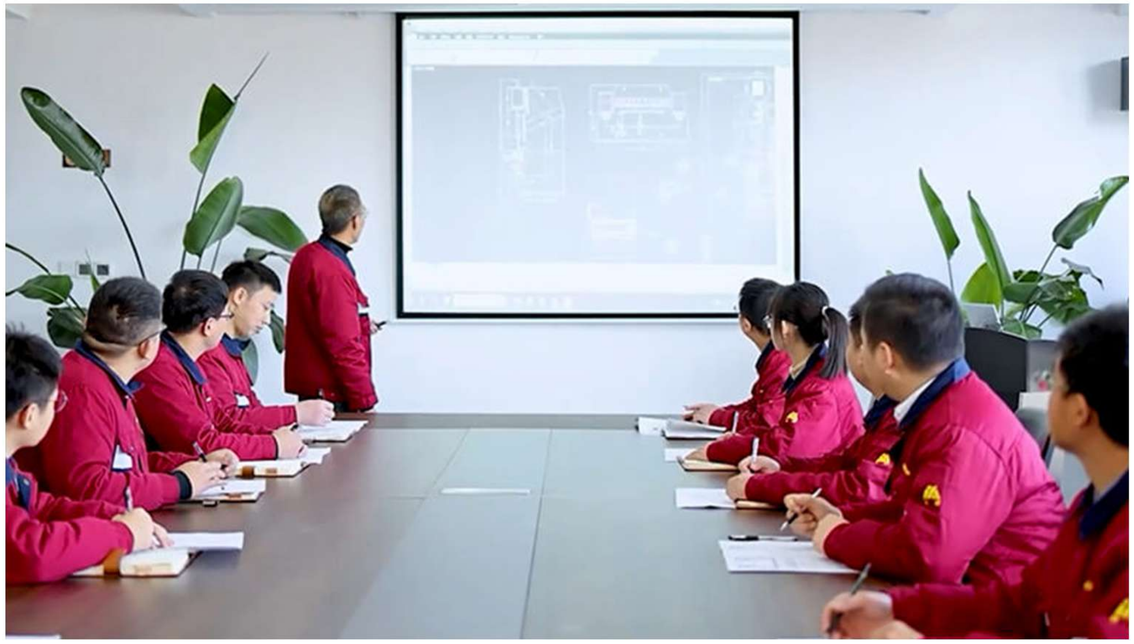
COMPANY PROFILE

For the past 40 years since 1982, our machines have been used by more than 50000 customers around the world. Over the years, ADH has focused on innovative research and development, and has become a leading manufacturer of metal sheet metal forming, laser cutting equipment and intelligent solutions.

- 40 years manufacturing & servicing experience
- Export to over 80 countries
- More than 40 technicians
- Rank top 5 in China

EMPLOYEES	617	PRODUCTION BASES	3
ANNUAL SALES VOLUME	5000	SALES/SERVICE OFFICE	67

ENTERPRISE FAITH



- Adhering to the design concept of "breaking through tradition, innovation and development", and the business philosophy of "quality first, integrity first, and dedicated service", the company has successfully developed and owned a large number of high-quality customers through continuous efforts, and has set off a technological innovation in the sheet metal industry.

- In response to the national intelligent manufacturing development strategy, the company focuses on high-end intelligent equipment research and development, assists Industry 4.0, and contributes to the upgrading of the national manufacturing industry.
- We are willing to join hands with all sectors of business to create a better future.

Build an ADH industrial ecosystem in an all-round way, and work together to help upgrade the traditional manufacturing industry!

FACTORY PROFILE

- The factory is located in Bowang District, Ma'anshan, covering an area of 40000 square meters.

HONOR & QUALIFICATION

- More than **110** core technology patents have been applied and more than **50** have been authorized. It has passed the national high-tech enterprise certification.
- Founders were selected into the "High level Entrepreneurship Talent Introduction Plan" "High level Innovation and Entrepreneurship Talents"
- Obtain the Inspection Report of the National Machine Tool Quality Supervision and Inspection Center
- Passed the "GB/T 19001-2016/ISO 9001:2015a" quality management system certification

OUR PARTNERS

Midea | Panasonic 松下电器 | DONPER 东贝集团 | 恒洁 HEGII | TBK 金荣乐华 | SIMTO 新多 用心为您做 | 万控

MayAir 美埃净化 | HSG 宏山 | JFY 金方圆 | YANKON 阳光 | 开山股份 ENGINEERING THE FUTURE | ZTE 中兴 | GreatStar 巨星集团

FOTILE 方太 | FANGDA 方大集团 | JIN HU GROUP 金虎集团 | MACHAN 明昌钢具 | 二轻机械厂 | 金彭 | XINDADI 新大地

沃得集团 WORLD GROUP | 旺泉 | Haohan 浩瀚 | 天翔电气 | 银都餐饮设备 YINDU KITCHEN EQUIPMENT | 朗威股份 LONGWAY | 宇王厨业

通润 天狼 通润装备 | 成威 | SUNWAY | TOTEN 图腾机柜 | 天工 TIAN GONG | XINGX 星星冷链 全球冷链生态的创造者 | 景兴智能医用设备 JINGXING INTELLIGENT MEDICAL EQUIPMENT | SHIP 一舟

* In no particular order

SALES NETWORK

80 +

Exported to more than 100 countries and regions

60 +

More than 150 offices at home and abroad

AFTER-SALES SERVICE

Pre Sale

- Select the most suitable press brake and toolings according to the customer's processing products, and try to meet the customer's requirements for bending quality and efficiency on the basis of cost saving.
- Every suggestion we give has been carefully considered by our professional engineers, and we will definitely give the final scheme that is most suitable for users.

