

多克

电液数控折弯机

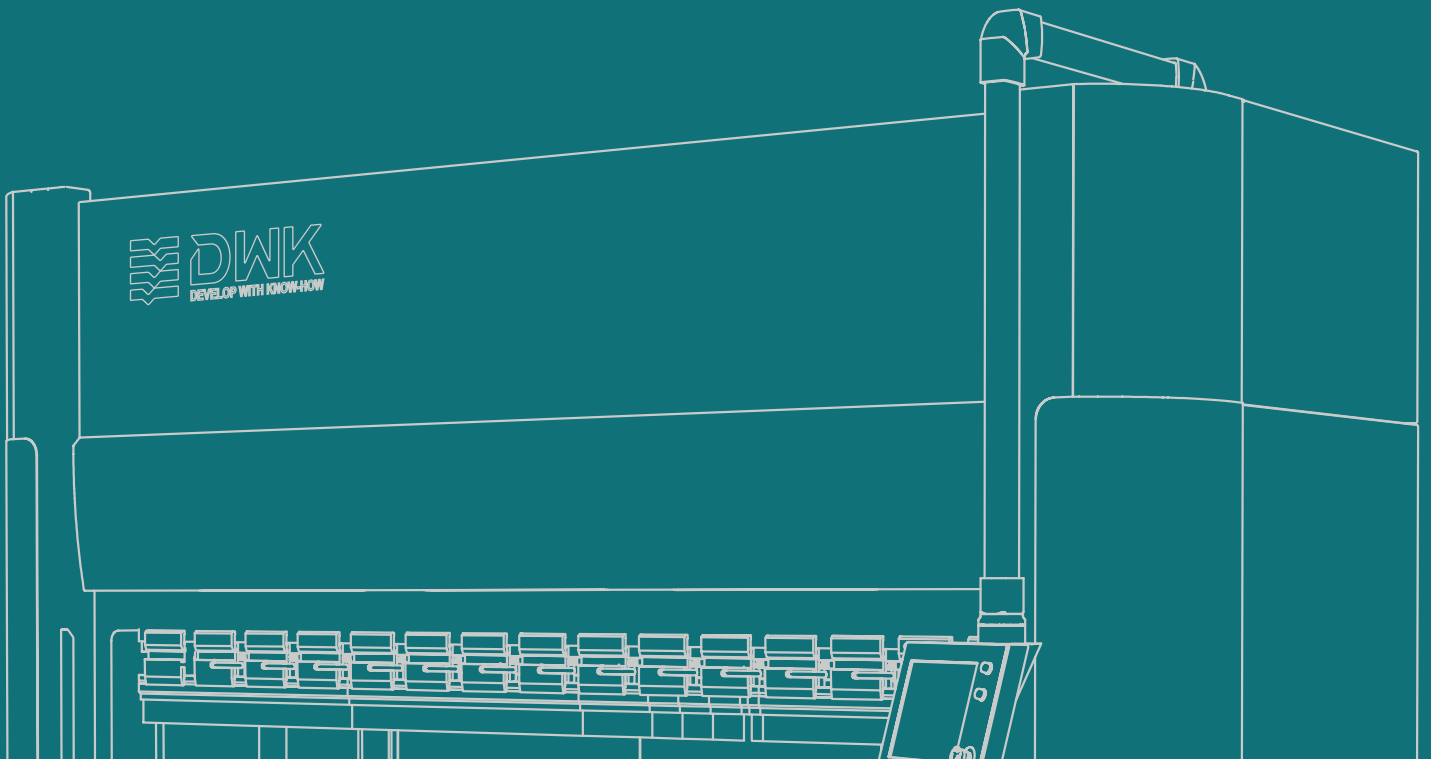
DWK CNC Electro-hydraulic Press Brake



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多克品牌产品 DWK Products



S 系列闭式电液数控折弯机 S Serial CNC Electro-hydraulic Press Brake

- 闭式机架设计，整机刚性高
O frame Design and Solid Structure
- 折弯速度更快
Higher Bending Speed
- 适合薄板折弯
Suitable for Sheetmetal Bending



V 系列 C 型电液数控折弯机 V Serial CNC Electro-hydraulic Press Brake

- C 型机架设计，加工范围广
Wide Processing Range Because of C Frame Design
- 偏向于厚板折弯
Suitable for Thick Plate Bending
- 可实现双机联动
Tandem Operation Available



E 系列电动数控折弯机 E Serial CNC Electric Press Brake

- 纯电驱动
Electric Drive
- 节能环保
Energy Saving
- 速度快
High Efficiency
- 噪音低
Low Noise

产品特点

Product Features



系列电液数控折弯机

S Serial products' characteristics



- 创新设计，3D 建模、辅以有限元分析。设计工具先进，机器结构合理，外形美观大方，使用安全可靠，操作界面友好
- 闭式机架，无喉口，立柱角变形极小，机器角刚度，保证制件具有超高的精度
- 优化性能参数，加工速度快
- 配有全包围式护罩，机器操作使用安全
- 可选配下模自动换位式折弯压扁机构（选配，已申请发明专利），实现高效率压死边工艺
- 最大可实现 160T*4100mm 加工能力
- 标配模具库及一套标准模具，便于管理及日常加工
- Begins with innovative design, 3D modeling, and finite element analysis. Advanced design tools, reasonable machine structure, elegant appearance, safe and reliable use, friendly operation interface.
- O frame design without throat which cause frame deformation very tiny, due to the solidness of structure, the precision of bended products are fully guaranteed.
- Fast bending speed because of optimized performance parameter
- Equipped with fully enveloped guard to ensure the safety of the machine tool operation.
- Optional movable combo die system (complete both bending and hemming without changing die).
- The max. bending capability up to 160T * 4100mm .
- One set of toolings available in our tool library, and very convenient for management and daily operations.



* 选配多种安全装备，符合 CE 标准
Optional safety devices available, comply with CE

机床正面 Front View



机床背面 Rear View





系列电液数控折弯机 V Serial products' characteristics



- 创新设计，3D 建模、辅以有限元分析。设计工具先进，机器结构合理，外形美观大方，使用安全可靠，操作界面友好
- C 型开口式设计，加工工件多样化，并可实现双机联动
- 配有安全防护罩，机器操作使用安全
- 单机最大规格达 1000T*12m，双机可达到 24m 加工长度
- 标配模具库及一套标准模具，便于管理及日常加工
- Begins with innovative design, 3D modeling, and finite element analysis. Advanced design tools, reasonable machine structure, elegant appearance, safe and reliable use, friendly operation interface.
- C frame design make bending capability available for versatile demand and tandem operation available as well.
- Equipped with fully enveloped guard to ensure the safety of the machine tool operation.
- Max. bending capability upto 1000T*12m for one single press brake and also tandem operation available upto 24m.
- One set of toolings available in our tool library, and very convenient for management and daily operations.



* 选配多种安全装备，符合 CE 标准
Optional safety devices available, comply with CE

机床正面 Front View



机床背面 Rear View



技术参数

Technical Specifications



| 型号 Model | | S1-50x1250 | S3-100x3100 | S4-160x4100 |
|--------------------------------|-----------------|------------|-------------|-------------|
| 公称力 Nominal force (KN) | | 500 | 1000 | 1600 |
| 折弯长度 Bending length (mm) | | 1250 | 3100 | 4100 |
| 立柱内间距 Side frame distance (mm) | | 1300 | 3150 | 4150 |
| 滑块行程 Ram stroke (mm) | | 165/200 | 215/250 | 265/300 |
| 开启高度 Open height (mm) | | 415/450 | 465/500 | 515/550 |
| 滑块速度 Ram speed (mm/s) | 快下 Down speed | 150 | 150 | 150 |
| | 工进 Pressing | 16 | 12 | 12 |
| | 返程 Return speed | 183 | 160 | 124 |
| 主电机功率 Main motor power (KW) | | 5.5 | 7.5 | 11 |
| 外形尺寸 Dimensions (mm) | 长 L | 2030 | 4054 | 5070 |
| | 宽 W | 1125 | 1545 | 1640 |
| | 高 H | 2370 | 2840 | 3040 |



| 型号 Model | | V3-100x3100 | V3-160x3100 | V4-160x4100 |
|--------------------------------|-----------------|-------------|-------------|-------------|
| 公称力 Nominal force (KN) | | 1000 | 1600 | 1600 |
| 折弯长度 Bending length (mm) | | 3100 | 3100 | 4100 |
| 立柱内间距 Side frame distance (mm) | | 2450 | 2450 | 3420 |
| 滑块行程 Ram stroke (mm) | | 200 | 200 | 200 |
| 开启高度 Open height (mm) | | 440 | 440 | 440 |
| 滑块速度 Ram speed (mm/s) | 快下 Down speed | 150 | 150 | 150 |
| | 工进 Pressing | 10 | 10 | 10 |
| | 返程 Return speed | 140 | 130 | 130 |
| 主电机功率 Main motor power (KW) | | 7.5 | 11 | 11 |
| 外形尺寸 Dimensions (mm) | 长 L | 4000 | 4000 | 5000 |
| | 宽 W | 1600 | 1600 | 1650 |
| | 高 H | 2800 | 2850 | 2850 |

主要组件

Main Components

照明系统（标配）

Lighting System (Standard)

产品正面、背面均布置有照明灯，根据机型长度增加组数，方便日常操作及维护

Equipped with LED lights on both front and back. The lights quantity is based on the length of the machine to ease daily operation and maintenance.



机械快夹装置（标配）

Fast Clamps (Standard)

配置上模机械快速夹具，便于快速装夹上模

Equipped with upper tool fast clamps, which is convenient to fit up with the upper tool.



前托料装置（标配）

Front Supports (Standard)

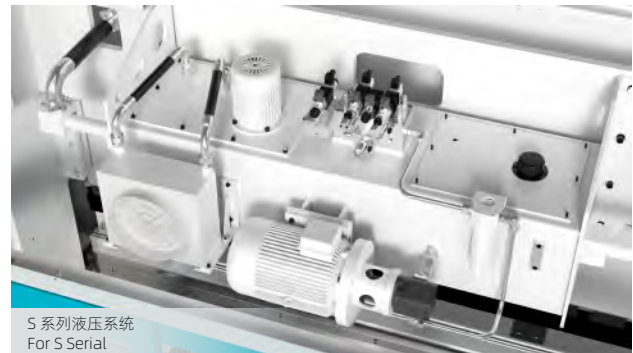
- 自主研发前托料装置，可上下左右调节，进料方便
- 结构稳固，台面加宽，大件加工时可提供着力支撑，小件加工时可放置零件，方便使用
- S1-50*1250 特有折叠型前托料装置
- Our self-developed front supports can move left & right, up & down.
- Small workpieces can be put on the top of support, which is very convenient.
- S1-50x1250 press brake designed with foldable arm board.



液压系统（标配） Hydraulic System(Standard)

液压系统采用国际上通用的电液比例折弯机专用系统，该系统成熟、可靠、故障率低，使用安全稳定。

Equipped with exclusive hydraulic system for electro-hydraulic press brake, which is mature, reliable, low failure rate, safe and stable in performance.



S 系列液压系统
For S Serial



V 系列液压系统
For V Serial

电气系统 PLC System

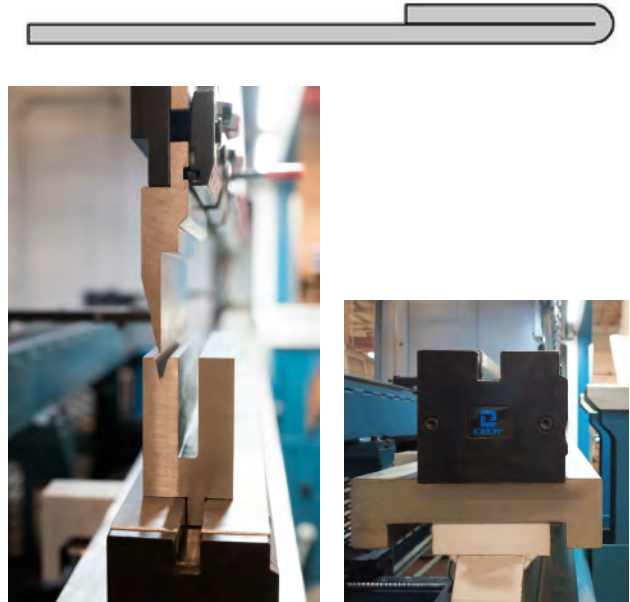
- 主要元件采用法国 SCHNEIDER 品牌，伺服电机采用 ESTUN 品牌，运行稳定，抗干扰能力强
- 电柜布线合理、清晰，便于维修或排除故障，散热效果好
- 配置脚踏开关控制站，具有紧急停止等功能，方便操作
- Equipped with French brand SCHNEIDER and ESTUN servo motors, which help provide stable operation and strong anti-interference performance.
- Equipped with Estun servo driver. PLC cabinet is clearly configured and it is convenient for maintenance, troubleshooting and ventilation.
- Equipped with movable foot switch which can turn on/off or emergency stop, is very convenient to operate.



下模自动换位式折弯压扁机构 (S型专有, 选配) Movable Combo Die Mechanism for Bending & Hemming (Optional for S Series)

通过特制模具与下模换位机构组合, 实现折弯、压扁工位自动切换, 避免在两工位中, 人工移动板料或者更换模具, 有效降低了折弯操作人员的劳动强度。简化了板料折弯压扁工艺的实现过程, 大大提高了制件的生产效率。其动作可根据数控系统的指令自动完成。

The bending and hemming lower die combo realizes the replacement automatically, which avoids the manual movement of material or the changing of lower die, and eventually alleviate the workload of operators. The handling process of sheet metal is simplified and the productivity is greatly improved. This action can be automatically completed according to the instructions from CNC system.



模具库 (标配) Tool Library (Standard)

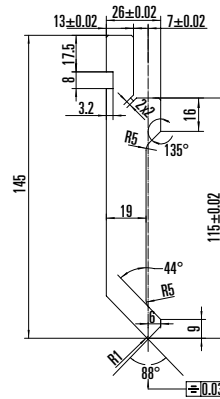
机器配有箱式模具库便于存放模具, 防止高精度模具因为表面污染或变形导致的精度下降

Press brake is equipped with a box-type tool library which can conveniently store tools and help avoid precision deviation caused by deformation or pollution of the tools.

