

■ PD/PCD 系列龙门移动式数控平面钻床

PD/PCD Series Gantry Moveable CNC Planar Drilling Machine

◆适用范围 Application

钢结构、铁塔、桥梁、机械加工等行业的连接板、地脚板的钻孔加工。

For steel structure,tower,bridge,mechanical processing and other industries of the connecting plate,baseboard drilling processing.



◆产品结构特征 Product structure characteristics

本机主要由床身、龙门、钻削动力头、液压系统、控制系统、集中润滑系统、冷却排屑系统和快换夹头等组成

This machine is mainly composed of bed, gantry structure, drilling power head, hydraulic system, control system, centralized lubrication system, cooling system chip removal system and quick change chuck.

1. 采用液压进给钻削动力头，钻孔效率高。
 2. 四个加工区域，12 把液压夹钳，定位准确，装卸工件方便快捷。
 3. 自动排屑，冷却液循环使用。
1. Adopting hydraulic infeed drilling power head, which has high drilling efficiency.
2. Four processing areas, 12 hydraulic clamps, accurate positioning, convenient and quick loading and unloading of workpieces.
3. Automatic chip removal, coolant circulation.

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◆技术参数 Technical parameter

型号 Model	PD/PCD2016	PD/PCD2016/2	PD/PCD3016	PD/PCD3016/2
加工范围 Processing scope(mm)	2000×1600	2000×1600	3000×1600	3000×1600
叠加厚度 Stack thickness(mm)			100	
主轴数量 (个) Spindle number	1	2	1	2
主轴型号 Spindle model		莫氏 4# 锥孔 Morse 4 # taper hole		
主轴转速 Spindle rotating speed(r/min)	120–560	120–560	120–560	120–560
进给方式 Feed mode		液压自控行程钻削动力头 Hydraulic automatic stroke drilling power head		
进给行程 Feed stroke (mm)			180	
钻孔直径 Drilling diameter (mm)	φ 12 ~ φ 50 (选配 option φ 12 ~ Φ 63)	φ 12 ~ φ 50 (选配 option φ 12 ~ φ 63)	φ 12 ~ φ 50 (选配 option φ 12 ~ φ 63)	φ 12 ~ φ 50 (选配 option φ 12 ~ φ 63)
主轴电机功率 Main motor power (Kw)	5.5 (选配 7.5)	5.5×2 / 7.5×2 (选配)	5.5 (选配 7.5)	5.5×2/7.5×2 (选配)
夹紧缸数量 (支) Number of clamping cylinders			12	
夹紧力 Clamping force (KN)			7.5	
夹紧方式 Clamping system		龙门双侧按钮控制 Double side button control of gantry		
液压泵压力 Hydraulic pump pressure (Mpa)			6	

◆ PD 系列与 PCD 系列区别

型号 Model 项 目 Item	PD 系列 Series	PCD 系列 Series
床身材质 Bed material	钢板焊接 Steel plate welding	灰铁铸造 Gray iron casting
龙门移动 Gantry moveable	单伺服电机驱动单丝杠 Single servo motor drives single screw	双伺服电机驱动双丝杠同步双驱 Double servo motor drive double screw synchronous double drive
控制系统 Control system	PLC+ 上位计算机 PLC+ Upper computer	西门子 808D 数控系统 + 上位计算机 Siemens 808D CNC system + upper computer

PLD 系列大型龙门移动式数控平面钻床

PLD Series Large Gantry Moveable CNC Planar Drilling Machine

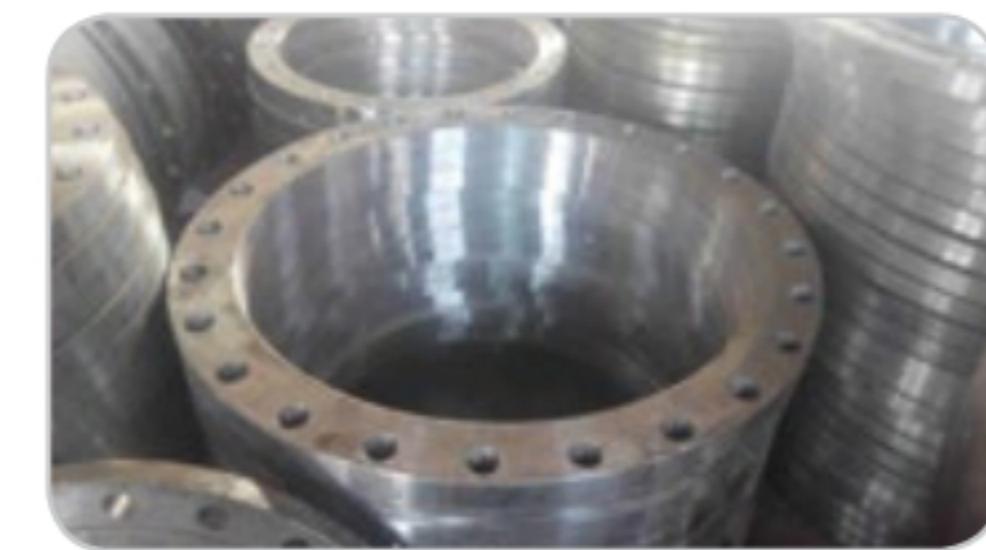
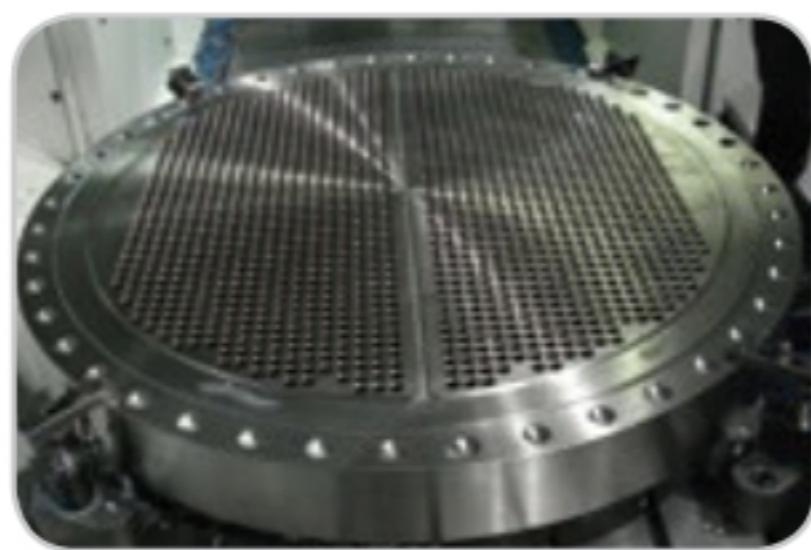
◆适用范围 Application

电力、石化、压力容器等热交换器管板、钢结构以及用电设备的孔加工，也可应用于其他行业大型板材的孔加工。

本机床系列为龙门移动式数控钻铣床，主要用于平封头、管板件的钻、扩、铰孔，兼有轻铣、镗功能。

For power, petrochemical, pressure vessels and other heat exchanger tube plate, steel structure and the use of electrical equipment hole processing, but also can be applied to other industries of large plate hole processing.

