CNC press brake
数控折弯机

GLOBAL PRESENCE

KRRASS®

江苏克劳斯机床有限公司
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CE

TÜV SÜD

SGS

ISO 9001

KRRASS®

www.krrass-china.com

PINNACLE OF
CNC BENDING
TECHNOLOGY

　　克劳斯机床（KRRASS®）是有著悠久历史的高端钣金设备品牌。我们的产品和服务遍及世界各地，到目前为止已在中国、德国、美国、墨西哥、澳大利亚、马来西亚、菲律宾、印度尼西亚、斯洛克尼亚、俄罗斯和乌克兰设立了分支机构。自 2013 年开始，克劳斯机床在中国相继成立了南京克劳斯数控机械有限公司、江苏克劳斯机床有限公司。

　　江苏克劳斯机床有限公司与多家国际知名钣金设备品牌有著技术和业务的全面合作（如美国 Piranha、法国 BUK），克劳斯机床遵循总部研发中心的技术和多年的生产经验，结合国外合作品牌的先进理念和技术，在江苏南京总投资 1.13 亿元设立智能化数控机床工厂，制造优质高端智能钣金加工设备。

　　克劳斯机床拥有 KRRASS® 和 KRRASS® 国内外商标权，已获得欧洲 CE 认证，并出口到欧洲以及世界许多其他国家和地区。此外，我们执行 ISO9001 质量管理体系，规范内部管理流程，确保企业稳步发展，我们建立了保护知识产权，鼓励创新并获得多项专利的机制，这为公司的未来发展奠定了坚实的基础。

　　克劳斯机床秉承一份责任！始终如一地为客户提供稳定可靠的产品以及周到的服务为己任。

SINCE
1995

Originated in
Singapore

KRRASS®

○ **Worldwide Sales Network**

CONTENT

CNC Press Brake
Solutions

CNC Press Brake
第二代油电混合驱动系统

节能
Energy Saving

环保
Environment Protection

高效
Efficient

低噪
Low Noise

性能特点 Feature

- 更精准的压力、位置及同步控制，系统重复精度达 5μm
- 更快速的工作性能
- 闭式液压系统，油箱容积减小了 75%
- 高稳定性和长久使用寿命的液压系统
- 高效节能，实现按需供能，显著降低电费支出
- 有效降低系统工作时噪音，待机时电机无转动，几乎无噪声

- More accurate pressure, position and synchronous control, and the repetition accuracy of the system is up to 5 μm
- Faster performance
- Closed hydraulic system, tank volume reduced by 75%
- Hydraulic system with high stability and long service life
- High efficiency and energy saving, realize energy supply on demand, and significantly reduce electricity expenditure
- Effectively reduce the noise of the system during operation, and the motor has no rotation and almost no noise during standby.

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Advanced technique Industry trends
先进技术，行业趋势

通过双伺服直流电混合系统，左右油缸各一组伺服电机及伺服泵控制

Through the dual servo oil-electric hybrid system, a group of servo motors and servo pumps are controlled for the left and right oil cylinders respectively

ePrAX control

CNC Press Brake
高性价比油电混合驱动系统

主电伺服数控折弯机
PBS SERIES

节能
Energy Saving

环保
Environment Protection

高效
Efficient

低噪
Low Noise

性能特点 Feature

- 主电机标配伺服电机，实现按需供能，显著降低电费支出
- 伺服泵系统仅在需要时才旋转，噪音综合下降30%
- 采用扭矩限制和模拟量速度的控制方式，消除阀的截流与溢流，大幅降低油池油温
- 延长使用寿命，降低维护成本

- The main motor is equipped with servo motor as standard to realize energy supply on demand and significantly reduce electricity expenditure
- The servo pump system only rotates when needed, and the comprehensive noise is reduced by 30%
- The control mode of torque limit and analog speed is adopted to eliminate the closure and overflow of the valve and greatly reduce the oil temperature
- Extend service life and reduce maintenance costs

KRRASS

PBS11032

Advanced technique Industry trends
先进技术，行业趋势

主电机为高性能伺服电机，运用单伺服泵控技术，是高性价比的环保化、节能化的解决方案

The main motor is a high-performance servo motor. Using single servo pump control technology, it is a cost-effective, environmentally friendly and energy-saving solution