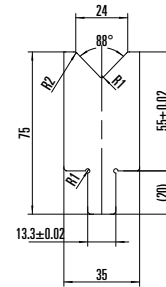


模具 (标配) Tooling (Standard)

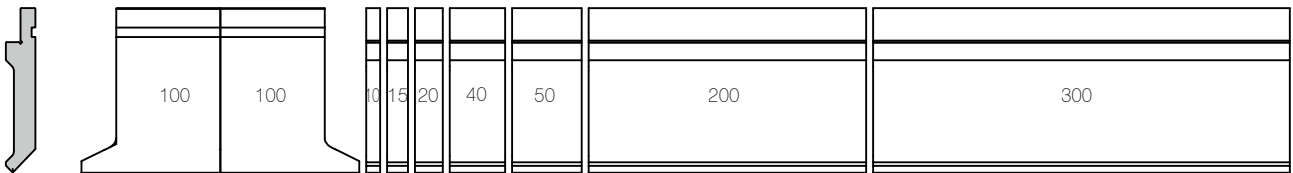
标准配置上模 Standard Punch



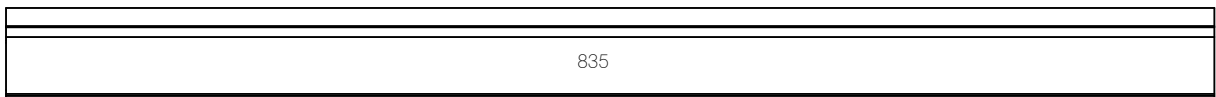
标准配置下模 Standard Die



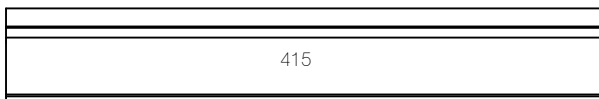
上模标准分段 Standard Punch Sectioning (L=835mm)



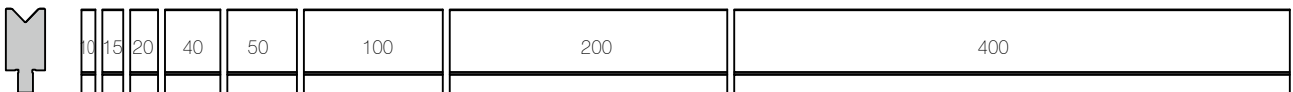
标准上模 Standard Punch (L=835mm)



标准上模 Standard Punch (L=415)



下模标准分段 Standard Die Sectioning (L=835mm)



标准下模 Standard Die (L=835mm)



标准下模 Standard Die (L=415mm)



模具组合说明: 标配一副上模 + 一副下模 Standard tools set: 1 set of punches + 1 set of dies

| | | | |
|---------------------|---|---|---|
| 机型 Model | S1-50×1250 | S3-100×3100 | S4-160×4100 |
| | | V3-100×3100 | V4-160×4100 |
| | | V3-160×3100 | |
| 模具选择组合 Tools set | 标准分段 (L=835)+ 标准上下模 (L=415) Standard Punch & Die Sectioning (L=835mm)+Standard Punch & Die (L=415mm) | 标准分段 (L=835)+ 标准上下模 (L=835)×3 根 Standard Punch & Die Sectioning (L=835mm)+Standard Punch & Die (L=835mm)*3EA | 标准分段 (L=835)+ 标准上下模 (L=835)×4 根 Standard Punch & Die Sectioning (L=835mm)+Standard Punch & Die (L=835mm)*4EA |

其它选配模具参见 32 页

后挡料装置 (标配)

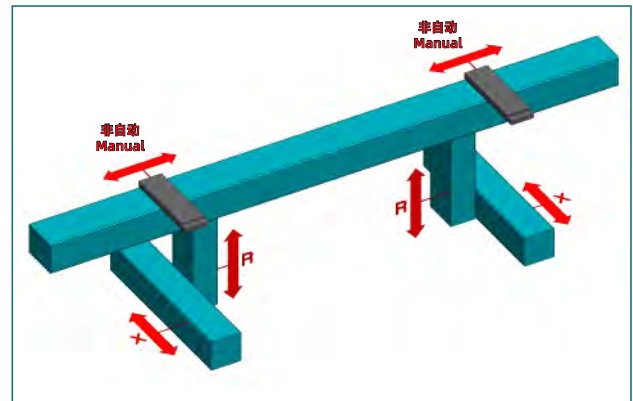
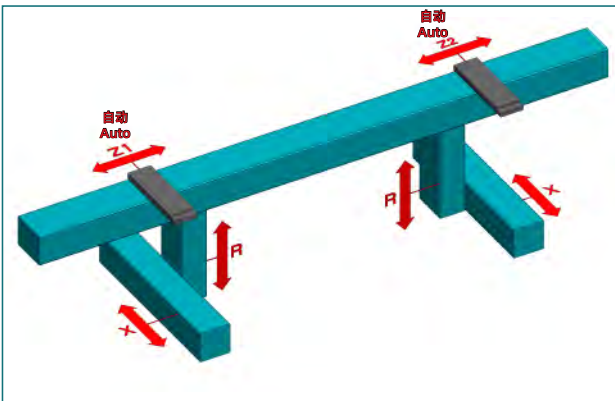
Back Gauge System (Standard)

- 自主研发后挡料，速度快、精度高。多轴可选，定位范围大。
- 标配
 - X+R 后挡料
- 可选配
 - X+R+Z1+Z2 后挡料

Self- developed back gauge system which is fast and highly precise. Multi gauge position design help achieve wider positioning range.

Standard backgauge : X+ R

Optional backgauge: X+ R+ Z1+ Z2



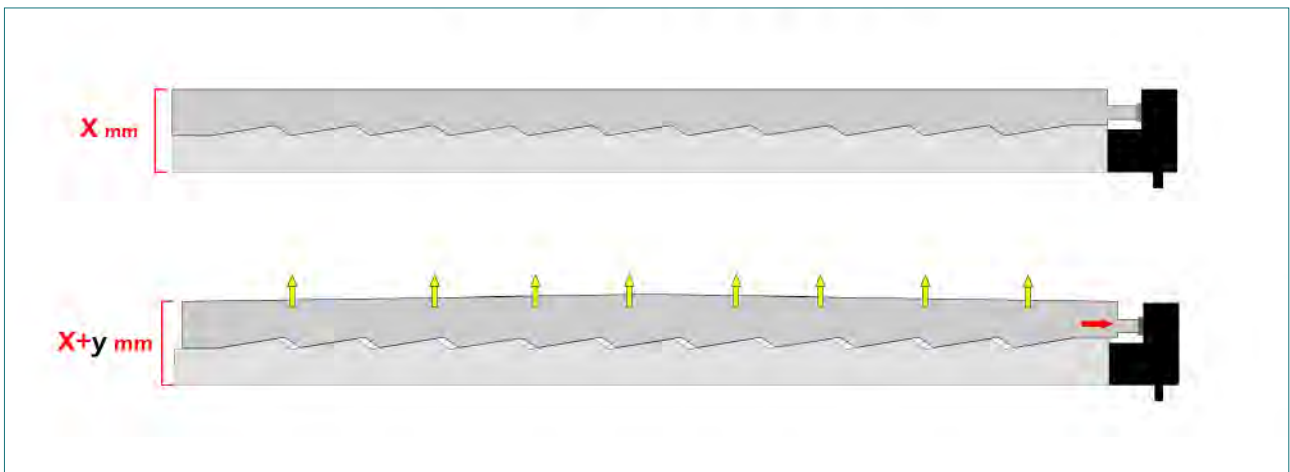
挠度补偿装置（标配） Crowning System (Standard)

机器配有机械挠度补偿装置，可按照数控系统编程的指令自动调整。

- 在整个加工长度内进行多点补偿，具有更高精度和稳定性
- 内置高精度整体加凸波浪面，双向补偿可实现横向精调功能
- 标配集成减速电机、铝合金挡板和刻度标尺

Our press brakes adopt motorized crowing system, which can adjust automatically according to machine's CNC Programming instruction.

- Multi points compensation across the full length of the machine to reach higher precision and stability.
- Built-in high-precision wave bars with bi-directional deflection offset which help achieve precise horizontal compensation.
- Integrated with gear reducer, aluminium stopper and scale.



数控系统 CNC System



CYBELEC CybTouch 12 PS (标配)
——专为 4 轴电液同步折弯机开发的数控系统。

CYBELEC CybTouch 12 PS (Standard)
Designed to control synchronized press-brakes with 4 axes.

基本参数

12 寸彩色绘图 TFT 屏幕
800×600 像素
配 LED 背景灯控制
2GB 的 SD 内存卡和 RLink 固件升级工具

Technical Characteristics

12" color graphic TFT screen
800 x 600 pixels
LED backlight control.
2 GB Micro SD Card with firmware update via RLink.

功能强劲，拓展性强

- 自动生成折弯步序 (可选)
- 折弯允许自动计算
- 压力 - 补偿自动计算
- 针对每一步或每道折弯的模块化设置。
- 角度和后挡料校正。
- 通过 PC 或笔记本无线远程连接系统。
- USB 端口用于数据传输或备份

Functional and expandable

- Bending sequence created automatically (optional)
- Bending allows automatic calculations
- Pressure compensation calculate automatically
- Modularized setting for each step of bending
- Angle and back gauge adjustment
- Remote interface with system via PC or laptop
- USB memory stick interfacing

优化折弯

- 折弯步序的多种自动计算功能
- 可以储存多步折弯步序和产品
- 角度，压力和补偿控制
- 轻松手动控制
- 离线 2D 软件

Bending Optimizing

- Automatic calculation for bending sequence.
- Can store multi-step bending sequence and product.
- Angle, pressure and crowning management.
- Easy manual control Offline 2D software

操作方便

- 大字体、大图标，色彩鲜明，良好的可读性
- 直观友好的人机界面
- 完善的编程可以使批量的多步折弯提高效率
- EasyBend 页面单步折弯非常方便
- 在线帮助和弹出式提示使得软件界面非常友好
- 使用 PC 或者笔记本可以通过无线软件升级和传输数据
- 支持多种语言

Easy Operation

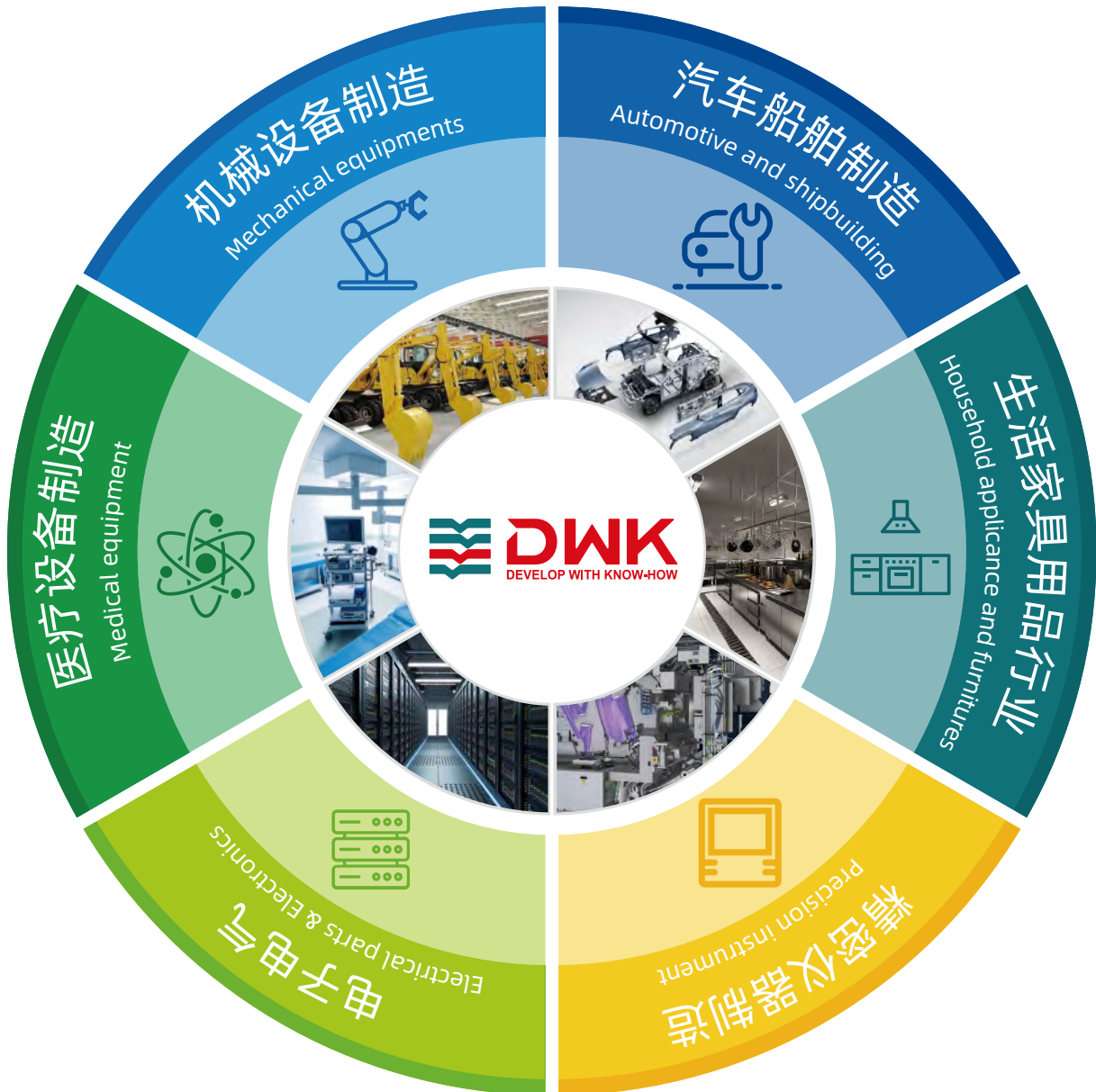
- Large screen, high definition and contrast touch screen
- User friendly HMI
- Perfect programming can improve efficiency for massive multi-step bending
- Easy single bending thanks to the EasyBend page Online aid and pop-up reminder make the interface very friendly.
- Software updates and data transfer via wireless communications with PC or laptop
- Support multi languages

选型配置

Configuration Selection

| 标配 Standard Model | | S1-50X1250 | S3-100X3100 | S4-160X4100 | V3-100x3100 | V3-160x3100 | V4-160x4100 |
|------------------------------------|--------------------|------------|-------------|-------------|-------------|-------------|-------------|
| 机械结构 Mechanical structure | | ■ | ■ | ■ | ■ | ■ | ■ |
| 液压系统 Hydraulic system | | ■ | ■ | ■ | ■ | ■ | ■ |
| 电气系统 PLC system | | ■ | ■ | ■ | ■ | ■ | ■ |
| 前托料装置 Front supports | | ■ | ■ | ■ | ■ | ■ | ■ |
| 机械快夹装置 Fast clamps | | ■ | ■ | ■ | ■ | ■ | ■ |
| 挠度补偿装置 Motorized crowing system | | ■ | ■ | ■ | ■ | ■ | ■ |
| 安全防护门 Safety protection | 后 Rear fence | ■ | ■ | ■ | ■ | ■ | ■ |
| | 左 & 右 L&R doors | ■ | ■ | ■ | ■ | ■ | ■ |
| 脚踏 Foot switch | | ■ | ■ | ■ | ■ | ■ | ■ |
| 模具库 Tool library | | ■ | ■ | ■ | ■ | ■ | ■ |
| 标准模具一套 Toolings (1 set) | | ■ | ■ | ■ | ■ | ■ | ■ |
| LED 照明系统 LED lighting system | | ■ | ■ | ■ | ■ | ■ | ■ |
| 磁栅尺 Magnetic railing ruler | | ■ | ■ | ■ | ■ | ■ | ■ |
| 数控系统 CNC system | CT8 | ■ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | CT12 | ▲ | ■ | ■ | ■ | ■ | ■ |
| | CT15 | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | VT19MAX | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | DA53T | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | DA58T | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | DA66T | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | DA69T | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | S630 | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | S640 | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| | VIS800 | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| 轴数 Backgauge Axis | 4 | ■ | — | — | — | — | — |
| | 4+1 | ▲ | ■ | ■ | ■ | ■ | ■ |
| | 4+2 | — | ▲ | ▲ | — | — | — |
| | 6+1 | — | ▲ | ▲ | ▲ | ▲ | ▲ |
| | 6+2 | — | ▲ | ▲ | — | — | — |
| 其他附件 Accessories | 压力表 Pressure gauge | ■ | ■ | ■ | ■ | ■ | ■ |
| 风冷系统 Air cooling | | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| 油冷系统 Oil cooling | | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| 激光保护光幕 Laser protection | | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| 数控随动前托料 Robotic bending aid | | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| 角度监控校正系统 Bending angle laser check | | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| ■ 标配 Standard | | | | | | | |
| ▲ 选配 Optional | | | | | | | |

应用领域 Product Applications



关于标致 About Us



标致机床（天津）有限公司于 2021 年成立，位于天津滨海新区中新生态城，是一家专业致力于折弯机产品研发、生产、销售的科技型企业。公司组建现代化企业管理运营团队，吸引多位国内锻压机床领域的优秀技术专家，建立研发中心和制造中心，确保多克折弯机基于客户体验的创新研发与基于可靠质量的批量化生产。

多克品牌折弯机，是标致机床（天津）有限公司自主研发的创新产品。贴合客户使用场景，结构新颖、性能可靠。

Biaozhi Machine Tool (Tianjin) Co., Ltd. was established in 2021, located in Binhai New Area Eco-City Tianjin, specializing in R&D, production and sales of press brakes. Our technical experts help to ensure DWK's products can meet customer's demand and the quality of mass production are also reliable.

DWK as a Branded Press Brake, is an innovative product independently developed by Biaozhi Machine Tool (Tianjin) Co., Ltd. suitable for customer's applications by its novel structure and reliable performance.



自主创新研发
Independent R&D



30 年工艺经验
30 Years Hands-on Experience



现代化运营管理
Modernized Management

研发中心 R&D Center

公司设有研发中心，团队成员 **15** 人

自有机床研发相关 **5** 大核心技术能力

围绕智能机床研发申请专利 **100** 余项

Our R&D center own **15** staff who have R&D capabilities in **5** core technologies. More than **100** patents related to machine tool are under application.