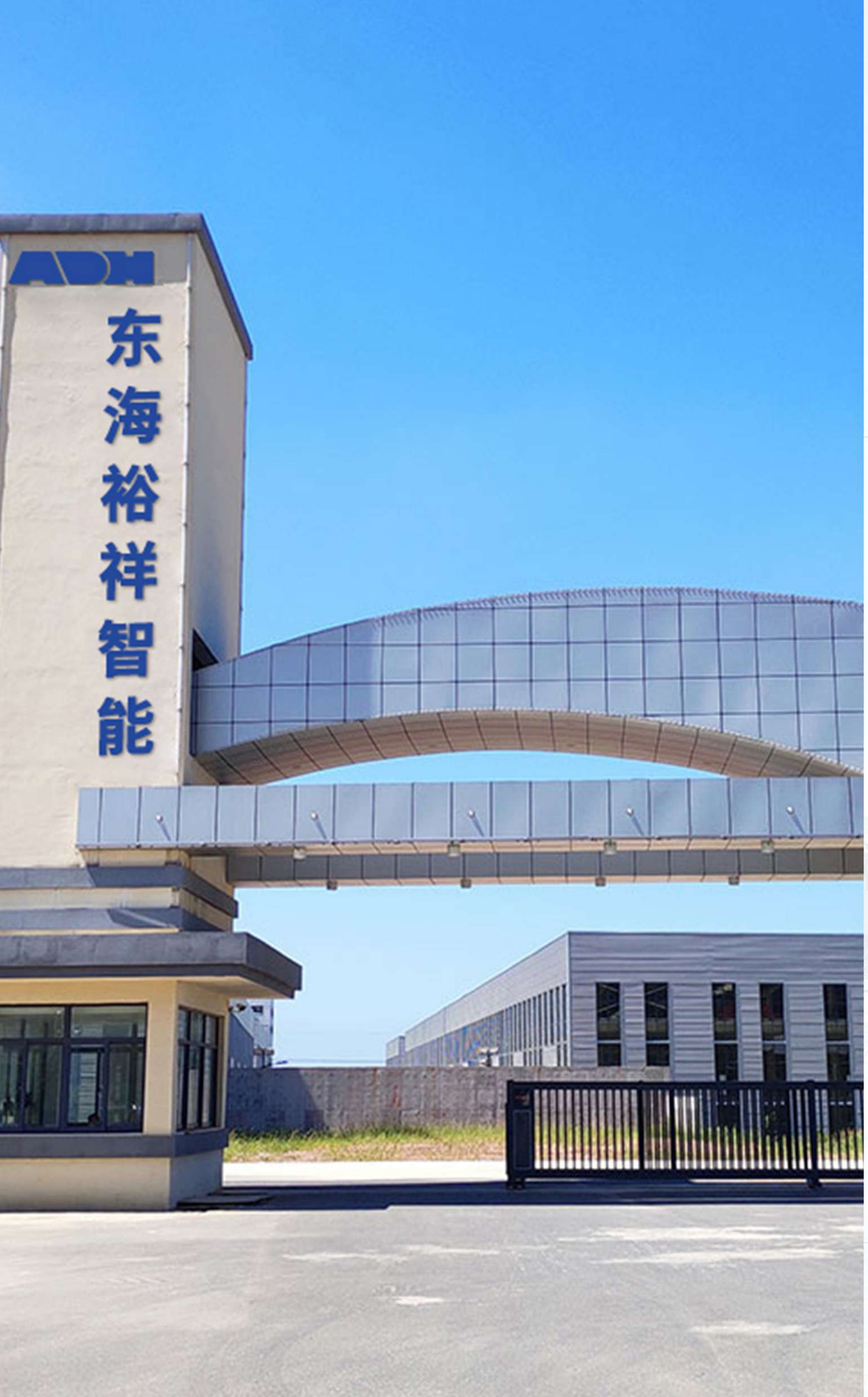
On Sale

- Meet customer needs, strictly implement the terms of the contract, and ensure that every equipment received by the customer is completed with high quality standards.

After Sales

- Free replacement of parts for customers within 1-3 years warranty period.
- Provide professional remote online guidance and door-to-door service.
- Provide after-sales tracking service, establish user service files, and make machine maintenance for regular customers more convenient.

Provide 7x24 hours of after-sales online service, maximize the protection of users' daily production plans, and ease after-sales problems.



PART 02

PRODUCTS PROFILES

PRODUCTS PROFILES

PB-S series

- ★ PB1000S / PB1400S

PB-P series

- ★ PB1400P / 2000P / 2500P

The Fifth Generation Launched

- ★ PB2000PS / 2500PS / 2500PU
- ★ PB2000A / 2500A

PB-S SERIES

Feeding mode	Suction cup type
Positioning method	Y-axis three guiding rule
Suitable material	Stainless steel, aluminum plate, cold plate and other metal materials
Sheet thickness	0.35-2mm
Sheet size	Maximum 2500 * 2500mm
Sheet requirements	The surface of the plate is flat,without punching or holes,and the suction cup can grip

Hot Selling Model: ☑ PB1000S ☑ PB1400S ☑ PB2000S ☑ PB2500S

PB-S SERIES

Configuration Parameter	PB1000S	PB1400S
Fastest bend speed	0.2 sec/bend	0.2 sec/bend
Maximum bend width	1000mm	1400mm
Bend height	170mm	170mm
Rated voltage	380V	380V
Total motor power	25KW	34KW
Average power	About 1.1KW	About 1.5Kw
Noise	About 50dB	About 50dB
Overall dimensions	285*150*280cm	365*190*290cm
Total weight	About 7t	About 10t
Maximum bend thickness (customized)	UST 515N/mm2 304 Stainless Steel 1.0mm UST 410N/mm2 Cold Plate 1.2mm UST 515N/mm2 Aluminum Plate 1.6mm	UST 515N/mm2 304 Stainless Steel 1.0mm UST 410N/mm2 Cold Plate 1.2mm UST 515N/mm2 Aluminum Plate 1.6mm
Minimum material thickness	0.35mm	0.35mm
Minimum internal dimension of four-sided forming	140 * 210mm (only for replaceable suction cups)	140 * 210mm (only for replaceable suction cups)
Minimum internal dimension of four-sided forming	140mm	140mm
Maximum bend size	1000*1000mm	1400*1000mm
Number of axes	Standard 9-axis concurrent linkage	Standard 9-axis concurrent linkage
Power hinge knife	Optional	Optional

PB-P SERIES

Feeding mode	Press arm type
Positioning method	Double Y-U automatic positioning guiding rule
Number of standard axes	13
Suitable material	Stainless steel, aluminum plate, cold plate and other metal materials
Sheet thickness	0.35-2mm
Sheet size	Maximum 2500 * 1250mm
Sheet requirements	It is applicable to mesh, corrugated, hollow and various flat or special-shaped workpieces
Functional features	Double C-axis rotation for automatic borrowing and oblique borrowing

