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BAOJI MACHINE TOOL GROUP CO.,LTD
宝鸡忠诚机床股份有限公司
BAOJI ZHONGCHENG MACHINE TOOL CO.,LTD

BHR800V/1000V/1200V/1500V

五轴卧式车铣复合加工中心

Machining Center

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Design and specifications given herein are subject to change without prior（Version 202503）

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BHR800V/1000V/1200V/1500V



01 产品概况 Product Overview

BHR800V/1000V/1200V/1500V系列是一款卧式车铣复合加工中心。机床配置有X、Y、Z、B、C五轴，可实现车、铣、镗、钻、齿加工、磨削等复合加工；尤其适用于直线度、圆柱度、平行度、跳动要求小的高精加工、深孔加工及重型零件加工。公司致力于复杂零件加工要求的分析.开发相关附件为每个用户提供可定制的有效的整体解决方案。

BHR800V/1000V/1200V/1500V series is a horizontal turning and milling composite machining center.It is equipped with five axes X,Y,Z,B,and C,which can achieve various composite processing such as turning,milling,boring,drilling,composite processing such as gear machining and grinding.Especially suitable for high-precision machining,deep hole machining,and heavy parts with small tolerance for straightness,cylindricity,parallelism,and runout.We are committed to analyzing the processing requirements of complex parts and developing relevant accessories to provide customizable and effective overall solutions for each user.



02 性能优势 Performance advantages

- 床身采用球墨铸铁铸造，机床刚性及稳定性好；
- 主轴箱采用双电机、双减速机主从模式驱动，两档变速，传动精度高，扭矩大；
- 尾座进给系统和套筒顶持力程序可控；
- 采用仓储式刀库，配备关节机器人实现刀具及附件头的快速更换，刀库容量方便扩充；
- X、Y、Z、C各轴均配置双电机，传动扭矩大，移动速度快；
- 五轴全闭环控制，加工精度高；
- 配置接触式与非接触式自动对刀系统与循环测量系统，机床工作精度稳定可靠；
- 基于整机3D模型建立的防碰撞功能，提高机床操作的安全性。
- 配置多种典型零件加工工艺包以及丰富的人机交互界面，编程简单，机床易操作；
- 工件一次装夹完成多道工序加工，装夹误差少，生产效率高；
- 擅长于深孔加工，最大加工孔深可达1500mm。

- Machine bed adopts nodular cast iron,ensures good rigidity and stability;
- The spindle box is driven by dual motors and dual reducers in a master-slave mode,with two speed changes,high transmission accuracy,and high torque;
- Tailstock feeding system and quill holding force can be programmed and controlled;
- Adopting a warehouse style tool magazine equipped with joint robots for quick replacement of tools and accessory heads,the capacity of the tool magazine is easy to expand;
- X,Y,Z,and C axes are equipped with dual motors,with high transmission torque and fast movement speed;
- Five axes are all full closed-loop controlled,with high machining accuracy;
- It is equipped with contact and non-contact ATC system and cycle measuring system, which makes the working precision of the machine stable and reliable;
- Anti-collision function based on the 3D model of the machine, which improves the safety of machine operatio;
- It is equipped with a variety of parts machining process packages and a variety of human-machine interaction interfaces, which makes programming simple and the machine easy to operate;
- The workpiece can be clamped in one operation to complete multiple processes,resulting in low clamping errors and high production efficiency;

03 典型样件 Typical samples

- 能源领域：汽轮机转子轴、水轮机传动轴、发电机传动轴、风电齿轮箱传动轴等；
- 大型船用柴油机领域：凸轮轴、曲轴、连杆等；
- 其他领域：空气压缩机公转子和母转子、石油天然气行业的深孔钻头等。

- Energy field:steam turbine rotor shaft,water turbine transmission shaft,generator transmission shaft,wind power gearbox transmission shaft,etc;
- Large marine diesel engine field:camshaft,crankshaft,connecting rod, etc;
- Other fields:air compressor male and female rotors,deep hole drill bits in the oil and gas industry,etc.

适用行业：汽车、工模具、医疗器械等制造业对中小型模具、壳体类、板类、异型零件进行高精度、高速加工。

Applicable industries:Automobiles,molds,medical devices and other manufacturing industries carry out high-speed processing of small and medium-sized molds,housings,plates and special-shaped parts.