CNC Press Brake
通用型高端智能数控折弯机

电液同步数控折弯机
PBK SERIES

性能特点 Feature

- 进口配置，稳定可靠
- 板厚，料足的高强度机架
- 高精度的后档料系统
- 标配 4＋1 轴数控 (Y1,Y2,X,R＋W)
- 工作台自动机械挠度补偿闭环控制

- Imported configuration, stable and reliable
- High strength frame with thick plate and sufficient material
- High precision rear retaining system
- Standard 4 + 1 axis NC (Y1, Y2, x, R + W)
- Closed loop control of automatic mechanical deflection compensation for worktable

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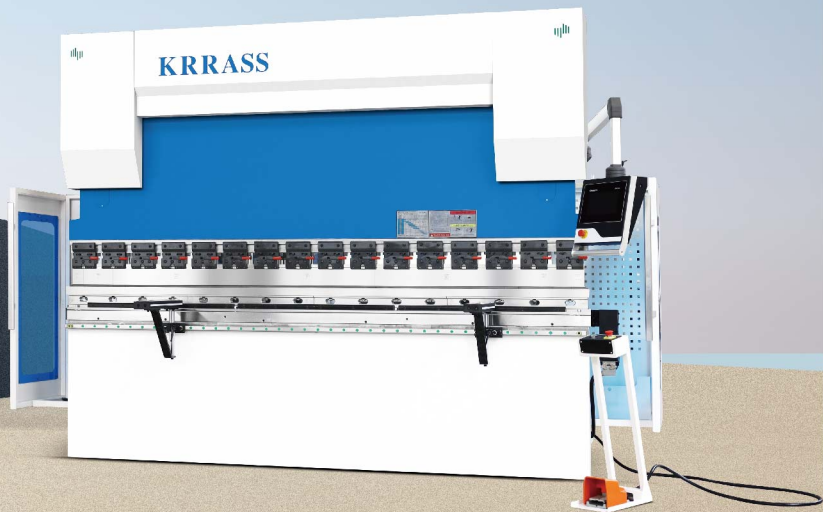
Product Features
产品特点

板厚料足的高强度机架
High Strength Frame

☑ **机架刚性加强处理**
Frame rigidity strengthening treatment
机架加厚加强，滑块加厚加宽
The frame is thickened and strengthened, and the slider is thickened and widened

☑ **进行有限元力学分析**
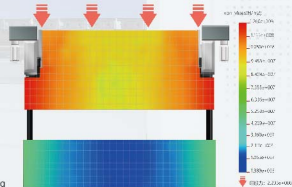**Finite element mechanical analysis**
确定各零件的最优尺寸参数及机架的厚度
Determine the optimal size parameters of each part and the thickness of the frame

☑ **保证机架整体稳定性**
Ensure the overall stability of the rack
将折弯时挠度变形量降至最低
Minimize deflection deformation during bending

精密快速夹紧装置
Hith Precision And Fast Clamping

便于快速装夹上模，降低劳动强度，
提高生产效率。具有精度高、易夹紧、
不松动、不掉刀等优点。

It is convenient to quickly clamp the upper die, reduce labor intensity and improve production efficiency. The utility model has the advantages of high precision, easy clamping, no loosening, no tool dropping, etc.

PBE PBS PBK SERIES 标配

稳定可靠的后挡料系统
Stable And Reliable Back Gauge

进口滚珠丝杠传动、直线导轨导向，
横梁双直线导轨结构，确保精准定位。
装配精密多级挡指，加大定位范围，
让折弯更方便。

Imported ball screw drive, linear guide rail guide, Double linear guide construction, to ensure the positioning accuracy.
Multistage stops to increase the positioning range, make the bending more convenient.
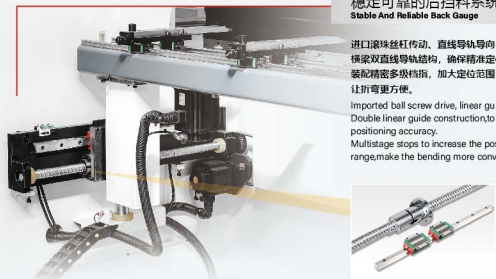
高性能的液压系统
High Performance Hydraulic System