The machine is gantry movable CNC drilling and milling machine, which is mainly used for drilling, expanding and opening of flat head and pipe, and has the function of light milling and boring.



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◆产品结构特征 Product structure characteristics

- 1、伺服滑台式钻削动力头，具有钻孔、扩孔、倒角、铣槽功能，可一起工作，也可独立工作。
 - 2、在 X、Y 方向自动找点进行钻孔加工，主轴转速及进刀速度无级可调。
 - 3、床身上设置 T 型槽，使用压板装夹工件。
 - 4、可用手摇轮、顶针、询边器等多种方式寻找工件中心。
 - 5、CNC、PLC 控制，CRT 显示。
 - 6、编程软件基于 WINDOWS 平台，带有 CAD 接口，编程快速方便，预览形象直观。
 - 7、自动排屑，冷却液循环使用。
 - 8、关键的数控系统、机械、电气元件及部件选用国内外知名公司产品。
 - 9、换热器、化工机械行业大型管板钻孔加工的首选设备。
1. Servo slide type drilling head, with drilling, reaming, chamfering, slot milling function, all drilling heads can work together, or independently.
2. In X, Y direction for automatic point drilling, spindle speed and feed speed stepless adjustable.
3. Bed is arranged on the T slot, using plate clamping workpiece.
4. Available hand wheel, thimble, inquiry edge and other means to find work center.
5. CNC, PLC control, CRT display.
6. Programming software based on the WINDOWS platform, with CAD interface, quick and easy programming, preview image.
7. Automatic chip removal, cooling liquid recycling.
8. Key CNC systems, electrical components adopt well-known domestic and foreign products.
9. The first choice for large tube sheet drilling in heat exchanger and chemical machinery industry.

◆技术参数 Technical parameter

型 号 Model	PLD3030	PLD3030/2	PLD4040/2	PLD5050/4	PLD7070/12	PLD10030/2
加工范围 Processing range (mm)	3000x3000		4000x4000	5000x5000	7000x7000	10000x3000
最大厚度 Maximum thickness (mm)	250	200		250		200
主轴数量 Number of spindle (个)	1		2	4	12	2
主轴转速 Spindle rotating speed (r/min)			120–560			
钻孔直径 Dia. of drilling hole (mm)			Φ 12–Φ 50 (选配 option Φ 12–Φ 63)			
主电机功率 Motor power (KW)		7.5		12		7.5
控制方式 Control mode			西门子数控系统 /PLC+ 上位计算机 SIEMENS CNC system /PLC+ PC			

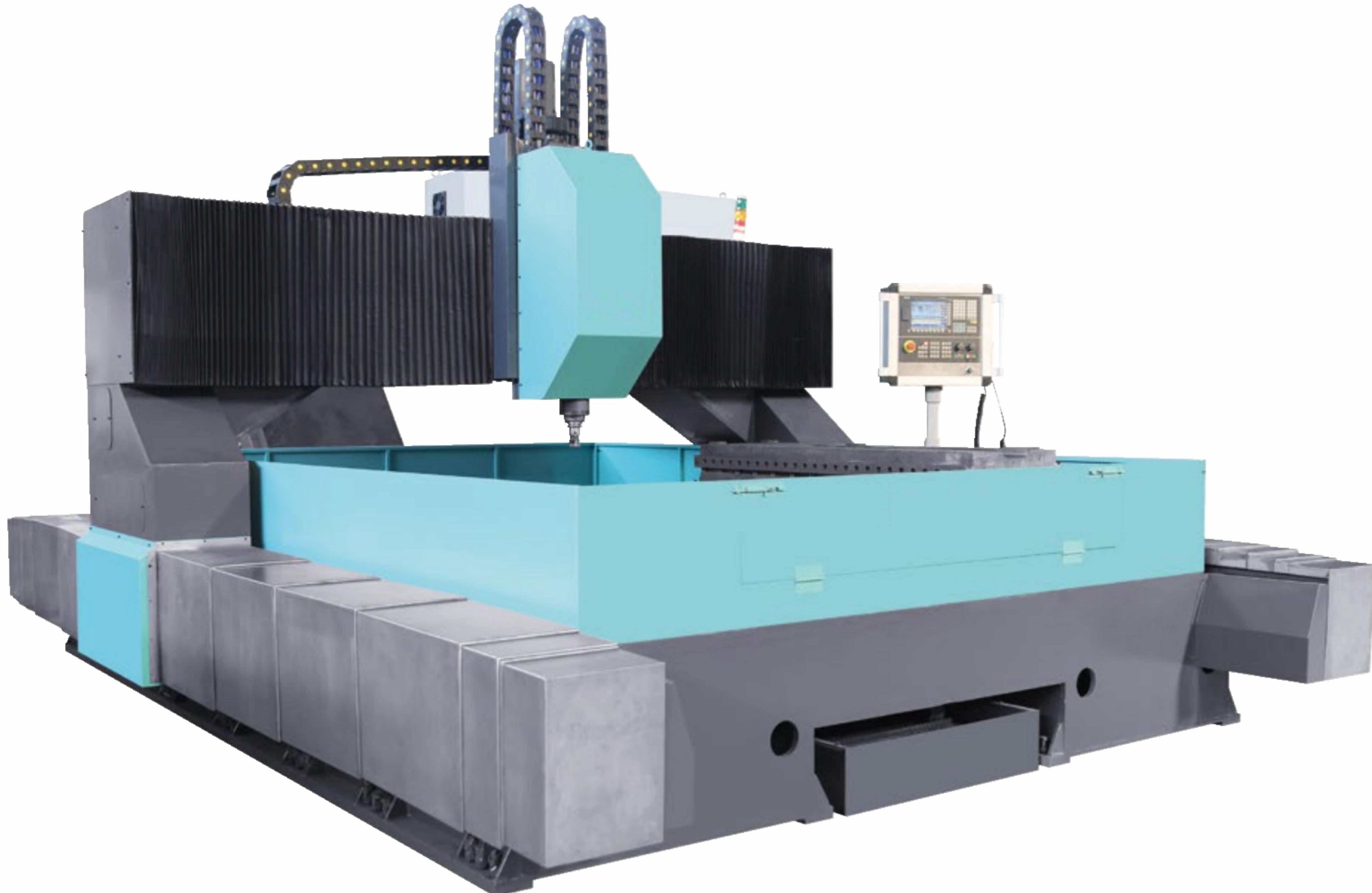
PHD 系列龙门移动式高速数控平面钻床

PHD series gantry movable CNC plane drilling machine

◆适用范围 Application

该机主要用于钢结构、铁塔、桥梁、机械加工等行业的连接板、地脚板的钻孔和铣削加工；锅炉、石化、压力容器等行业管板、折流板及法兰的钻孔和铣削加工；可以钻通孔、盲孔、阶梯孔、孔端倒角及轻铣加工。

The machine is mainly used for drilling and milling of steel structure, iron tower, bridge, mechanical processing and other industries, such as connecting plate and floor board,drilling and milling of tubes,baffles and flanges in industries such as boiler, petrochemical,pressure vessel and so on,drilling holes,blind holes,step holes,chamfering and light milling.