制造工厂 Manufacturing Plant

厂区面积: **22000m²**

生产人员: **150⁺ 人**

Area: **22000 m²**

Staff: **150⁺**



工厂位置:

天津宁河经济开发区

距离天津滨海新区: **43km**

距离天津滨海国际机场: **64km**

距离北京机场: **154km**

Plant Location:

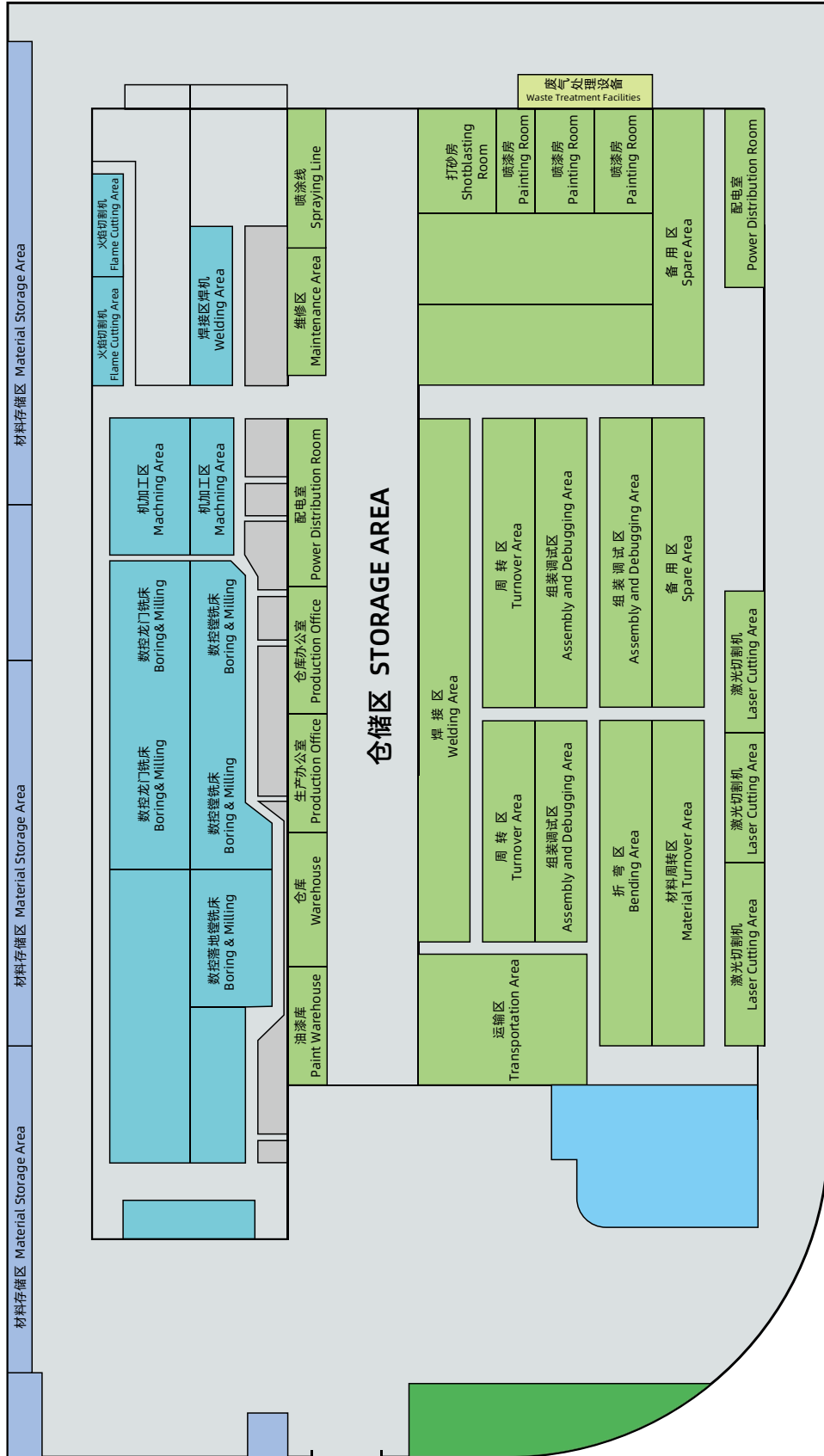
Ninghe Economic Development Zone, Tianjin

To BinHai, New Aera: **43km**

To Tianjin airport: **64km**

To Beijing airport: **154km**

总平面图 | General Plan



重要加工设备 Manufacturing Center Facilities

- 1** 西班牙 5 轴 12 米数控落地镗铣床
Spanish 5Axis 12M Boring & Milling
- 2** 沈阳机床产 3 轴 12 米龙门加工中心
Shenyang 3 Axis 12M Gantry Boring & Milling
- 3** 折弯机器人
Robotic Arm for Bending
- 4** 自动下料激光切割机
Automatic Laser Blanking
- 5** 焊接机器人
Robotic Arm for Welding



从钢板到成品的全流程工艺

From Plate to Press Brake



质量管理体系 Quality Management System

多克制造工厂管理遵循 ISO9001 质量管理体系、ISO14001 质量管理体系、ISO45001 职业健康安全管理体系及 ISO3834 焊接体系，以保证每一台出厂产品均经过严格的质量检验。

As a certificates holder, the production and management of our plant strictly comply with ISO9001, ISO14001, ISO45001 and ISO3834, so to ensure that each of our products are both under strict quality inspection before delivery.



服务承诺

Commitments to Our Customers

选型指导 Modeling guidance

需求调研 Demand investigation

技术分析 Technical analysis

产品方案 Product solution

安装培训 Installation training

培训 Training

考核 Check-up

调试 Debugging

复查 Double-check

使用 In operation

售后维护 After-sales service

产品档案 Product filing

电话回访 Follow-up call

视频指导 Online guidance

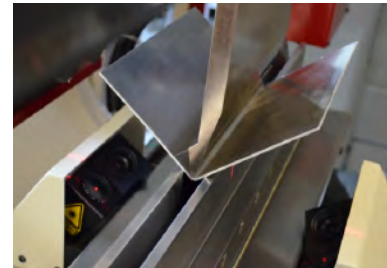
现场服务 On-site service

其它选配 Other Options

角度监控校正系统 Angle Detection System

实时监控折弯角度，向数控系统提供即时反馈，并进行调整，保证每批工件折弯角度的一致性。

Online real-time detection of bending angle, to provide immediate feedback to CNC system, which ensure the consistency of bending angle of each batch.



激光检测弯曲角度矫正器 LaserCheck Bending Angle Measurement System



| 产品型号 Specification LaserCheck | LaserCheck 10 | LaserCheck 11 |
|-----------------------------------|---|----------------------------|
| 模具宽度 [毫米] Die width [mm] | from V6 to V60 | from V6 to V100 |
| 模具高度 [毫米] Die height [mm] | from 55 to 85 (4) | from 55 to 85 (4) |
| 开启高度 Stand-off distance[mm] (1) | 90-220 | 90-220 |
| 安装角度 Mounting angle | 55° | 45° ±10° |
| 电缆长度 Cable lengths | max. 5m (machine length max. 3m) | max. 50m |
| 测量范围 Measurement range | 30° -180° | |
| 典型扫描速率 (2) Typical scan rate (2) | 20 Hz | 50-100 Hz |
| 传感器精度 (3) Precision of sensor (3) | ±0.2° | better than ±0.1° |
| 相机接口 Camera Interface | USB 2.0 | Gbit Ethernet (1 Gbit/sec) |
| 光学类 Optical class | 1/2 "-CMOS | 1/1.8 "-CMOS |
| 分辨率 (水平 x 垂直) Resolution (h x v) | 1280x1024 (1,3 MP) | |
| 输入 Inputs | Trigger-Signal | |
| 输入电压 力量 Input voltage Power | 5 VDC 500mA via USB | 24 VDC 90mA |
| 激光波长 Laser wavelength | 670 nm (red visible) | |
| 激光类 Laser class | 2M | |
| 寿命: 激光二极管 Life time: Laser diode | at 0° C 50.000 h at 40° C 10.000 h | |
| 电磁兼容测试 EMC test | EMC-conform according EN 61000 | |
| 防护等级 Protection class | III, as per EN 61140 | |
| 外壳等级 Enclosure rating | IP64 | |
| 空气湿度 Air humidity | max. 90% RH, non-condensing | |
| 温度 Temperature | in operation 0 - 40°C in storage -20 - 70°C | |
| 界面 Interface | TCP/IP, Modbus, RS232, EtherCAT | |
| 图像处理 Image processing | Control computer with Win10 IoT | |

激光保护光幕 Laser Protection

激光保护光幕可形成一面由激光形成的无形屏障，防止人手或其他物体误入操作区域。

An invisible screen is formed by laser, when the “detection area” is invaded by any opaque objects, this device will cut the power supply of the press brake or activate the function to fail the movement of relative fatal components.

组件

| | | |
|---------------------------|--|-------------|
| 发射单元 Launch unit |  | 标配 Standard |
| 接收单元 Receiving unit | | 标配 Standard |
| 支架 Bracket | | 标配 Standard |
| 控制单元（安全 plc） Control unit |  | 选配 Optional |
| 速度监控阀 Speed monitor | — | 选配 Optional |



安全光幕

| | AKAS II | AKAS 3 | AKAS 3P BLVT BLVT | BLVT | BLVT |
|---|---------|--------|-------------------|------|------|
| 换模后全自动调整 Fully automatic adjustment after tooling changing | √ | √ | √ | | |
| 换模后手动调整 Manual adjustment after tooling changing | LC | | | | |
| 全程快速到达夹紧点 | | | √ | √ | √ |
| 平面板折弯模式 Flat panel bending mode | √ | √ | √ | √ | √ |
| 盒子折弯模式 Box folding mode | √ | √ | √ | | |
| PSDI 3 循环模式 PSDI 3 cycle mode | | | | √ | √ |
| 联动解决方案 Tandem solution | LC | | | √ | √ |
| 集成安全功能 Integrated safety features | F | F | F | EDM | EDM |
| 最大安全检测距离 6 m Max. safety detection distance 6 m | √ | √ | √ | √ | √ |
| 最大安全检测距离 > 6 m Max. safety detection distance > 6 m | √ | √ | | √ | √ |
| 最大范围到 30 m Max. range up to 30 meters | | | | √ | √ |

数控随动前托料机构 CNC Controlled Bending Aid Mechanism

随动前托料特别适用于长板的折弯，可有效地提高效率和精度，降低操作者劳动强度。
The robotic front support is customized for bending the long and heavy sheet metal, which can effectively improve the efficiency and accuracy and alleviate the workload of operators.



| 参数 / 配置 / 功能 Parameters/configurations/functions | F890 | FH890 | EH1090 | EH1030 | EH2090 | EH2030 | EH3090 | EH3030 | EH5090 | EH5030 |
|---|-----------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 托举重量 Lift weight | 80kg | 80kg | 100kg | 100kg | 200kg | 200kg | 300kg | 300kg | 500kg | 500kg |
| 折弯最小角度 Bending minimum angle | 90° | 90° | 50° | 30° | 50° | 30° | 90° | 30° | 90° | 30° |
| 工作台长度 Length extension | 970mm | 970mm | 1280mm | 1280mm | 1280mm | 1280mm | 1280mm | 1280mm | 1280mm | 1280mm |
| 长度延长 Length worktable | 2596mm | 2596mm | 2670mm | 2670mm | 2670mm | 2670mm | 2670mm | 2670mm | 2670mm | 2670mm |
| 工作台宽度 Width of worktable | 705mm | 705mm | 700mm | 700mm | 700mm | 700mm | 700mm | 700mm | 700mm | 700mm |
| 宽度延伸 (选配) Width extension (optional) | 1700mm | 1700mm | 1700mm | 1700mm | 1700mm | 1700mm | 1700mm | 1700mm | 1700mm | 1700mm |
| 工作台最低高度 (A) Minimum height of workbench (A) | 940mm | 1060mm | 870mm | 1050mm | 870mm | 1050mm | 870mm | 1050mm | 870mm | 1050mm |
| 高度自动调整 Height automatic adjustment | 93mm | 153mm | 175.5mm | 104.5mm | 175.5mm | 104.5mm | 175.5mm | 104.5mm | 175.5mm | 104.5mm |
| 前墙板避位 Front wall panel avoidance (B) | 270mm | 210mm | 240mm | 190mm | 240mm | 190mm | 240mm | 190mm | 240mm | 190mm |
| 双机联动 (选配) Two machine linkage (optional) | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| 吸盘 / 磁铁 (选配) Sucker/magnet (optional) | √ | √ | √ | √ | √ | √ | √ | √ | √ | √ |
| 复合模功能 Compound mold function | | | | √ | | √ | | √ | | √ |
| 脚踏开关 (标配) Foot switch (Standard) | | | | √ | | √ | | √ | | √ |
| 可匹配折弯机 Matching bending machine | 上动式 Upward-moving type | | | √ | √ | √ | √ | √ | √ | √ |
| | 下动式 Downward moving type | | | √ | √ | √ | √ | √ | √ | √ |
| 总功率 Total power | 4KW | 4KW | 5KW | 5KW | 6KW | 6KW | 8KW | 8KW | 10KW | 10KW |

冷却系统 Cooling System(Optional)

可选配风冷、油冷等液压冷却系统
Air cooling or oil cooling system is optional for hydraulic system.



数控系统

CNC System

| CYBELEC CT8 (Switzerland) | | |
|---|--|--|
|  | <ul style="list-style-type: none"> · 8 英寸彩色液晶显示屏、触摸屏、图标识别功能 · “简易折弯” 页面采用简易单次折弯处理 · 完全高效的弯曲编程可以满足大规模生产和加工的需要 · 自动计算弯曲角度、主压力和挠度补偿角度，后挡料校正 | <ul style="list-style-type: none"> · 8" color LCD display, touch screen, icon recognition function. · The " Easy Bend" 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 · Angle, Back Guage correction. |
| CYBELEC CT15 (Switzerland) | | |
|  | <ul style="list-style-type: none"> · 15 英寸现代流线型玻璃表面触摸屏 · 用户友好的 HMI 得益于直观的编程和易于设置的专用向导（自动调谐） · 2D 图形配置文件绘制（触摸配置文件）和精确的 2D 程序创建 · 折弯顺序自动计算 · EasyBend 页面实现单次折弯 · 存储容量大 · 内部备份和恢复功能 · 用于扩展诊断和更新的无线通信（使用笔记本电脑） | <ul style="list-style-type: none"> · 15" modern streamlined glass surface touch screen. · User friendly HMI thanks to intuitive programming and easy to setup with dedicated wizards (autotuning). · 2D graphical profile drawing (Touch Profile) and precise 2D program creation. · Automatic bending sequence calculation. · Easy single bends thanks to the EasyBend page. · Wide storage capacity. · Internal backup and restore functions. · Wireless communication for extended diagnostics and updates (with laptop). |
| CYBELEC VT19 MAX (Switzerland) | | |
|  | <ul style="list-style-type: none"> · 19 英寸现代流线型玻璃表面触摸屏 · 用户友好的 HMI，类似于 CybTouch 的 HMI，这要归功于直观的编程和专用的设置向导（自动调整） · 全三维可视化和模拟 · 使用 DXF 展开模式和三维格式文件导入的零件管理 · 复杂零件的自动解决方案，自动弯曲排序、测量、加工和自动分割 · 在 Windows 10 下运行以实现多任务和联网 · 内部备份和恢复功能 · 出色的诊断工具 | <ul style="list-style-type: none"> · 19" modern streamlined glass surface touch screen. · User friendly HMI, similar to the CybTouch's one, thanks to an intuitive programming and dedicated set-up wizards (auto-tuning). · Full 3D visualization and simulation. · Parts management with DXF flat pattern and 3D format files import. · Automatic solutions of complex parts, automatic bend sequencing, gauging, tooling and auto segmentation. · Running under Windows 10 for multi-tasking and networking. · Internal backup and restore functions. · Outstanding diagnostic tools. |