机床性能
提高
67 %

高性能伺服阀系统：德国REXROTH/HAWE
全闭环同步控制，机床运行高速平稳。

High Performance Servo Valve System:
REXROTH/HAWE, Germany
**Full closed-loop synchronous control,
high-speed and stable operation of the machine tool.**

Rexroth
Bosch Group

HAWE
HYDRAULIK

更高的频率响应
Higher Frequency Response

更低的故障率
Lower Failure Rate

Product Features
产品特点

PBE PBS PBK SERIES 标配

C型喉口变形补偿装置
C-type Throat Deformation Compensation Device

精准测量机床折弯受力发生的微小变形并反馈补偿，
保证任何厚度、任何材质板材的折弯精度。

Accurately measure the small deformation caused by the bending force of the machine tool and feed back compensation to ensure the bending accuracy of plates of any thickness and material.

品牌光栅尺：西班牙 法格
Brand grating ruler: FAGOR, Spain

FAGOR

移动前托料架
Moveable Front Support System

2套移动式前托料支架，沿有线导轨移动，
可任意位置停靠，带有旋转和高度调节功能，
辅助您的折弯工作。

2 sets of moveable front support, moving along the linear guide rail, can be parked at any position,with rotation and height adjustment functions to help you to bend.

高精度自动机械补偿装置
High Precision Mechanical Crowning

补偿闭环控制，控制精度高，补偿量由数控系统自动计算设定，
保证了全长折弯角度的一致。

The compensation closed-loop control has high control accuracy, and the compensation amount is automatically calculated and set by the NC system to ensure the consistency of the full-length bending angle.

石墨自润滑铜板
Graphite Self-lubricating Copper Plate

耐磨性能好，摩擦系数小。无油润滑或少油润滑，
减少保养次数或免于保养。

Good wear resistance and low friction coefficient. No oil lubrication or less oil lubrication, reduce maintenance times or avoid maintenance.

高品质折弯机模具
Higher Quality Press Brake Tooling

经锻打加工，整体淬火，经久耐用。高精度，
高直线度，高重复度，最终获得理想的折弯效果。

After forging and quenching, it is durable. High precision, high straightness and high repeatability, and finally obtain the ideal bending effect.

Press Brake CNC Controls
数控系统

Delem

荷兰 DELEM **DA53T**

"热键"触摸导航
10.1 寸高分辨率彩色 TFT
4 轴 (Y1Y2 + 2 辅助轴)
量程控制阀
工具 / 材料 / 产品库
伺服和变频器控制
先进的闭环控制算法应用于闭环和开环阀
TandemLink (选项)
USB 记忆棒接口
Profile-T 离线软件

"Hot-key" touch navigation
10.1" high resolution colour TFT
Up to 4 axes (Y1Y2 + 2 aux axes)
Crowning control
Tool / material / product library
Servo and frequency inverter control
Advanced Y-axis control algorithms for closed-loop as well as open-loop valves
TandemLink (option)
USB memory stick interfacing
Profile-T offline software

荷兰 DELEM **DA58T**

2D 触摸式图形编程
15"高分辨率TFT 真彩显示
折弯工序计算
挠度补偿控制
伺服和变频器控制模式
先进的 Y 轴控制算法，即可控制闭环阀，也可控制开环阀
USB 接口

2D touch graphical programming
15" high-resolution TFT true color display
Bending process calculation
Deflection compensation control
Servo and drive control modes
Advanced Y-axis control algorithm, you can control the closed-loop valve can also control the open-loop valve
USB interface

荷兰 DELEM **DA66T**

2D 触摸式图形编程
3D 产品图形模拟显示
17"高分辨率 TFT 真彩显示
存储器容量 1 GB
完整的 Windows 应用程序包
兼容 DELEM 模块化结构系统
USB、外设接口
大数据模具
支持瞬时关机
在线分析工具
PLC 编程