◆产品结构特征 Product structure characteristics

本机主要由床身、龙门、钻铣动力头、电气控制系统、集中润滑系统、冷却排屑系统等组成。

This machine is mainly composed of bed, gantry, drilling and milling power head, electric control system, centralized lubrication system, cooling system and chips removal system etc.

- 1、龙门移动双侧双电机双丝杠同步双驱，性能稳定、运动灵活，定位准确。
- 2、采用滑台式钻铣动力头，能实现快进 – 工进 – 快退的自动转换，具有自动断屑功能。
- 3、采用台湾 BT40 高速内冷精密主轴，可采用硬质合金内冷钻头，加工效率极高。
- 4、配备气动打刀缸自动换刀，可选配刀库。
- 5、西门子 808D 数控系统 + 伺服电机控制，可直接转换 Auto CAD 图纸生成加工程序。
- 6、自动排屑，冷却液循环使用。

1. Double side lead screw synchronous driving system, stable performance, flexible movement, accurate positioning.

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- 2. Adopting slide head drilling and milling power head, it can realize the automatic conversion of fast forward, drilling and quick return, and has the function of automatic chip breaking.
- 3. Adopt Taiwan BT40 high speed internal cooling precision spindle, can adopt hard alloy internal cold drill bit, processing efficiency is very high.
- 4. Equipped with pneumatic knife cylinder automatic knife replacement, optional tool magazine.
- 5. SIEMENS 808D CNC + servo motor control, can directly transfer Auto CAD drawings to general processing program.
- 6. Automatic chip removal, cooling liquid recycling.

◆技术参数 Technical parameter

型 号 Model		PHD1616	PHD2016	PHD2020
加工范围 Processing range	L × W (mm)	1600 × 1600	2000 × 1600	2000 × 2000
	叠加厚度 thicknes(mm)	15–100		
滑台式进给动力头 Processing range	主轴数量 Number of spindle(个)	1		
	主轴型号 Spindle model	BT40/BT50		
	主轴转速 Spindlespeed(r/min)	30–4500		
	进给行程 Feed stroke(mm)	260		
	攻丝直径 Tapping diameter(mm)	M20		
电机功率 Motor power(KW)	主轴伺服电机 Spindle servo motor	7.5 /11		
	X 轴	2 × 2.3		
	Y 轴	2.3		
	Z 轴	2.3		
定位精度 positioning accuracy(mm)		0.1		
重复定位精度 Repeatable positioning accuracy(mm)		0.08		
控制方式 Control mode		西门子 808D 数控系统 /PLC+ 上位计算机 SIEMENS 808D CNC system /PLC+ upper computer		
机床重量 weight(T)		5.5	6.6	7.2
外形尺寸 Contour dimension(mm)		3800 × 2050 × 2750	4200 × 2450 × 2750	4200 × 2850 × 2750