Hot Selling Model: ☑ PB1400P ☑ PB2000P ☑ PB2500P

PB-P SERIES

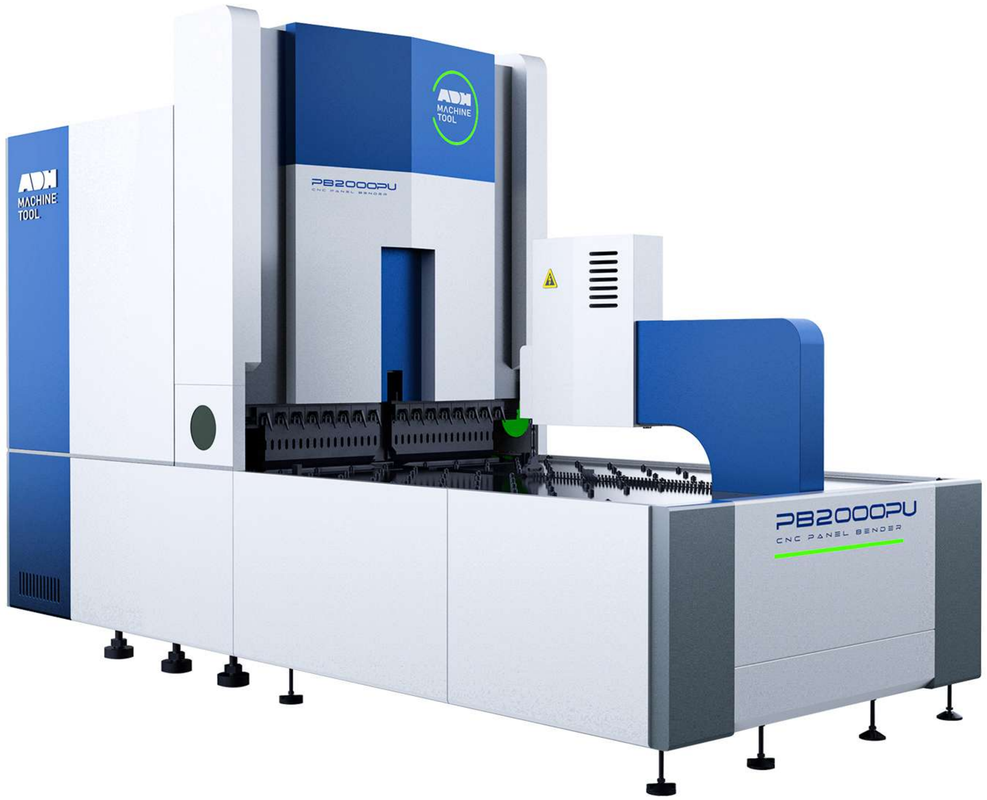
Configuration Parameter	PB1400P	PB2000P	PB2500P
Fastest bend speed	0.2 sec/bend	0.2 sec/bend	0.2 s/bend
Maximum bend width	1400mm	2000mm	2500mm
Bend height	170mm	170mm	170mm
Rated voltage	380V	380V	380V
Total motor power	38Kw	77Kw	77Kw
Average power	About 1.8Kw	About 2.5Kw	About 2.8Kw
Noise	About 50dB	About 50dB	About 50dB
Overall dimensions	440*190*290cm	510*265*330cm	565*300*340cm
Total weight	About 12t	About 16t	About 19t
Maximum bend thickness (customized)	UST 515N/mm2 304 Stainless Steel 1.2mm UST 410N/mm2 Cold Plate 1.5mm UST 515N/mm2 Aluminum Plate 2.0mm	UST 515N/mm2 304 Stainless Steel 1.2mm UST 410N/mm2 Cold Plate 1.5mm UST 515N/mm2 Aluminum Plate 2.0mm	UST 515N/mm2 304 Stainless Steel 1.2mm UST 410N/mm2 Cold Plate 1.5mm UST 515N/mm2 Aluminum Plate 2.0mm
Minimum material thickness	0.35mm	0.35mm	0.35mm
Minimum internal dimension of four-sided forming	140*190mm	140*190mm	140*190mm
Minimum internal dimension of four-sided forming	140mm	140mm	140mm
Maximum bend size	1400*1400mm	2000*1250mm	2500*1250mm
Number of axes	Standard 13 axis concurrent linkage	Standard 13 axis concurrent linkage	Standard 13 axis concurrent linkage
Power hinge knife	Optional	Optional	Optional

PB2000PS SERIES

Feeding mode	Press arm type
Positioning method	Double Y-U automatic positioning guiding rule
Number of standard axes	18
Spindle configuration	X/Y/Z three axis three drive
Sheet size	Maximum 2500 * 1250mm
Functional features	The deflection compensation can be adjusted by numerical control, and the bending thickness range is increased; The accuracy of thick plate bending is improved; High comprehensive bending speed; Quick disassembly and quick assembly upper press knife; Standard power hinge knife;

Hot Selling Model: ☑ PB2000PS ☑ PB2500PS

PB2500PU SERIES



Hot Selling Model: ☑ PB2500PU

Feeding mode	Press arm type
Number of standard axes	16
Sheet thickness	0.35-2mm
Sheet size	Maximum 2500 * 1250mm
Sheet requirements	It is applicable to mesh, corrugated, hollow and various flat or special-shaped workpieces
Functional features	Automatic borrowing and oblique borrowing; The C-axis can be lifted; High comprehensive bending speed; Quick disassembly and quick assembly upper press knife; Standard power hinge knife;

PB-PS/PU SERIES

Configuration Parameter	PB2000PS	PB2500PS	PB2500PU
Fastest bend speed	0.2 sec/bend	0.2 sec/bend	0.2 s/bend
Maximum bend width	2000mm	2500mm	2500mm
Bend height	170mm	170mm	170mm
Rated voltage	380V	380V	380V
Total motor power	168Kw	168KW	81Kw
Average power	About 5.4KW	About 5.8KW	About 2.9Kw
Noise	About 50dB	About 50dB	About 50dB
Overall dimensions	510*265*330cm	565*300*340cm	565*300*340cm
Total weight	About 16t	About 19t	About 19t
Maximum bend thickness (customized)	UST 515N/mm2 304 Stainless Steel 1.5mm UST 410N/mm2 Cold Plate 2.0mm UST 515N/mm2 Aluminum Plate 3.0mm	UST 515N/mm2 304 Stainless Steel 1.5mm UST 410N/mm2 Cold Plate 2.0mm UST 515N/mm2 Aluminum Plate 3.0mm	UST 515N/mm2 304 Stainless Steel 1.2mm UST 410N/mm2 Cold Plate 1.5mm UST 515N/mm2 Aluminum Plate 2.0mm
Minimum material thickness	0.35mm	0.35mm	0.35mm
Minimum internal dimension of four-sided forming	140*190mm	140*190mm	140*190mm
Minimum internal dimension of four-sided forming	140mm	140mm	140mm
Maximum bend size	2000*1250mm	2500*1250mm	2500*1250mm
Number of axes	Standard 18 axis concurrent linkage	Standard 18 axis concurrent linkage	Standard 16 axis concurrent linkage
Power hinge knife	Standard configuration	Standard configuration	Standard configuration

