



柔性折弯中心
Flexible Bending Center

南京华盟机械科技有限公司
Nanjing Huameng Machinery Technology Co., Ltd

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高端数控钣金设备研发、生产、销售
Research and development, production, and sales of high-end CNC sheet metal equipment



公司简介

南京华盟机械科技有限公司是一家集数控钣金设备研发、生产、销售为一体的现代化综合性装备制造企业。为实现高速、高精度产品，本公司与新加坡NADIC株式会社共同合作研发，并以日方先进的技术和进口零配件，专业生产制造伺服数控折弯机、全电动折弯机、刨槽机、剪板机、多边折弯中心等钣金设备。目前公司产品已经覆盖电力、通讯、厨卫、电梯、灯具、家具、钣金加工等十几个领域，在国内外享有较高的知名度。

公司秉承“突破传统，创新发展”的设计理念，“品质至上，诚信为重，用心服务”的经营理念，通过不断努力发展，成功开拓并拥有了一大批优质客户，在钣金行业掀起了一次技术革新，引领了钣金行业的发展方向。

公司积极响应国家智能制造发展战略，着力于高端智能装备的研发与制造，助力客户向工业4.0时代不断迈进，为中国高端制造业添砖加瓦，携手各界精英共创美好未来！

Company Profile

Nanjing Huameng Technology (CAMT) is a modern comprehensive equipment manufacturing enterprise that integrates the research and development, production, and sales of CNC sheet metal equipment. In order to achieve high-speed and high-precision products, our company collaborates with NADIC Corporation in Singapore to develop and manufacture sheet metal equipment, including servo CNC bending machines, fully electric bending machines, slotting machines, shearing machines, and multilateral bending centers, using advanced Japanese technology and imported spare parts. At present, the company's products have covered more than ten fields, including electricity, communication, kitchen and bathroom, elevators, lighting fixtures, furniture, sheet metal processing, etc., and enjoy high popularity both domestically and internationally.

The company adheres to the design philosophy of "breaking through tradition and innovating development", and the business philosophy of "quality first, integrity first, and attentive service". Through continuous efforts to develop, it has successfully expanded and owned a large number of high-quality customers, sparking a technological innovation in the sheet metal industry and leading the development direction of the sheet metal industry.

The company actively responds to the national intelligent manufacturing development strategy, focusing on the research and manufacturing of high-end intelligent equipment, helping customers continuously move towards the Industry 4.0 era, adding bricks and tiles to China's high-end manufacturing industry, and working together with elites from all walks of life to create a better future!



吸盘式柔性折弯中心
Sucking Disc Type Flexible Bending Center

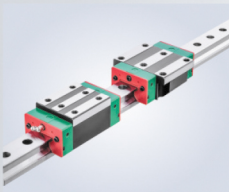


■ 机器介绍 / Machine Introduction

MP系列是新一代的全自动多边折弯中心，是钣金制造行业迈入自动化生产的标杆产品。产品不仅大幅节省人力，折弯速度更是数控折弯机的3倍，达到了0.5s/次，全伺服控制可使产品精度控制在3丝米之内。

MP series is a new generation of full automatic panel bending center. It is a benchmark product that the sheet metal manufacturing industry has stepped into automatic production. Saving the human resources, and also the bending speed is 3 times that the traditional bending machine, reaching 0.5 s/time. Full servo control can keep the product precision within 3s.

■ 优质零配件 / High Quality Spare Parts



台湾上银直线导轨
Taiwan HIWIN
linear guide



台湾TBI滚珠丝杠
Taiwan TBI
motion ball screw



日本安川或三洋伺服电机
Yaskawa or Sanyo
servo motors



日本NSK轴承
Japanese NSK
bearing



台湾APEX减速机
Taiwan APEX
gear reducer

■ 数控系统 / Control System

以最少数量的输入项目完成程序（NADIC 株式会社共同研发的数控系统）
Complete the program with the minimum number of input items (CNC system jointly developed with Singapore's NADIC)

- ★ 工作界面简洁明了，具有手工编程及电脑导入双重功能。
- ★ 手工编程具有输入项目少，辅助智能化计算的特点，一页式快速编程，操作人员输入较少相应尺寸即可完成加。
- ★ 电脑导入功能支持USB及wifi局域网共享，直接导入CAD图纸，系统自动生成程序，无需操作人员手工编与程序即可完成加工。
- ★ 圆弧折弯模式输入半径自动计算折刀次数及弧长。
- ★ 系统支持手轮控制及微调，方便操作人员观察及操作多边折弯中心。
- ★ 系统支持中、英、日等多国语言。
- ★ 系统可保存大量程序，内存3G，每个程序仅占11KB大。