2D Touch graphical programming.
3D Product graphical simulation display
17" High-resolution TFT Color Display
Full Windows application package
Compatible DELEM modular structure
USB, Peripheral interface
User program applications under multi-tasking environment
Angle detecting sensor interface

荷兰 DELEM **DA69T**

2D 和 3D 触摸式图形编程。
3D 可视图形模拟显示。
17"高分辨率 TFT 真彩显示。
完整的 Windows 应用程序包。
兼容 DELEM 模块化结构。
USB、外设接口。
多任务环境下用户程序应用。
角度检测传感器接口。

3D and 2D graphical touch screen programming mode.
3D visualisation in simulation and production.
17"high resolution colour TFT.
Full Windows application suite.
Delem Modusys compatibility(module scalability and adaptivity).
USB,peripheral interfacing.
Open system architecture.
Sensor bending & correction interface.

READY FOR INDUSTRY 4.0

可选配不同的数控系统，通过PC或笔记本无线远程连接，使折弯更高效！

可配合工业机器人交互作业，通过自动化解决人员短缺的烦恼。

Make corrections in the bending process easily on the tablet PC control!

It can cooperate with the interactive operation of industrial robots and automatically resolve the trouble of personnel shortage.

◎CYBELEC
INFRANOR GROUP COMPANY

瑞士 CYBELEC **CybTouch 12 PS**

12" 彩色液晶显示，触摸屏，图标化识别功能；
"EasyBend" 页面进行轻松单次折弯加工，完全高效的折弯编程满足大批量生产加工需要；
自动计算折弯角度，主压力和挠度补偿；
压力和挠度补偿自动计算；上模深度自动计算；
角度，后挡针校正，2D 图形编程；
自动模拟折弯步序，提供最优折弯方案 (选项)；

12 "color LCD display, touch screen, icon recognition function;
The "EasyBend" page is processed with easy single bending.
The fully efficient bending programming can meet the needs of mass production and processing.
Automatically calculate bending angle, main pressure and deflection compensation;
Automatic calculation of bending data;
Automatic calculation of pressure and deflection compensation; automatic calculation of upper die depth;
Angle, rear gear correction, 2D graphics programming.
Automatically simulate the bending sequence and provide the best bending scheme (option).

瑞士 CYBELEC **CybTouch 15 PS**

15" modern 流线型玻璃镜面触摸屏，可戴手套使用。
用户友好的人机界面，直观编程和易于设置的简单功能 (自动优化机床参数)。
2D 手指图形编程 (触摸文件) 和精确的 2D 程序创建。
便于零件折弯的 EasyBend 页面。
存储容量更大。
内部备份和存储功能。
用于诊断和升级的无线通讯功能 (使用笔记本电脑)。

15 "modern streamlined glass mirror touch screen, which can be used with gloves.
User friendly man-machine interface, intuitive programming and easy to set simple function (automatic optimization of machine parameters).
2D finger drawing programming (touch file) and accurate 2D program creation.
Automatic bending step calculation.
Easybend page to facilitate single part bending.
Larger storage capacity.
Internal backup and storage functions.
Wireless communication function for diagnosis and upgrade (using laptop).

瑞士 CYBELEC **VT-19**

19" 现代流线型玻璃镜面触摸屏，可戴手套使用。
基于 CybTouch 软件，图形化操作界面，易学易用，独有自动导航调试功能，可轻松完成机床调试工作。
可按各种类型后挡料组合，例如 X 轴，X 挡指，X з轴，R з轴，Z 轴，随动挡料。通过 CANOpen 和 EtherCAT® 总线可扩展至无限多。
开放式系统架构，通过 User Cycles 和插件模块，实现用户定制化功能。
触摸屏上按钮图形也可进行颜色、位置、大小等个性化设定。

19 "modern streamlined glass mirror touch screen, which can be used with gloves.
Based on cybtouch software, graphical operation interface, easy to learn and use. The unique automatic navigation debugging function can easily complete the machine tool debugging.
It can control various front and rear material retaining combinations, such as x-axis, x-stop finger, x-slave axis, r-slave axis, Z-axis and follow-up material support.
Via CANopen and EtherCAT ® The bus can be extended to control more axes;
Open system architecture realizes user customization through user cycles and plug-in modules.
The button icon on the touch screen can also be personalized for color, position, size, etc.

