



中捷数控科技有限公司  
Zonjet CNC Technology Co., Ltd.

# 深孔钻设备 专业制造商

Professional manufacturer  
of deep hole drilling equipment

河南中捷数控设备有限公司  
Henan Zonjet CNC Equipment Co., Ltd.

南阳市中捷数控科技有限公司  
Nanyang Zonjet CNC Technology Co., Ltd.

东莞市捷诺数控设备有限公司  
Dongguan Zonjet CNC Machine and Tools Co., Ltd.

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源源江河，流淌不息，勇往直前，势不可挡。

“河流迅且浊，浩荡不可樊”。

感叹千万狂澜席卷磅礴之势，无坚不摧。

更崇敬中流砥柱担当惊涛骇浪之精神，刚强无畏，怒涛雄驱。

River flows, without an end, boldly and powerfully.

Torrential waves never give in, impossible to be tamed.

With overwhelming powers, they are unconquerable.

Yet more admirable is the manistay challenging soaring waves,

unyielding and aggressive.

天行健，君子以自强不息。

读史中学，厚德载物，恪守信用。

古崇祥和，斗满，尺度立业，今以笃实，诚信，创新安身。

持居安思危，处险虑方之念自有见端知去，预测生财之能。

捷足先登，方可运筹帷幄。

As Heaven keeps vigor through movement, a gentleman should

unremittingly practice self-improvement.

On the vast Chinese territory, one shall be virtuous and trustworthy.

History advocates fairness and industry, and honesty, integrity and

creativity for today.

One shall always be prepared for danger in times of safety, and

acquire the ability to foresee the future and profit from predictor.

Take the initiative, to be a strategist.

# 中捷

流砥柱

足先登

Be the Manistay, The manistay

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# COMPANY PROFILE

## 公司简介

南阳市中建数控科技有限公司位于河南省南阳市，是南阳市发展重点工业项目的企业之一，拥有占地90000平方米，生产用地面积60000平方米的花园式现代化工厂。公司设立南阳社旗2个，东夷1个共三个生产基地，从机床的基础件铸造、热处理、加工，到机床的喷涂包装等工序，有自己的完整产业链，综合南北各方资源优势，集产品研发、制造及售后服务于一体，形成全方位的价值服务体系。

中建数控专注于数控深孔钻领域，自成立以来一直保持高速发展，“ZONJET”已成为业界最具影响力的品牌。产品的设计与定位以客户需求为导向，在功能和规格上可满足不同规模和领域的用户需求，并可实行个性化定制，力求给用户创造最高的经济效益。

主营产品有：三轴数控深孔钻，四轴多功能深孔钻，六轴钻铣中心，轴类深孔钻，管板数控深孔钻，立式数控深孔钻以及其他特种行业专用深孔钻；经过多年的研发改进，推陈出新，产品在加工精度、机床稳定性、人性化设计等技术性能方面均处行业领先水平。

经年不懈努力，公司已取得数十项专利技术，并先后通过ISO9001质量管理体系认证、CE产品安全认证、高新技术企业评定等荣誉，为保持产品技术的领先优势，公司广纳业内优秀人才的同时，也和国内知名院校形成了良好的交流与合作关系，积极带动企业的持续发展。

产品销售及服务网络辐射全国，全程上门提供方案咨询、培训指导、产品维修等售前售后服务。协助用户合理选择产品、科学地使用产品，共同努力顺利推进用户的宏伟伟业是我们的服务宗旨。

Nanyang Zonjet CNC Technology Co., Ltd, located in Nanyang City, Henan Province, is one of the most important industrial projects in Nanyang. It is a garden style modern factory, covering an area of 90,000 square meters, including 60,000 square meters for productive land. The company has set up two production bases in Nanyang Sheqi and one in Dongguan, and has its own complete industrial chain from the basic parts casting, heat treatment and processing of machine tools to the spraying and packaging of machine tools, manufacturing, customer service and all the resources, there is a core value system of full range of services in Zonjet.

Zonjet CNC Technology Co., Ltd, focusing on area of CNC deep-hole drilling, has been developing in a high speed since established and Zonjet has become a very effective brand name in the industry. Taking the need of customers as direction for product design and positioning, the function and specification of our products meet the demands of all users in different areas. Customizing products also creates the highest economic benefits for users.