- ★ he work interface is concise and clear, with dual functions of manual programming and computer import.
- ★ Manual programming has the characteristics of fewer input items and assists in intelligent calculation. One page quick programming allows operators to input fewer corresponding sizes to complete the addition.
- ★ The computer import function supports USB and WiFi local area network sharing, directly importing CAD drawings, the system automatically generates programs, and processing can be completed without the need for manual programming by operators.
- ★ The arc bending mode automatically calculates the number of tool bends and arc length by inputting the radius.
- ★ The system supports handwheel control and fine-tuning, making it convenient for operators to observe and operate the multilateral bending center.
- ★ The system supports multiple languages such as Chinese, English, and Japanese.
- ★ The system can store a large number of programs, with 3G of memory, and each program only occupies 11KB.

■ 技术参数 / Technical Parameter

项目 / ITEM		单位 / UNIT	MP-C1200	MP-C1500
折弯长度	Bending length	mm	1200	1500
板料长度	Plate length	mm	1250	1600
板料宽度	Plate width	mm	1000	1250
折弯高度	Bending height	mm	120	170 / 300 (可选 optional)
四边最小成型尺寸	Min forming size(four sides)	mm	270×200	310×230
双边最小成型尺寸	Min forming size(one side)	mm	200	230
最小圆弧半径	Min. radius	mm	1.2	1.2
最快连续折弯速度	Max. continuous bending speed	s	0.2/刀	0.2/刀
上下刀之间的距离	Opening height	mm	120	170
折弯角度	Bending angle		0-360°	0-360°
材料最大厚度	Max. material thickness	mm	铝板 (Aluminum plate): 2.0	
			冷板 (Cold rolled plate): 1.5	
			不锈钢 (Stainless steel): 0.8	
数控系统	Control system		Star300-LGx	
作业系统	Operating system		Win7 + OS + 吸盘 (Sucking disc)	
轴数	Axis		标配10轴 / Standard 10 axis configuration	
机器尺寸(长×宽×高)	Machine dimension (L×W×H)	mm	3000×1500×2050	3700×1800×2500
机器重量	Machine weight	Kg	5800	9500



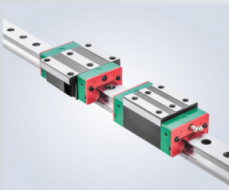
压臂式柔性折弯中心
Pressure Arm Type Flexible Bending Center



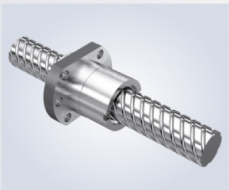
■ 机器介绍 / Machine Introduction

- ◆ 全自动折边，效率高，节能、环保。
- ◆ 总线控制，可直接与物联网连接，进行远程控制及并网监控。
- ◆ 上下双伺服旋转，自动下压结构，下压迅速，压力可调，转动定位精度高。
- ◆ 轻松实现圆弧、压死边、回型、封闭型及其他复杂型的钣金折弯需求。
- ◆ Fully automatic folding, high efficiency, energy-saving, and environmentally friendly.
- ◆ Bus control, which can be directly connected to the Internet of Things for remote control and grid monitoring.
- ◆ Dual servo rotation with automatic downward pressure structure, quick downward pressure, adjustable pressure, and high positioning accuracy for rotation.
- ◆ Easily achieve sheet metal bending requirements for circular arcs, reverse folding and flattening, return molding, closed molding, and other complex shapes.