更高的参数和配置，功能更强大，操作更简便

Higher parameters and configuration, stronger function, more convenient operation

PBE系列 油电混合数控折弯机主要参数

机床型号 Mode	A 折弯力 Nominal Pressure (KN)	B 可折长度 Max. bending width (mm)	C 立柱间距 Distance between uprights (mm)	D 喉口深度 Throat depth (mm)	F 油缸行程 Cylinder stroke (mm)	领模高度 Die setting high (mm)	伺服电机功率 Servo motor power (KW)	液压油箱 Oil volume (L)	速度 Speed (mm/s)			外形尺寸 Dimensions(mm) L 长 Length	W 宽 Width	H 高 Height	重量 Weight (KG)
									前进 Approaching speed	压缩 Working speed	返程 Returning speed				
50T1600	500	1600	1250	205	160	540	5.5X2	50X2	200-240	10-17	240	2200	1450	2155	3700
80T2500	800	2500	2000	350	160	570	5.5X2	50X2	200-240	10-17	240	3220	1780	2650	5800
110/3200	1100	3200	2700	410	200	570	5.5X2	50X2	200-220	10-15	200	4030	1780	2680	8000
110T/4000	1100	4000	3500	410	200	570	5.5X2	50X2	200-220	10-15	200	4830	1780	2780	10000
135/3200	1350	3200	2700	410	200	570	7.5X2	50X2	160-180	10-14	180	4030	1790	2750	8800
135T/4000	1350	4000	3500	410	200	570	7.5X2	50X2	160-180	10-14	185	4830	1790	2850	9000
175/3200	1750	3200	2700	410	200	570	7.5X2	50X2	140-160	10-12	160	4050	1800	2730	9800
175T/4000	1750	4000	3500	410	200	570	7.5X2	50X2	140-160	10-12	160	4700	1800	2830	12100
175T/3200	1750	3200	2700	410	200	570	11X2	50X2	160-200	10-17	200	4050	1800	2730	9800
175T/4000	1750	4000	3500	410	200	570	11X2	50X2	160-200	10-17	200	4700	1800	2830	12100
210T/3200	2100	3200	2700	410	200	570	11X2	70X2	140-150	10-14	190	4020	1850	2850	11500
210T/4000	2100	4000	3500	410	200	570	11X2	70X2	140-150	10-14	190	4820	1850	3100	13900