Main products: three-axis CNC deep-hole drilling machine tool, four-axis multifunctional deep-hole drilling machine tool, six-axis drilling and milling center, shaft deep-hole drilling machine tool, Tube plate CNC deep hole drill, vertical CNC deep hole drill and other deep-hole drilling machine tools for special industries. After years of development and improvement, Zonjet is the leading level in domestic industry for the machining precision, stability, humanized design and technical performance.

After many years of hard work, Zonjet has gotten dozens of patents, the ISO9001 quality management system certification, CE certification, and evaluation of high-tech enterprise, etc. To keep the leading position in the technology and promote the sustainable development, Zonjet not only enrolls excellent staffs in the industry, but also cooperates well with domestic famous universities.

Zonjet's product sales and service network expands the whole country, offering solutions consulting, training and after sales services. Our principle of service is assisting users to choose the right products, use them correctly, and work hard together to achieve user's great goal.

# COMPANY ENVIRONMENT

## 公司环境



南阳市中捷数控科技有限公司  
Nanyang Zonjet CNC Technology Co., Ltd.



南阳市中捷数控科技有限公司东莞分公司  
Nanyang Zonjet CNC Technology Co., Ltd. Dongguan Branch



全面贯彻质量管理体系  
Fully implement the quality management system

实行科学化标准化生产  
and standardized production

# KEEP STRIVING FOR EXCELLENCE!

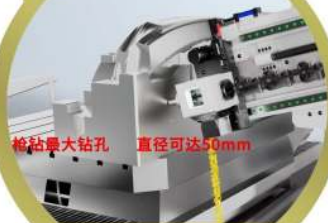
中捷的每一次突破，只为追求卓越！



全新的外观设计  
New outlook



全新的结构配置  
New configuration



精粘最大钻孔 直径可达50mm

全新的装配工艺  
New assembly process

#### 产品应用:

目前，深孔钻主要应用于：

- 模具行业的运水孔、顶针孔、射销孔、电热孔以及斜孔等
- 液压机械行业的阀类、分配器、泵体等部件。
- 汽车行业的发缸体、供油系统等零件。
- 航空、航天业的推进器、着陆架等零件。
- 化工、发电机等行业热交换零件。

未来，深孔钻将在不同领域得到更广泛的应用，并拥有卓越表现。

#### Product application:

At present, deep hole drilling machine tool is mainly used in the industries as following:

- Mould in dustry: water line hole, thimble hole, ejection pin hole, electric hole, and inclined hole, etc.
- Hydraulic machinery industry: valve, distributor and pump, etc..
- Automotive industry: cylinder, fuel supply system and other parts
- Aerospace industry: the propeller, landing gear and other parts.
- Chemical and generator industry: heat exchange parts.

In the future, deep hole drilling will be more widely used in different fields, and will have more excellent performance.

# ZJR SERIES 6 AXIS CNC DEEP-HOLE DRILLING MACHINE TOOL

## ZJR系列六轴数控深孔钻



ZJR系列数控深孔钻床是一种以深孔钻削为主，兼铣削功能于一体的自动化机床。该机床集现代工业先进技术为一体，性能、精度、加工范围、操作方式、工作效率均达到国际先进水平。

ZJR series CNC deep-hole drilling machine is automatic and multifunctional, majoring in deep-hole drilling and cutting, while milling function is also professional. With the modern industry advanced technology, the performance, accuracy, processing range, operating mode and working efficiency are in the international advanced level.

### PRODUCT FEATURES 产品特征

- 控制系统采用 FANUC Oi - MF 数控系统，性能稳定可靠，操作编程通用方便。售后服务完善及时。  
FANUC Oi - MF CNC system: stable performance, convenient operation programming, perfect and punctual after-sales service.
- 六个坐标轴及主轴电机均为FANUC伺服电机。电机特性好、低速性能好。  
FANUC servomotor for six coordinate axis and spindle: good characteristics and perfect low speed performance.



- 运动部件采用高精度，滚珠丝杠、滚柱线性导轨，实现了机床运动中的高精度定位。  
With high-precision ball screw bar and rolling linear guide, the operating components make positioning accurately.
- 本机冷却系统采用了远距高控制装置，可根据钻孔的大小、材料的不同、出屑情况、精度要求等，分别调整不同的流量和压力，从而达到最优化的冷却效果。  
Remote control device is adopted in cooling system. Depending on the hole size, materials, chips and required precision, the flow rate and pressure can be adjusted and it could optimize the cooling result.
- 机床精度检测，采用英国雷尼绍公司生产的激光干涉仪进行动态检查，并根据检查结果进行动态补偿，从而确保机床整机定位及重复定位精度。  
Precision detection: The dynamic inspection is done by British Renishaw laser interferometer. It makes compensation dynamically according to the test result, which ensures the positioning of the whole machine and re-positioning accurately.
- 该系列数控深孔钻床主要用于模具行业高难度的深孔加工，为用户提供了高效率、低成本、人性化的加工工艺流程，产品一经推出就得到了广大用户的一致好评。  
ZJR series CNC deep-hole drilling machine is mainly used for extremely difficult processes of deep-hole in mold industry. It's spoken highly of its high-efficiency, low-cost, humanized technological process.