04 机床数据 Machine data

项目 Project	单位 Unit	BHR800V	BHR1000V	BHR1200V	BHR1500V
床身上最大回转直径 Max. diameter swing over bed	mm	820	1020	1220	1520
两顶尖距离 Center distance	mm	2000～6000（长度可选）		2000～12000（长度可选）	
工件最大重量 Max. weight of workpiece	kg	3500	10000	10000	10000
车削主轴电机功率100% Power of turning spindle motor(100%)	kW	33+33	53+53	61+61	61+61
车削主轴最高转速 Max. speed of turning spindle	rpm	2700	1650	1250	1250
车削主轴最大扭矩100% Max. torque of turning spindle(100%)	Nm	3170	8264	12650	12650
车削主轴卡盘直径 Chuck diameter of turning spindle	mm	315/400/500/630	500/630/800	500/630/800	630/800
车削主轴前端轴承直径 Front bearing diameter of turning spindle	mm	160	260	260	260
车削主轴通过直径 Through-hole diameter of turning spindle	mm	100	185	185	185
车削主轴头型号 Turning spindle nose		A11	A15	A15	A15
C轴最高转速 Max. speed of C axis	rpm	80	40	40	40
C轴最大扭矩 Max. torque of C axis	Nm	2380	6200	9375	9375
铣削主轴电机功率 Power of milling spindle motor	kW	33	61	61	61
铣削主轴最高转速 Max. speed of milling spindle	rpm	5000	3200	3200	3200
铣削主轴最大扭矩100% Max. torque of milling spindle(100%)	Nm	276	733	733	733
铣削主轴刀柄型式 Tool shank type of milling spindle		HSK-A63/CAPTO C6	HSK-A100/CAPTO C8	HSK-A100/CAPTO C8	HSK-A100/CAPTO C8
铣削主轴前端轴承直径 Front bearing diameter of milling spindle	mm	100	130	130	130
铣削主轴内冷压力 Internal cooling Pressure of milling spindle	bar	70	70	70	70
B轴最高转速 Max. speed of B axis	rpm	16	16	16	16
B轴最大扭矩 Max. torque of B axis	Nm	1780	1780	1780	1780
B轴端齿盘分度角度 Indexing angle of B axis end toothed disc	°	2.5	1	1	1
B轴最小分度角度 Minimum indexing angle of B axis	°	0.001	0.001	0.001	0.001
B轴摆角范围 Swing angle range of B axis	°	-110～+90	-110～+90	-110～+90	-20～+180
X轴快移速度 Rapid moving speed	m/min	40	40	40	40
X轴最大进给力 Max. feeding force of X axis	N	13050	27000	27000	27000
X轴行程 X axis travel	mm	930	1130	1230	1330
Y轴快移速度 Rapid moving speed of Y axis	m/min	40	40	40	40
Y轴最大进给力 Max.feeding force of Y axis	N	14500	28500	28500	28500
Y轴行程 Y axis travel	mm	400	600	650	800

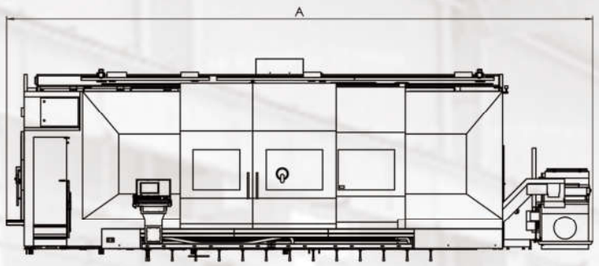
机床参数表

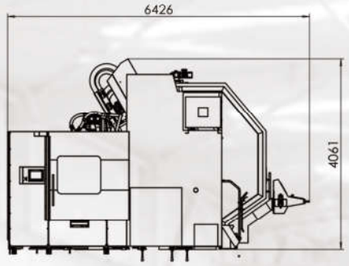
项目 Project	单位 Unit	BHR800V	BHR1000V	BHR1200V	BHR1500V
Z轴快移速度 Rapid moving speed of Z axis	m/min	40	30	30	30
Z轴最大进给力 Max. feeding force of Z axis	N	12000	28800	28800	28800
套筒直径 Quill diameter	mm	180	260	260	300
尾座套筒行程 Quill travel	mm	200	250	250	280
刀库容量 Capacity of tool magazine		40/60/80/120	40/60/80/120	40/60/80/120	40/60/80/120
数控系统 CNC controller		西门子/华中数控 SIEMENS/HNC	西门子/华中数控 SIEMENS/HNC	西门子/华中数控 SIEMENS/HNC	西门子/华中数控 SIEMENS/HNC

