MASTEEL

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CNC PUNCH PRESS BRAKE GUILLOTINE AND SHEAR

麦斯铁专业数控钣金设备和工艺解决方案：冲床、折弯机、剪板机

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MBHS/MBC SERIES HYDRAULIC SYNCHRONIZED CNC BRAKES

MBHS/MBC系列电液同步数控折弯机

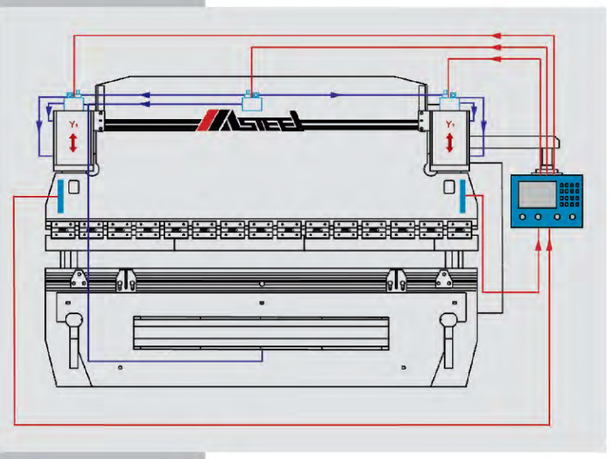
麦斯铁数控折弯机

STANDARD CONTROL FEATURES:

- Standard S525 CNC control with 320x240 pixels graphic display for MBC series with 3+w axes, Standard S530 CNC control with 800x480 pixels graphic display and interactive 2D graphic editor for MBC series with 4+w axes or tandem, Standard S540 CNC control with 10.2" TFT screen and interactive 2D graphic editor for 6+w axes or MBHS series.
- 0.0004" high resolution linear scales provide precision dual ram position feedback
- Bosch–Rexroth Closed–loop Proportional Hydraulic position control: repeatability at ±0.0004" and parallelism at ±0.0004"
- Y1, Y2 Programmable independently in angle or position
- Hydraulically Synchronized ram parallelism control compensates uneven force on the bend by means of hydro–electrical technique
- Servo CNC back gauge with precision ball screw and linear guide way ensures unsurpassed rigidity and high productivity speed
- Back gauge position speed at 8"/s, repeatability at ±0.001"
- Automatic or programmable back gauge retract feature
- Auto and programmable pressure control
- Programmable ram top stop and slow bending position
- Programmable bending speed
- Automatic conversion: Inch / mm
- Prome cam punch clamping system with quick release on braked under less than 320Ton

标准控制功能：

- MBC系列3+w轴标准配置数控系统S525, 320x240像素图像显示屏；MBC系列4+W轴标准配置S530数控系统, 800X480像素图像显示屏,交互式二维图形编程；MBHS系列和6+w轴标准配置数控系统S540，10.2"TFT显示屏, 交互式二维图形编辑器
- 0.005mm高精度光栅尺准确提供滑块双侧位置反馈
- BOSCH REXROTH闭环液压比例阀控制系统：Y1、Y2轴重复定位精度和同步精度±0.01mm
- Y1\Y2轴可独立角度编程和位置编程
- 数控液压补偿，保证全长工件角度一致
- 配置精密的滚珠丝杆和直线导轨伺服数控后档料，确保卓越的刚性和高效生产能力
- 后档料运行速度为200mm/s，重复定位精度控制在±0.01mm
- 自动或手动编程后档料退让功能
- 自动编程压力控制
- 可编程滑块上停及慢速折弯位置
- 可编程折弯速度
- 自动转换：英寸/毫米
- 320Ton以下快换夹具



STATE OF THE ART
HYDRO–ELECTRICAL COMPONENTS
AND OPERATING CONTROL SYSTEM
控制方式图示

MBHS20500
500TON x 20' with standard Hydraulic CNC Crowning
500TON x 20' 标配数控液压挠度补偿
(公制MBHS50060 500TON x 6m数控折弯机)

MBC321000
1000TON x 32' Hydraulic synchronized CNC brakes
1000TON x 32' 大型电液同步数控折弯机
(公制MBC1000100 1000TON x 10m大型数控折弯机)

麦斯铁数控折弯机

MBHS/MBC SERIES HYDRAULIC SYNCHRONIZED CNC BRAKES

Well–built with Quality Components

麦斯铁数控折弯机配置

STANDARD EQUIPMENTS 标准配置

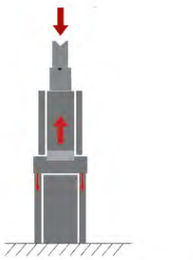
MBC60060/2
600TON × 6m CNC Tandem Press Brake with standard control S530
600TON × 6m双机联动数控折弯机标配S530数控系统
（英制MBC20600/2 600TON × 20′双机联动数控折弯机）

MBC13032–5–S530
130TON x 3.2m with standard control S530 for 4+w axes and Hydraulic CNC Crowning
130TON x 3.2m 标配4+w轴数控系统S530+ 数控液压挠度补偿，
(英制MBC10130 130TON x 10'数控折弯机)

Bosch–Rexroth Closed–loop Proportional Hydraulic position control: repeatability at ±0.0004" and parallelism at ±0.0004"
欧洲原产闭环电液比例液压系统

0.0004" high resolution linear scales provide precision dual ram position feedback
高精密度欧洲原产光栅尺

MBHS10200
200TON x 10' with optional Delem DA56 control
200TON x 10' 数控折弯机选配荷兰 Delem Da56数控系统
(公制MBHS20032 200TON x 3.2m数控折弯机)



Hydraulic CNC auto Crowning System
Crowning cylinder mounted in bed and provides automatic anti–deflection compensation corelated to tonnage
数控液压挠度补偿

OPTIONAL PHOTOELECTRIC SENSOR OF LIGHT GUARDS
选配光电保护

OPTIONAL可选配置

MBC25040/2
250TON × 4m CNC Tandem Press Brake with optional control S540
250TON × 4m双机联动数控折弯机
选配S540数控系统
（英制MBC12250/2
250TON × 12′双机联动数控折弯机）

OPTIONAL DELEM SERIES CONTROL
选配荷兰DELEM系列数控系统

ORIGINAL ITALIAN CONTROL S540
Standard for MBHS series
Optional for MBHA/MBC and Tandem series
意大利原产S540数控系统
MBHS系列标配，MBHA/MBC和双机联动系列选配

麦斯铁数控折弯机配置

MBHA SERIES HYDRAULIC SYNCHRONIZED CNC BRAKES

MBHA系列电液同步数控折弯机

STANDARD CONTROL FEATURES:

- 0.0004" high resolution linear scales provide precision dual ram position feedback
- Bosch–Rexroth Closed–loop Proportional Hydraulic position control:
  Y1, Y2 repeatability at ±0.0004" and parallelism at ±0.0004"
  Y1, Y2 Programmable independently in angle or position
- Backgauge position control: repeatability at ±0.0004", Accuracy at ±0.0008"
- Automatic or programmable back gauge retract feature
- Auto and programmable pressure control
- Programmable ram top stop and slow bending position
- Programmable bending speed
- Automatic conversion: Inch / mm

标准控制功能：

- 0.005mm高精度光栅尺准确提供滑块双侧位置反馈
- BOSCH REXROTH 闭环液压比例阀控制系统：
  Y1、Y2轴重复定位精度和同步精度±0.01mm
- Y1\Y2轴可独立角度编程和位置编程
- 后挡料位置控制：定位精度±0.02mm，重复定位精度±0.01mm
- 自动或手动编程后档料退让功能
- 自动可编程压力控制
- 可编程滑块上停及慢速折弯位置
- 可编程折弯速度
- 自动转换：英寸/毫米

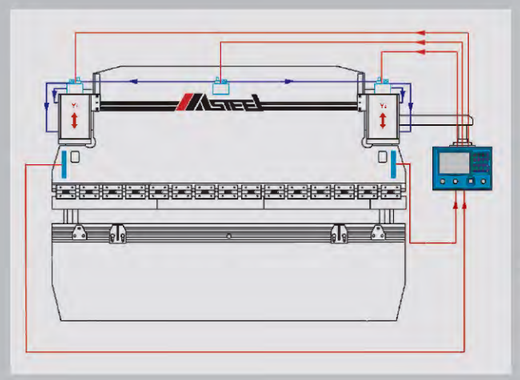
MBHA12400
400TON x 12' with standard control S525
Optional S530 or S540
400TON x 12' 标配S525数控系统，选配S530、S540
(公制MBHA40040 400TON x 4m数控折弯机)

STANDARD CONTROL S525

- Graphic 5.7" LCD display (320 x 240 pixels resolution).
- 3 fast counting circuits for Line Drive
- Dedicated scratchproof, oil–proof, acid proof IP65 keyboard with 37 keys
- All programs, tools description, parameters can be stored on the internal memory or on USB memory stick.
- Following arms, thickness detector, in–process angle measurement units, robotic interfacing, controlling for tandem press–brakes.
- Safety PLC communication (PILZ, LAZER SAFE)
- 24Vdc power supply