| DELEM DA-53T (Netherlands) | | |
|---|---|--|
|  | <ul style="list-style-type: none"> · “快捷键” 触摸导航 · 10.1 英寸高分辨率 TFT 真彩显示屏 · 最多 4 个轴 (Y1、Y2+2 个辅助轴) · 挠度补偿控制 · 具有模具 / 材料 / 立品库 · 支持伺服或变频器控制 · 先进 Y 轴控制算法, 既可控制闭环阀, 也可控制开环阀 · 网络双机联动 (选配) · USB 外设接口 · Profile-T 离线软件 | <ul style="list-style-type: none"> · "Hot-key" touch navigation. · 10.1" high resolution colour TFT. · Up to 4 axes (Y1,Y2 + 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. |
| DELEM DA58T (Netherlands) | | |
|  | <ul style="list-style-type: none"> · 2D 图形触摸屏编程 · 15 “高分辨率 TFT 真彩显示屏 · 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, 既可控制闭环阀, 也可控制开环阀 · USB 接口 · Profile-T 离线软件 | <ul style="list-style-type: none"> · 2D graphical touch screen programming. · 15" high resolution colour TFT. · Bend sequence calculation. · Crowning control. · Servo and frequency inverter control. · Advanced Y-axis control algorithms for closed-loop as well as open-loop valves. · USB, peripheral interfacing. · Profile-T offline software. |
| DELEM DA-66T (Netherlands) | | |
|  | <ul style="list-style-type: none"> · 2D 触摸式图形编程 · 3D 产品图形模拟显示 · 17 “高分辨率 TFT 真彩显示屏 · 内存容量 1GB · 完整的 windows 应用程序包 · 多任务环境下用户程序应用 · 角度检测传感器接口 | <ul style="list-style-type: none"> · 2D pattern programming. · 3D product graphic simulation display. · 17" high resolution TFT true color display. · Memory capacity 1GB. · Complete windows application package. · Sensor bending & correction interface. |
| DELEM DA-69T(Netherlands) | | |
|  | <ul style="list-style-type: none"> · 17 “高分辨率 TFT 真彩显示屏 · 2D 和 3D 图形触摸屏编程模式 · 模拟和生产中的三维可视化 · 完整的 Windows 应用程序套件 · Delem-Modusys 兼容性 (模块可扩展性和自适应性) · USB 接口 · Profile-T2D 离线软件 · 角度检测传感器接口 | <ul style="list-style-type: none"> · 17" high resolution color TFT. · 2D and 3D graphical touch screen programming mode. · 3D visualization in simulation and production. · Full Windows application suite. · Delem Modusys compatibility (module scalability and adaptivity). · USB, peripheral interfacing. · Profile-T2D offline software. · Sensor bending & correction interface. |
| ESA S630 (Italy) | | |
|  | <ul style="list-style-type: none"> · 单色 5.7 英寸液晶显示屏 (320×240 像素) · 填写实时自动检测、弯曲和补偿力自动计算的表格编程模式 · 二维图形编辑上模具和下模具图形预览工件 · 所有程序、模具和参数都可以保存在本地存储器或 U 盘中 · 控制 3-4 轴 | <ul style="list-style-type: none"> · Monochrome 5.7" LCD display (320×240 pix). · Fill in the form programming mode of real-time automatic inspection, automatic calculation of bending and compensation force. · 2D graphics editing of upper mold and lower mold graphics preview of workpiece. · All programs, molds and parameters can be saved in the local memory or USB flash disk. · Control 3-4 axes. |

模具 Toolings

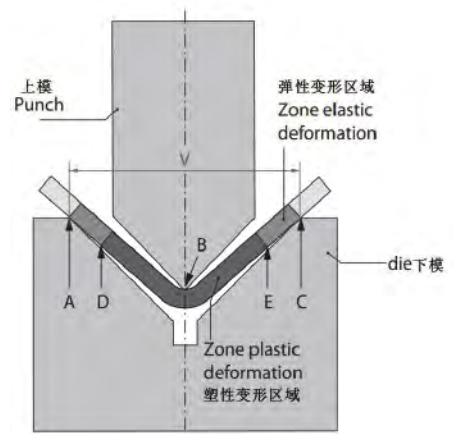
折弯技术——空气折弯原理 Bending Technologies ——Principle of Air Bending

是一种最为普遍的折弯技术，需要相对较小的压力。工件与模具的外缘以及冲头的尖端接触。然后将冲头强行通过模具顶部推入V型开口，但不与V型底部接触。V型开口通常比工件中寻求的角度更深。这允许过度弯曲来补偿工件的弹回。

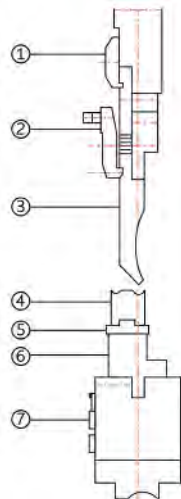
In this process the workpiece comes in contact with the outside edges of the die, as well as the punch tip. The punch is then forced past the top of the die into the v-opening without coming into contact with the bottom of the v. The v opening is typically deeper than the angle which is sought in the work piece. This allows for over bending to compensate for the Spring Back of the work piece.

空气折弯中，弯曲的内半径几乎完全由底模的V型开口大小控制。V型开口越大，半径越大。这意味着操作员可以仅通过更换底模来控制弯曲的半径，即使是使用相同的材料和厚度。这可以用来补偿布局中的错误或实现更多种设计选项。

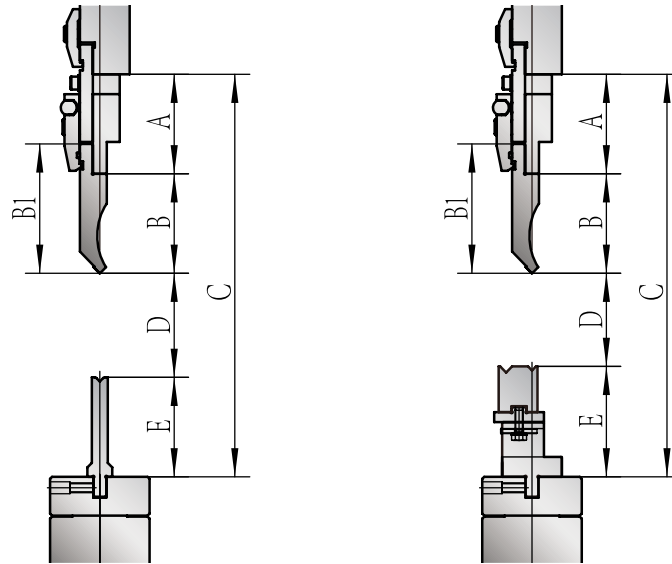
In the air bending, the bend is controlled almost entirely by the size of the v opening of the bottom die. The larger the v opening the larger the radius. This means that the operator can control the radius of a bend even when working with the same material and thickness just by changing the bottom die. This can be used to compensate for errors in the layout or achieve a wider variety of design options.



折弯组件 Bending Components



| 序号 | 名称 |
|----|---------------------------------------|
| 1 | 压板 Clamping plate |
| 2 | 机械快夹: Clamp |
| 3 | 折弯机上模: Punch |
| 4 | 折弯机下模: Die |
| 5 | T型模托: T-type die holder |
| 6 | L型模座: L-type die base |
| 7 | 机械补偿工作台: Motorized Crowning Worktable |



A: 夹具高度 Clamp height

B: 上模净高度 Punch height

C: 开启高度 Opening height

D: 上下模间距 Upper and lower die spacing

E: 下模高度 : Lower die height

选型须知 Tips Before Selection

如果您需要我们帮助您进行模具选型，请提供下列事项内容

折弯零件的零件总图和折弯部分的局部详细图（折弯半径、内外轮廓尺寸公差范围等）。

折弯板材的材质、料厚

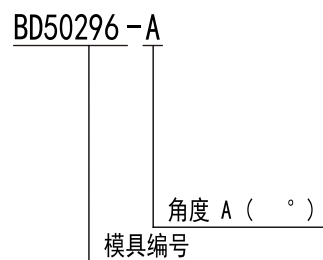
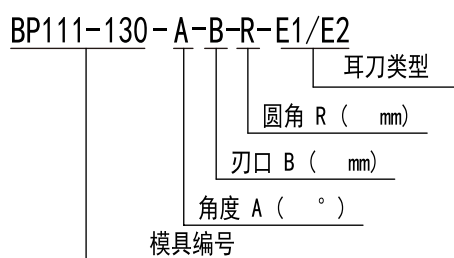
折弯产品对于压痕、划伤等的外观质量要求。

折弯时使用的机械设备类型，型号（最大加工压力、工作台长度、上下模具的装夹方式及装模闭合高度）。

If you have any question regards to customized product, please also provide the following information during inquiry.

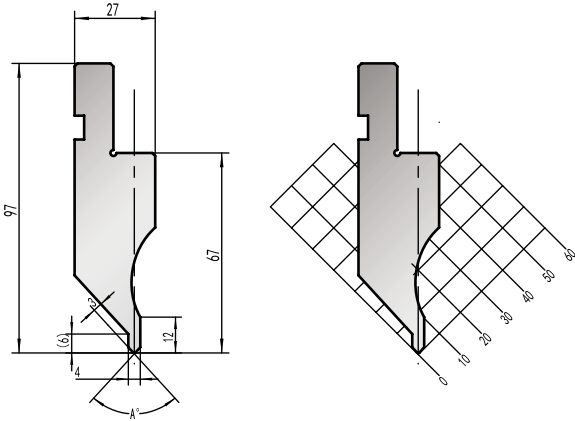
- The designed blueprint of your press brake tool, including the blueprint for key parts (such as Bending radius, the difference between inner and outer contour size etc).
- Which kind material your production is consist with and the thickness of the materials.
- Your requirement regards to potential bending mark, production line and other potential outlook issue.
- Detail information about the press brake machine you are using (Press brake tonnages, beam length, distance between frames etc.)

订购编码 Order code

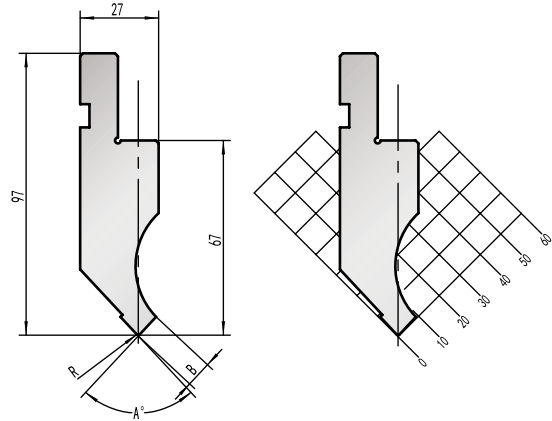


DWK 数控折弯机上模

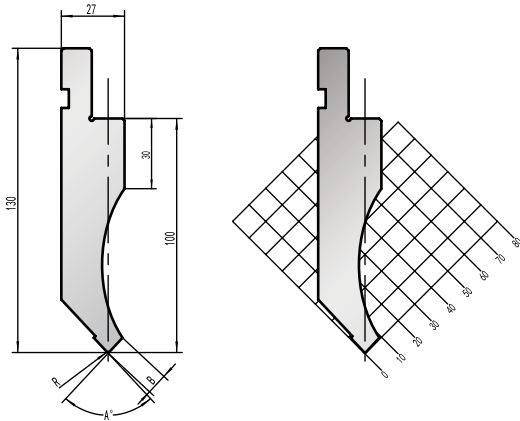
DWK CNC bending machine Punch



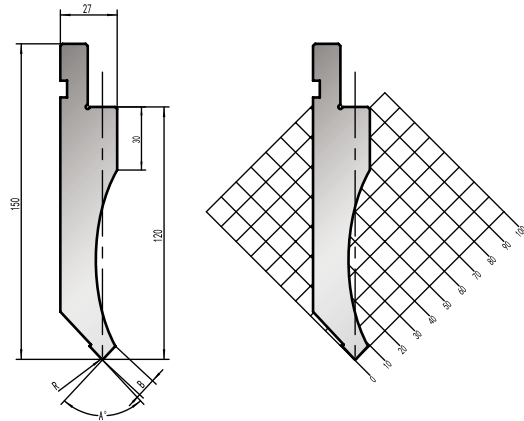
| DWKP110-97 | |
|----------------------|-------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.6 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP111-97 | |
|----------------------|-------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 4/6/9 |
| 圆角Radius R(mm) | R 0.2/0.6 |
| 耳刀样式Ear knife style | E1/E2 |



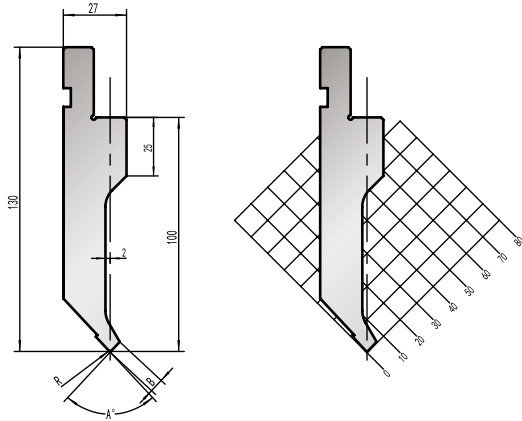
| DWKP111-130 | |
|----------------------|-----------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5/3.0 |
| 耳刀样式Ear knife style | E1/E2 |



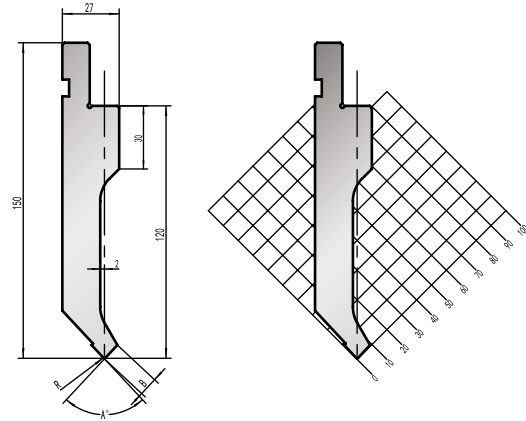
| DWKP111-150 | |
|----------------------|-----------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5/3.0 |
| 耳刀样式Ear knife style | E1/E2 |

材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

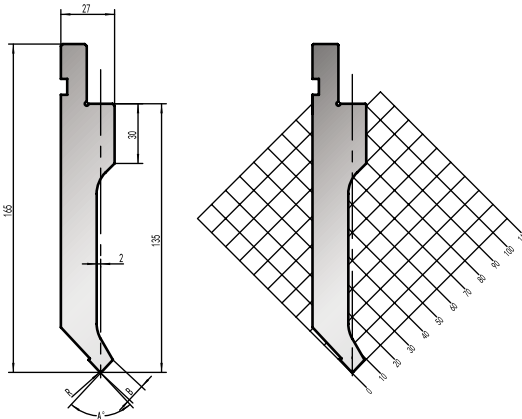
DWK 数控折弯机上模 DWK CNC bending machine Punch



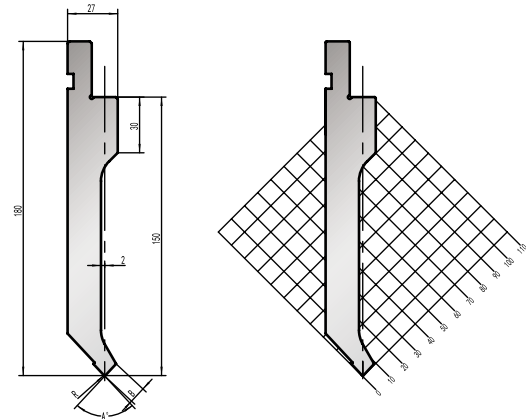
| DWKP112-130 | |
|----------------------|-----------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 4/6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5/3.0 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP112-150 | |
|----------------------|-----------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5/3.0 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP112-165 | |
|----------------------|-----------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5/3.0 |
| 耳刀样式Ear knife style | E1/E2 |