*展示参数仅供参考，实际参数信息以产品实际为准

PBS系列主电伺服数控折弯机主要参数

机床型号 Mode	A 折弯力 Nominal Pressure (KN)	B 可折长度 Max. bending width (mm)	C 立柱间距 Distance between uprights (mm)	D 喉口深度 Throat depth (mm)	F 油缸行程 Cylinder stroke (mm)	领模高度 Die setting high (mm)	主电机功率 Main power (KW)	液压油箱 Oil volume (L)	速度 Speed (mm/s)			外形尺寸 Dimensions(mm) L 长 Length	W 宽 Width	H 高 Height	重量 Weight (KG)
									前进 Approaching speed	压缩 Working speed	返程 Returning speed				
50T1600	500	1600	1250	205	160	540	5	150	220	0-15	160	2200	1450	2155	3700
80T2500	800	2500	2000	350	160	570	8.7	225	220	0-15	160	3220	1780	2650	5800
110T2500	1100	2500	2000	410	200	570	8.7	300	220	0-15	160	3240	1780	2680	7800
110T3200	1100	3200	2700	410	200	570	8.7	330	220	0-15	160	4030	1780	2680	8000
110T4000	1100	4000	3500	410	200	570	8.7	330	220	0-15	160	4830	1780	2780	10000
135T3200	1350	3200	2700	410	200	570	10.8	300	200	0-15	160	4030	1790	2750	8800
135T4000	1350	4000	3500	410	200	570	10.8	330	200	0-15	160	4830	1790	2850	9800
135T5000	1350	5000	4100	410	200	570	10.8	330	180	0-15	110	5830	1790	3200	14700
135T6000	1350	6000	5100	410	200	570	10.8	330	180	0-15	110	6830	1790	3200	17700
175T2500	1750	2500	2000	410	200	570	13.2	300	200	0-15	160	3350	1800	2730	8700
175T3200	1750	3200	2700	410	200	570	13.2	330	200	0-15	160	4050	1800	2730	9800
175T4000	1750	4000	3500	410	200	570	13.2	330	200	0-15	1 60	4700	1800	2830	12100
175T5000	1750	5000	4100	410	200	570	13.2	330	160	0-15	100	5700	1800	3080	17000
175T6000	1750	6000	5100	410	200	570	13.2	330	160	0-15	100	6700	1800	3180	20000
210T3200	2100	3200	2700	410	200	570	16.7	330	160	0-13	150	4020	1850	2850	11500
210T4000	2100	4000	3500	410	200	570	16.7	330	160	0-13	150	4820	1850	3100	13900
210T5000	2100	5000	4100	410	200	570	16.7	330	130	0-13	100	5820	1850	3250	18200
210T6000	2100	6000	5100	410	200	570	16.7	330	130	0-13	100	6820	1850	3350	21000
250T3200	2500	3200	2700	410	250	570	21.4	460	130	0-13	130	4050	1860	3000	14000
250T4000	2500	4000	3500	410	250	570	21.4	460	130	0-13	130	4850	1860	3100	16000
250T5000	2500	5000	4100	410	250	570	21.4	460	1 20	0-13	100	5850	1860	3250	21200
250T6000	2500	6000	5100	410	250	570	21.4	460	120	0-13	100	6850	1860	3350	24600
320T3200	3200	3200	2700	410	300	600	26.9	460	100	0-13	110	4600	2260	3400	17700
320T4000	3200	4000	3500	410	300	600	26.9	460	100	0-13	110	5400	2260	3500	20300
320T5000	3200	5000	4100	410	300	600	26.9	460	90	0-13	90	6430	2260	3680	26100
320T6000	3200	6000	5100	410	300	600	26.9	460	90	0-13	90	7430	2260	3850	30400

*展示参数仅供参考，实际参数信息以产品实际为准

Technical Parameter
技术参数

PBK系列电液同步数控折弯机主要参数

机床型号 Mode	折弯力 Nominal Pressure (KN)	A 可折长度 Max bending width (mm)	B 立柱间距 Distance between uprights (mm)	C 喉口深度 Throat depth (mm)	D 油缸行程 Cylinder stroke (mm)	F 装模高度 Die setting height (mm)	主电机功率 Main power (KW)	油泵油箱 Oil volume (L)	速度 Speed (mm/s)			外形尺寸 Dimensions(mm)			重量 Weight (KG)
									趋近 Approaching speed	压缩 Working speed	回程 Returning speed	L 长 Length	W 宽 Width	H 高 Height	
50T1600	500	1600	1250	205	160	540	5.5	160	230	0-15	140	2200	1450	2155	3700
80T2500	800	2500	2000	350	160	570	7.5	225	230	0-15	140	3220	1780	2650	5800
110T2500	1100	2500	2000	410	200	570	7.5	225	220	0-15	140	3240	1780	2680	7800
110T3200	1100	3200	2700	410	200	570	7.5	350	220	0-15	140	4030	1780	2680	8000
110T4000	1100	4000	3500	410	200	570	7.5	350	220	0-15	140	4830	1780	2780	10000
135T3200	1350	3200	2700	410	200	570	11	350	200	0-15	140	4030	1790	2750	8800
135T4000	1350	4000	3500	410	200	570	11	430	200	0-15	140	4830	1790	2850	9800
135T5000	1350	5000	4100	410	200	570	11	550	180	0-15	90	5830	1790	3100	15200
135T6000	1350	6000	5100	410	200	570	11	550	180	0-15	90	6830	1790	3200	17700
175T2500	1750	2500	2000	410	200	570	11	225	200	0-15	140	3350	1800	2730	8700
175T3200	1750	3200	2700	410	200	570	11	350	200	0-15	140	4050	1800	2730	9800
175T4000	1750	4000	3500	410	200	570	11	430	200	0-15	140	4700	1800	2830	12100
175T5000	1750	5000	4100	410	200	570	11	550	160	0-15	90	5700	1800	3080	17000
175T6000	1750	6000	5100	410	200	570	11	550	160	0-15	90	6700	1800	3180	20000
210T3200	2100	3200	2700	410	200	570	15	350	160	0-13	140	4020	1850	2850	11500
210T4000	2100	4000	3500	410	200	570	15	430	160	0-13	140	4820	1850	3100	13800
210T5000	2100	5000	4100	410	200	570	15	550	130	0-13	90	5820	1850	3250	18200
210T6000	2100	6000	5100	410	200	570	15	550	130	0-13	90	6820	1850	3350	21000
250T3200	2500	3200	2700	410	250	570	18.5	350	130	0-13	110	4050	1860	3000	14000
250T4000	2500	4000	3500	410	250	570	18.5	430	130	0-13	110	4850	1860	3100	16000
250T5000	2500	5000	4100	410	250	570	18.5	550	120	0-13	80	5850	1860	3250	21000
250T6000	2500	6000	5100	410	250	570	18.5	550	120	0-13	80	6850	1860	3350	24600
320T3200	3200	3200	2700	410	300	600	22	460	100	0-13	90	4600	2260	3400	17700
320T4000	3200	4000	3500	410	300	600	22	460	100	0-13	90	5400	2260	3500	20300
320T5000	3200	5000	4100	410	300	600	22	550	90	0-13	90	6430	2260	3680	26100
320T6000	3200	6000	5100	410	300	600	22	550	90	0-13	90	7430	2260	3850	30400