标配S525数控系统特性

- 5.7" LCD显示器（320x240像素）
- 标准 3+W 的功能
- 符合IP65防护等级的37键键盘（31个通用键+6个位于显示屏下方的功能键）
- 所有的程序，模具，参数可以保存在本机内存或者U盘。
- 前托料，厚度检测，角度测量仪，机械手的接口连接
- 安全PLC通讯功能(PILZ，LAZER SAFE)
- DC24V电源供电



STATE OF THE ART
HYDRO–ELECTRICAL COMPONENTS
AND OPERATING CONTROL SYSTEM
控制方式图示

OPTIONAL CONTROL S530 OF NEW FEATURES

- Graphic 7" LCD display (800 x 480 pixels resolution).
- 4 fast counting circuits for Line Drive
- Interactive 2D graphic editor
- Dedicated scratchproof, oil–proof, acid proof IP65 keyboard with 45 keys

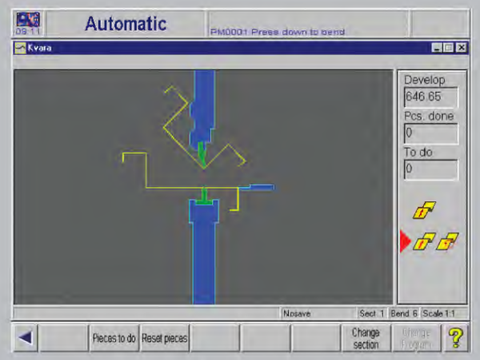
选配S530数控系统新增特性(具有s525各种特性)

- 7" LCD显示器（800x480像素）
- 标准 4+W 的功能
- 交互式二维图形编辑器
- 符合IP65防护等级的45键键盘（39个通用键+6个位于显示屏下方的功能键）

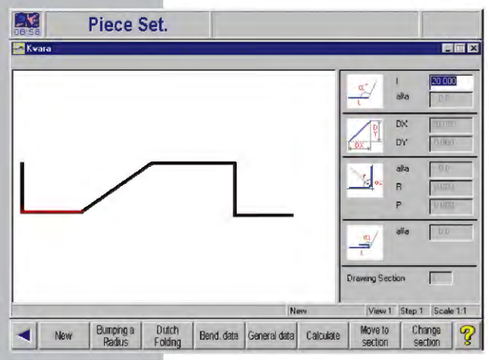
MASTEEL S540 CONTROL FEATURES

- 10.2" TFT VGA color display with antiglare screen
- Interactive 2D graphic editor for work–pieces and tools data entry
- 2D graphic display of machine frame, work–piece and tools
- Manual 2D graphic identification of the best bending sequence
- Programming of the axes positions in tabular mode with automatic syntactical checks, automatic calculation of the R and Z positions and of the bending and crowning tonnage
- Windows like user interface
- Complete off–line programming on a standard PC
- Customizable alarm messages
- Following arms, thickness detector, in–process angle measurement units, robotic interfacing, controlling for tandem press–brakes
- Ergonomic moulded plastic housing, with a panel suitable for machine operational selector–switches and push–buttons
- Dedicated scratch proof, oil–proof IP65 keyboard with 50 keys
- Silicon hard disk (flash disk)
- CPU Pentium class, FPGA integrated logics, surface mounting, fiber optic
- Communication ports :2 serial ports RS–232/422, 2 USB port for memory stick Local area network
- User memory Silicon hard disk (flash disk) for more than 7,000 part programs
- Standard 4+wila, on request up to 6+wila
- 5V or 12V incremental encoder inputs (line–driver or single ended)
- Encoder fault diagnosis; maximum encoder input frequency 500KHz
- Standard 32 inputs and 32 outputs
- Special I/O board for pressure and crowning valves (up to 3A)

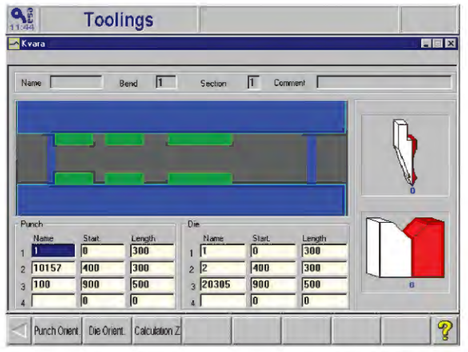
- 10.2" TFT液晶彩显
- 交互式二维图形编辑器,用于工件和模具数据的输入
- 二维演示机床框架、工件和模具手动
- 二维识别最佳折弯次序
- 以制表方式编程轴的位置,并带自动依次检查,自动计算 R 轴和Z 轴及折弯吨位
- Windows用户界面
- 提供完全脱机编程操作功能
- 可订制的警报信息功能
- 跟随托臂,厚度侦测仪,角度测量设备,机器人接口,双机联动折弯机控制功能
- 可选择金属外箱,标准PC键盘
- 防刮伤、防油污、抗酸性的 IP65型50键操作键盘
- 记忆棒(闪存)
- 处理器采用Pentium或Intel,FPGA一体成形,平面架构,光纤处理,完整形态演示
- 2 个通讯端口：RS232 X2 , USB端口X2 以及可连接局域网
- 记忆棒(闪存)用于超过7,000 个工件程序
- 标准 4+W , 可依需要增加到 6+W 的功能
- 5V 或12V 逐渐增加的编码器输入(line–driver or single ended)
- 编码器出错诊断; 编码器最大输入频率 500 KHz
- 标准32输入和32输出
- 特殊输入/输出板用于压力和补偿阀(可达到3A)



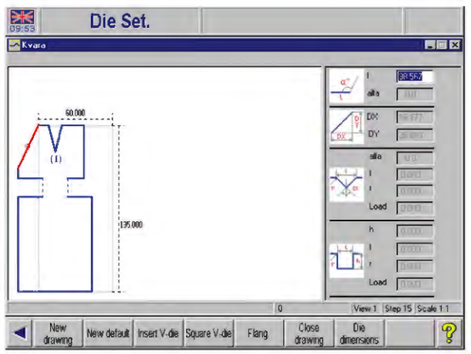
- **Simulation and optimum bending sequence with back gauge position:** The optimized bending sequence can be simulated in the graphic window prior to the actual production of a part thereby avoiding costly damage or collisions.
实际加工前模拟工件最佳折弯次序



- **Easily draw a work piece:** The cursor may be placed within the screen field to allow operator easy entry of desired angles and/or dimensions.
简易工件图形编程



- **4 Tooling work stations in a program (across the bed):** Excellent feature for various bending applications requiring different tooling setup within a single job under one program, no need to change program or re–set tooling.
多段模具的编程位置可达4个



- **Create tooling:** New tooling may be tested in your bend sequence prior to ordering from your tool supplier – saving time & money. Create your own custom tooling when needed.
建立模具库

MBH SERIES MECHANICAL SYNCHRONIZED CNC BRAKES
MBH系列机液同步数控折弯机

STANDARD CONTROL FEATURES

- MASTEEL SIEMENS MTP700 Touch Screen Two Axis NC controls on back gauge and ram position control
  - Ram position control: repeatability at ±0.001",accuracy at ±0.001"
  - Backgauge position control: repeatability at ±0.003", Accuracy at ±0.003"
- CNC bending angle control : Only inputs of bending angle, material thickness & die opening
- Two–way bending calibration controls allow inexperienced operators to achieve desired angles without time consuming multiple test bends, saves on labor and material costs
  - Input angle correction required and control system automatically adjusts to produce correct angle
  - Or input bending position correction calculated automatically by control system.200 Job memory with average of 10 bends in each program
- Tool memory for quick recall of tool dimensions
- Quick set up of job memory for repeat bending requirements
- Automatic pressure control
- Adjustable ram deflection crowning control
- Programmable bend position ram delay

标准控制性能

- 麦斯铁西门子MTP700触摸屏式两轴数控系统：控制后挡料和滑块位置
  - 滑块位置控制：定位精度±0.02mm，重复定位精度±0.02mm
  - 后挡料位置控制：定位精度±0.05mm，重复定位精度±0.05mm
- 折弯角度编程：只需输入折弯角度、材料厚度及模具开口
- 两种折弯校准方式：无需浪费时间多次试折，无经验的操作者也能折出期望的角度，节约人工成本及试折材料成本
  - 通过修正折角自动控制系统获取所需角度
  - 系统自动计算校正折弯位置
- 模具库可快速调用模具设定参数
- 工步库可快速设定重复的折弯工步
- 自动压力控制
- 控制滑块挠度变形，保证全长角度一致
- 在折弯位置可编程滑块延时控制

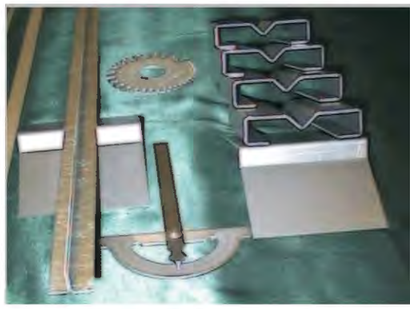
STANDARD EQUIPMENT 标准配置

AMERICAN–MADE HYDRAULIC AND ELECTRIC SYSTEM For MBH Series CNC Brake
高品质北美制造的电气液压元件，确保性能可靠