PB-A SERIES

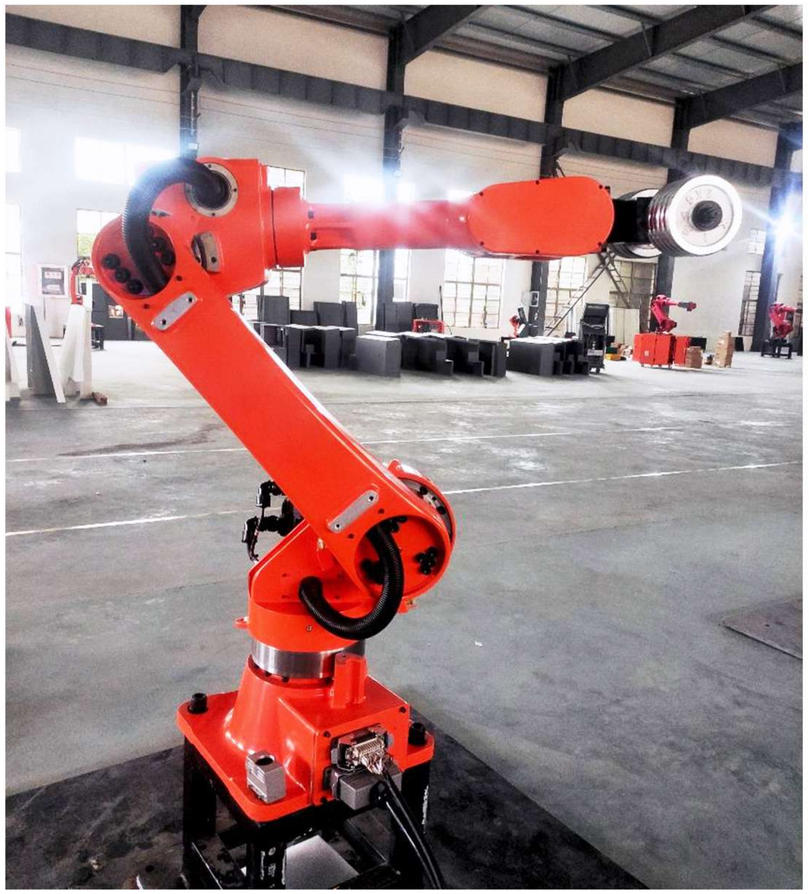
Feeding mode	Press arm type
Tool assembly method	Automatic knife assembly
Auxiliary tool structure	Standard auxiliary knife
Number of standard axes	21
Sheet size	Maximum 2500 * 1250mm
Functional features	High comprehensive bending speed; Standard power hinge knife; The replacement of workpiece requires no manual tool assembly, which is more convenient and efficient; Equipped with auxiliary tool, it can realize local bending of workpiece; Series combined upper press tool, with higher efficiency of tool assembly (unique patent).

Hot Selling Model: ☑ PB2000A ☑ PB2500A

PB-A SERIES

Configuration Parameter	PB2000A	PB2500A
Fastest bend speed	0.2 sec/bend	0.2 sec/bend
Maximum bend width	2000mm	2500mm
Bend height	170mm	170mm
Rated voltage	380V	380V
Total motor power	82KW	82KW
Average power	About 2.9KW	About 3.0Kw
Noise	About 50dB	About 50dB
Overall dimensions	510*265*330cm	565*300*340cm
Total weight	About 16t	About 19t
Maximum bend thickness (customized)	UST 515N/mm2 304 Stainless Steel 1.2mm UST 410N/mm2 Cold Plate 1.5mm UST 515N/mm2 Aluminum Plate 2.0mm	UST 515N/mm2 304 Stainless Steel 1.2mm UST 410N/mm2 Cold Plate 1.5mm UST 515N/mm2 Aluminum Plate 2.0mm
Minimum material thickness	0.35mm	0.35mm
Minimum internal dimension of four-sided forming	140*190mm	140*190mm
Minimum internal dimension of four-sided forming	140mm	140mm
Maximum bend size	2000*1250mm	2500*1250mm
Number of axes	Standard 21 axis concurrent linkage	Standard 21 axis concurrent linkage
Power hinge knife	Standard configuration	Standard configuration

PB ROBOT ARM



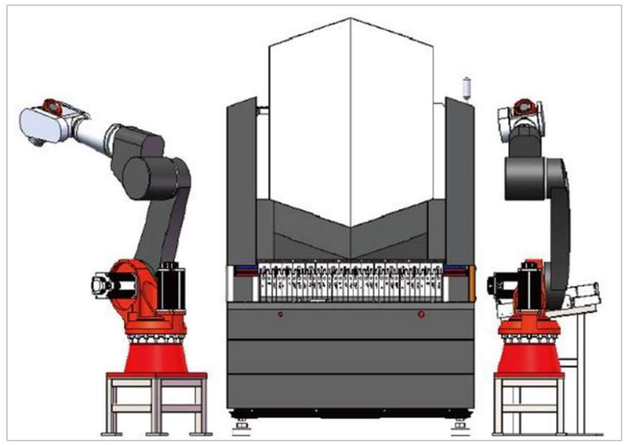
Product name	6-DOF joint robot
Control system	ADH multi axis concurrent linkage control system
Programming mode	According to the bending center program, the robot arm action is automatically generated and controlled by the same system as the bending center.
Function application	Automatic loading and unloading
Application expansion	It can be connected to upstream and downstream production lines

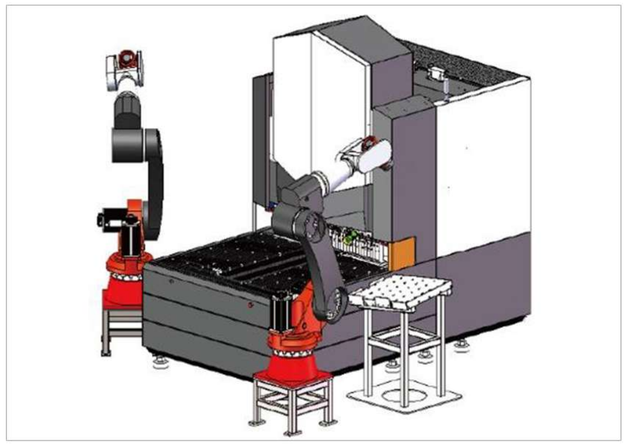
Hot Selling Model: ☑ PB01-18-20 ☑ PB01-25-50