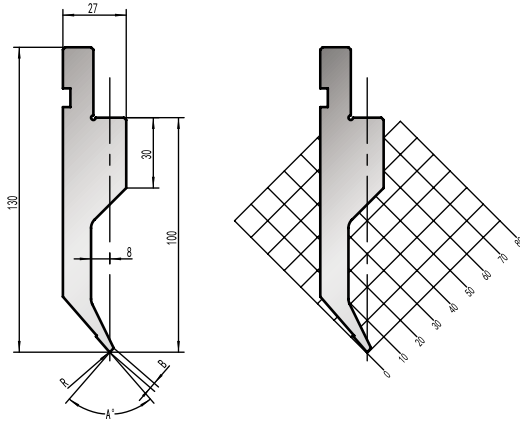


| DWKP112-180 | |
|----------------------|-----------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5/3.0 |
| 耳刀样式Ear knife style | E1/E2 |

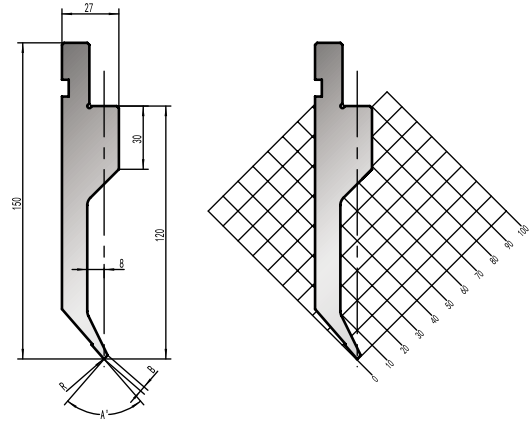
材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机上模

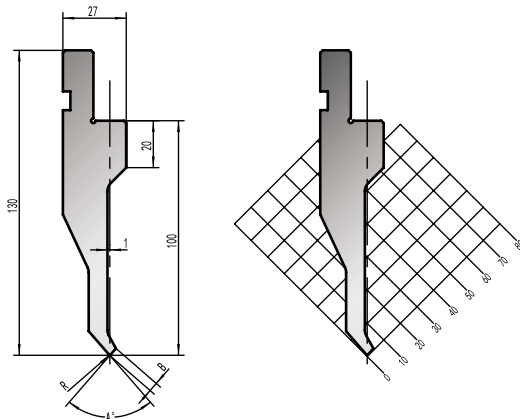
DWK CNC bending machine Punch



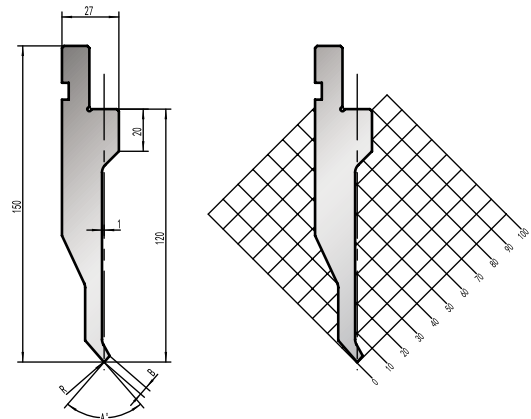
| DWKP113-130 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP113-150 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |



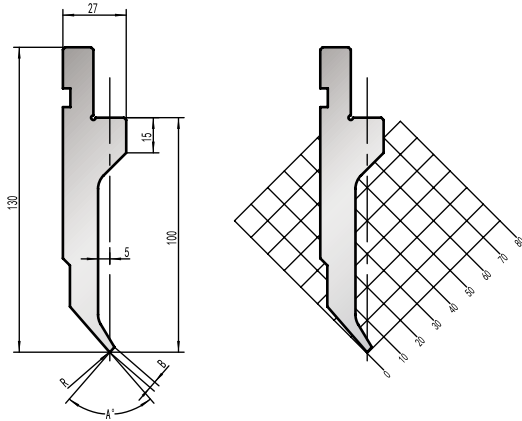
| DWKP114-130 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |



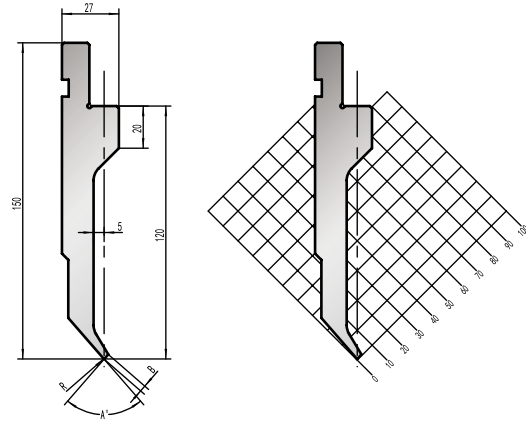
| DWKP114-150 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |

材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

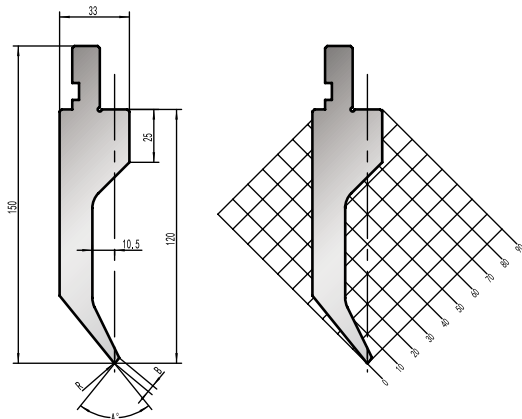
DWK 数控折弯机上模 DWK CNC bending machine Punch



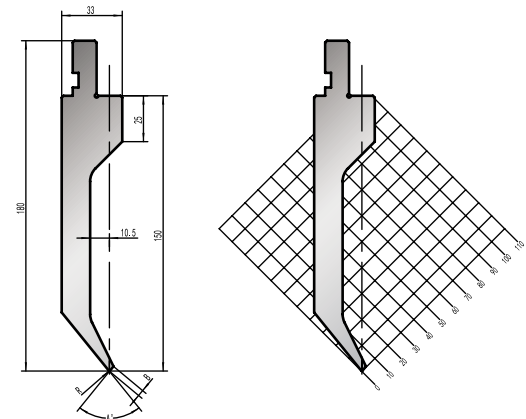
| DWKP115-130 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP115-150 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP116-150 | |
|----------------------|-----------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3 |
| 耳刀样式Ear knife style | E1/E2 |

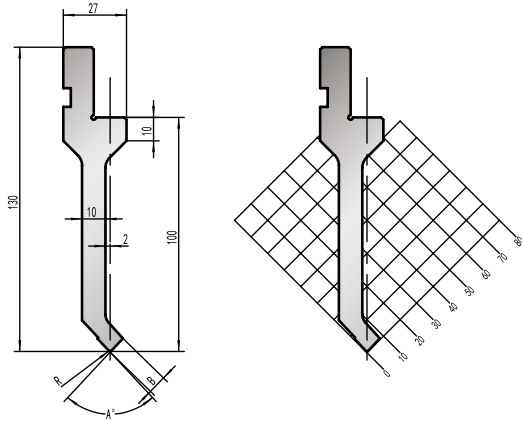


| DWKP116-180 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/82 |
| 刃口Cutting edge B(mm) | 2.5/3/4 |
| 圆角Radius R(mm) | R 0.2/0.3/0.6 |
| 耳刀样式Ear knife style | E1/E2 |

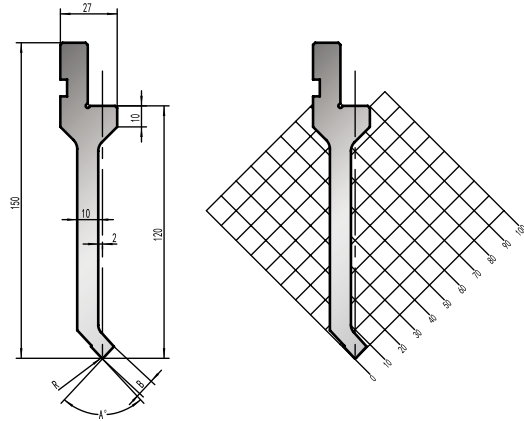
材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机上模

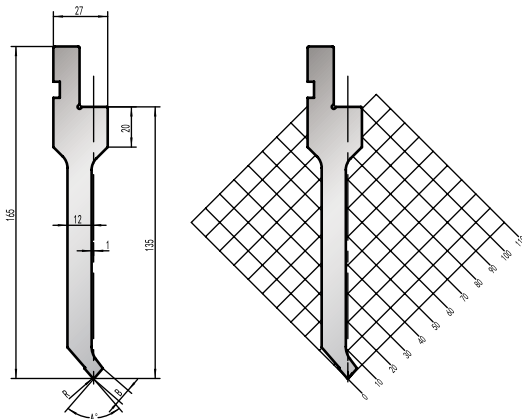
DWK CNC bending machine Punch



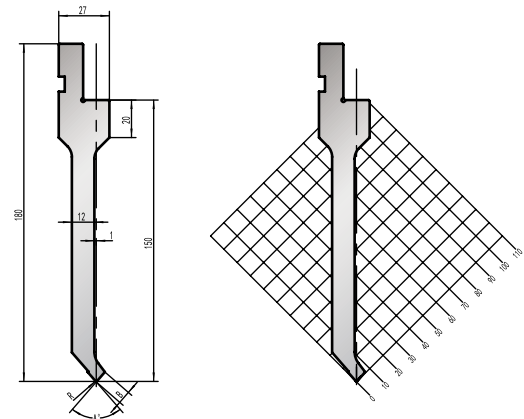
| DWKP202-130 | |
|----------------------|-------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 4/6/8 |
| 圆角Radius R(mm) | R 0.2/0.6 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP202-150 | |
|----------------------|-------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 4/6/8 |
| 圆角Radius R(mm) | R 0.2/0.6 |
| 耳刀样式Ear knife style | E1/E2 |



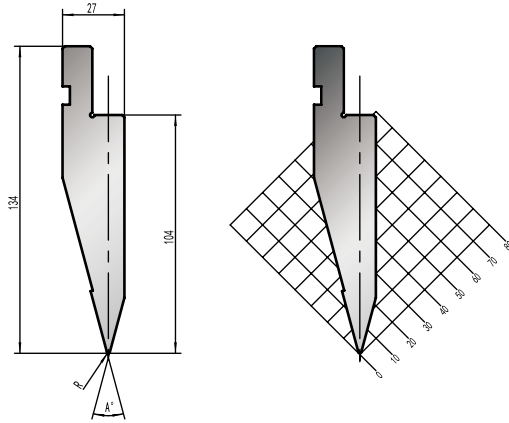
| DWKP202-165 | |
|----------------------|-------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/8 |
| 圆角Radius R(mm) | R 0.2/0.6 |
| 耳刀样式Ear knife style | E1/E2 |



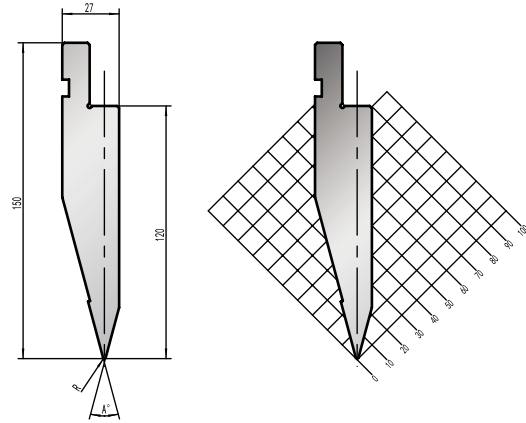
| DWKP202-180 | |
|----------------------|-------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | 6/8 |
| 圆角Radius R(mm) | R 0.2/0.6 |
| 耳刀样式Ear knife style | E1/E2 |

材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

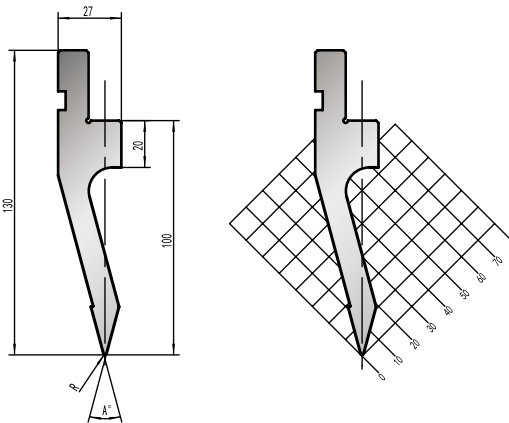
DWK 数控折弯机上模 DWK CNC bending machine Punch



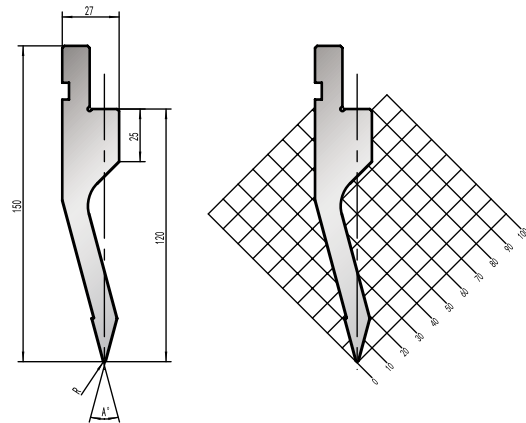
| DWKP210-134 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30/45 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP210-150 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30/45 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP211-130 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |

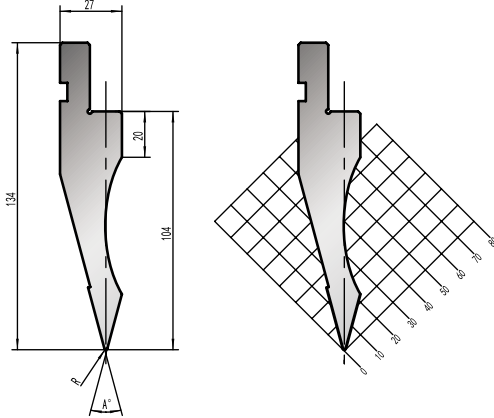


| DWKP211-150 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |

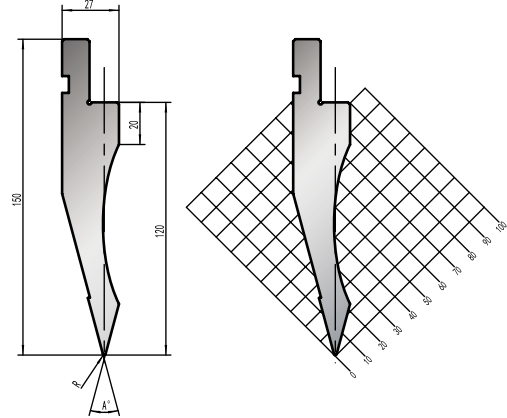
材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机上模

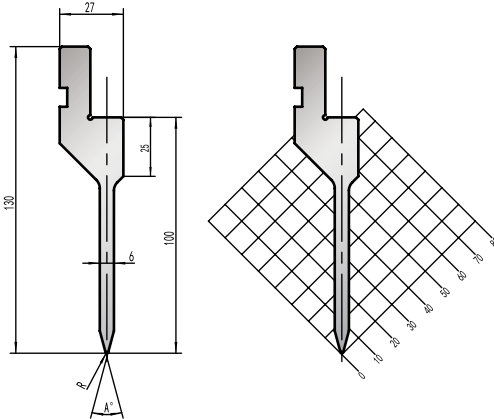
DWK CNC bending machine Punch



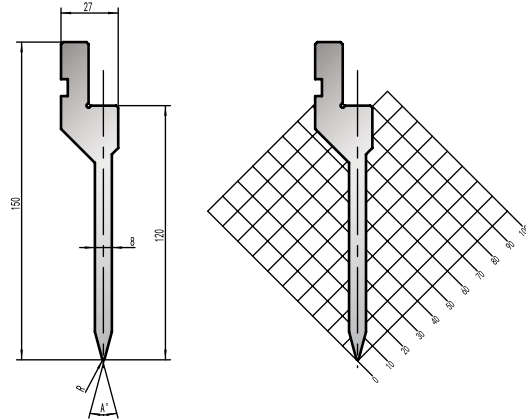
| DWKP212-134 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP212-150 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |



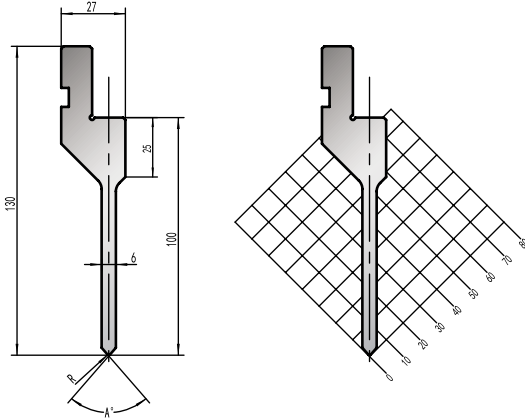
| DWKP220-130 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |



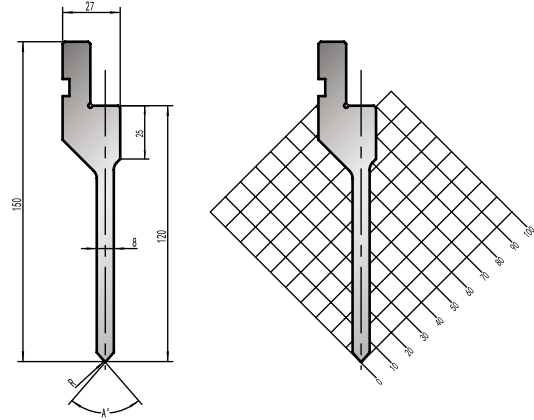
| DWKP220-150 | |
|----------------------|----------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0 |
| 耳刀样式Ear knife style | E1/E2 |

材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

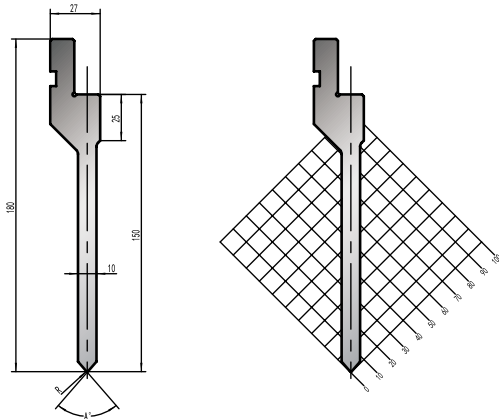
DWK 数控折弯机上模 DWK CNC bending machine Punch



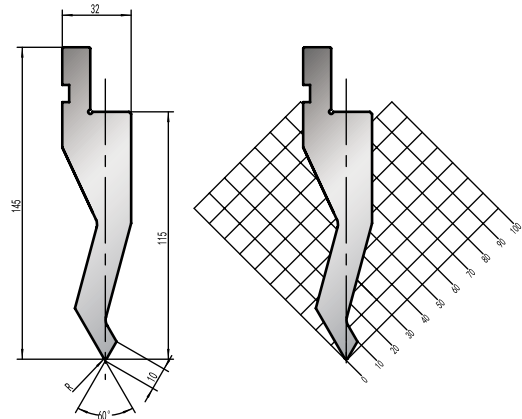
| DWKP221-130 | |
|----------------------|-------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP221-150 | |
|----------------------|--------------------|
| 角度Angle A(°) | 78/82/86/88 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.65/1.0/1.5 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP221-180 | |
|----------------------|-------------------|
| 角度Angle A(°) | 26/28/30 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.2/0.6/1.0/1.5 |
| 耳刀样式Ear knife style | E1/E2 |

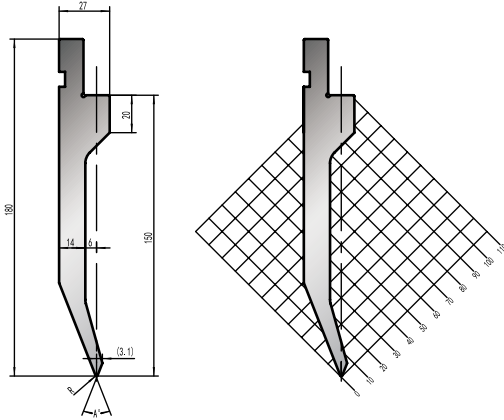


| DWKP222-145 | |
|----------------------|-----------|
| 角度Angle A(°) | 60 |
| 刃口Cutting edge B(mm) | 10 |
| 圆角Radius R(mm) | R 0.6/0.8 |
| 耳刀样式Ear knife style | E1/E2 |

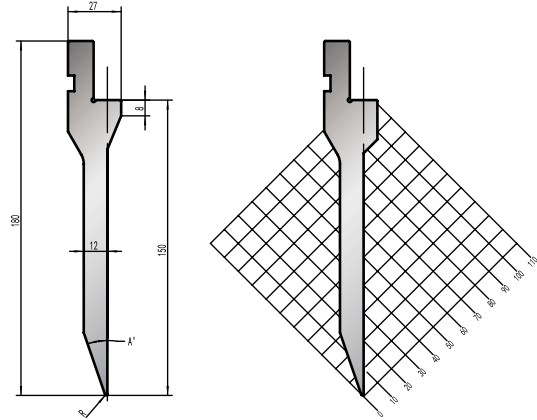
材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机上模

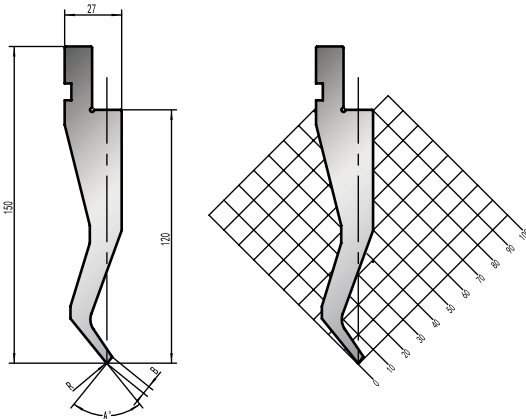
DWK CNC bending machine Punch



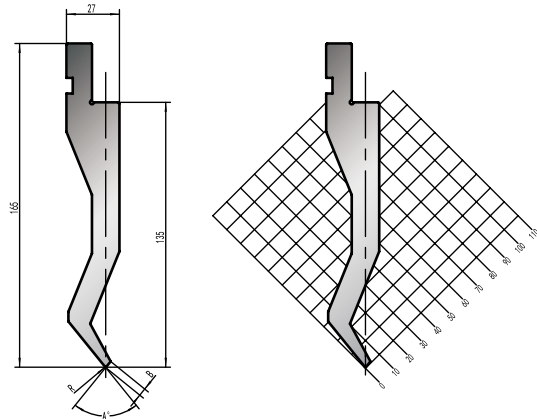
| DWKP230-180 | |
|----------------------|-----------|
| 角度Angle A(°) | 43 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.6/0.8 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP240-180 | |
|----------------------|-----------|
| 角度Angle A(°) | 15/19 |
| 刃口Cutting edge B(mm) | |
| 圆角Radius R(mm) | R 0.6/0.8 |
| 耳刀样式Ear knife style | E1/E2 |



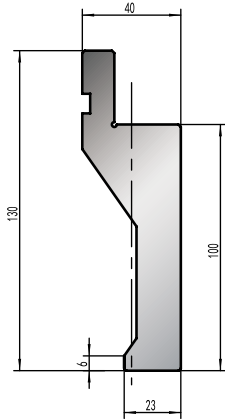
| DWKP250-150 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/80/82 |
| 刃口Cutting edge B(mm) | 2.5/3/3.5/4 |
| 圆角Radius R(mm) | R 0.2/0.3/0.6 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP250-165 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/80/82 |
| 刃口Cutting edge B(mm) | 2.5/3/3.5/4 |
| 圆角Radius R(mm) | R 0.2/0.3/0.6 |
| 耳刀样式Ear knife style | E1/E2 |

材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机上模 DWK CNC bending machine Punch



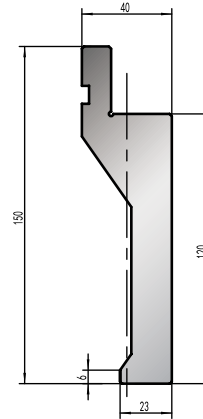
DWKP310-130

角度Angle A(°)

刃口Cutting edge B(mm)

圆角Radius R(mm)

耳刀样式Ear knife style



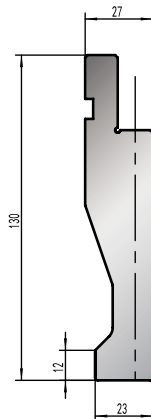
DWKP310-150

角度Angle A(°)

刃口Cutting edge B(mm)

圆角Radius R(mm)

耳刀样式Ear knife style



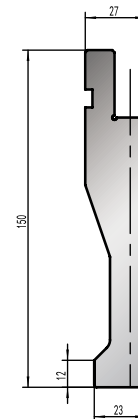
DWKP311-130

角度Angle A(°)

刃口Cutting edge B(mm)

圆角Radius R(mm)

耳刀样式Ear knife style



DWKP311-150

角度Angle A(°)

刃口Cutting edge B(mm)

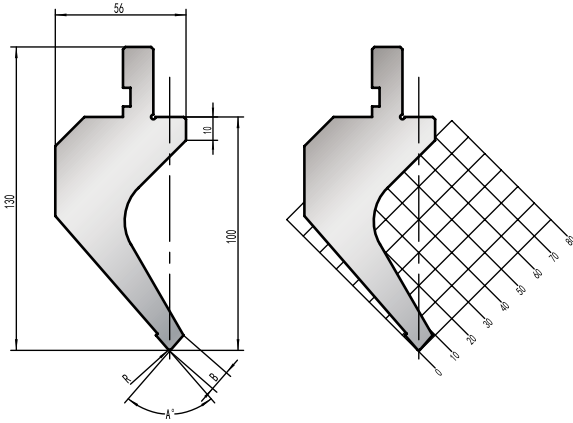
圆角Radius R(mm)

耳刀样式Ear knife style

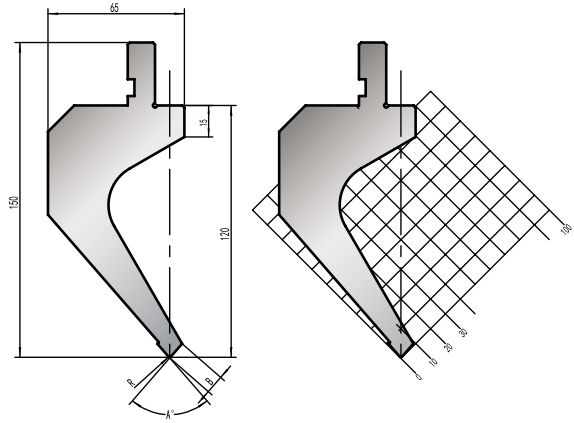
材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机上模

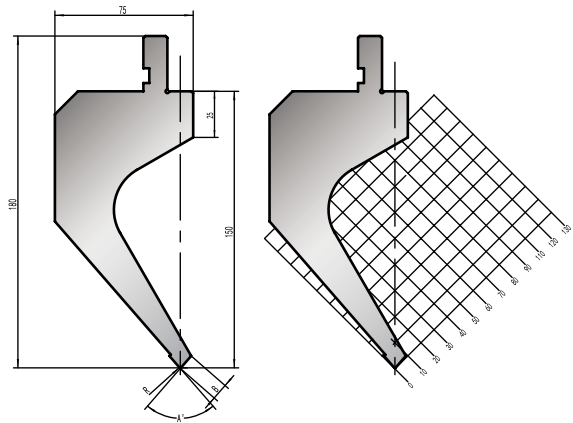
DWK CNC bending machine Punch



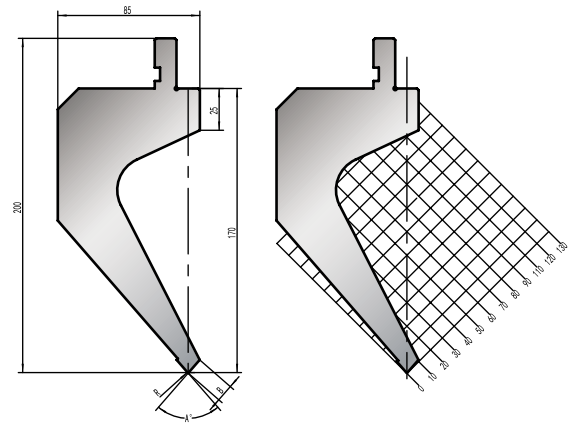
| DWKP450 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/80/82 |
| 刃口Cutting edge B(mm) | 4/6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/0.8 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP470 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/80/82 |
| 刃口Cutting edge B(mm) | 4/6/9 |
| 圆角Radius R(mm) | R 0.2/0.6/0.8 |
| 耳刀样式Ear knife style | E1/E2 |



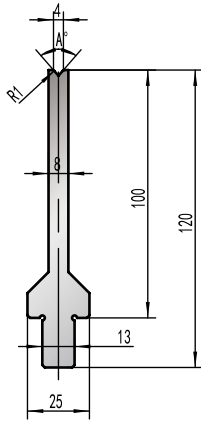
| DWKP471 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/80/82 |
| 刃口Cutting edge B(mm) | 6/9 |
| 圆角Radius R(mm) | R 0.6/0.8/1.5 |
| 耳刀样式Ear knife style | E1/E2 |



| DWKP472 | |
|----------------------|---------------|
| 角度Angle A(°) | 78/80/82 |
| 刃口Cutting edge B(mm) | 9/10.5 |
| 圆角Radius R(mm) | R 0.6/0.8/1.5 |
| 耳刀样式Ear knife style | E1/E2 |

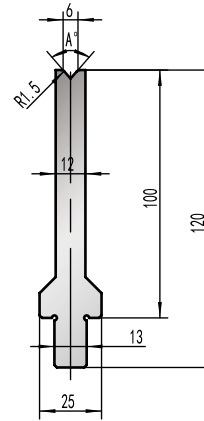
材质 Material: 42CrMo 整体淬火 Quenched: HRC 45-50

DWK 数控折弯机下模——单 V 型 DWK CNC bending machine die——Single V



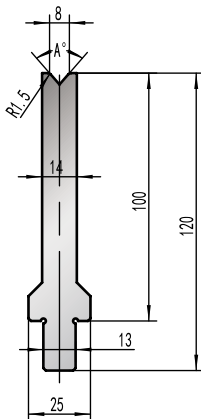
DWKD60004
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



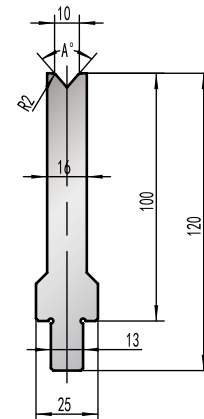
DWKD60006
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



DWKD60008
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86

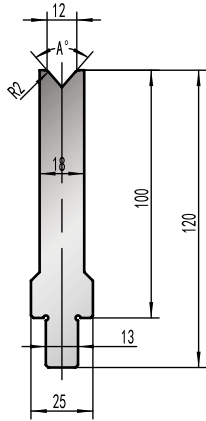


DWKD60010
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86

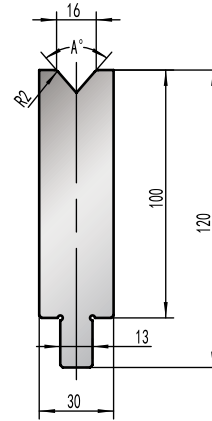
DWK 数控折弯机下模——单 V 型

DWK CNC bending machine die——Single V



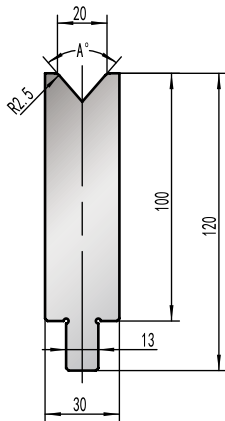
DWKD60012
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



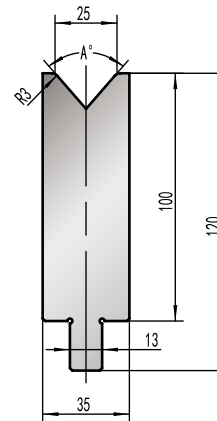
DWKD60016
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