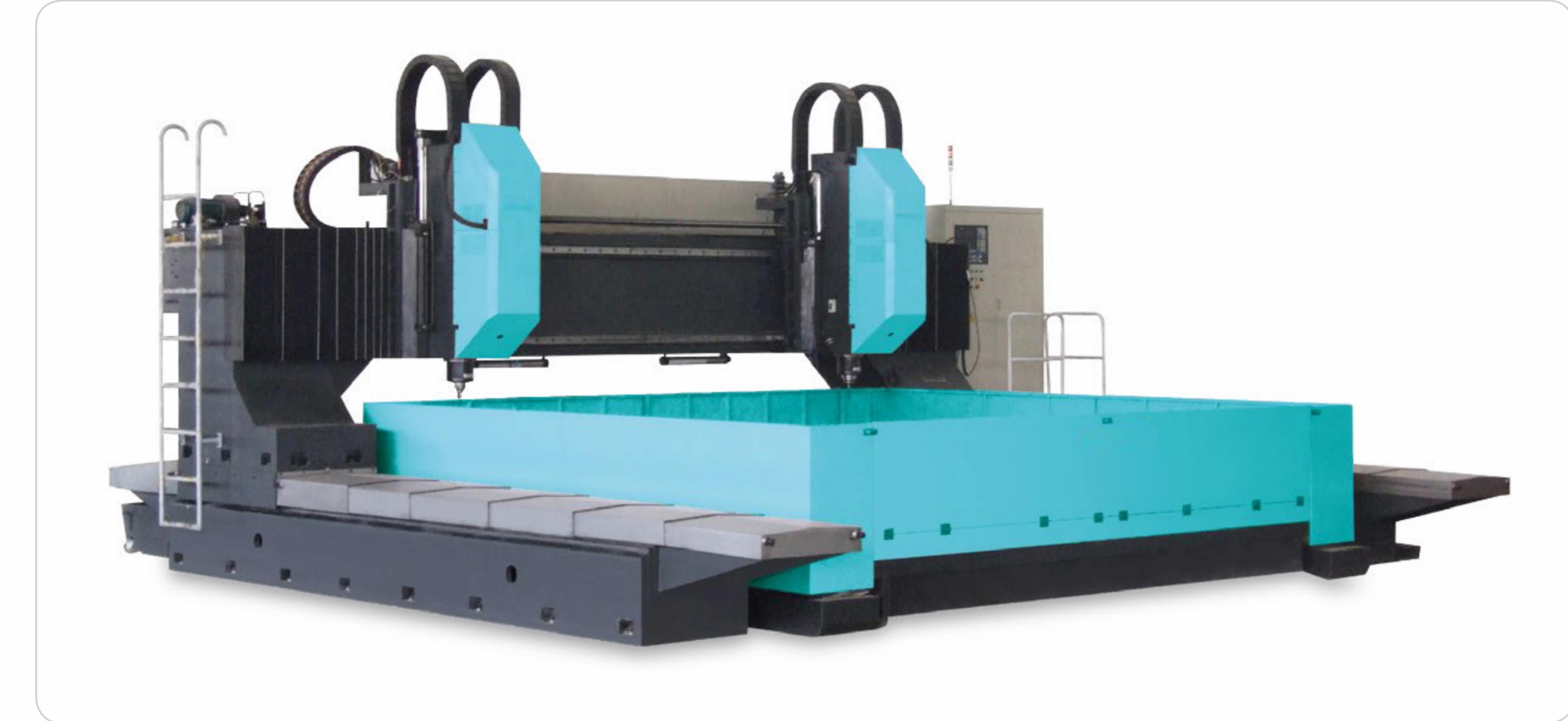
PMD 系列龙门移动式数控平面钻铣床

PMD Series CNC plate drilling & milling machine

◆适用范围 Application

本机适用于石化、锅炉、制冷、风电法兰等行业的管板、折流板、法兰盘的钻孔加工，也可用于建筑、桥梁、铁塔等钢结构中的联接板钻孔。

This machine is suitable for drilling plate & pipe,baffle and flange in the petrochemical,boiler,refrigeration,wind power flange and other industries.It can also be used in the of connecting plate in the steel structure such as building,bridge,tower and so on.



◆产品结构特征 Product structure characteristics

- 1、机床主要由床身及纵向滑台、龙门及横向滑台、垂直滑枕式钻削动力箱、工作台、电气控制系统、液压系统、冷却系统、排屑系统、集中润滑系统等部分组成。
- 2、机床采用龙门移动，工作台固定的形式，有效节省占地面积。
- 3、机床床身和工作台独立，提高了设备的稳定性并有效的减少了高速钻削过程中产生的震动。

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- 4、机床的纵向和横向移动均采用精密滚柱型直线导轨副导向，极大地增加了设备的刚性。
- 5、主轴电机选用专用伺服电机通过同步带进行驱动主轴，无级调速，低速扭矩大，可承受重切削负荷，能适合硬质合金刀具高速加工。
- 6、钻削主轴采用台湾精密主轴（内冷），主轴锥孔 BT50，具有蝶形弹簧自动拉刀机构，可通过接杆装钻头或铣刀，液压缸松刀，更换刀具十分方便。

1. The machine mainly consists of the bed and the longitudinal slide table, gantry and the horizontal slide table, the vertical sliding pillow drilling power box, the work table, the electric control system, the hydraulic system, the cooling system, the chip system, the centralized lubrication system and so on.

2. The machine adopts movable gantry and fixed worktable, save the floor area.

3. The machine bed and worktable are independent, which improves the stability of the equipment and effectively reduces the vibration generated during high-speed drilling.

4. The longitudinal and lateral movements of machine tools are guided by precision roller linear guide, which greatly increases the rigidity of the equipment.

5. The spindle motor uses a special servo motor to drive the spindle through the synchronous belt, stepless speed regulation, low speed torque, can withstand heavy cutting load, and can be suitable for high-speed machining of hard alloy tools.

6. The main axis of drilling is Taiwan precision spindle (internal cooling), the main axis cone hole BT50, with a butterfly spring automatic broaching mechanism, through the rod to install the drill or milling cutter, the hydraulic cylinder loose knife, the replacement tool is very convenient.

◆技术参数 Technical parameter

型 号 Model	PMD3030	PMD3030/2	PMD4040/2	PMD5050/2
加工范围 Processing(mm)	3000 × 3000	4000 × 4000	5000 × 5000	
最大厚度 Maximum thickness(mm)		300		
主轴数量 /Number of spindle (个)	1	2	2	2
主轴型号 Spindle model		BT50		
主轴转速 Spindle speed (r/min)		10–3000		
进给行程 Feed stroke(mm)		500		
钻孔直径 Dia.of drilling hole(mm)		φ 60 硬质合金		
最大攻丝直径 Maximum tapping diameter(mm)		选配 M32		
主电机功率 Motor power(KW)	22KW 变频电机 (18.5KW 伺服电机)			

PF 系列数控钻割加工中心

PF Series drilling and cutting center

◆适用范围 Application

该机适用于大型板材的切割下料，高速钻孔，刻字划线，攻螺纹等功能。

The machine is suitable for large plate cutting, high speed drilling, lettering lining, tapping etc.

板材类数控成套加工设备
Plate Steel Processing Machine



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◆产品结构特征 Product structure characteristics

- 1、集钻孔、台阶孔、攻螺纹、表面标识及精细等离子切割于一体。
 - 2、高速钻削单元带有垂直夹紧装置。
 - 3、自动套料及共边切割。
1. It integrates drilling, step hole, tapping, surface marking and fine plasma cutting in one machine.
2. The high speed drilling unit has a vertical clamping device.
3. Automatic cutting and joint cutting.
4. Automatic feeding and unloading system.
5. The cutting slag and the drilled iron scraps are cleaned independently.

◆技术参数 Technical parameter

型 号 Model	PF1614	PF2114	PF2614	PF3114
最大加工范围(长×宽) Maximum machining range LxW(mm)	6000(12000)X1600	6000(12000)X2100	6000(12000)X2600	6000(12000)X3100
最小加工范围(长×宽) Minimum machining range LxW(mm)		60x60		
板材厚度 Plate thickness (mm)		6—100		
最大重量 Maximum weight (KG)		10000		
钻孔单元数量 Number of drilling units(个)		1/2		
钻孔直径 Dia.of drilling hole(mm)		8—50		
钻削主轴电机功率 Drilling spindle motor power (KW)		30		
切割装置 cut-off unit		火焰 / 等离子 Flame / plasma		
外形尺寸 Shape size (m)	15.5x7x5	15.5x8x5	15.5x9x5	
机器重量 Machine weight (KG)	10000	11000	13000	14000
高速打码装置 High speed code device				
高速刻字划线 High speed lettering		可选配 Optional		
刀 库 Tooling magazine				

■ DSK 系列卧式深孔钻床

DSK series, horizontal deep hole drilling machine

◆适用范围 Application

该机适合加工不同形式管板，如锅炉、冷凝器、蒸发器、压力容器、中央空调、海水淡化设备、列管式换热器等等。

The machine is suitable for processing different types of tube plates, such as boilers, condensers, evaporators, pressure vessels, central air conditioning, seawater desalination, tubular heat exchangers etc.