STANDARD MTP700 CONTROL For MBH Series CNC Brake
标配MASTEEL TP700 触摸屏式数控系统

OPERATING FUNCTION

- Four Operating Modes:
  - Jog mode: inching control of ram for tool setup
  - Single mode: one full bend cycle per control input
  - Double stop mode: excellent for sight bend operations
  - Follow bend mode: easy to follow bending and ram return on large sheet or with crane handling
- Ram speed control:
  - Rapid approach and return speeds insure more efficient production
  - Programmable Slow bending speed for better control of bending accuracy
- Ram stroke control:
  - Programmable ram top stop limit for more efficient production
  - Programmable slow working speed position and second stop position



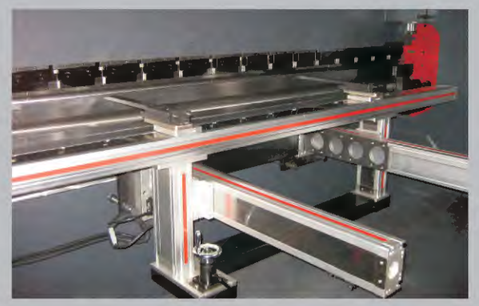
MBH10100
100TON x 10' with standard control MTP700
100TON x 10' 标配MTP700数控系统
(公制MBH10032 100TON x 3.2m数控折弯机)

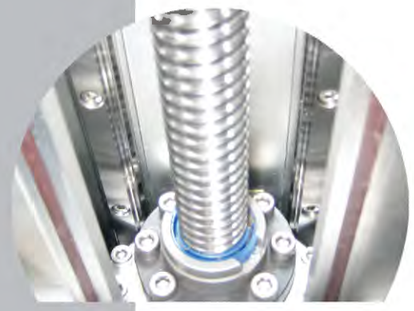
操作功能

- 四种折弯方式
  - 点动模式：控制滑块点动下降，方便模具更换
  - 单动模式：每一输入可控制一个完整折弯行程
  - 双停模式：优异的可见性操作
  - 跟随模式：折大型板料或用起重设备时，可配合板料的折起及滑块回程跟随折弯过程
- 滑块速度控制
  - 快速接近、快速返回，确保高效生产
  - 慢速折弯确保折弯精度的控制
- 滑块行程控制
  - 可编程滑块上停限位，确保高效生产
  - 可编程滑块慢速位置及双停位置

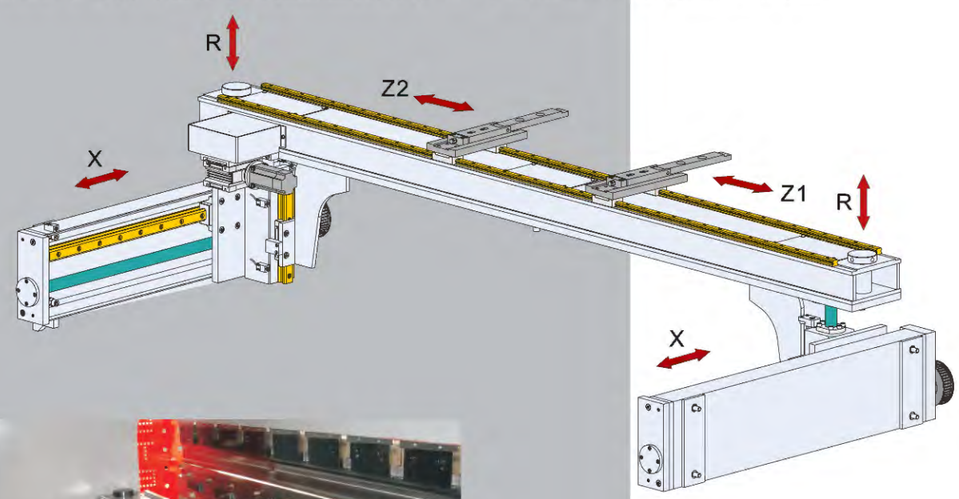
麦斯铁数控折弯机

MASTEEL CNC BACKGAUGE FOR PRESS BRAKE





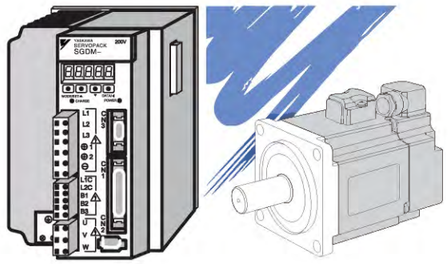
■ **Standard backgauge for MBHS Series Hydraulic Synchronized CNC Brakes**
Servo CNC back gauge with precision ball screw and double linear guide way ensures Maximum rigidity for high productivity speed and high accuracy: Positioning Speed at 500 IPM,repeatability Accuracy at ± 0.001"
MBHS系列电液同步数控板料折弯机标准全封闭结构数控后档料：
配置精密的滚珠丝杆和双直线导轨伺服数控后档料，确保极强的刚性和高速稳定的工作状态



■ **Standard backgauge for MBC Series Hydraulic Synchronized CNC Brakes**
Optional Z1, Z2 multi–axis configurations Allow up to four movements to be automatically calculated and set by the control
MBC系列标配后挡料，两个标准挡指采用直线导轨定位和导向选配Z1、Z2轴实现四向控制

■ **Standard backgauge**
for MBHA/MBH Series CNC press brakes
MBHA/MBH系列标配数控后挡料

■ **Optional X1,X2, R1,R2, Z1,Z2 multi–axis**
configurations allow up to six different movements to be automatically calculated and set by the control
可选多轴数控后挡料：
X1,X2, R1,R2, Z1,Z2,支持六个不同方向的运动，工件折弯“随心所欲”

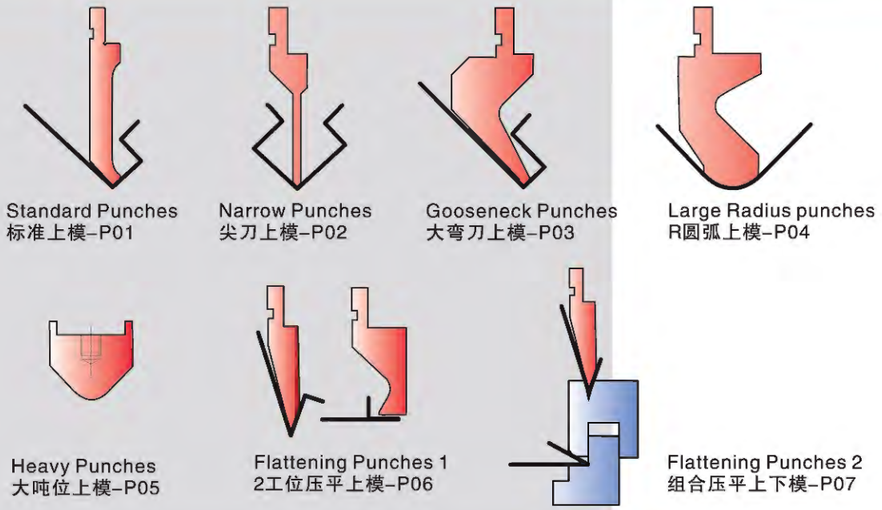


■ Standard Yaskawa Servo Motor and driver for MASTEEL CNC backguage
麦斯铁折弯机数控后挡料标配安川伺服电机和驱动

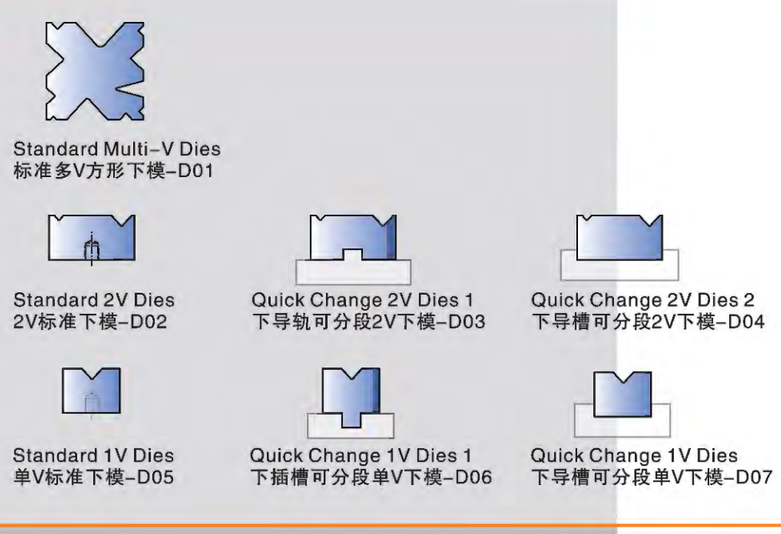
MASTEEL TOOLINGS FOR PRESS BRAKE

■ **Hardened and precision ground tool steel 85° gooseneck punch:** 53–58HRC, 100Ton/M (30Ton/Ft) capacity. **Hardened and precision ground Masteel 10 openings, 4–way die:** HB190–260
标准模具材质是特种工具钢： 85° 鹅颈上模53–58HRC设计载荷100Ton/m (30Ton/Ft)
下模10槽口，4工作面HB190–260