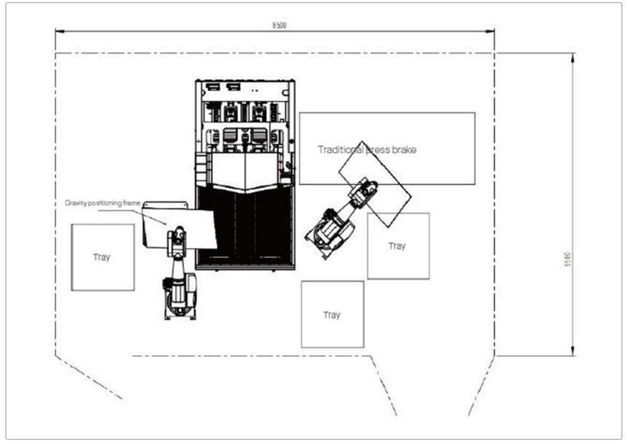
PB ROBOT ARM

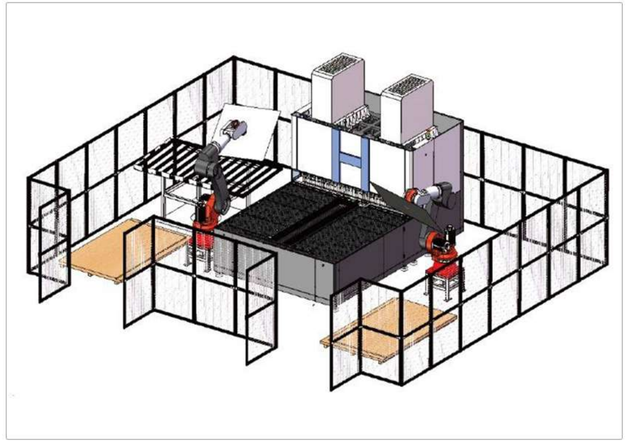
Configuration Parameter		PB01-18-20	PB01-25-50
Name		6-DOF joint robot	6-DOF joint robot
Maximum arm span		1800mm	2550mm
Maximum load		20KG (including suction cup clamp)	50KG (including suction cup clamp)
Maximum overall dimension of clamping plate		1100*900mm	2000*1000mm
Repetitive positioning accuracy		±0.1mm	±0.1mm
Power capacity		6.8KVA	15.6KVA
Action range	J1 (base rotation)	±160°	±160°
	J2 (big arm)	-140°/+75°	±70°
	J3 (small arm)	-65°/+190°	-75°/+115°
	J4 (wrist rotation)	±180°	±180°
	J5 (wrist swing)	±110°	±125°
	J6 (wrist rotation)	±360°	±360°
Maximum speed	J1 (base rotation)	120°/s	84°/s
	J2 (big arm)	160°/s	52°/s
	J3 (small arm)	148/s	52°/s
	J4 (wrist rotation)	234°/s	245°/s
	J5 (wrist swing)	300°/s	223°/s
	J6 (wrist rotation)	360°/s	223°/s
Degree of protection		IP54	IP54
Body weight		About 180KG	About 725KG
Standard suction cup		8	8

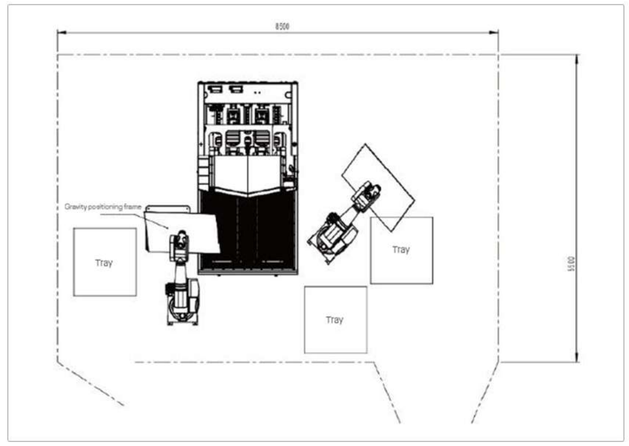
AUTOMATIC LOAD/UNLOAD









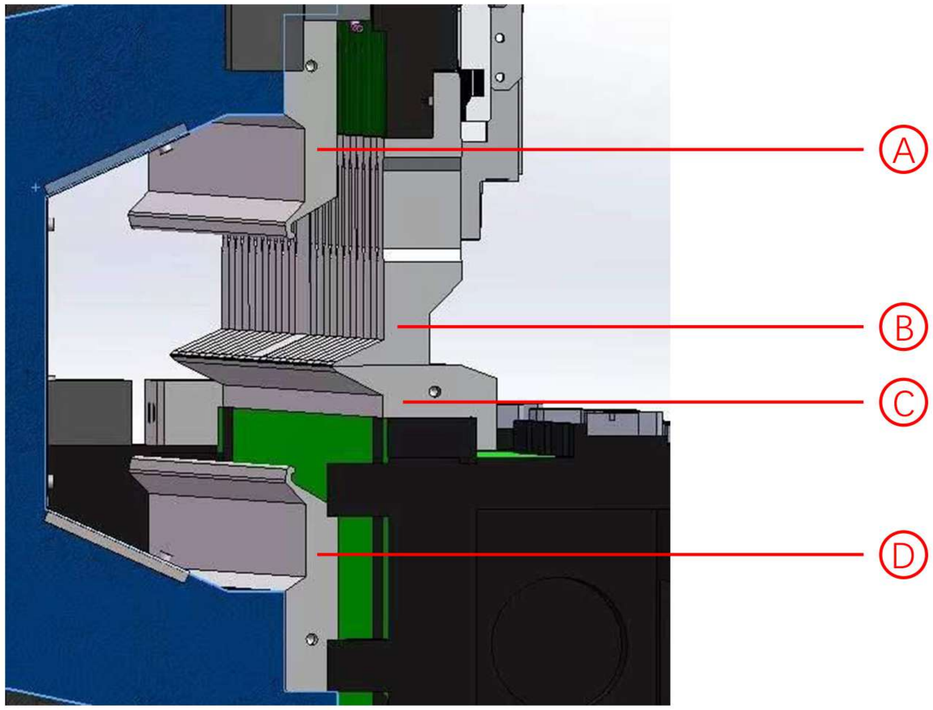


- The system reserves abundant Industry 4.0 interfaces, which can connect with the robot arm to realize automatic loading and unloading.
- Equipped with ADH self driving robot arm, it has the same control system as the bending center. There is no need for secondary programming to replace the workpiece. The system automatically generates the action of the robot arm according to the bending command, which is more efficient and better coordinated.