■ 优质零配件 / High Quality Spare Parts



台湾上银直线导轨
Taiwan HIWIN
linear guide



台湾TBI滚珠丝杠
Taiwan TBI
motion ball screw



日本安川或三洋伺服电机
Yaskawa or Sanyo
servo motors



日本NSK轴承
Japanese NSK
bearing



台湾APEX减速机
Taiwan APEX
gearbox

■ 生产加工处理 / Production Processing

- ◆ **高标号铸件:** 设备核心框架采用高标号QT500-7和HT250铸件，出炉铸件标号经过检测仪器的测量。框架经过精确的有限元受力分析，采用稳定的三角互联设计，大大保证高吨位冲击力下的稳定性。
- ◆ **高标准焊接:** 在整个焊接过程中采用二氧化碳保护焊，焊接处采用满焊工艺，保证焊接的工件牢固且美观。
- ◆ **消应力处理:** 铸件和焊接的支撑台面，采用高精度温控炉，按照材质对应的温度曲线进行多次回火、退火等热处理工艺，再进行长时间的全频率震动时效处理，释放工件的内应力，长久使用不变形。
- ◆ **精密机加工:** 针对不同的工件设计不同的工装夹具，采用高精度多轴加工中心对工件进行精加工，保证了夹装前后精度的一致性。
- ◆ **严格检测:** 采用高精度千分尺U表，配合具有较长使用寿命的大理石平台和大理石方尺，针对每个工件进行精准测量，严格把控各工件的加工质量，层层把关，让整机的装配精度符合高精机床标准。

- ◆ **High standard castings:** The core framework of the equipment adopts high standard QT500-7 and HT250 castings, and the cast parts are measured by testing instruments after being fired. The framework undergoes precise finite element stress analysis and adopts a stable triangular interconnection design, greatly ensuring stability under high tonnage impact forces.
- ◆ **High standard welding:** Carbon dioxide shielded welding is used throughout the entire welding process, and full welding process is used at the welding site to ensure that the welded workpiece is firm and aesthetically pleasing.
- ◆ **Stress relief treatment:** The support table for castings and welding adopts a high-precision temperature controlled furnace, and undergoes multiple heat treatment processes such as tempering and annealing according to the temperature curve corresponding to the material. After a long period of full frequency vibration aging treatment, the internal stress of the workpiece is released, and it does not deform after long-term use.
- ◆ **Precision machining:** Different fixtures are designed for different workpieces, and high-precision multi axis machining centers are used to perform precision machining on the workpieces, ensuring consistency in accuracy before and after clamping.
- ◆ **Strict testing:** Using a high-precision micrometer U-meter, combined with a marble platform and a marble square with a longer service life, precise measurements are taken for each workpiece, and the processing quality of each workpiece is strictly controlled, layer by layer, to ensure that the assembly accuracy of the entire machine meets the standards of high-precision machine tools.

■ 技术参数 / Technical Parameter

项目 / ITEM		单位 / UNIT	MP-A1200	MP-A1500
折弯长度	Bending length	mm	1200	1500
板料长度	Plate length	mm	1250	1600
板料宽度	Plate width	mm	1000	1250
折弯高度	Bending height	mm	120	170 / 300 (可选 optional)
四边最小成型尺寸	Min forming size(four sides)	mm	170×100	210×100
双边最小成型尺寸	Min forming size(one side)	mm	200	230
最小圆弧半径	Min. radius	mm	1.2	1.2
最快连续折弯速度	Max. continuous bending speed	s	0.2/刀	0.2/刀
上下刀之间的距离	Opening height	mm	120	170
折弯角度	Bending angle		0-360°	0-360°
材料最大厚度	Max. material thickness	mm	铝板 (Aluminum plate): 2.0	
			冷板 (Cold rolled plate): 1.5	
			不锈钢 (Stainless steel): 0.8	
数控系统	Control system		Star300-LGx	
作业系统	Operating system		Win7 + OS + 压臂 (Pressure Arm)	
轴数	Axis		标配13轴 / Standard 13 axis configuration	
机器尺寸(长×宽×高)	Machine dimension (L×W×H)	mm	3000×1500×2050	3700×1800×2500
机器重量	Machine weight	Kg	6500	10000



纯电折弯机

All Electric Bending Machine

引进德国技术精心研发的小微型纯电伺服数控折弯机
A small and micro pure electric servo CNC bending machine
carefully developed with German technology