广泛应用于模具行业的复杂和高要求的深孔加工、斜孔，如汽车保险杠、大灯的模具，航空航天推进器，着陆架等。

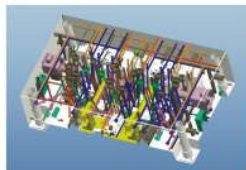
Widely used in the mold industry for complex and high demand deep hole machining, oblique holes, such as automotive bumpers, headlight molds, aerospace thrusters, landing frames, etc.



## PROCESSING CASE 加工案例



车灯模  
Automobile light mould



3D展示  
3D show

## ZJR系列六轴数控深孔钻技术规格 Technical Specifications of ZJR Series 6 Axis CNC Deep-hole Drilling Machine Tool

项目Items		ZJR10-1210	ZJR13-1613	ZJR15-2515	ZJR15-3017
加工能力 Processing Capacity	枪钻钻孔直径 Diameter of the Hole for Gun Drill	φ3-80mm	φ3-50mm	φ3-50mm	φ3-50mm
	枪钻最大钻孔深度 Maximum Depth of the Hole for Gun Drill	1000mm	1300mm	1500mm	1500mm
加工行程 Processing Range	工作台左右行程(X) Processing Range (from Left to Right) of the Working Table	1200mm	1600mm	2500mm	3000mm
	滑台行程(Y) Processing Range of Sliding Table	1000mm	1300mm	1500mm	1700mm
	立柱行程(Z) Processing Range of Column	500mm	600mm	800mm	800mm
主轴 Spindle	潜钻旋转角度(A) The Rotary Angle of Ram	正15度、负25度(±15° ~ -25°)		正15度、负25度(±15° ~ -25°)、正30度、负30度(±15° ~ -25° / 0° ~ ±30° ~ -30°)	
	主轴锥孔 Taper Hole of Spindle	BT40	BT50		
功率 Power	主轴最高转速 Maximum Speed of Spindle	6000rpm			
	主料电机 Spindle Motor	11kw	15kw/18.5kw		
	X轴进给伺服电机 X Axis Servo Motor	27 N.m	36 N.m	36 N.m	36 N.m
	Y轴进给伺服电机 Y Axis Servo Motor	27 N.m	36 N.m	36 N.m	36 N.m
	Z轴进给伺服电机 Z Axis Servo Motor	27 N.m	36 N.m	36 N.m	36 N.m
	W轴进给伺服电机 W Axis Servo Motor	11 N.m	27 N.m	30 N.m	30 N.m
	A轴进给伺服电机 A Axis Servo Motor	20 N.m	36 N.m	36 N.m	36 N.m
	B轴进给伺服电机 B Axis Servo Motor	20 N.m	36 N.m	36 N.m	36 N.m
数控分度台 CNC Index Table	承重 Max. Loading Capacity	5 ton	8ton	15 ton	20 ton
	尺寸(长×宽) Size(L*W)	1000×1000mm	1200×1200mm	1800×2000mm	2200×2400mm
冷却系统 Cooling System	冷却液压力范围(枪钻) Pressure Range of Cooling Liquid(Gun Drill)	2-15 Mpa ( 定制Standard 2-9 Mpa )			
	冷却液流量范围(枪钻) Flux of Cooling Liquid(Gun drill)	8-85 L/min			
尺寸及重量 Size & Weight	机床占地面积(长×宽) Floor Area of Machine Tool(Length*Width)	7500×5500mm	8000×6200mm	9350×6500mm	10300×7500mm
	机床最大高度 Maximum Height of Machine Tool	4200mm	5400mm	5600mm	5900mm
	机床重量 Weight of Machine Tool	约 About 20 ton	约 About 30 ton	约 About 46 ton	约 About 50 ton
	系统 System	数控系统CNC System:	FANUC G-MF		
铣削功能 Milling Function	铣削行程Milling Range:	1500mm	1900mm	2500mm	