DWKD60020
42CrMo
HRC 45-50

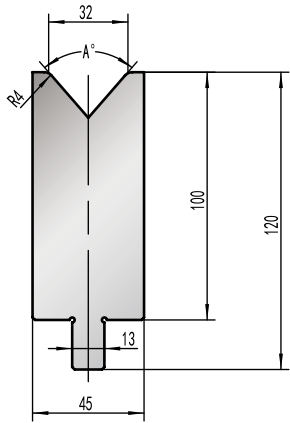
角度Angle A(°) 78/82/85/86



DWKD60025
42CrMo
HRC 45-50

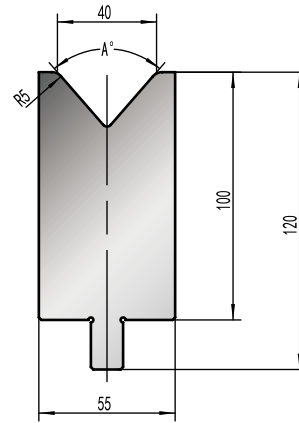
角度Angle A(°) 78/82/85/86

DWK 数控折弯机下模——单 V 型 DWK CNC bending machine die——Single V



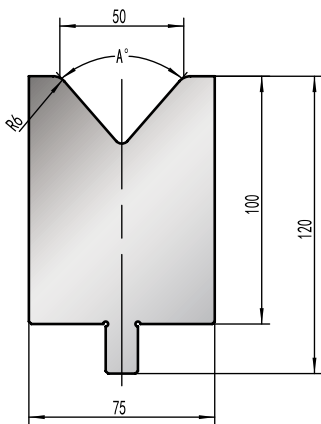
DWKD60032
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



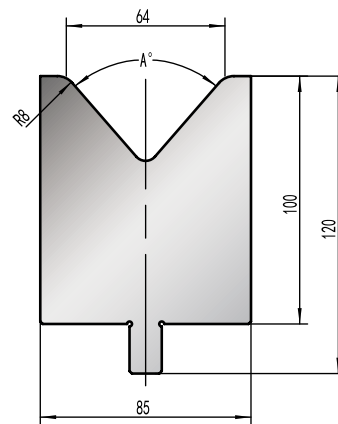
DWKD60040
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



DWKD60050
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86

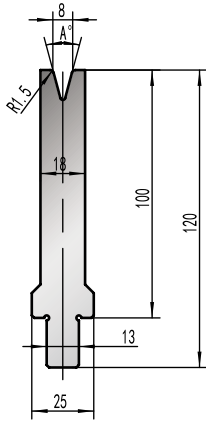


DWKD60064
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86

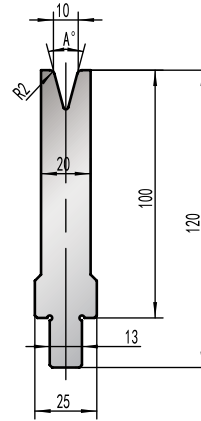
DWK 数控折弯机下模——单 V 型

DWK CNC bending machine die——Single V



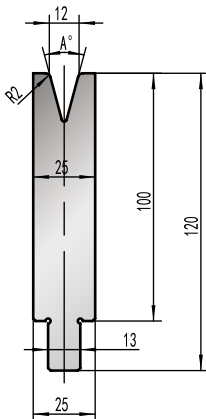
DWKD61008
42CrMo
HRC 45-50

角度Angle A(°) 28/30



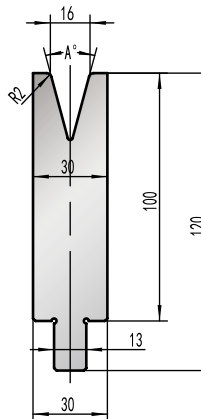
DWKD61010
42CrMo
HRC 45-50

角度Angle A(°) 28/30



DWKD61012
42CrMo
HRC 45-50

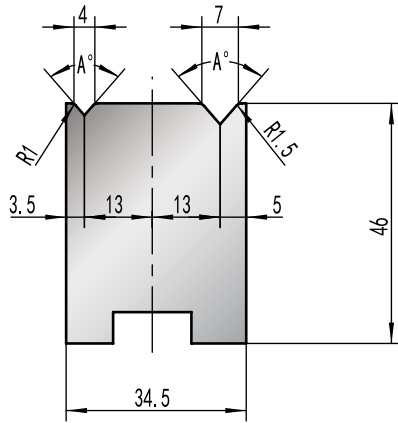
角度Angle A(°) 28/30



DWKD61016
42CrMo
HRC 45-50

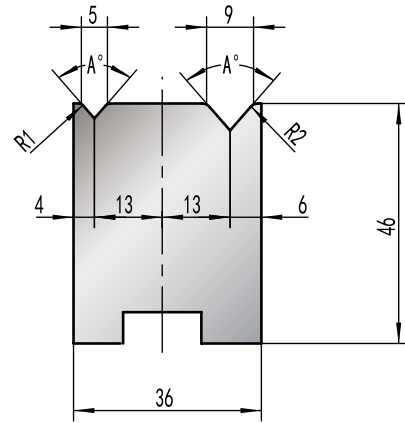
角度Angle A(°) 28/30

DWK 数控折弯机下模——双 V 型 DWK CNC bending machine die——Double V



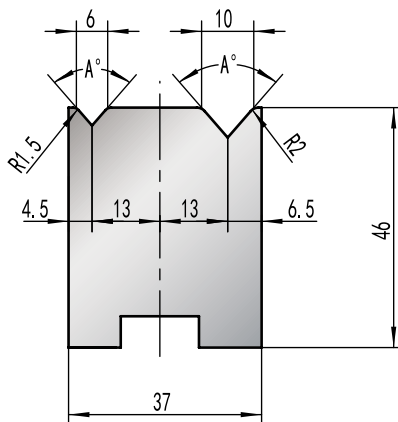
DWKD50196
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86/88



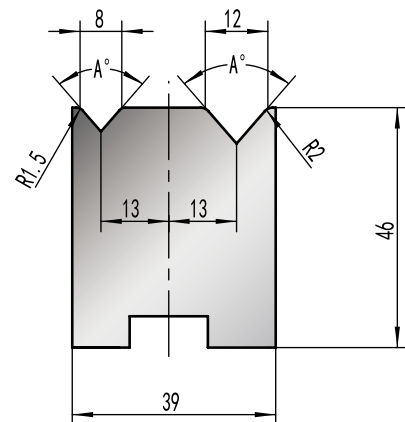
DWKD50796
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86/88



DWKD50296
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86/88

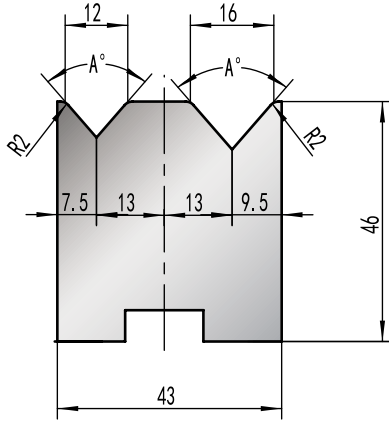


DWKD50396
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86/88

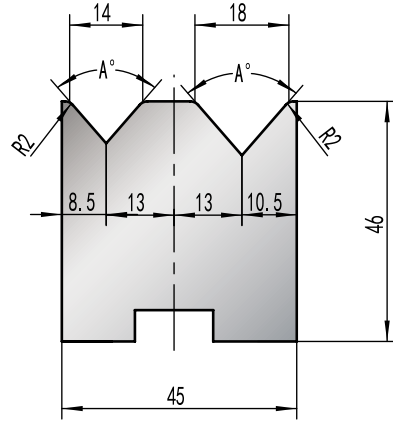
DWK 数控折弯机下模——双 V 型

DWK CNC bending machine die——Double V



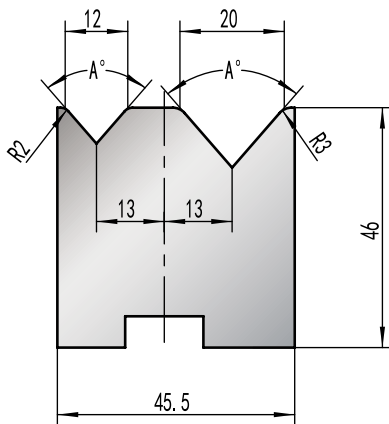
DWKD50496
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86/88



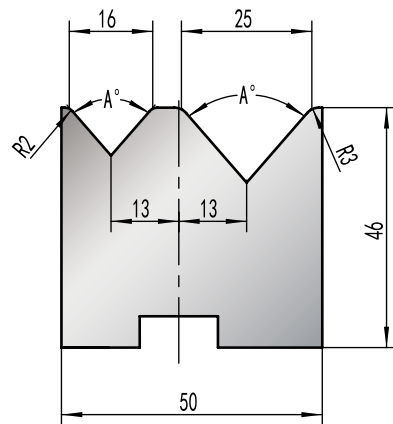
DWKD50490
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86/88