BRAND MANUFACTURER

Name	Brand	Explaination
Operating Environment	Microsoft	Operation system not less than Wim7/LINUX
CNC System	PC-BASE's new independently developed 9-axis+concurrent linkage full servo CNC system supports 128 axes as standard configuration, and a single control board supports up to 32 axes of concurrent linkage, which can realize unlimited cascade;	The tool mechanism supports 32 axis concurrent linkage; The bending mechanism supports 32 axis concurrent linkage; Loading and unloading mechanism (articulated robot arm) supports 64 axis configuration.
Servo Motor	Joint R&D	Joint research and development of the full closed loop system, perfect match with the control system, and the highest efficiency in the industry.
Ball Screw	China	Domestic top screw manufacturer Nanjing Technical 8020 heavy duty grinding grade ball screw.The transmission is more stable and the precision is higher.
Bearing	NACHI	Japanese NACH high load ball screw injection molding machine special bearing. The bearing ball diameter up to 16mm, 12 bearings per shaft.
Linear Guide	China	China heavy-duty high-precision P-class 55 roller type linear guide has greater bearing capacity and higher accuracy.
Bed	ADH	ADH independently designs a high-grade casting fuselage, which uses high-grade QT500-7 and gray iron 250 castings to effectively ensure the stability under high tonnage impact.
Tooling	ADH	ADH patented tool, with deep carbon treatment process, high-frequency quenching and overall quenching and tempering.More wear-resistant, longer service life.
Suck cup	AIRBEST	Oil proof material, durable and replaceable
Pneumatic accessories	Japan SMC/Taiwan AIRTAC	Famous Japanese/Taiwan brands
Reducer	ADH joint R&D	High precision bevel helical planetary gear reducer with stronger bearing capacity.
Coupling	Tecmen	Sino German joint venture brand
Electrical Components	Schneider	French brand
Oil System	ISHAN	Taiwan funded brand

ADH PATENT KINFE



- The upper and lower bending tools (A, D) bend upward or downward during the work.
- The upper press tool (B) works simultaneously with the bending tool and the lower press tool to fix and bend the plate accurately and efficiently. The lower press tool (C) clamps the sheet during bending.

- The imported slow wire process has higher consistency, and the precision of the universal segmented upper press tool can reach 0.006mm, realizing true bending without indentation. The overall heat treatment and ultra deep cooling process have higher hardness and wear resistance.
- Cr12Mov or 42Crmo materials are used, and different materials can be selected according to the customer's process.
- Self built tool factory, each tool can be traced back to the source, and through strict quality inspection, the quality is more guaranteed.

CORE COMPONENTS

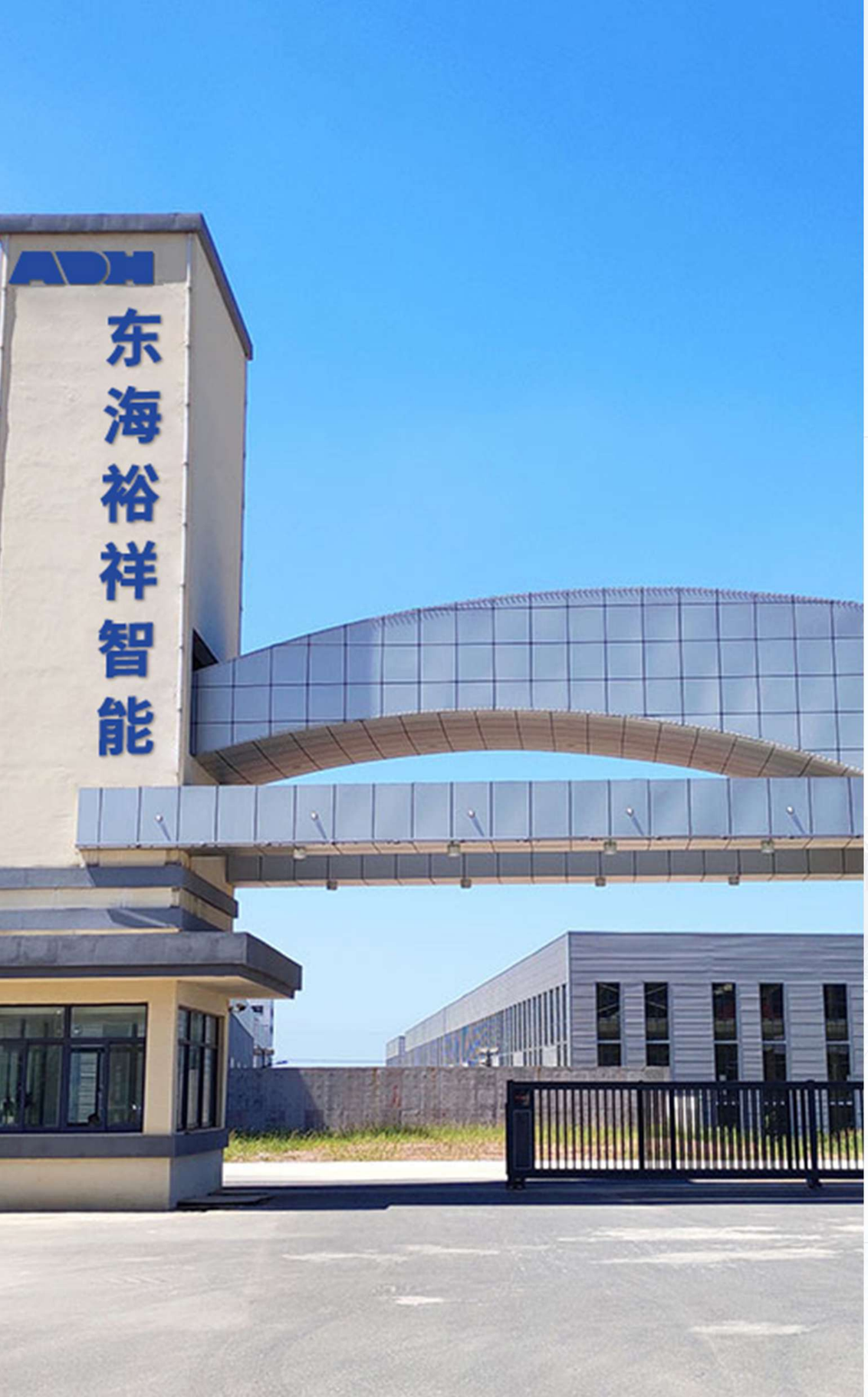
- The core frame of the equipment is made of high grade QT500-7 and gray iron 250 castings.