因产品不断改良开发，参数规格及外观图片仅供参考，具体以实物为准。详情请登录网站：<http://www.zonjet.com>  
Due to the continuous improvement of products, specifications and pictures are for reference only. For details, please visit our website: <http://www.zonjet.com>

# ZJA SERIES 3 AXIS CNC DEEP-HOLE DRILLING MACHINE TOOL

## ZJA系列三轴数控深孔钻

广泛应用于模具行业的运水孔、顶针孔、射销孔、电热孔等，机械零部件的深孔加工等。

Widely used in the mold industry for water holes, thimble holes, pin holes, electric heating holes, and deep hole processing of mechanical components.



## PRODUCT FEATURES

### 产品特点

- 三坐标数控联动，全自动运行钻孔指令；
- 细长深孔加工过程无需退刀，钻孔效率比普通钻床高达8倍以上；
- 加工孔径范围，枪钻： $\varnothing 3\sim 35\text{mm}$ ，BTA： $\varnothing 18\sim 65\text{mm}$ （BTA为选配）
- 加工深度单边可达2500mm，长径比 $\geq 100$ ；
- 具有较理想的孔径精度、孔直线度、表面粗糙度等钻孔精度
- Three coordinates CNC linkage runs automatically;
- Slender deep hole machining process without return, drilling efficiency is as high as 8 times more than ordinary drilling machines;
- Processing aperture range, gun drill:  $\varnothing 3\sim 35\text{ mm}$ , BTA:  $\varnothing 18\sim 65\text{mm}$  (BTA is optional);
- Unilateral processing depth of up to 2500 mm, length to diameter ratio of 100 or higher;
- With the ideal size accuracy, hole drilling accuracy of straightness, and roughness



机床的正面图  
The front view of machine



全封闭式的护罩  
Full enclosed shield

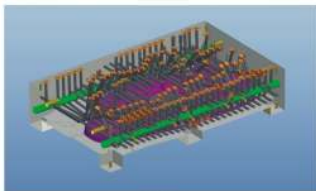


半封闭式防护罩  
Semi-enclosed shield





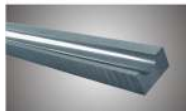
## PROCESSING CASE 加工案例



3D展示  
3D show



汽车保险杠模具  
Automobile bumper mold



钻孔展示  
Hole-cutting show

## ZJA系列三轴数控深孔钻技术参数

Technical Specifications of ZJA Series 3 axis CNC Deep-hole Drilling Machine Tool

项目 Items	ZJA6-800	ZJA10-1000	ZJA13-1300	ZJA13-1600	ZJA15-1612	ZJA16-2012	ZJA15-2515	ZJA30-3015
加工能力 Drilling capacity								
加工孔径 Drilling aperture	±2.5-20mm	±2.5-40mm	±2.5-40mm	±2.5-40mm	±2.5-50mm	±2.5-50mm	±2.5-50mm	±2.5-50mm
加工深度 Drilling depth	600mm	1000mm	1300mm	1300mm	1500mm	1800mm	1500mm	2000mm
加工行程 Travel								
工作台左右 X轴 Table horizontal	600mm	1000mm	1300mm	1600mm	1600mm	2000mm	2500mm	3000mm
主轴上下 Y轴 Main spindle vertical	600mm	800mm	1000mm	1000mm	1200mm	1200mm	1500mm	1500mm
加工速度 Speed								
主轴转速 Spindle speed	4500rpm							
主轴进给 Feed speed	0-3000mm/min							
工作台 Table								
尺寸 Size	500 × 800mm	800 × 1200mm	900 × 1500mm	1000 × 1700mm	1000 × 1700mm	1400 × 2200mm	2500 × 1500mm	1600 × 3000mm
承重 Max. loading capacity	3ton	5ton	8ton	10ton	12ton	15ton	15ton	20ton
功率 Power								
主轴电机 Spindle motor	5.5KW	15 KW	15 KW	15 KW	15 KW	15 KW	15 KW	15 KW
X轴 X-axis motor	10 N.m	15N.m	15 N.m	15N.m	28 N.m	28 N.m	28 N.m	48 N.m
Y轴 Y-axis motor	10 N.m	15 N.m	15 N.m	15N.m	28 N.m	28 N.m	28 N.m	35 N.m
Z轴 Z-axis motor	10 N.m	14.6N.m	14.6N.m	14.6N.m	14.6N.m	14.6N.m	14.6N.m	14.6N.m
总功率 Total Power	24KW	34KW	34KW	36KW	36KW	40KW	40KW	42KW
冷却系统 Cooling system								
冷却压力 Cooling pressure	2-90kg/cm <sup>2</sup>							
循环流量 Rate of flow	6-60L/min							
机床尺寸及重量 Size & Weight								
占地面积(长×宽) Floor space require (L × W)	3700 × 2800mm	4300 × 3200mm	4800 × 3500mm	4800 × 4000mm	5500 × 4000mm	6100 × 5400mm	6800 × 5500mm	8200 × 6500mm
机床高度 Machine height	2300mm	2650mm	2800mm	2800mm	3050mm	3250mm	3700mm	3000mm
机床重量 Machine weight	(F) About 5ton	(F) About 9 ton	(F) About 11ton	(F) About 12 ton	(F) About 13 ton	(F) About 18 ton	(F) About 18.5ton	(F) About 2 ton