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◆产品结构特征 Product structure characteristics

该机床具备单轴、多轴同时加工功能。电脑编程自动化加工，并能保证良好的加工品质，如管孔间距、管径公差、垂直度、表面粗糙度等，颠覆传统需多道工序集合加工的方式，极大地提高了生产效率。DSK 系列管板数控深孔钻床还可以根据用户需求选择外排屑。

该机数控管板深孔钻加工速度快、全自动电脑编程操作。

该机垂直度公差、管径公差、光洁度、定位精度均达到行业标准。

The machine has single axis and multi axis simultaneous processing function. Computer programming automation processing, and can guarantee good processing quality, such as tube hole spacing, pipe diameter tolerance, perpendicularity, surface roughness, and so on, subvert the traditional way of multi process assembly processing, greatly improve the production efficiency. DSK series tube sheet CNC deep hole drilling machine can also choose chip removal according to user needs.

The CNC tube plate deep hole drilling process is fast and full automatic computer programming operation.

The verticality tolerance, diameter tolerance, finish and positioning accuracy of the machine are up to the industry standard.

◆技术参数 Technical parameter

型 号 Model		DSK2020	DSK3030	DSK4040	DSK5050
最大加工尺寸 Maximum machining dimension (mm)		2000x2000	3000x3000	4000x4000	5000x5000
最大钻孔厚度 Maximum borehole thickness (mm)		750	750	750	750
钻孔直径 Borehole diameter (mm)	枪钻 Gun drill	Φ 10–25	Φ 10–25	Φ 10–25	Φ 10–25
	BTA	Φ 20–40	Φ 20–40	Φ 20–40	Φ 20–40
主轴数量 Number of spindle (个)		1/2			
主轴中心距 Center distance of spindle (mm)		160–300(可调)			
主轴转速 Spindle speed (r/min)		80–3500			
主轴功率 Motor power (KW)		15			
控制方式 Control mode		西门子数控系统 /PLC+ 上位计算机 SIEMENS CNC system /PLC+ PC			

H型钢加工设备典型生产线布置图

Layout drawing of typical production line of H steel processing equipment

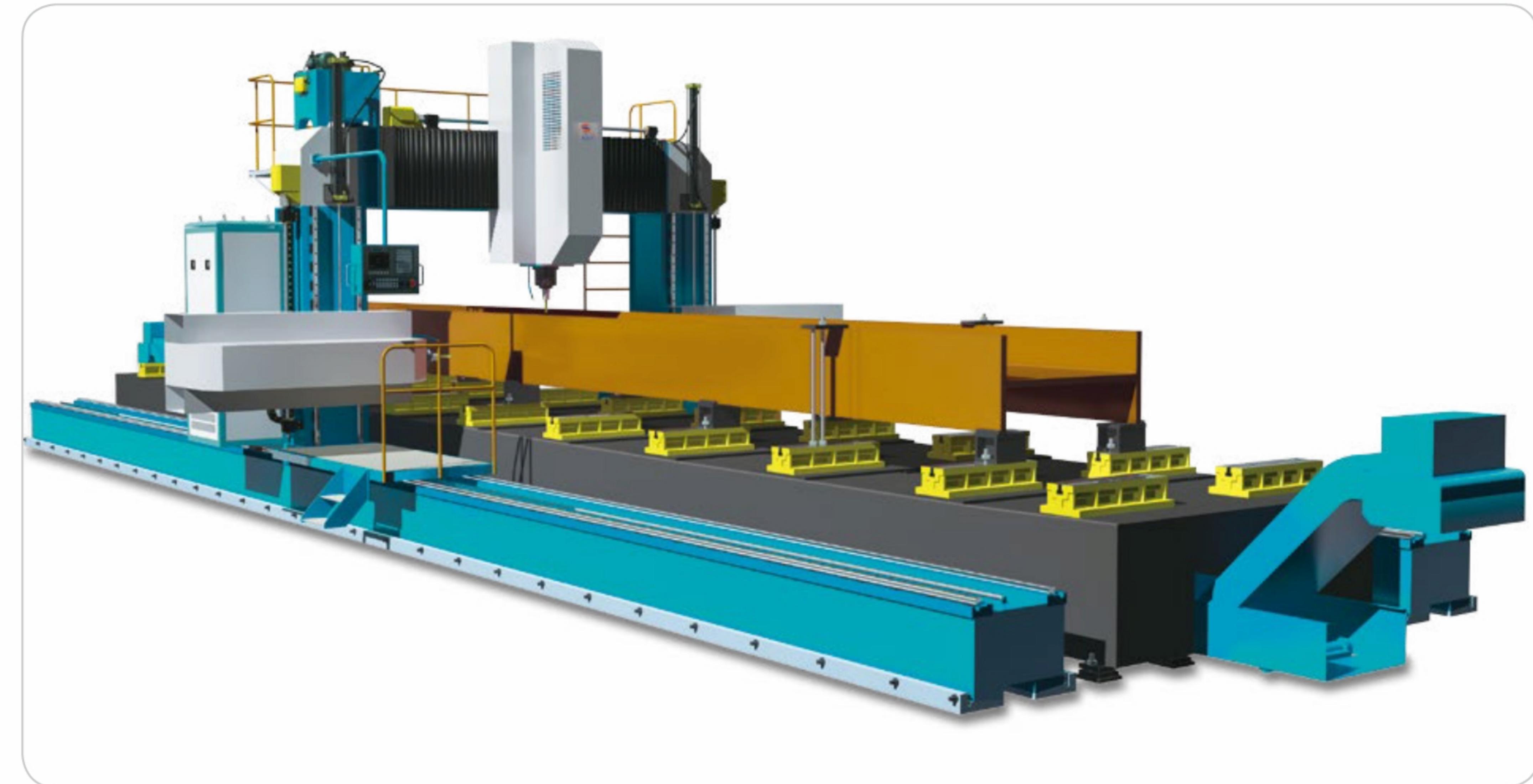
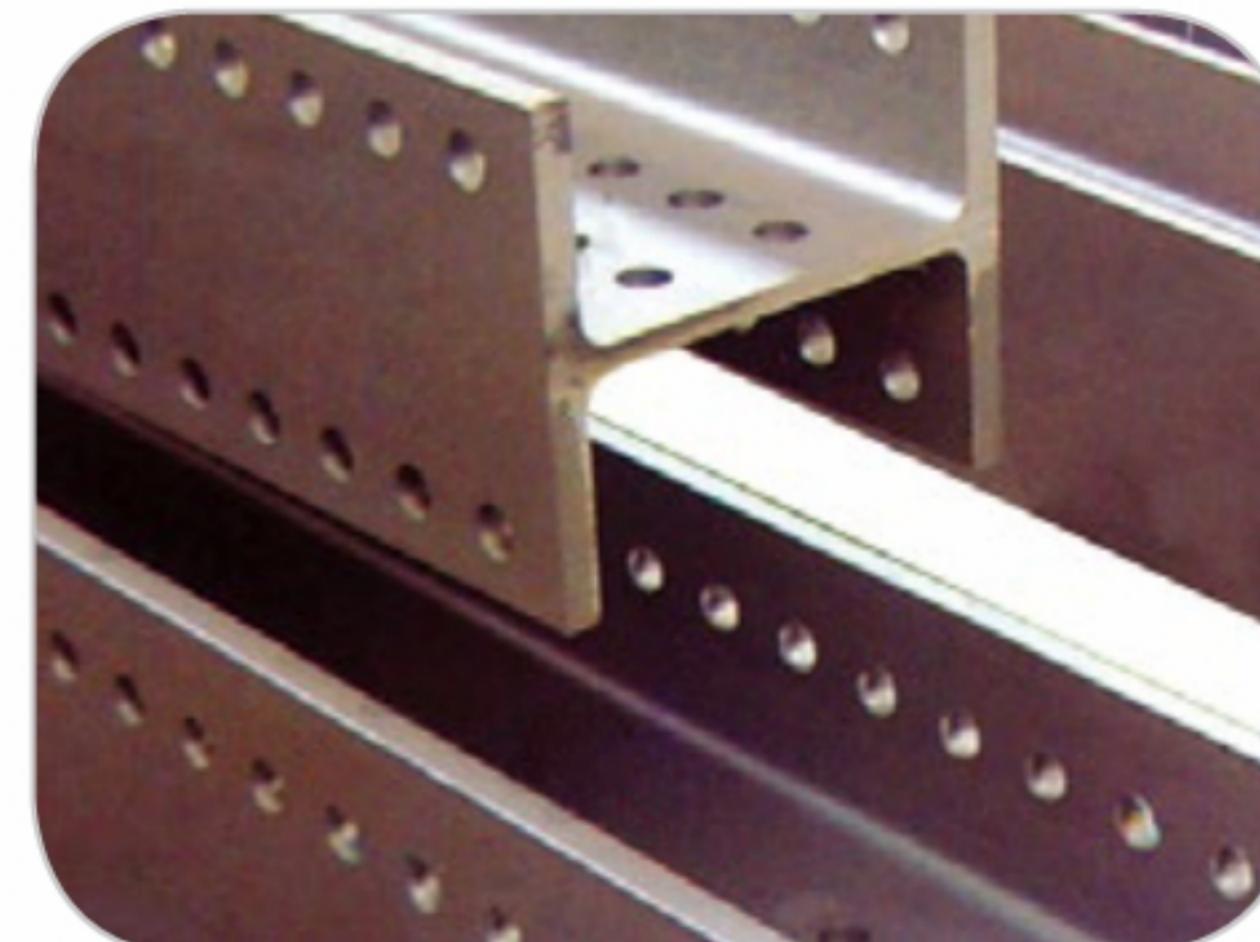