  Long term operation is stable and reliable.

- China 8020 heavy load grinding grade screw rod is selected to ensure more stable transmission and higher accuracy.

- China heavy-duty high-precision P-class 55 ball type track is selected, which has greater bearing capacity and higher accuracy.

- The special bearing for NACHI original high load ball screw injection molding machine is selected, and the bearing ball diameter is up to 16mm.



PART 03

PRODUCTS APPLICATION

APPLICATION AREA

File cabinet ☑

Electrical cabinet ☑

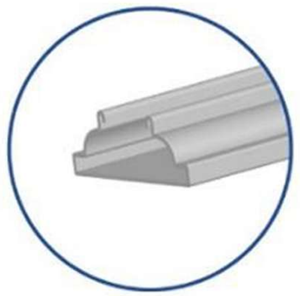
Kitchenware ☑

Furniture ☑

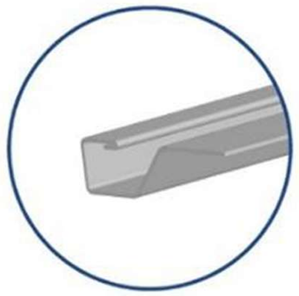
Decoration ☑

ADH Panel Bender can be widely used in the field of steel cabinet shell (file cabinet, tool cabinet, outer cover, electrical cabinet, communication cabinet, gas cabinet, water meter cabinet...), kitchen appliance (refrigerator, air conditioner, cooker...), furniture, ventilation, refrigeration, purification, door industry, decoration, elevator and other related metal forming fields.

TECHNOLOGY SHOW



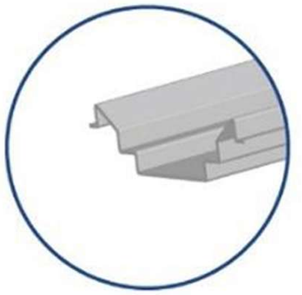
Arc



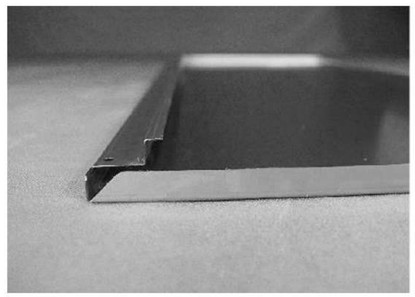
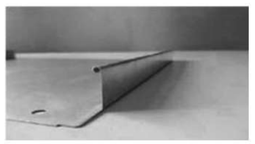
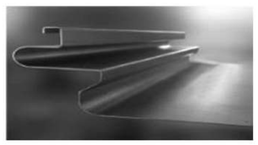
Hemming

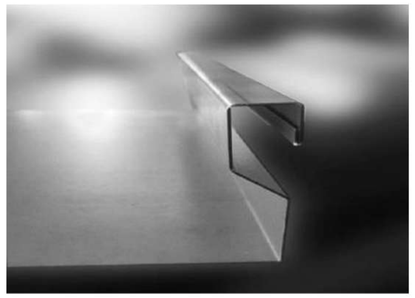
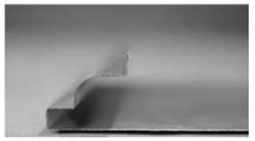
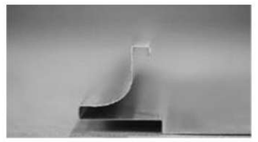
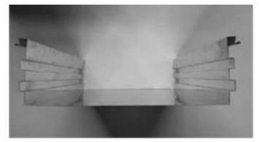
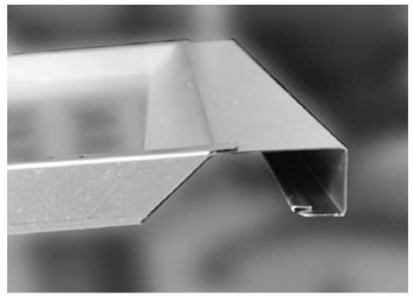
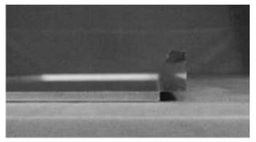
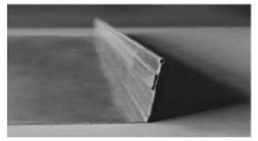
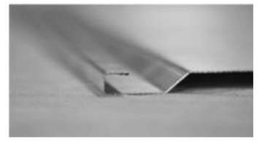
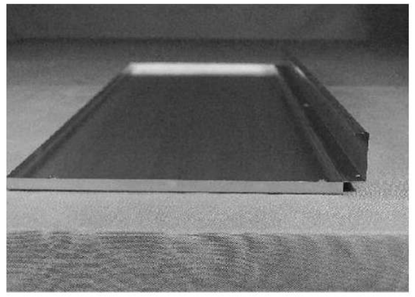
Hollow Square

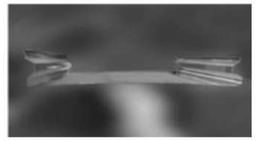
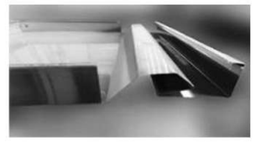
Closed



Complex

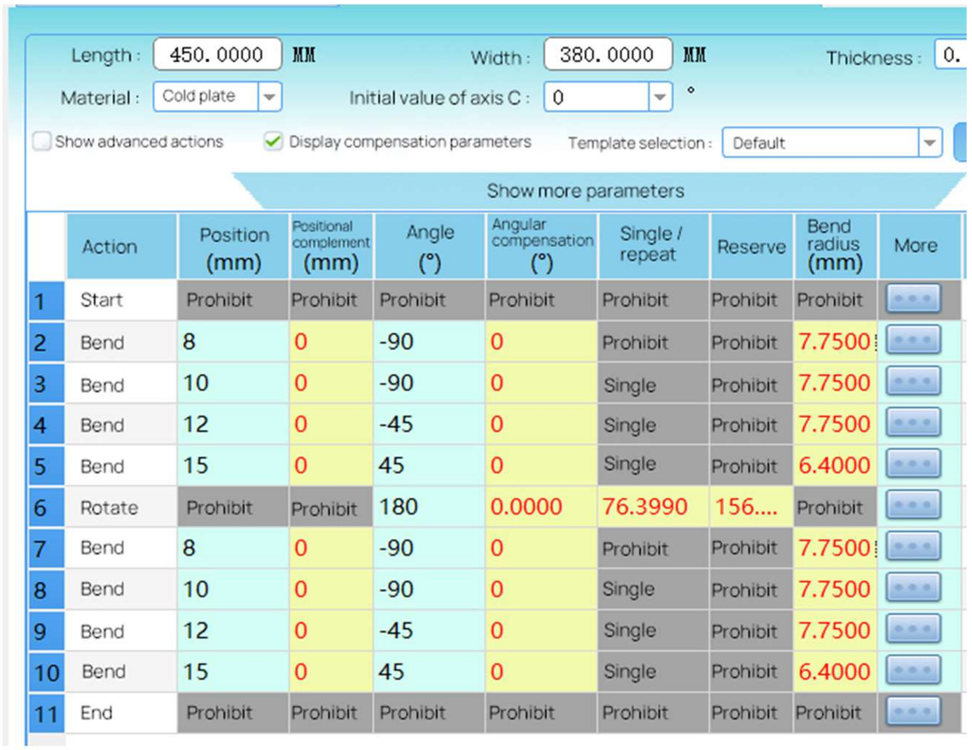
- ADH Panel Bender adopts universal bending die, which can complete bending of various shapes with only one set of die, and users do not need to customize another die.