*展示参数仅供参考，实际参数信息以产品实际为准

OPTION FUNCTION
折弯机选配辅助功能

更多功能的后挡料系统
Powerful Back Gauge System

☑ **拥有多项创新专利技术**
It has a number of innovative patented technologies

拥有多项专利，贴合用户使用情况作多项改进，让折弯更方便。

With a number of patents, it makes a number of improvements according to the user's use situation, making bending more convenient.

☑ **多种后挡料可供选择**
A variety of back gauge are available

更高的配置，功能更强大，操作更简便

Higher configuration, more powerful functions and easier operation
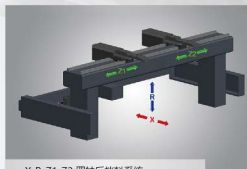
X-R-Z1-Z2 四轴后挡料系统
4 Axis Back Gauge

X 轴采用滚珠丝杆及直线导轨传动，确保较高的定位精度和使用寿命。加宽加长型定制挡指和双直线导轨的挡指支撑架，满足你的使用要求。

X axis adopts ball screw and linear guide,ensure high synchronization accuracy and very long life.Widened and extended custom stop fingers.Finger support frame with double linear guide,Meet your requirements.
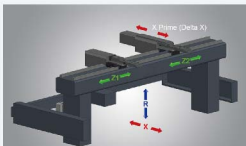
X-R-Z1-Z2-X1 五轴后挡料系统
5 Axis Back Gauge

后挡料 X 为前后运动油缸，R 为 上下运动油缸，Z1 和 Z2 为挡指左右移动轴，X1 为指指头前后移动轴。数控系统编程控制 5 个轴联动精确定位

X axis move front and rear, R axis move upward and downward,Z1 axis and Z2 axis are two finger stops move left and right, X1 axis is finger stop moving front and rear, 5 axis controlled by CNC controller to make linkage positioning precisely

X1-X2-R1-R2-Z1-Z2六轴后挡料系统
6 Axis Back Gauge

后挡料包括高刚性大底座、X 轴驱动机构、r 轴驱动机构及 z 轴驱动机构；能够根据加工零件的需要，将挡指自动调整到所需要的准确位置，保证工件的精确定位，从而加工出合要求的工件。

The back gauge includes high rigidity big base, X-axis drive mechanism, R-axis drive mechanism and z-axis drive mechanism; according to the needs of processing parts, the stopper finger can be automatically adjusted to the required accurate position to ensure the accurate positioning of the workpiece, so as to process the qualified workpiece.