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TBD 系列龙门移动式三维钻床

BD series gantry movable 3D drilling machine



◆适用范围 Application

该机主要用于钢结构、桥梁、立体停车库等行业的 H 型钢、槽钢等型材的钻孔加工作业。

The machine is mainly used for drilling H steel and channel steel in steel structure, bridge, stereo garage and other industries.

◆技术参数 Technical parameter

型 号 Model	TBD1500/3	TBD2000/3	TBD2515/3	TBDH3020/3
腹板尺寸 Web size (mm)	600–1500	1000–2000	1000–2500	800–3000
翼板尺寸 Wing plate size (mm)	200–1500	400–1000	700–1500	800–2000
钻孔主轴数量 Number of drilling spindle(个)			3	
刀具数量 / 轴 Tool number / shaft			1	
最大钻孔直径 Maximum borehole diameter (mm)		50		40/50
主轴转速 Spindle speed (r/min)	120–450		120–560	120–450
主轴功率 Motor power (KW)		7.5		
数控轴数 Numerical control axis number(个)		8		

* 可根据用户需求订做 The machine also can be designed and produced according to users' requirement.

TBD 系列 / THD 系列三维数控（高速）钻床

TBD/THD Series three dimensional high speed CNC drilling machine



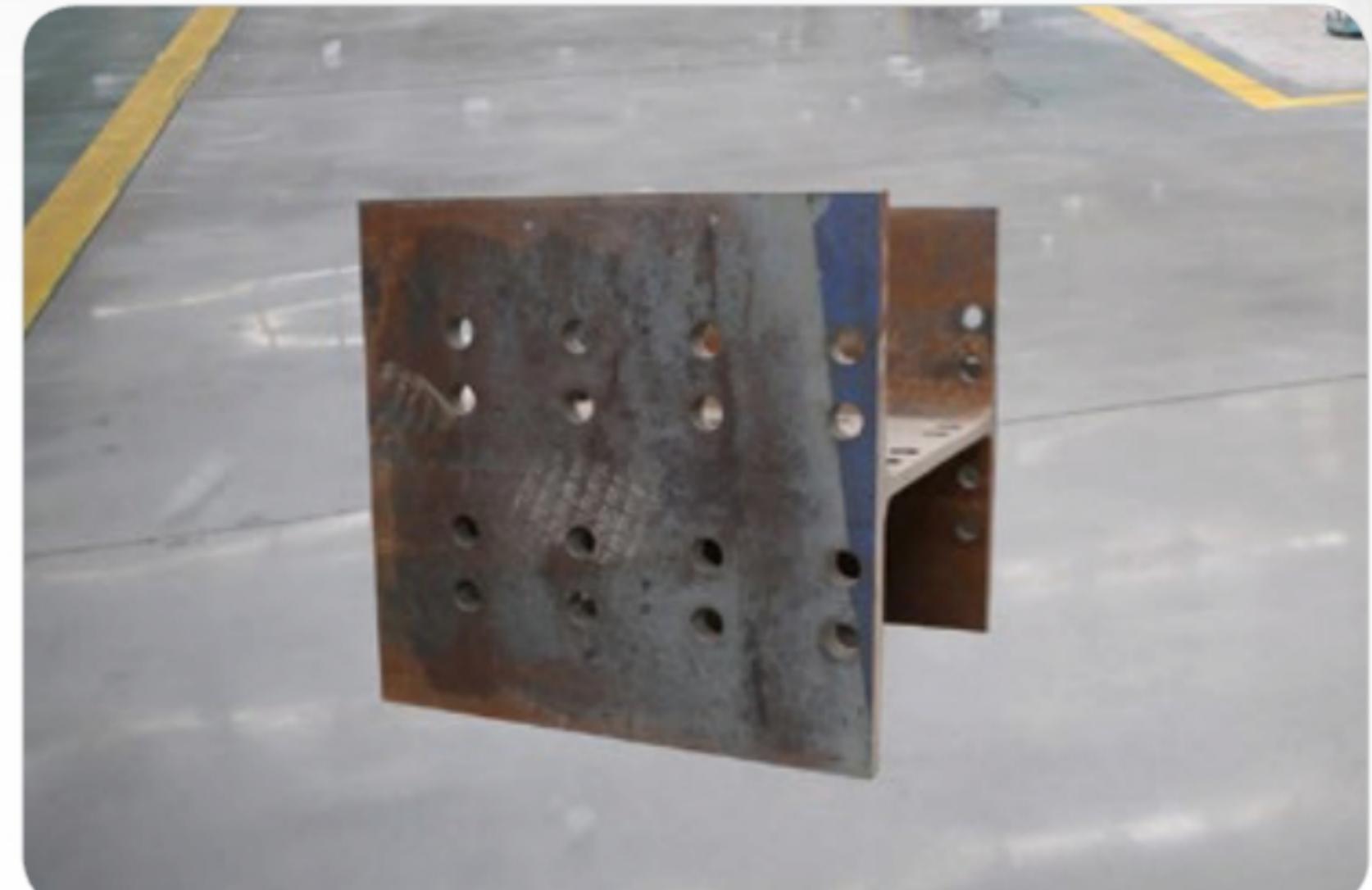
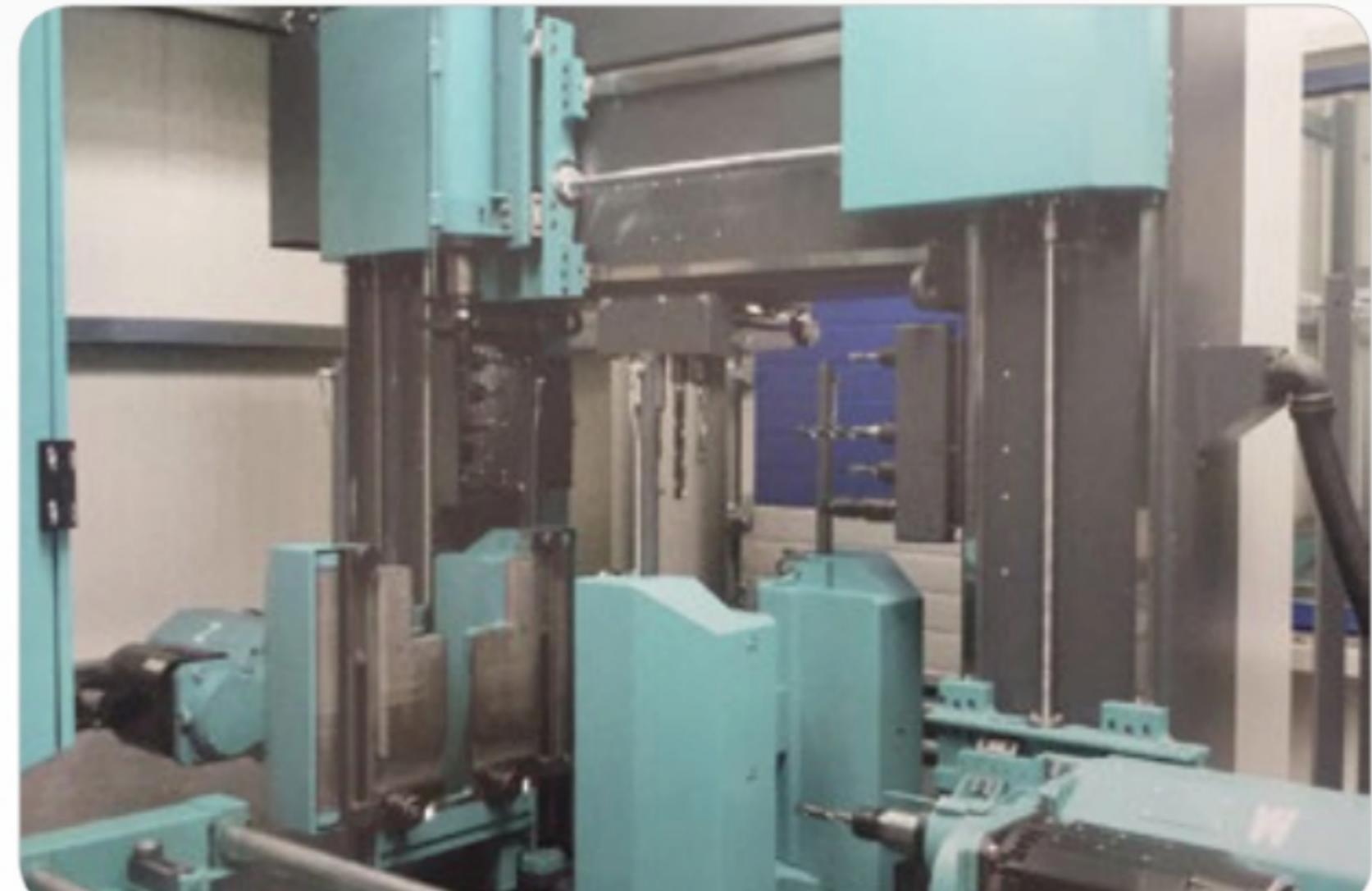
◆适用范围 Application

该机适用于钢结构行业 H 型钢的三面钻孔加工。

This machine is suitable for drilling three sides of H-beam and U-channel in steel structure industry.

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◆产品结构特征 Product structure characteristics

- 1、三个动力头均可同时或独立高速钻孔、倒角、攻螺纹等工艺。
- 2、纵向、横向均带有液压夹紧装置。
- 3、三个动力头各带有一个自动换刀库（选配）。
- 4、三轴均可实现高速刻字划线。

1. Three power heads can work simultaneously or independently high-speed drilling, chamfering, tapping and other processes.
2. Both vertical and horizontal with hydraulic clamping device.
3. Three power heads with an automatic tool changer.
4. Three axes can achieve high speed lettering lining.