- The equipment can easily meet the requirements of arc, dead edge, return, closed and other complex sheet metal bending.

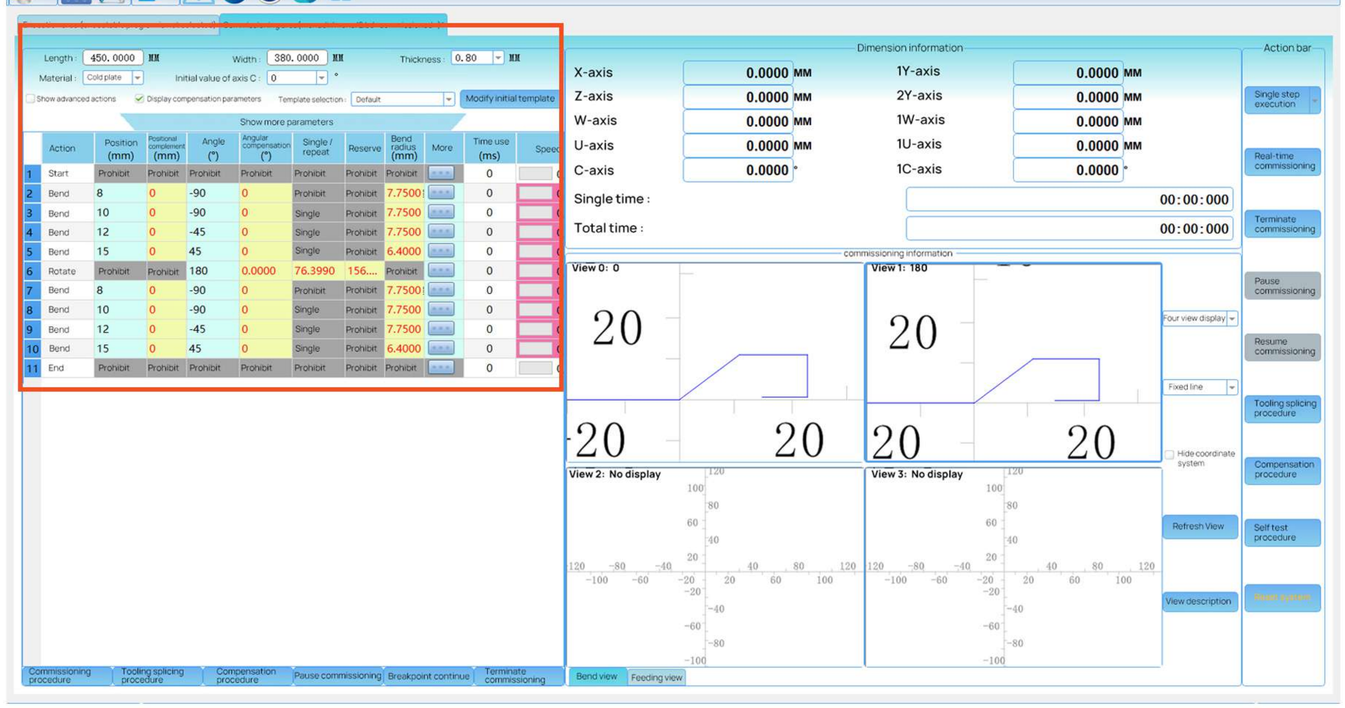
PROGRAMMING EXAMPLES

- Graphic visual programming, the user only needs to input the corresponding bending parameters according to the workpiece size to automatically generate the bending program, which can be learned by ordinary workers in 2 hours.

- The system supports the bending detection function. If the bending parameters are abnormal, the system self-test program will automatically alarm and prompt the user.



	Action	Position (mm)	Positional complement (mm)	Angle (°)	Angular compensation (°)	Single / repeat	Reserve	Bend radius (mm)	More
1	Start	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	
2	Bend	8	0	-90	0	Prohibit	Prohibit	7.7500	
3	Bend	10	0	-90	0	Single	Prohibit	7.7500	
4	Bend	12	0	-45	0	Single	Prohibit	7.7500	
5	Bend	15	0	45	0	Single	Prohibit	6.4000	
6	Rotate	Prohibit	Prohibit	180	0.0000	76.3990	156....	Prohibit	
7	Bend	8	0	-90	0	Prohibit	Prohibit	7.7500	
8	Bend	10	0	-90	0	Single	Prohibit	7.7500	
9	Bend	12	0	-45	0	Single	Prohibit	7.7500	
10	Bend	15	0	45	0	Single	Prohibit	6.4000	
11	End	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	



	Action	Position (mm)	Positional complement (mm)	Angle (°)	Angular compensation (°)	Single / repeat	Reserve	Bend radius (mm)	More	Time use (ms)	Speed
1	Start	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit		0	
2	Bend	8	0	-90	0	Prohibit	Prohibit	7.7500		0	
3	Bend	10	0	-90	0	Single	Prohibit	7.7500		0	
4	Bend	12	0	-45	0	Single	Prohibit	7.7500		0	
5	Bend	15	0	45	0	Single	Prohibit	6.4000		0	
6	Rotate	Prohibit	Prohibit	180	0.0000	76.3990	156....	Prohibit		0	
7	Bend	8	0	-90	0	Prohibit	Prohibit	7.7500		0	
8	Bend	10	0	-90	0	Single	Prohibit	7.7500		0	
9	Bend	12	0	-45	0	Single	Prohibit	7.7500		0	
10	Bend	15	0	45	0	Single	Prohibit	6.4000		0	
11	End	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit	Prohibit		0	

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