Option Function
折弯机选配辅助功能

PBE PBS PBK SERIES 选配

WILA

激光保护光幕
Optical Safety Guards

意大利进口**DSP LASER**激光防护装置可全面有效地
提供折弯机的安全保护，保护操作者人身安全。

The DSP laser laser protection device imported from
Italy can comprehensively and effectively provide the safety
protection of the bending machine and protect the personal
safety of the operator.

折弯机激光角度检测系统
Laser Check Angle Measurement

使用激光角度测量系统，能保证获得稳定的
工件折弯角度，提高自动化加工的效率和加
工稳定性。

The use of laser angle measurement system
can ensure a stable workpiece bending
angle and improve the efficiency and stability
of automatic machining.

荷兰WILA上模液压夹紧装置
上模液压夹紧，夹紧松开动作由电气自动控制，
夹紧力大而可靠，换模轻松高效。

Holland WILA Upper Tool Clamping Systems
The upper die is hydraulically clamped, and the
clamping and loosening action is automatically
controlled by electricity. The clamping force is
large and reliable, and the die change is easy and
efficient.

荷兰WILA下模单V自动液压夹紧装置
下模液压夹紧装置，夹紧松开动作由电气自动控制，
换模更加轻松高效。

Holland WILA Lower Tool Holders
Lower die hydraulic clamping device, clamping
and loosening action is automatically controlled
by electricity, and die change is easier and
more efficient.
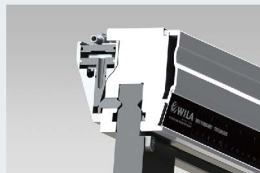
Option Function
折弯机选配辅助功能

电伺服数控随动前托料
CNC Follower Supports

工件折弯时，托料板可以实现翻转跟随功能，
跟随角度和速度由数控系统自动计算并控制，
可沿直线导轨左右移动。

When the workpiece is bent, the support
plate can realize the turning following function.
The following angle and speed are automatically
calculated and controlled by the NC system,
and can move left and right along the
linear guide rail.

机器人折弯单元
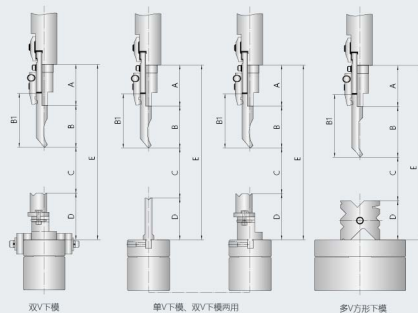**Bending Flexible Processing Unit**
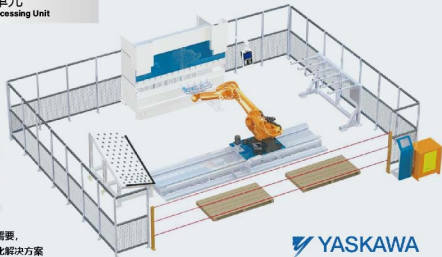
High Efficiency

可根据您生产加工需要，
提供钣金柔性自动化解决方案

According to your production and
processing needs,provide flexible
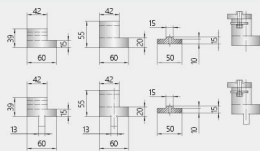automation solutions for sheet metal

YASKAWA

KUKA **Kawasaki Robotics**

Tool Installation Diagram
数控折弯机模具安装图

双V下模   单V下模、双V下模两用   多V方形下模

标准机床模具配置表 50T-400T

代号	双V模具	单双V模具	多V方模
A (快夹高度)	100	100	100
B (上模高度)	90/120	90/120	120
B1 (上模高度)	120/150	120/150	150
C (上下模间距)	E-A-B-D		
D (下模高度)	95/111	100/111	65/85/95/110/130/140
E (开启高度)	详见技术参数表		

多V方型下模	
规格	开口尺寸
DF065	4、8、10、12、16、24、32、40
DF085	4、6、8、10、10∠30°、12、30、40、50
DF095	8、10∠30°、12、16、24、32、40、60
DF110	8、12、18、25、36、48、65、80
DF130	12、16、24、32、40、48、80、100
DF140	12、16、24、32、40、50、80、100

50T-210T标配双V下模，250T（含）以上标配多V方形下模。