PUNCHES上模

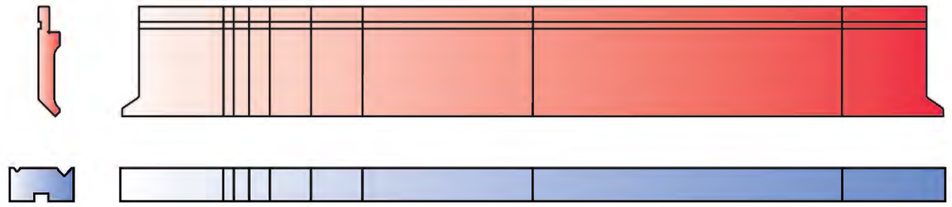


DIES下模

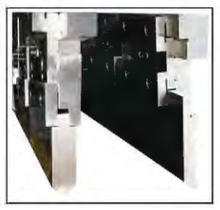
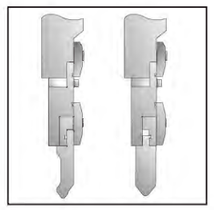


■ **Segmented Punch and Die模具分段**
Standard size of segmented punch and Die
上下模具标准分段尺寸
100(左耳)、10、15、20、40、50、200、300、100(左耳)=835

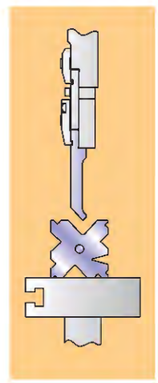
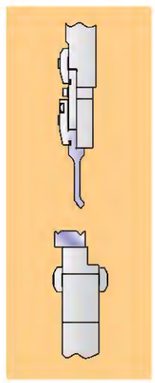
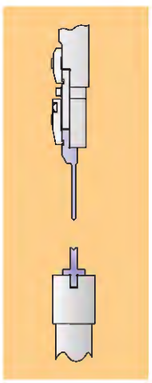
Proprietary technology
for closed work piece
专利产品成型特殊闭合工件
Patent NO.201120285487.4
专利号:201120285487.4



■ **Punch Holder : Masteel special punch holders**
accept both American and European punches with no need of any ram adaptor
上模安装方式: 麦斯铁特殊设计的上模夹具可同时装夹美式上模和欧式上模

■ **Die holder** 下模安装方式


MASTEEL CNC PRESS BRAKE

SPECIFICATIONS 参数

MBHS/MBC/MBHA Models 型号	MBH Models 型号	Capacity Tons 吨位 Ton	Bending Length 折弯长度 ft/mm	Distance between Frames 立柱间距 mm	Throat 喉口深度 mm	Ram Stroke 滑块行程 mm	Open Height 开启高度 mm	Main Motor 电机功率 Kw	Approx Weight 机床毛重 kg
MBHS/MBC/MBHA–08100	MBH–08100	100	08/2500	2050	320	200	450	7.5	7800
MBHS/MBC/MBHA–10100	MBH–10100	100	10/3200	2600	320	200	450	7.5	9500
MBHS/MBC/MBHA–12100	MBH–12100	100	12/4000	3300	320	200	450	7.5	11500
MBHS/MBC/MBHA–08130	MBH–08130	130	08/2500	1900	320	200	450	7.5	8800
MBHS/MBC/MBHA–10130	MBH–10130	130	10/3200	2600	320	200	450	7.5	10600
MBHS/MBC/MBHA–12130	MBH–12130	130	12/4000	3300	320	200	450	7.5	12400
MBHS/MBC/MBHA–10160	MBH–10160	160	10/3200	2600	320	200	450	11	11800
MBHS/MBC/MBHA–12160	MBH–12160	160	12/4000	3300	320	200	450	11	13800
MBHS/MBC/MBHA–10200	MBH–10200	200	10/3200	2600	320	200	450	11	14700
MBHS/MBC/MBHA–12200	MBH–12200	200	12/4000	3300	320	200	450	11	16000
MBHS/MBC/MBHA–10250		250	10/3200	2600	400	220	485	15	15000
MBHS/MBC/MBHA–12250		250	12/4000	3300	400	220	485	15	18000
MBHS/MBC/MBHA–10320		320	10/3200	2600	400	250	520	22	19800
MBHS/MBC/MBHA–12320		320	12/4000	3300	400	250	520	22	22800
MBHS/MBC/MBHA–16320		320	16/5000	4600	400	250	520	22	28600
MBHS/MBC/MBHA–20320		320	20/6100	5600	400	250	520	22	33600
MBHS/MBC/MBHA–12400		400	12/4000	3300	400	300	600	37	26000
MBHS/MBC/MBHA–16400		400	16/5000	4100	400	300	600	37	32000
MBHS/MBC/MBHA–20400		400	20/6100	5000	400	300	600	37	38000
MBHS/MBC/MBHA–16500		500	16/5000	4000	400	300	600	37	49000
MBHS/MBC/MBHA–20500		500	20/6100	5000	400	300	600	37	53000
MBHS/MBC/MBHA–22500		500	22/7000	5800	400	300	600	37	58000
MBHS/MBC/MBHA–26500		500	26/8000	6600	400	300	600	37	66000
MBHS/MBC/MBHA–20600		600	20/6100	5000	500	300	600	45	63000
MBHS/MBC/MBHA–22600		600	22/7000	5800	500	300	600	45	70000
MBHS/MBC/MBHA–26600		600	26/8000	6600	500	300	600	45	79000
MBHS/MBC/MBHA–22700		700	22/7000	5800	600	350	700	45	78000
MBHS/MBC/MBHA–26700		700	26/8000	6600	600	350	700	45	92000
MBHS/MBC/MBHA–26800		800	26/8000	6600	600	400	800	2*37	110000
MBHS/MBC/MBHA–321000		1000	32/10000	7800	600	400	800	2*45	185000

- Specifications subject to change without notice 参数如有改变，恕不特别通知
- We supply the range of CNC press brake as following: Length of single press brake bending from 06FT/2mt to 40FT/12mt capality tons from 50 ton to 1200 ton.
  麦斯铁提供如下规格的数控折弯机，单机折弯长度为：06FT/2mt 到40FT/12mt ，折弯吨位为50吨到1200吨。

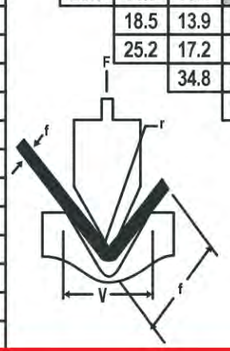
TONNAGE CHART

Force to Air-Bend Mild Steel (60,000 PSI)

F = U.S. tons/lineal ft. of workpiece

ALL DIMENSIONS IN INCHES

t	v	1/4	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	v
	f	3/16	9/32	11/32	7/16	9/16	11/16	7/8	1 1/8	1 3/8	1 3/4	1 13/16	2 13/16	3 1/2	4 1/2	5 1/2	6 7/8	f
ga.	in. r	1/32	1/16	5/64	7/64	9/64	5/32	13/64	1/4	5/16	13/32	33/64	5/8	3/4	1 1/32	1 5/16	1 5/8	ga.
20	0.036	3.1	1.75	1.2														20
18	0.048	5.4	3.1	2.1	1.55	1.3		F Values										18
16	0.060	9.6	5.5	3.8	2.8	2.2	1.45											16
14	0.075		9.3	6.4	4.7	3.8	2.5	1.85										14
12	0.105		20.5	14.0	10.4	8.1	5.6	4.1	3.2	2.2								12
11	0.120			18.5	13.9	10.9	7.4	5.6	4.3	2.9	2.15							11
10	0.135			25.2	17.2	14.5	9.9	7.3	5.7	3.8	2.85	2.23						10
3/16	0.188				34.8	27.6	19.1	13.9	11.0	7.5	5.6	4.3						3/16
1/4	0.250					58.0	39.5	29.0	22.8	15.5	11.4	8.9	6.1	4.5				1/4
5/16	0.313						69.5	51.0	40.0	27.0	20.0	15.6	10.5	7.8	6.1			5/16
3/8	0.375							75.0	59.0	40.0	29.5	23.4	15.8	11.7	9.2	6.2	4.6	3/8
7/16	0.438							115.0	90.0	61.0	45.5	35.2	24.0	17.8	13.9	9.4	6.9	7/16
1/2	0.500									85.0	62.0	44.3	33.0	24.5	19.1	13.0	9.8	1/2
5/8	0.625											86.0	58.0	43.0	34.0	23.2	17.5	5/8
3/4	0.750												91.0	67.0	53.0	36.4	26.7	3/4
7/8	0.875												136.0	101.0	79.0	54.0	40.0	7/8
1	1.000													146.0	115.0	68.0	58.0	1



t = WORKPIECE THICKNESS
r = INSIDE RADIUS OF FORMED PART
v = VEE-DIE OPENING
f = MINIMUM FLANGE

FOR STEEL OF DIFFERENT TENSILE STRENGTH F VALUE DIFFERS IN PROPORTION TO STRENGTH RATIO INSIDE RADIUS r . FOR MILD STEEL, IS ABOUT 5/32 OF FEMALE = DIE OPENING V FOR ANY t. SHADED F VALUES ARE FOR V = 8t. COMMON FOR AVERAGE 90° BENDING. IF t IS 1/2 IN. OR MORE USE v = 10t.