DWKD50590
42CrMo
HRC 45-50

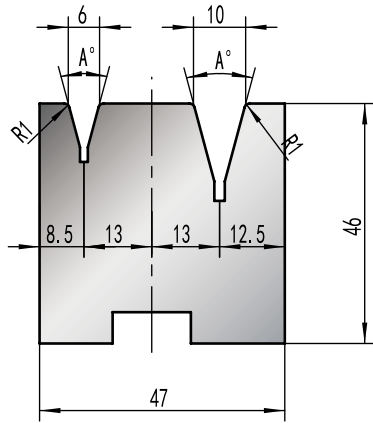
角度Angle A(°) 78/82/86/88



DWKD50690
42CrMo
HRC 45-50

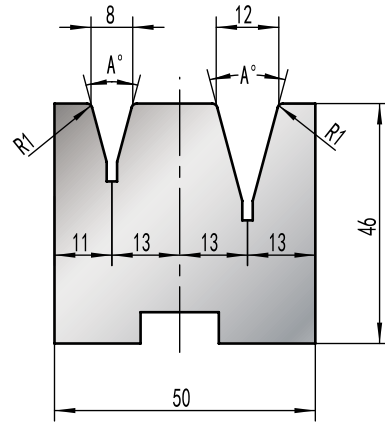
角度Angle A(°) 78/82/86/88

DWK 数控折弯机下模——双 V 型 DWK CNC bending machine die——Double V



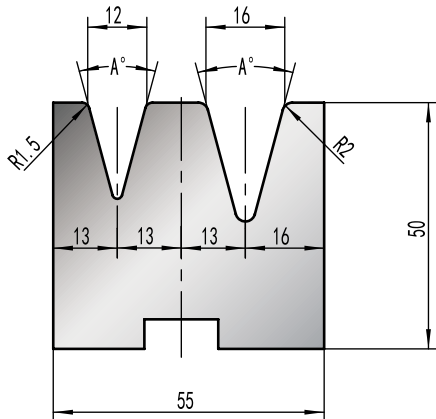
DWKD33706
42CrMo
HRC 45-50

角度Angle A(°) 26/28/30



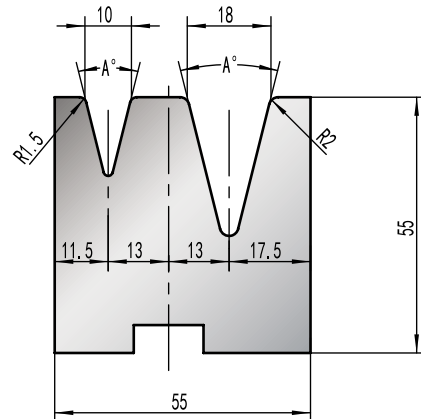
DWKD33707
42CrMo
HRC 45-50

角度Angle A(°) 26/28/30



DWKD33708
42CrMo
HRC 45-50

角度Angle A(°) 26/28/30

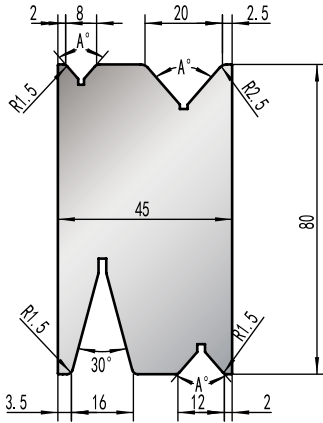


DWKD33709
42CrMo
HRC 45-50

角度Angle A(°) 26/28/30

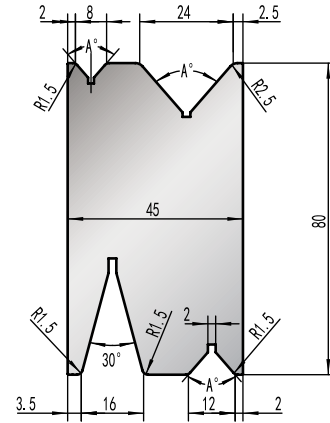
DWK 数控折弯机下模——多 V 型

DWK CNC bending machine die——Multiple V



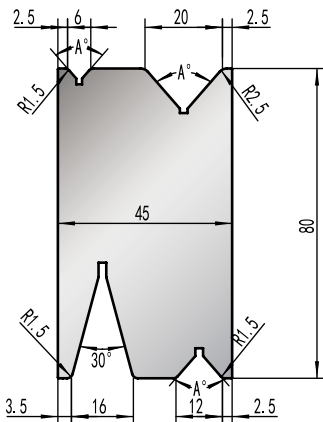
DWKD20451
42CrMo
HRC 45-50

角度Angle A(°) 82/86/88



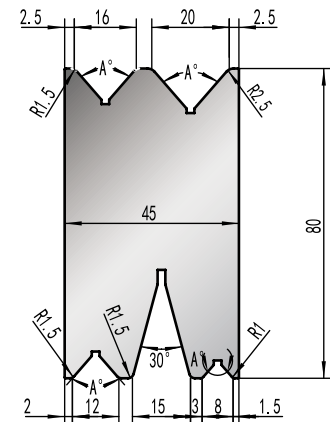
DWKD20452
42CrMo
HRC 45-50

角度Angle A(°) 82/86/88



DWKD20453
42CrMo
HRC 45-50

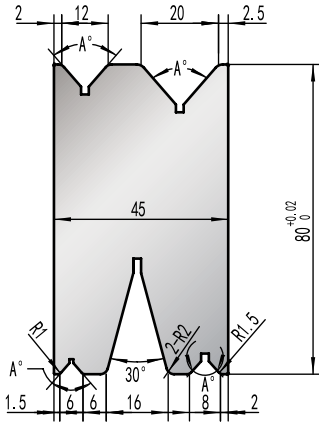
角度Angle A(°) 82/86/88



DWKD20454
42CrMo
HRC 45-50

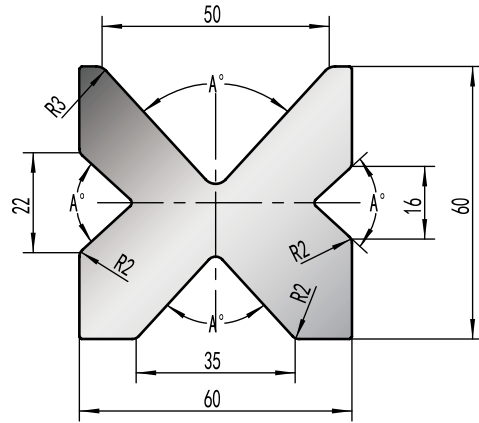
角度Angle A(°) 82/86/88

DWK 数控折弯机下模——多 V 型 DWK CNC bending machine die——Multiple V



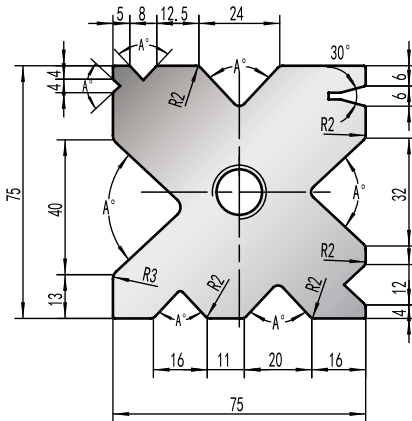
DWKD2456
42CrMo
HRC 45-50

角度Angle A(°) 82/86/88



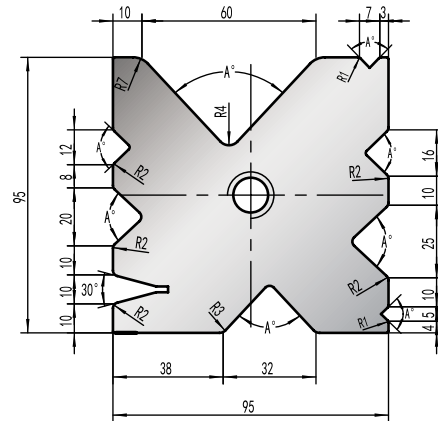
DWKD129
42CrMo
HRC 45-50

角度Angle A(°) 78/82/85/86



DWKD2075
42CrMo
HRC 40-45

角度Angle A(°) 78/82/86

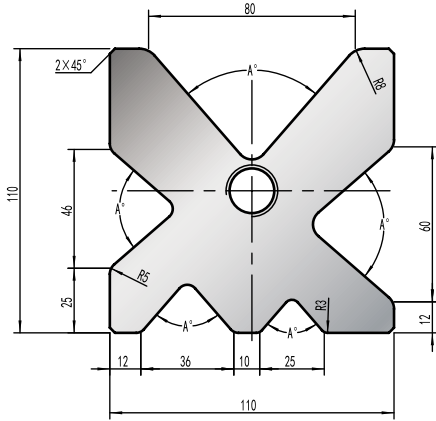


DWKD2095
42CrMo
HRC 40-45

角度Angle A(°) 78/82/86

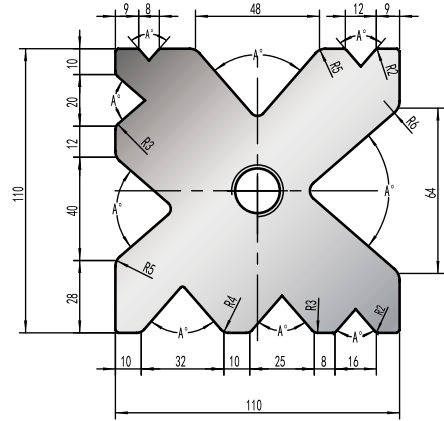
DWK 数控折弯机下模——多 V 型

DWK CNC bending machine die——Multiple V



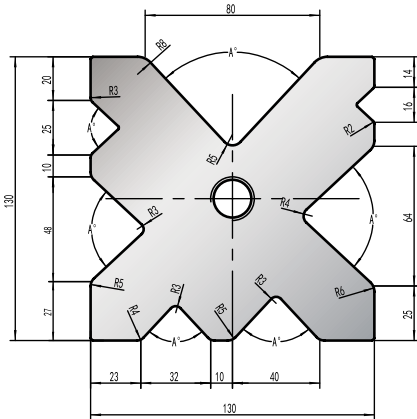
DWKD21101
42CrMo
HRC 40-45

角度Angle A(°) 78/82/86



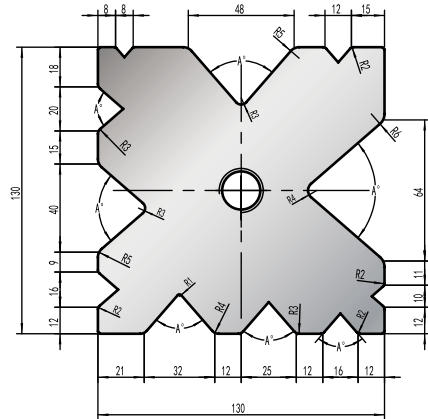
DWKD21102
42CrMo
HRC 40-45

角度Angle A(°) 78/82/86



DWKD21301
42CrMo
HRC 45-50

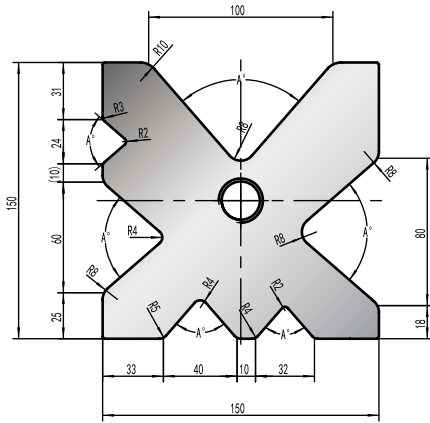
角度Angle A(°) 78/82/86



DWKD21302
42CrMo
HRC 45-50

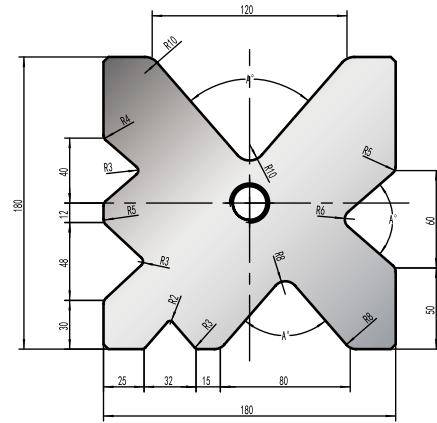
角度Angle A(°) 78/82/86

DWK 数控折弯机下模——多 V 型 DWK CNC bending machine die——Multiple V



DWKD2150
42CrMo
HRC 45-50

角度Angle A(°) 78/82/86

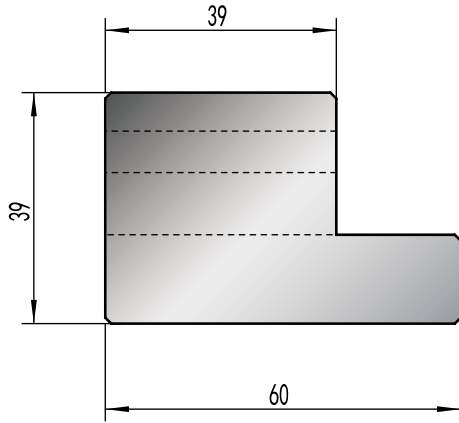


DWKD2180
42CrMo
HRC 45-50

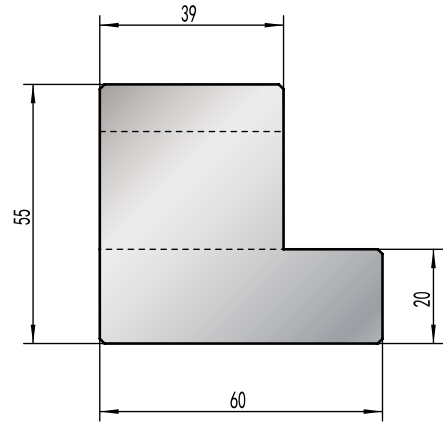
角度Angle A(°) 78/82/86

DWK 数控折弯机模托 / 模座 / 导轨

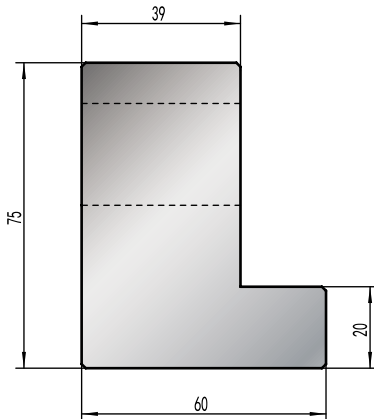
DWK CNC bending machine die holder/die base/guide rail



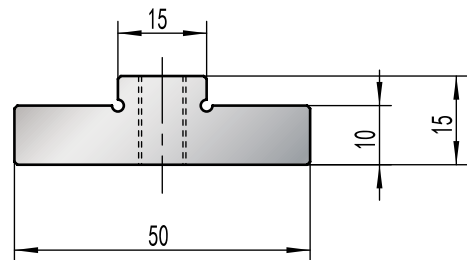
DWKD33039下模座Die base
45
调质处理Quenching and tempering treatment



DWKD33055下模座Die base
45
调质处理Quenching and tempering treatment

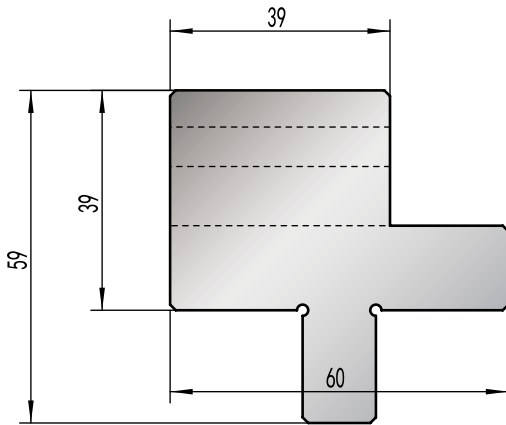


DWKD33075下模座Die base
45
调质处理Quenching and tempering treatment

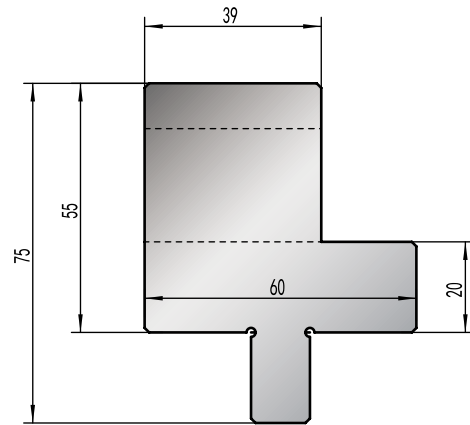


DWKD300 导轨Guide rail
45
调质处理Quenching and tempering treatment

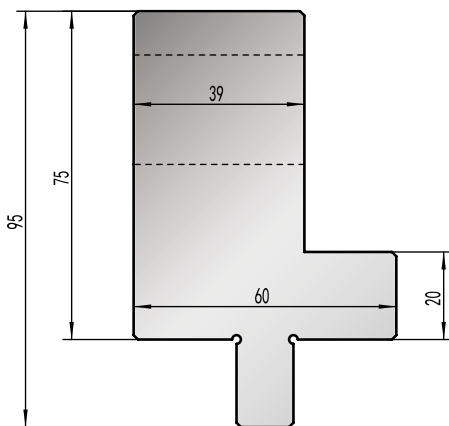
DWK 数控折弯机模托 / 模座 / 导轨 DWK CNC bending machine die holder/die base/guide rail



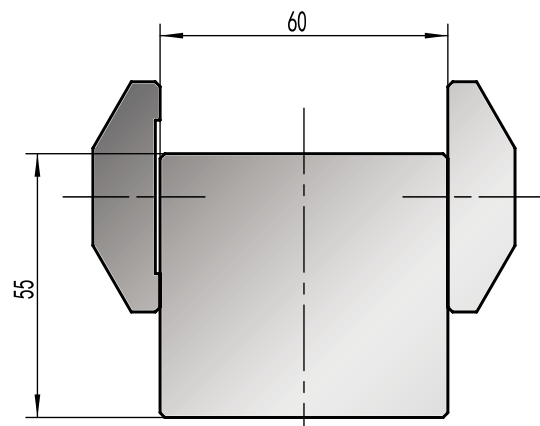
DWKD33139下模座Die base
45
调质处理Quenching and tempering treatment



DWKD33155下模座Die base
45
调质处理Quenching and tempering treatment



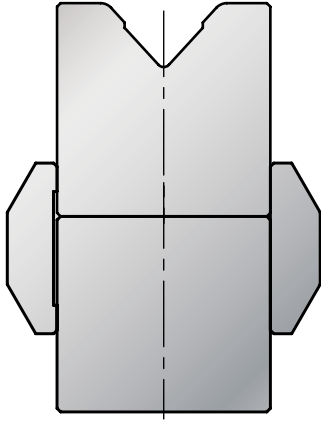
DWKD33175下模座Die base
45
调质处理Quenching and tempering treatment



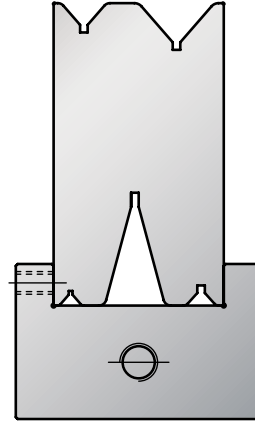
DWKD55
45
调质处理Quenching and tempering treatment

DWK 数控折弯机模托 / 模座 / 导轨

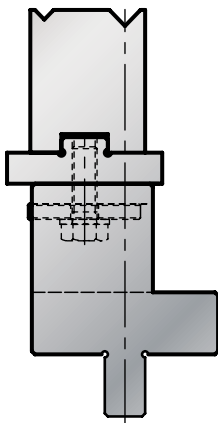
DWK CNC bending machine die holder/die base/guide rail



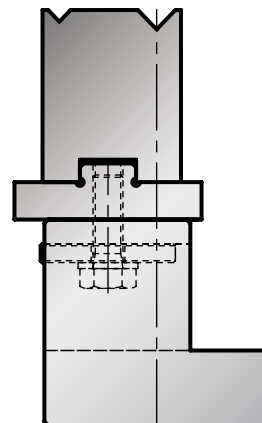
DWKD55下模座Die base
45
调质处理Quenching and tempering treatment



DWKD22045下模托Die holder
45
调质处理Quenching and tempering treatment



插槽式双V同心模具导轨固定式
Slotted double V concentric mold guide rail fixed type



双V同心模具导轨固定式
Double V concentric mold guide rail fixed type

板料折弯压力表 | Bending Chart

| V | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 | 28 | 32 | 36 | 40 | 45 | 48 | 50 | 55 | 60 | 65 | 70 | 80 | 90 | 100 | 120 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|-----|-----|------|------|
| B | 2.8 | 3.5 | 4 | 5 | 5.5 | 7 | 8.5 | 10 | 11 | 12.5 | 14 | 17 | 20 | 22 | 25 | 28 | 31 | 32 | 35 | 38 | 42 | 46 | 49 | 56 | 63 | 70 | 85 |
| R | 0.7 | 0.8 | 1 | 1.1 | 1.3 | 1.6 | 2 | 2.3 | 2.6 | 3 | 3.3 | 3.8 | 4.5 | 5 | 6 | 6.5 | 7 | 7.5 | 8 | 9 | 10 | 1.5 | 11 | 13 | 14 | 16 | 19 |
| 0.5 | 40 | 30 | 30 | 20 | | | | | | | | | | | | | | | | | | | | | | | |
| 0.6 | 60 | 50 | 40 | 40 | 30 | | | | | | | | | | | | | | | | | | | | | | |
| 0.8 | | 80 | 70 | 60 | 50 | 40 | | | | | | | | | | | | | | | | | | | | | |
| 1.0 | | | 110 | 100 | 80 | 70 | 50 | 50 | 40 | | | | | | | | | | | | | | | | | | |
| 1.2 | | | | 130 | 120 | 100 | 80 | 70 | 60 | 50 | | | | | | | | | | | | | | | | | |
| 1.4 | | | | | 160 | 130 | 110 | 90 | 80 | 70 | 70 | | | | | | | | | | | | | | | | |
| 1.6 | | | | | | 170 | 140 | 120 | 100 | 90 | 80 | 70 | | | | | | | | | | | | | | | |
| 2.0 | | | | | | | 220 | 190 | 170 | 140 | 130 | 110 | | | | | | | | | | | | | | | |
| 2.2 | | | | | | | | 230 | 250 | 180 | 160 | 130 | 110 | | | | | | | | | | | | | | |
| 2.5 | | | | | | | | | | 230 | 200 | 170 | 150 | 130 | | | | | | | | | | | | | |
| 3.0 | | | | | | | | | | 330 | 290 | 240 | 210 | 180 | 160 | | | | | | | | | | | | |
| 3.5 | | | | | | | | | | | 400 | 330 | 280 | 250 | 220 | 200 | 180 | | | | | | | | | | |
| 4.0 | | | | | | | | | | | | 430 | 370 | 330 | 290 | 260 | 230 | 210 | | | | | | | | | |
| 4.5 | | | | | | | | | | | | | 470 | 410 | 370 | 330 | 290 | 280 | 270 | 250 | | | | | | | |
| 5.0 | | | | | | | | | | | | | | 510 | 450 | 410 | 360 | 350 | 330 | 300 | 270 | 250 | | | | | |
| 6.0 | | | | | | | | | | | | | | | 650 | 590 | 520 | 500 | 470 | 430 | 390 | 360 | 340 | 300 | | | |
| 8.0 | | | | | | | | | | | | | | | | | | | 830 | 760 | 700 | 640 | 600 | 520 | 460 | 420 | |
| 10 | | | | | | | | | | | | | | | | | | | | | 1080 | 1000 | 930 | 810 | 720 | 650 | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | 950 | 780 |
| 14 | | | | | | | | | | | | | | | | | | | | | | | | | | 1300 | 1100 |

S

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媒体：   

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