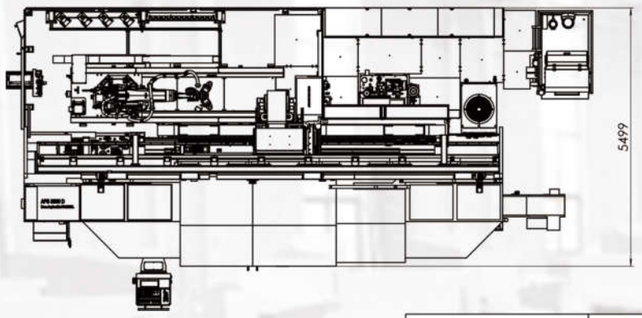
机床配置表 ●标配 ○选配 -没有

主要配置 Main Specification	规格 Specifications	BHR800V	BHR1000V	BHR1200V	BHR1500V
控制系统 Control System	西门子系统 SIEMENS	●	●	●	●
	华中数控 HNC	○	○	○	○
卡盘直径 Diameter of chuck	315	○	-	-	-
	400	○	-	-	-
	500	●	○	○	○
	630	○	●	○	○
	800	-	○	●	●
车削主电机 Power of turning main motor	25.5+25.5	○	-	-	-
	33+33	●	○	○	○
	53+53	-	●	○	○
	61+61	-	○	●	●
铣削电机功率 Power of milling motor	33	●	○	○	○
	61	-	●	●	●
刀柄型式 Tool shank type	HSK-A63	●	○	○	○
	HSK-A100	-	●	●	●
	Capto C6	○	○	○	○
	Capto C8	○	○	○	○
刀库数量 Capacity of tool magazine	40	○	○	○	○
	60	●	●	●	●
	80	○	○	○	○
	120	○	○	○	○

05 机床图释 Machine tool illustration

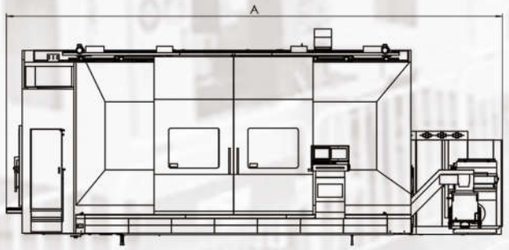


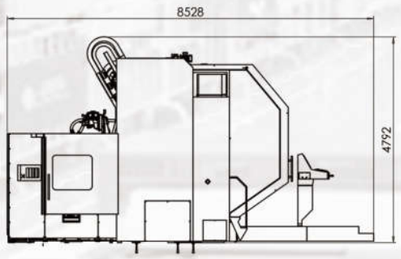


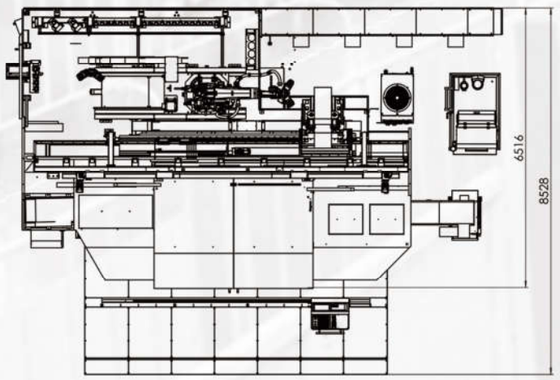


BHR800V

长度规格（mm）	2000	3000	4000	5000	6000
A（mm）	10465	11465	12465	13465	14465

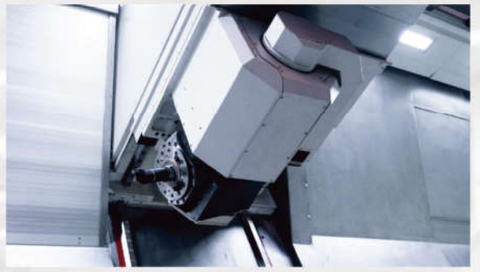






BHR1000V/1200V/1500V

长度规格（mm）	2000	3000	4000	5000	6000
A（mm）	10545	11545	12545	13545	14545



摆角铣头
Swing angle milling head



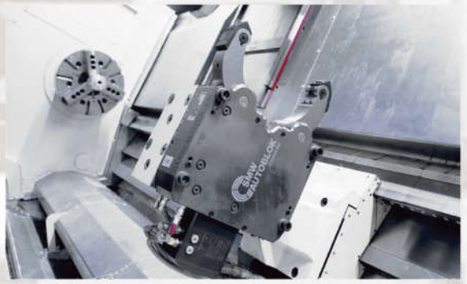
工业机器人换刀
Industrial robot tool changing



伺服尾座
Servo tailstock



液压卡盘
Hydraulic chuck



液压中心架
Hydraulic steady rest



仓储式刀库
Storage-type knife warehouse



人工操作装刀位
Manually tool loading position



数控系统
CNC controller