NOTE:

The chart below illustrates the appropriate tonnages to air bend mild steel with 60,000 p.s.i. Tensile properties. It must be noted that most North American steel mills are producing harder metals with typical mechanical propertie of 44,000 p.s.i. yield and up to 80,000 p.s.i. tensile strengths. The tonnages required to form these metals are substantially higher and must be taken into consideration in the selection of a press brake. With an eight–to–one die ratio, the inside radius of a right angle bend is approximately equal to the thickness of the metal. The bending pressures for mild steel are shown on the chart below.

BENDING PRESSURES FOR OTHER METALS ARE:

Soft brass = 50% of pressure shown.
Soft aluminum = 50% of pressure shown.
Aluminum alloys heat treated = same as steel.
Stainless = 50% more than steel.

COINING:When coining, it must be remembered that the tonnage requirements are three to five times greater than for air bending. Coining is normally only done in very high precision environments and on light gauge materials only.

本图表的数据依据是抗拉强度为460N/mm²的低碳钢的自由折弯。与此抗拉强度不同的钢材折弯所需的吨位会不同，请在选择机床时注意。在使用8倍板厚的槽口折弯时，折弯内半径等于板材厚度。
参照本图表，折弯不同材料所需的折弯力，通常纯铜和铝是一半，热处理后的铝合金、不锈钢需1.5倍。
下模选择开口：折10mm（3/8"）以下的板料用8倍板厚，12（1/2"）以上用10倍板厚。
精压：精压折弯所需压力是自由折弯的3-5倍，仅适用于精度要求高的薄件折弯加工。

MGH SERIES CNC HYDRAULIC GUILLOTINE

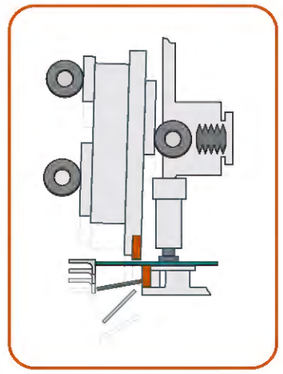
MGH系列数控闸式剪板机

■ STANDARD FEATURES:

- ▶ Heavy–duty mono–block type, welded frame and three–points roller guards construction are optimized by computer–aided engineering to guarantee maximum rigidity
- ▶ Italian controlling system S525 controls the backgauge, shearing stroke, angle and the clearance between the upper and lower blades together the number of workpieces accurately.
- ▶ The shearing angle can be easily adjusted through auto–program, decreasing the deflection of workpiece.
- ▶ The stroke of blades mounting can be adjusted automatically to realize the quick and accurate shear of small workpiece and to increase the work efficiency.
- ▶ The shearing blades with four edges extend their service lives.
- ▶ The high speed and large lead backgauge of linear guideway and ballscrew feature the speed which is up to 200vmm/s, and the maximum stroke of backgauge can realize 1000mm.
- ▶ The system can adjust the clearance between the upper and lower blades automatically according to the difference of thickness and material of the plate and improve shearing quality.
- ▶ The integrated hydraulic system from BOSCH decreases the pipe connection and eliminates the oil leakage, meanwhile, increases the stability and beautifies the appearance

标准功能

- ▶ 三点式滚动导轨配合经有限元分析设计的重型箱式焊接结构，确保麦斯铁数控闸式剪板机最大的刚性。
- ▶ 意大利S525控制系统，精确控制后挡料、剪切行程、剪切角度、上下刀刃间隙及加工件数量。
- ▶ 通过自动编程可轻易地调整剪切角度，减小因剪切产生的工件扭曲变形。
- ▶ 刀架行程自动调整，实现对短小工件的快速精确剪切，提高生产效率。
- ▶ 四面刃口的剪切刀片，提高刀具的使用寿命。
- ▶ 直线导轨、滚珠丝杠传动的高速、大行程后挡料，速度可达200mm/s，最大后挡料行程可达1000mm。
- ▶ 根据板厚、材质的不同，系统自动调整上下刀口间隙，提高剪切质量。
- ▶ 德国BOSCH集成式液压系统，减少管路安装，克服漏油，提高工作稳定性，外形美观简洁。



■ STANDARD EQUIPMENTS:

Ball screw and linear guide
直线导轨加滚珠丝杆机构

Clamping device
弹簧内置式压脚

Automatic blade adjustment
刀片间隙自动调整机构

STANDARD CONTROL S525 FOR MGH OR MGHA SERIES

- ▶ LCD 320 × 240 display
- ▶ Aautomatic calculate and adjust blade gap, angle of shear, cutting pressure, stroke of beam,
- ▶ Internal memory divided into 1500 program steps and maximum 99 part programs
- ▶ Backgauge closed–loop control, with the high performance transmission system, the accuracy of position is ± 0.02mm.
- ▶ Manual, MDI and automatic working mode
- ▶ Retract function

MGH和MGHA 系列标配S525数控系统

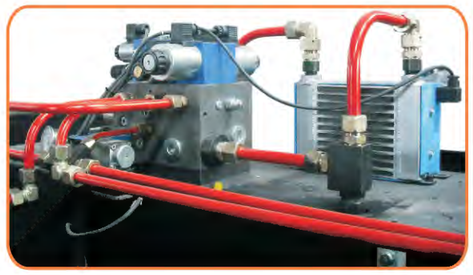
- ▶ LCD320 × 240点阵显示
- ▶ 刀片间隙、剪切角、剪切压力、剪切行程自动计算与控制
- ▶ 内部存储器为1500编程工步和最多99个工件程序
- ▶ 后挡料闭环控制，配高性能传动机构，定位精度可达 ± 0.02mm
- ▶ 支持手动、半自动、自动工作方式
- ▶ 后挡料辅退功能

BOSCH REXROTH HYDRAULIC SYSTEM

- ▶ The integrated BOSCH hydraulic system decreases the pipe connection and eliminates the oil leakage with the stability and beautiful appearance
- ▶ Pressure of system controlled by the proportional valve.

BOSCH–REXROTH液压系统

- ▶ 减少管路安装，克服漏油，提高工作稳定性，外形美观简洁。
- ▶ 比例阀控制系统剪切主压力。



麦斯铁数控闸式剪板机

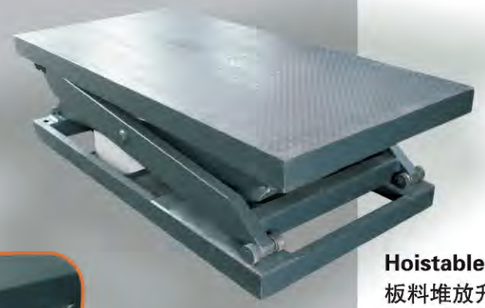
■ OPTIONAL EQUIPMENTS

- ▶Air–cooled installations for hydraulic oil
- ▶Hoistable platform for plates
- ▶Installation of piling plate
- ▶Installation of pneumatic plate support

可选配件

- ▶液压油风冷装置
- ▶板料堆放升降平台
- ▶板料码垛机构
- ▶后挡料气动托料装置

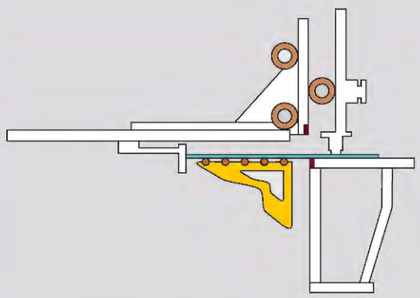
Air–cooled installations for hydraulic oil
液压油风冷装置