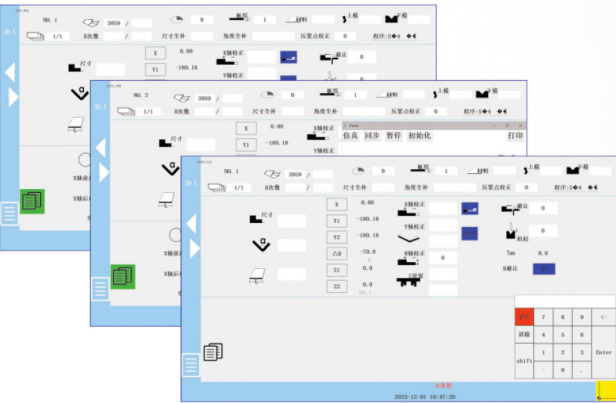
机械特点 / Features

- ◆ **稳定耐用**: 全部采用进口伺服电机, 从而保证机械的精度和稳定性, 且经久耐用。
- ◆ **高精度高寿命**: 丝杆导轨均采用进口 C5级产品, 精度高, 性能卓越, 使用寿命长, Y轴最小移动设定单位0.005mm。
- ◆ **特别省电**: 纯电伺服折弯机与电液伺服折弯机的用电区别, 有如变频空调和普通空调的区别, 纯电伺服折弯机会自动根据工况输出合适功率电能, 空闲时耗电小于0.5KW, 所以特别省电。
- ◆ **绿色环保**: 无需使用和更换液压油, 终止了废旧液压油对环境的污染。
- ◆ **Stable and Durable**: All adopt imported servo motors to ensure the accuracy and stability of the machinery, and it is also durable.
- ◆ **High precision and long service life**: The screw guide rails are all imported C5 grade products with high precision, excellent performance, and long service life. The minimum movement setting unit for the Y-axis is 0.005mm.
- ◆ **Especially power-saving**: The difference in electricity consumption between the fully electric servo bending machine and the electro-hydraulic servo bending machine is similar to the difference between variable frequency air conditioning and ordinary air conditioning. The fully electric servo bending machine automatically outputs appropriate power and energy according to the working conditions, and consumes less than 0.5KW of electricity when idle, so it is particularly energy-saving.
- ◆ **Green and environmentally friendly**: No need to use or replace hydraulic oil, ending the pollution of waste hydraulic oil to the environment.

后挡料 / Back Gauge Structure

- ◆ 横梁采用优质碳钢加工, 整体结构设计简单紧凑、稳定等特点, 因而速度快且精度高。
- ◆ 本机后挡料标准配置X、R轴, 带2个可调试挡指。
- ◆ The crossbeam is processed with high-quality carbon steel, and the overall structural design is simple, compact, and stable, resulting in fast speed and high accuracy.
- ◆ The standard configuration for the rear material blocking of this machine is X and Y axes, with 2 adjustable blocking fingers.

项目 / ITEM	X 轴 / X-axis	R 轴 / R-axis	Z 轴 / Z-axis
定位速度 Positioning speed	500mm/s	125mm/s	700mm/s
重复精度 Repetitive accuracy	0.01mm	0.1mm	0.1mm
定位精度 Positioning accuracy	0.01mm	0.1mm	0.1mm
定位方式 Positioning method	自动(伺服电机) / Automatic (servo motor)		



纯电折弯机系统

- ◆ 中英文界面切换。
- ◆ 编程简单易操作, 从程序、模具、综合、编程到折弯各界面操作行云流水。
- ◆ 二维图形编程、显示、模拟功能, 高速加减速算法等功能。

Bending Machine System

- ◆ Switch between Chinese and English interfaces.
- ◆ Programming is simple and easy to operate, with smooth and seamless interface operations from program, mold, synthesis, programming to bending.
- ◆ 2D graphic programming, display, simulation functions, high-speed acceleration and deceleration algorithms, and other functions.

技术参数 / Technical Parameter

项目 / ITEM		单位 UNIT	单缸 / Single cylinder		双缸 / Dual cylinder
			EP 12/600	EP 18/800	EP 30/1250S
公称压力	Nominal pressure	KN	120	180	300
工作台	Workbench	mm	600	800	1250
立柱间距	Column spacing	mm	520	720	1160
喉口深度	Throat depth	mm	200	250	300
滑块行程	Slide stroke	mm	120	120	150
最大开启高度	Max. opening height	mm	420	450	450
后挡料行程	Rear material blocking stroke	mm	200	350	500
滑块运行最大速	Max. speed of slider operation	mm/s	200	200	200
主电动机功率	Main motor power	KW	5.5×1	7.5×1	7.0×2
轴数	Number of axis	轴/Axis	3 (Y,X,R)	3 (Y,X,R)	4 (Y1,Y2,X,R)
外形尺寸 (长×宽×高)	Size (L×W×H)	mm	1000×970×21	1000×970×210	1400×1200×2200
机床重量	Weight	Kg	1150	1800	2350