◆技术参数 Technical parameter

型号 Model			TBD700	TBD100	TBD1250	THD1000	THD1206		
加工范围 Processing range	最大腹宽 × 翼高 (mm)		700 × 400	1000 × 500	1250 × 600	1000 × 500	1250 × 600		
	最小腹宽 × 翼高 (mm)		100 × 50	100 × 50	150 × 75	100 × 50	150 × 75		
	最大料长 (m)	12 (可定制)							
动力头部分 Power head part	数 量	垂直动力头 (个)	1	1	1	1	1		
		侧动力头 (个)	2	2	2	2	2		
	钻孔直径	中间主轴 (mm)	φ 12–φ 30	φ 12–φ 33.5	φ 12–φ 33.5	φ 8–φ 40	φ 8–φ 40		
		两侧主轴 (mm)	φ 12–φ 30	φ 12–φ 26.5	φ 12–φ 26.5	φ 8–φ 40	φ 8–φ 40		
	主轴钻速范围 (r/min)		180–560	180–560	180–560	30–2800	30–2800		
	主轴锥孔		莫氏 4#	莫氏 4#	莫氏 4#	BT40	BT40		
	主轴电机功率 (KW)		3 × 4	3 × 4	3 × 4	3 × 15	3 × 15		
送料部分 Feeding part	送料方式		辊子 / 数控小车	辊子 / 数控小车	辊子 / 数控小车	数控小车	数控小车		
	电机功率 (KW)		5	5	7	5	7		
数控轴数 Numerical control axis numbe(个)			4	7	7	7	7		
设备重量 Machine weight(T)			5.5	6.8	7.7	8	8.9		

DCR/DHR 系列数控转角（高速）锯床

DCR/DHR series CNC angle band sawing machine



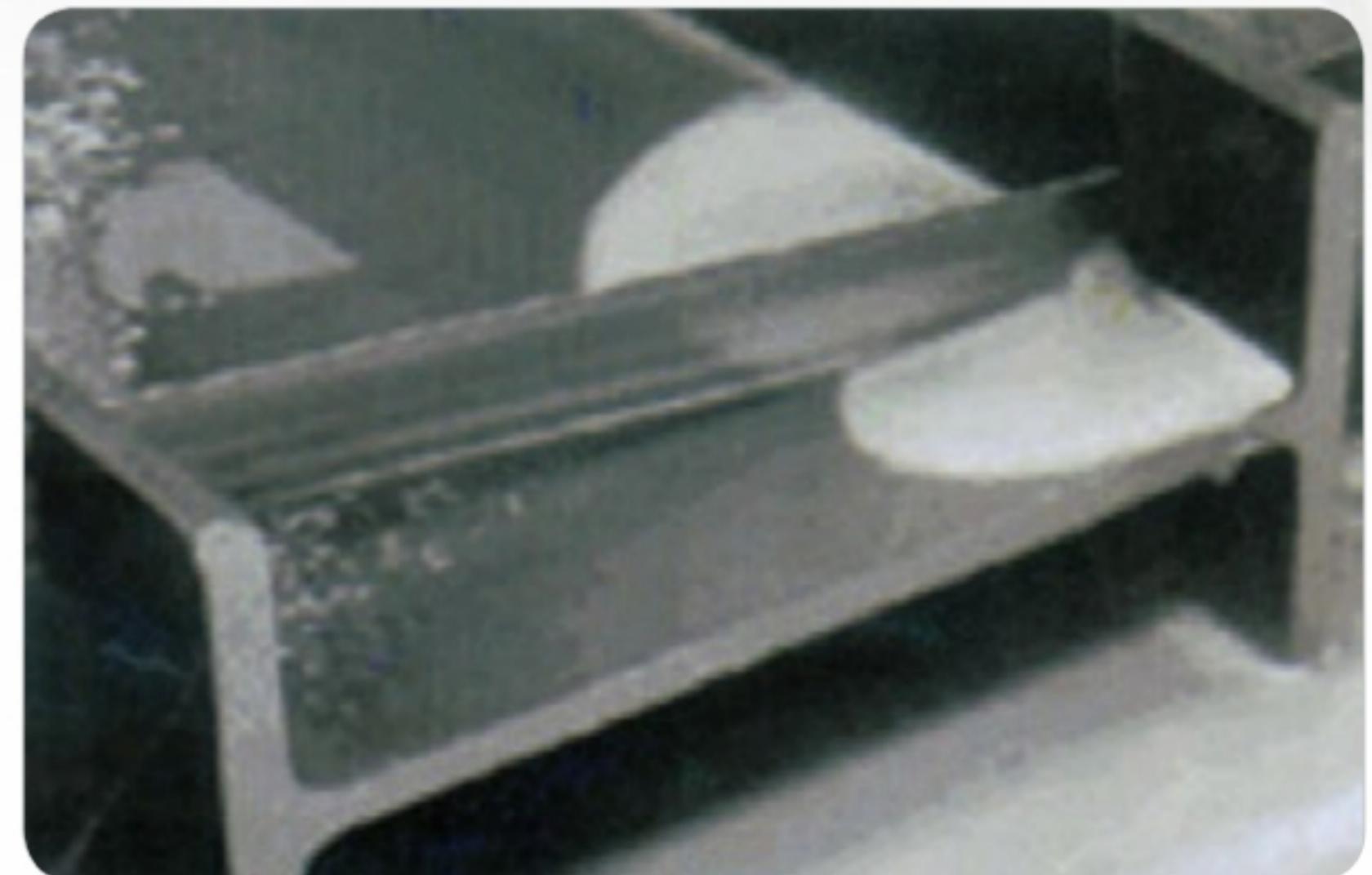
◆适用范围 Application

TBS 系列数控转角带锯床是专门为型材机钢结构行业型材锯切工艺设计制造的。

The TBS series CNC rotary band sawing machine is specially designed and manufactured for steel profiles cutting.

专业铸就品质 – 创新引领未来

Professional quality – Innovation leads the future



◆产品结构特征

Product structure characteristics

- 1、数控锯切角度自动调节。
 - 2、大面积纵向及横向液压夹紧装置。
 - 3、快速精确的激光定位装置。
 - 4、数控锯切角度和型材夹紧装置自动调整。
1. Automatic adjustment of the angle of CNC sawing.
2. Large area longitudinal and transverse hydraulic clamping system.
3. Fast and accurate laser positioning device.
4. Automatic adjustment of CNC sawing angle and profile clamping device.

◆技术参数 Technical parameter

型 号 Model		DCR1000	DCR1250	DHR1000	DHR1250
最大加工范围 Maximum machining range(mm)	H型钢	100×500	1250×600	100×500	1250×600
	圆钢	φ 500	φ 600	φ 550	φ 660
	方钢	550×550	630×630	550×550	630×630
转角范围 Angle range (°)		0° – 45°	0° – 45°	0° – 45°	0° – 45°
锯条规格 hacksaw blade (mm)		7600×54×1,6	8300×54×1,6	8500×54×1,6	9300×67×1,6
锯切线速度 Saw tangent speed (m/min)		20–80	20–80	20–100	20–100
主电机功率 Driving power (KW)		7.5	11	11	15
液压电机功率 Driving power (KW)		2.2	2.2	5.5	5.5
工作台高度 Workbench height (mm)		800	800	800	800
外形尺寸 Contour dimension(mm)		约 4000×2420×2620	约 4280×2420×2620	约 4050×2200×2700	约 4400×2300×2800
设备重量 Machine weight(T)		约 6	约 7	约 8.5	约 10