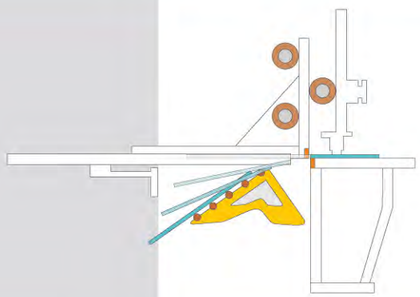
Hoistable platform for plates
板料堆放升降平台

Installation of piling plate
板料码垛机构

Pneumatic control installment
气动控制装置



Installation of pneumatic plate support 1
气动托料1：托料–防止弯曲变形



Installation of pneumatic plate support 2
气动托料2：落料–板料缓慢滑出

SPECIFICATIONS 参数

Models 型号	Max. Cutting Thick 可剪板厚 mm	Max. Cutting Length 可剪板宽 mm	Strokes 行程次数 min–1	Back gauge range 后挡料行程 mm	Rake Angle 剪切角 °	Throat Length 喉口深度 mm	Motor 主电机功率 Kw	Dimension 外形尺寸 mm(L×W×H)
MGH0425	4	2500	25–45	915	0.5–1.5	100	5.5	3000×2000×1850
MGH0625	6	2500	20–45	915	0.5–1.5	125	7.5	3030×2075×2020
MGH0632	6	3200	16–45	915	0.5–1.5	125	7.5	3730×2075×2070
MGH0640	6	4000	14–45	915	0.5–1.5	125	7.5	4530×2075×2080
MGH0650	6	5000	11–40	915	0.5–1.5	125	7.5	5530×2075×2210
MGH0660	6	6000	9–36	915	0.5–1.5	125	11	6530×2075×2520
MGH0670	6	7000	7–28	915	0.5–1.5	125	11	7530×2075×2830
MGH0825	8	2500	20–45	915	0.5–1.5	125	11	3040×2075×1920
MGH0832	8	3200	16–45	915	0.5–1.5	125	11	3740×2075×1920
MGH1225	12	2500	12–35	915	0.5–2	125	15	3110×2575×2210
MGH1232	12	3200	7–35	915	0.5–2	125	15	3810×2575×2420
MGH1240	12	4000	8–35	915	0.5–2	125	15	4610×2575×2530
MGH1625	16	2500	16–40	915	0.5–2.5	125	22	3130×2655×2200
MGH1640	16	4000	12–40	915	0.5–2.5	125	22	4630×2655×2570
MGH2025	20	2500	16–40	915	0.5–2.5	125	30	3160×2855×2300
MGH2040	20	4000	12–40	915	0.5–2.5	125	30	4660×2855×2720
MGH2525	25	2500	8–15	915	0.5–3.5	120	37	3330×2000×2650
MGH2532	25	3200	8–15	915	0.5–3.5	120	37	3970×2100×2865
MGH2540	25	4000	6–12	915	0.5–3.5	120	37	4780×2500×3150
MGH3225	32	2500	6–12	915	0.5–3.5	120	45	4100×2300×3200
MGH3232	32	3200	8–12	915	0.5–3.5	120	55	1900×2650×3450
MGH4025	40	2500	4–10	915	0.5–3.5	120	75	4100×2550×3500
MGH4032	40	3200	4–10	915	0.5–3.5	120	75	4900×2900×3750

➢ Specifications subject to change without notice 参数如有改变，恕不特别通知 ≺

➢ We supply the range of CNC guillotine as folowing: Length of cuttiong from 06FT/2.5mt to 20FT/6mt and thickness from 0.125 in/4mm to 2 in/50mm.
麦斯铁提供如下规格的数控闸式剪板机：剪切长度06FT/2.5mt到 20FT/6mt，剪切厚度 0.125 in/4mm到2 in/50mm 。≺

MASTEEL CNC guillotine MGH0625 and MGH0625A in customer's facility
麦斯铁数控闸式剪板机客户工厂体验

麦斯铁数控闸式剪板机

MGHA/MSHA SERIES CNC HYDRA ULIC GUILLOTINE OR SHEAR
WITH SERVO INFEED TABLE
MGHA/MSHA系列数控前送料闸式/摆式剪板机

MSH0632A
6mm x 3.2m swing beam With CNC Infeed Table
6mm x 3.2m 数控前送料摆式剪板机

STANDARD CONTROL
MSC400 for MSH series
MSH系列标配 MSC400控制系统

OPTIONAL CONTROL
MTP170 for MSH series
MSH系列选配 MTP170触摸屏控制系统

STANDARD CONTROL FEATURES of DAC310 FOR MSHA SERIES
A complete and compact shear control application including backgauge control, gap control and stroke length limitation this state of the art electronics based unit makes a versatile solution
Moving backgauge manually by selecting push buttons in 2 different speeds
Bright LCD display, 128x64 pixels
Actual and programmed position isuavlisation

MSHA 系列标配DAC310控制系统标准控制特性
结构紧凑,功能齐全的剪板机数控后挡料/前送料、刀口间隙和剪程控制集成解决方案
参考点开机自动寻找或断电记忆后挡料位置功能
通过移动按键选用两种速度手动移动后挡料
高清晰LCD显示，128×64象素
后挡料实际位置与编程值同步显示

STANDARD CONTROL
DAC310 or MTP170 for MSHA series
MSHA系列标配DAC–310控制系统

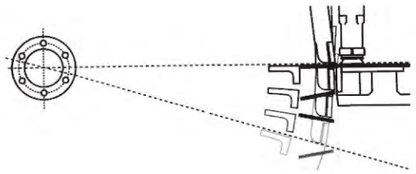
STANDARD CONTROL FEATURES of MSC400
- SIEMENS CNC controlled 36" back gauge accuracy to ±0.002"
- 120 position programmable back gauge memory
- One–step go–to position control on back gauge
- Automatic swing up of back gauge at full travel
- Programmable cutting width control
- Easily operated control console:
  - ▶ Prompting instructions for easy operation and service
  - ▶ Running status display on control console Manual/Auto mode, Back gauge position, Cutting width, Number of cutting strokes
  - ▶ Blade gap setup operator prompt at start up

MSC400 控制系统标准控制特性：
- 多工步控制，准确定位后挡料，定位精度±0.05mm
  重复定位精度±0.05mm
- 后挡料120位预设定存贮
- 后挡料一步定位控制
- 后挡料满行程自动抬起
- 可编程剪切宽度控制
- 控制面板操作功能：
  - ▶ 操作指南便于操作及维修
  - ▶ 操作面板上显示运行状态–手动/自动模式转换， 后挡料位置，剪切宽度，剪切次数
  - ▶ 通电时刀片设定信息提醒操作者

VALUE AND QUALITY STANDARD EQUIPMENT FOR MASTEEL CNC SHEAR

Movable pedestal with foot control switch and emergency stop
可移动脚踏开关

Independent holddowns automatically adjust holddown–pressure to various material. More holddown–pressure for heavier cutting and less pressure for delicate thin material
独立的压料缸根据不同厚度的材料自动调整压料力，压料力随剪切压力的增减而增减

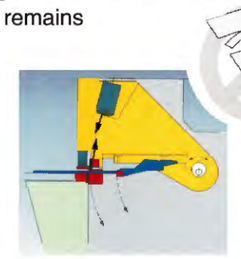


ACCURACY

Top blade and back gauge swing together allowing the material to remain perpendicular to bottom blade then swing away from the bottom blade after the cut thereby preventing jamming of the material between the blade and the back gauge.
精确性：上刀片与后挡料同时运动允许剪切材料垂直于下刀片，剪切后回程，避免剪切材料在刀片和后挡料之间干涉，确保高质量的剪切和极少的维修。

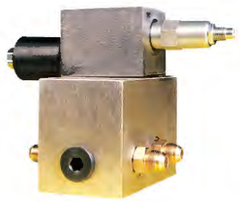
RELIABILITY AND FUNCTIONABILITY

Masteel swing beam shears do not require a relief angle therefore the force created by the hydraulic cylinder is applied directly against cutting load. Cutting loads do not deflect the cutting blades or beam mechanism and therefore blade clearance gap remains consistent through the cut. This feature allows Masteel shears to cut strips narrower than the material thickness without damage to the blades or machine structure.
可靠性和多功能：MASTEEL摆式剪板机无需改变剪切角度，剪切油缸产生的压力全部用于剪切，该剪切力不会偏转刀片或刀架，因而在剪切过程中刀片间隙保持恒定，使得MASTEEL剪板机可剪切比其厚度还窄的板料而不损伤刀片和机器。



QUALITY AND HEAVY–DUTY STRUCTURES

Mono–block type, welded frame and blade beam construction are optimized by computer–aided engineering to guarantee maximum rigidity. Heavy–duty taper roller bearings are located at swing beam centers so that cutting load is always perpendicular to blade beam rotational radius. This avoids cutting loads being transferred to the support bearings thereby insuring longer life and consequently better accuracy over the long term.
高品质重负荷结构：保证机器的刚度。重型锥度滚动轴承安装在刀架回转中心保持剪切力总是垂直传递在刀架回转半径上，这可避免剪切力传递给支承轴承从而保证稳定的剪切精度。



American–made hydraulics
Simple hydraulic system for reliable performance Quality American–made components: Valves, pump, hoses and fittings
美国制造高质量液压系统元件

Siemens Compact Control System integrates CNC backgauge, hydraulics and electric control in one. Simple and less complicated control ensures years of quality performance on Masteel Shears
西门子可编程控制器，集液压、电气、后挡料控制为一体

Precision quick blade adjustment ensures proper blade clearance, variable position to suit for material thickness and properties in order to achieve quality cutting
刀片间隙可快速精确调整，确保不同厚度和性能的板料在准确的刀片间隙下完成高质量的剪切

麦斯铁数控摆式剪板机

STANDARD EQUIPMENT:

- Two squaring arms c/w stainless steel rule(metric and standard scales) and disappearing stops
  - ▶ 7 Ft on left side to facilitate squaring of long sheet material
  - ▶ 4 Ft arm on right to provide even service life across full length of blades
- 4 Ft front support arms
- Ball transfers in table for ease of handling heavier materials
- Ball transfers on front support arms, front gauge bar and right squaring arm
- Shadow light and line for positioning on scribed line
- Rear sliding tray for ease of collecting cutoff materials
- Full length cage type safety guard
- Nylon padded pressure controlled material hold downs
- Movable pedestal with foot control switch and emergency stop
- Rapid precision manual blade clearance adjustment

QUALITY COMPONENTS AND STRUCTURAL DESIGN:

- SIEMENS programmable logic controller integrates hydraulic, electrical and CNC controls in one compact module for long–lasting reliable performance SIEMENS display screen with foil button controls
- SIEMENS frequency back gauge drive controller
- North–American made pump and back gauge control motors
- North–American standard hydraulic fittings, couplings and hoses
- Field serviceable hydraulic and electric systems
- Swing beam design for consistent precision cutting quality with low maintenance
- Fully hardened sectional upper and lower cutting blades. Bottom blade has four cutting edges, top blade has two
- Low–rake cutting angle for minimum material distortion
- Heavy–duty design, rigid stress relieved box construction

标准配置:

- 前托料装有不锈钢标尺及挡指，左边的直角挡尺2m，右边1.2m，前端配有万向输送球
- 工作台上的滚球架易于重板送料
- 灯光对线丝用于划线剪切
- 后导料板可以方便导出剪下板料
- 刀口全长栏式安全保护
- 尼龙垫压料脚自动调整压料力
- 可移动式带急停功能脚踏开关
- 刀片间隙快速精确调整，确保不同厚度和性能的板料在准确的刀片间隙下完成高质量的剪切

结构特点

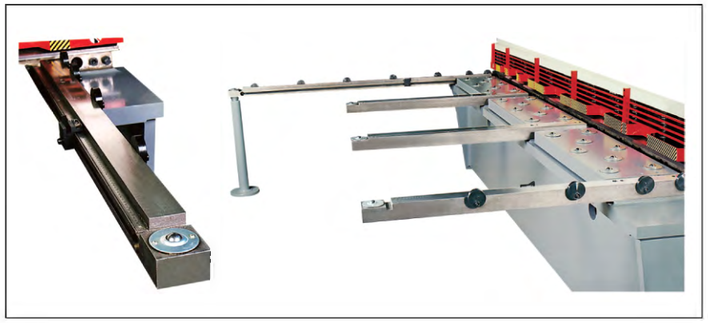
- 西门子可编程控制器集液压、电气、后挡料控制为一体，西门子触摸屏配按钮控制
- 西门子后挡料变频器驱动器
- 北美标准的液压泵及后挡料电机
- 北美标准的液压接头及管路
- 液压和电气系统可室外使用
- 上下刀片经整体淬火，下刀片具有四刃口，上刀片具有两刃口
- 较小的剪切角设计，保证了板料剪切精度
- 工作台高负荷箱式结构设计

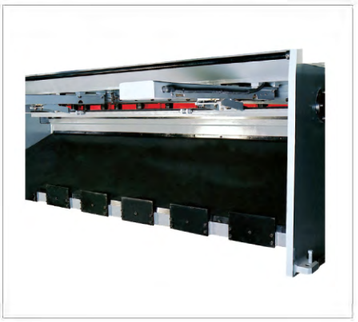
SPECIFICATIONS 参数

Models 型号	Capacity Mild steel 剪板厚度 mm	Cutting Length 剪板长度 mm	Throat Depth 喉口深度 mm	Back Gauge 后挡料行程mm	Front Gauge 前托料行程mm	Rake Angle 剪切角	Motor 电机功率Kw	Approx Weight 毛重 Ton	Dimensions L x W x H 机床外形尺寸: 长×高×宽
MSH0625	6	2500	148	915	2000	1.5°	7.5	5.5	3130x1600x1570
MSH0632	6	3200	148	915	2000	1.5°	7.5	6.6	3840x1620x1610
MSH0640	6	4000	148	915	2000	1.5°	7.5	8.9	4630x1700x1850
MSH0650	6	5000	148	915	2000	1.5°	11	14	5700x1870x2020
MSH0825	8	2500	148	915	2000	1.5°	11	6	3190x1620x1600
MSH0832	8	3200	148	915	2000	1.5°	11	8.5	3900x1650x1680
MSH0840	8	4000	148	915	2000	1.5°	11	9.8	4680x1720x1900
MSH0850	8	5000	148	915	2000	1.5°	11	16	5720x1890x2020
MSH1225	12	2500	203	915	2000	1.5°	18.5	9.5	3235x1935x2045
MSH1232	12	3200	203	915	2000	1.5°	18.5	12.5	3945x2055x2217
MSH1240	12	4000	203	915	2000	1.5°	18.5	15	4745x2255x2217
MSH1250	12	5000	203	915	2000	1.5°	18.5	23.5	5800x2600x2930
MSH1625	16	2500	203	915	2000	2.5°	22	12	3390x2155x2250
MSH1632	16	3200	203	915	2000	2.5°	22	15.5	4100x2320x2250
MSH1640	16	4000	203	915	2000	2.5°	22	19.5	4850x2320x2300
MSH1650	16	5000	203	915	2000	2.5°	22	30	5880x2450x2450
MSH2025	20	2500	320	915	2000	2.5°	45	18	3440x2330x2350
MSH2032	20	3200	320	915	2000	2.5°	45	22	4140x2360x2450
MSH2040	20	4000	320	915	2000	2.5°	45	25	4940x2390x2500
MSH2525	25	2500	320	915	2000	2.5°	45	19.5	3510x2350x2480
MSH2532	25	3200	320	915	2000	2.5°	45	26	4160x2500x2600
MSH2540	25	4000	320	915	2000	2.5°	45	35	4980x2650x2700
MSH3225	32	2500	320	915	2000	3.5°	75	35	3600x2700x2600
MSH3232	32	3200	320	915	2000	3.5°	75	40	4350x2900x3050
MSH3240	32	4000	320	915	2000	3.5°	75	46	5100x3200x3100

➢ Specifications subject to change without notice 参数如有改变，恕不特别通知 ≺

➢ We supply the range of NC shear as folowing: Length of cuttiong from 06FT/2.5mt to 20FT/6mt and thickness from 0.125 in/4mm to 2 in/50mm.
麦斯铁提供如下规格的数控摆式剪板机：剪切长度06FT/2.5 int到 20FT/6mt，剪切厚度 0.125 in/4mm到2 in/50mm 。≺



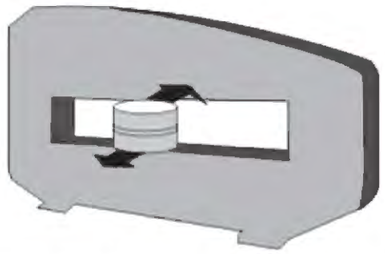


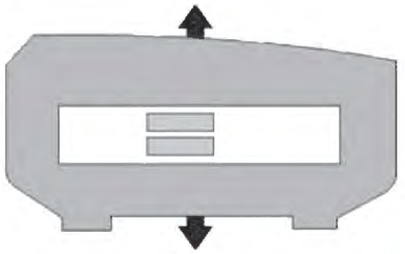
麦斯铁数控摆式剪板机

MTPH（A）SERIES SERVO HYDRAULIC CNC TURRET PUNCH PRESSES

MTPH（A）系列数控液压伺服转塔冲床

麦斯铁MTPH系列伺服液压转塔冲床是用于30–50公吨的重型设计，采用“O”型框架结构，经过先进的有限元分析等框架设计技术及型式试验，优等钢性保证精良的上下冲模产生高精度的冲压成形工艺。标准附带32个模具工位，其中含2个自动控制旋转角度工位。





GENERAL SPECIFICATIONS:

■ **Manufactured under a quality system** certified in compliance with ISO 9001, giving you assurance of a quality machine.
源于北美技术，遵从严格的ISO9001质量标准确保提供高品质的机床。

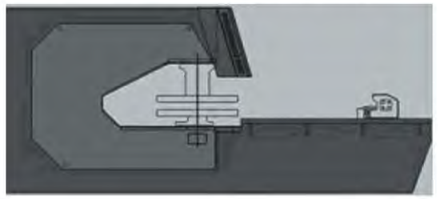
■ **MASTEEL MTPH（A）SERIES** are servo hydraulic CNC turret punch press, which incorporates Germany indigenously designed servo hydraulic cylinder that allows the operator to set the desired punching speed and positioning of the ram for greater punching controlt.
麦斯铁MTPH（A）系列伺服液压转塔冲床采用德国原产伺服油缸可控制滑块的冲击速度和冲击位置。

■ **MASTEEL MTPH（A）SERIES** are ideal for punching a variety of sheet metal precision components and enables high speed processing, quiet operation, and outstanding quality parts production at the same time.
麦斯铁MTPH（A）系列伺服液压转塔冲床可提供制造钢板高精度多样化冲压的完美方案，高速安静地制造高等级标准的板材部件。

■ **MASTEEL MTPH SERIES** is a heavy–duty servo hydraulic CNC turret punch press with 30–50 tons punching force and 32 tool stations including two auto indexing stations.Its closed “O” frame which was created using advanced structural design techniques such as Finite Element Analysis and Modal Testing . The frame is fabricated using premium steel, this ultra rigid frame provides accurate tool and die alignment throughtout the punching and forming process.

■ **MASTEEL MTPHA SERIES** is a light–duty servo hydraulic CNC turret punch press with 20 tons punching force and 16 or 32 tool stations and 16 or 32 tool stations including one or two auto indexing stations. Its “C” frame which was created using advanced structural design techniques such as Finite Element Analysis and Modal Testing.

麦斯铁MTPHA系列伺服液压转塔冲床是用于20公吨的轻型设计，采用“C”型框架结构，经过先进的有限元分析等框架设计技术及型式试验，优等钢性保证精良的上下冲模产生高精度的冲压成形工艺。标准附带16或32个模具工位，其中含1或2个自动控制旋转角度工位。



STANDARD EQUIPMENT

■ **FLOAT PNEUMATIC CLAMP:** The work piece is held in place by float pneumatic clamp with large holding force and stable feeding characteristics to the X–slide. The integrated swallowtail type carriage is high in rigidity. The clamp is easy to move and the slides run on hardened precision linear guide ways and are driven by AC–servo motors.
浮动式气动夹钳：强大的夹持力保证加工板材在X滑架上稳定地进给，全燕尾型滑架完善的刚性使夹钳很容易地在伺服电机的驱动下沿硬化的高精度线性导轨上平稳精确运行。

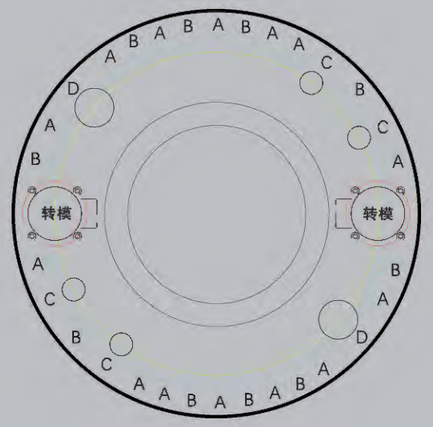
■ **THICK TURRET TOOLING:** MASTEEL CNC turret punch machines are available in a number of 16 or 32 thick tool stations and feature one or two auto indexing stations. Each tool station is lined with a precision ground hardened steel bushing. Lining replacement is simple, fast and cost effective, prolonging the life of the turret.
厚转塔结构：麦斯铁伺服液压数控转塔冲床标准装备有16或32个长模具工位，含1或者2个自动控制旋转角度工位。

■ **BRUSH AND BALL WORKTABLE:**The worktable with brush and ball is wide enough to reduce the noise and vibration when the machine is running, and protect the plates from getting scratched.
滚球及毛刷混合工作台：可在机床工作时减少噪声及振动，并防止板材划伤。

■ **THE CONCENTRATED LUBRICATING MECHANISM** can lubricate directly the various points to reduce work load and pair friction, thus improving its service life.
集中润滑装置：良好的润滑性能延长机床的服务期。

■ **THE FAGOR CNC CONTROL** is configured to realize field and background programming. RS232 standard port is for connecting and communicating with computer conveniently. It also features pulse encoder semi loop feedback, numerical AC servo driver and motor, strong self diagnostic and protection function to realize remote diagnosis.
FAGOR控制系统：自带冲压编程软件，操作者极易掌握编程及操作。

■ **GERMANY HYDRAULIC PUNCHING HEAD AND HYDRAULIC SERVO SYSTEM** with pressure valve precisely control the speed, volume and pressure of oil flow.
德国原产液压冲头及伺服系统：通过伺服压力阀精确地控制速度，液压油液量及压力。



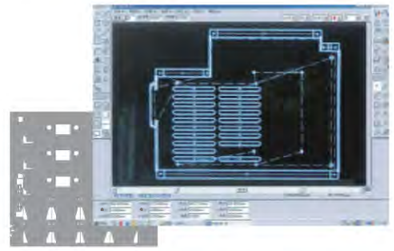
■ **32 STATIONS ARRANGEMENTS**
A type 1/2" MAX diameter 12.75mm totally 14 units.B type 1–1/4" MAX diameter 31.75mm totally 10units.C type 2" MAX diameter 50.75mm totally 6units, including 2 automatic rotations.D type 3–1/4" MAX diameter 88.90mm totally 2units are stationary type, no automatic rotation function.
32工位的排布

SPECIFICATIONS 参数

Item 项目	Unit 单位	MTPH41530–5	MTPH31250–5
Punching Capacity 吨位	Ton	40	30
X Traverse Length X 轴行程	mm	1500	2500
Y Traverse Length Y 轴行程	mm	1500	1250
Max Sheet Size with repositioning 最大可安加工板材尺寸	mm	1500x3000	1250x5000
Max Sheet Thickness 最大冲板厚度	mm	6.35	6.35
Max Sheet Weight 最大可安加工板料重量	kg	200	200
X Axis Traverse Speed X 轴速度	m/min	80	80
Y Axis Traverse Speed Y 轴速度	m/min	80	80
Max Traverse Speed 板料最大移动速度	m/min	113	113
Punch Speed at 25mm Between Holes 冲击次数（孔距25mm）	hsit/min	360	360
Nibbling Speed 冲击频率	hist/min	800	800
Tooling Type & Thickness 模具类别		Thick, 80mm	Thick, 80mm
Max Punching Diameter 最大冲孔直径	mm	88.9	88.9
Number of Tool Stations 工位数目		32	32
Number of Auto Index Stations 自转模个数		2/(C)	2/(C)
Turret Rotating Speed 转塔转速	rpm	30	30
Auto Index Rotating Speed 自动编程转塔转速	rpm	50	50
CNC ControllerCNC 系统		FAGOR 8055i	FAGOR 8055i
Number of Controllable Axes 控制轴数		4+1	4+1
Punching Accuracy 定位精度	mm	±0.1	±0.1
Repositioning Accuracy 重复定位精度	mm	±0.02	±0.02
Ram Stroke Distance 上模行程	mm	0~40 (servo hydraulic axes)	0~40 (servo hydraulic axes)
Hydraulic System 液压系统		BOSCH REXROTH	BOSCH REXROTH
Working Tables Type 工作台类型		brush and ball 毛刷滚球	brush and ball 毛刷滚球
Type of Sheet Clamps 夹钳类型		Full-floating 全浮动	Full-floating 全浮动
Auto Index Rotating Mode 转塔旋转方式		Worm Gear 链齿传动	Worm Gear 链齿传动
Number of Sheet Clamps 夹钳个数		2	3
Power Air Supply 电源最小容量	KVA	40	30
Air Supply 气源容积流量	NL/min	250	250
Oil Tank Volume 液压油容积	L	350	350
Air Pressure 工作气压	bar	6	6
Machine Size 机床外形尺寸	mm	5280*3600*2200	5200*4500*2300
Approx Weight 机床毛重	kg	18000	15000

➢ Specifications subject to change without notice 参数如有改变，恕不特别通知 ≺

■ **USA PROCAM PROGRAM SOFT AND CODE KEY** provide Tool library management. Automatic tool selection Micro–jiont function. Automatic optimizing. Automatic repositioning Nesting.
美国原装自动编程软件



MPFMS SERIES CNC PUNCH FMS FOR LORRY CARLING

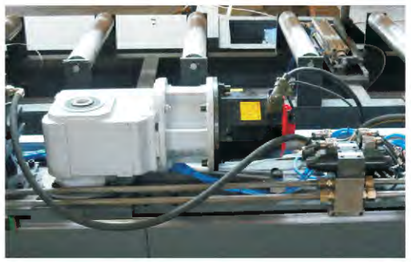
麦斯铁汽车纵梁板数控冲孔柔性加工生产线

FANUC Oi–PC CNC SYSTEM
FANUC Oi–PC 数控系统

GENERAL SPECIFICATIONS 性能特点

- C–type body for easy maintenance; the light whole machine features with small inertia, ensuring the larger acceleration and the improvement of productivity.
- The punch adopts a linear structure, using the cylinder to choose punch, so as to speed up the punch selection and improve the productivity. The integral upper and lower die chambers make process in pairs that ensures the coaxial of the tools. And the inlay structure of tools ensures the convenience of maintenance.
- With high length, heavy weight and high accuracy, it features with high accuracy long stroke gear–rack transmission, It is also assembled for one time with high processing accuracy.
- The application of auto loading–unloading system improves the transporting condition and the productivity.
- The use of complete set of hydraulic system, CNC system and auto–program software imported from the world famous company ensures the reliable and convenient running of the machine.
- C型开式机身，方便维修；整机重量轻，移动惯量小，易获得较大的加速度，有效提高劳动生产率。
- 模具采用直线式结构，通过气缸选择模具，加快选模速度，提高工效；整体式上下模腔成对加工，保证模具同心度；模具采用镶套式结构，维修更换方便。
- 针对汽车纵梁长度长、重量重、精度高的特点，采用高精度、长行程齿轮、齿条传动，加工精度高。
- 采用自动上下料系统，改善搬运条件，提高了劳动生产率。
- 世界著名公司提供的成套液压系统、数控系统、自动编程软件，确保整机的可靠、顺利运行。

FANUC servo & Antriebstechnik gear
FANUC全套伺服 + Antriebstechnik减速机



The welded frame of machine can support high impulse pressures
主机床身为开式高刚性焊接床身，能承受较高的冲压力,床身经过有限元分析。

MASTEEL CNC PUNCH FMS designed for special workpiece
变截面汽车纵梁冲孔
合理的夹钳布置、进料出料压辊结构
可有效夹持变截面汽车纵梁
(变截面直边≥1.5m)