即产品不能改良开发, 参数规格及外观图片仅供参考, 具体以实物为准, 详情请登录网站: <http://www.zonjet.com>  
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# ZJL SERIES VERTICAL CNC DEEP HOLE DRILLING MACHINE TOOL

## ZJL系列立式数控深孔钻



ZJL系列立式数控深孔钻床广泛用于五金行业、家用电器、模具行业、医疗器材等。  
ZJL series vertical CNC deep hole drilling machine is widely used in hardware industry, household appliances, mold industry, medical equipment, etc.

ZJL系列立式数控深孔钻床是一种以钻、铣、为一体的自动化机床。

该机床现代工业先进技术为一体。

1. 控制系统采用台湾新一代数控系统，性能稳定可靠，操作编程通用方便，售后服务完善及时。
2. 运动部件采用高精度、滚珠丝杠、线性导轨，实现了机床运动中的精确定位。
3. 本冷却系统采用了远隔控制装置，可根据钻孔的大小、材料的不同，出屑情况、精度要求等，分别调整不同的流量和压力，从而达到最佳化的冷却效果。
4. 主轴导向部分采用单油缸驱动，运行平稳结构巧妙，导套受力均匀；间歇吹气功能能够有效清理加工过程中产生的积屑瘤。
5. 主轴采用台湾知名品牌，具有承载精度高，扭矩大，噪音小等特点；主轴传动部分采用高扭力钢齿形皮带传动，高转速的模组化设计，配合主轴恒速装置有效延长主轴的使用寿命。由于上述先进技术的采用使该机器的性能、精度、加工范围、操作、工作效率都达到了同类机床的先进水平。

ZJL series vertical CNC deep hole drilling machine is an automatic machine tool with drilling, milling and boring as one. The machinetool integrates modern industrial advanced technology as below:

1. Taiwan SYNTEC CNC system: stable performance, convenient operation programming, perfect and punctual after-sales service.
2. With high-precision ball screw bar and rolling linear guide, the operating components make positioning accurately.
3. Remote control device is adopted in cooling system. Depends on the hole size, materials, chips and required precision, adjusting the flow rate and pressure can optimize the cooling result.
4. The guide part of the spindle is driven by a single oil cylinder, with smooth operation, ingenious structure and uniform force on the guide sleeve; the intermittent air blowing function can timely and effectively clean up the chip accumulation phenomenon in the processing process.
5. The main shaft adopts Taiwan famous brand, which has the characteristics of high bearing accuracy, large torque and low noise; the main shaft transmission part adopts high torque front tooth belt pulley transmission, high speed modular decelerator and the spindle constant temperature device can effectively prolong the service life of the spindle. Due to the adoption of the above advanced technology, the performance, precision, processing range, operation and work efficiency of the machine tool have reached the advanced level of similar machine tools.

## ZJL系列立式数控深孔钻 ZJL series vertical CNC deep hole drill machine tool

项目 Items	ZJL640	ZJL850	ZJL1165	
加工能力 Processing Capacity	钻孔直径范围 Processing capacity	φ 1.5~16mm	φ 1.5~20mm	φ 1.5~20mm
	钻最大深度 Max. Drilling depth	220mm	280mm	300mm
加工行程 Processing Range	X轴行程 X Axis Processing Range	600mm	800mm	1100mm
	Y轴行程 Y Axis Processing Range	400mm	500mm	650mm
工作台 Working Table	Z轴行程 Z Axis Processing Range	450mm	550mm	650mm
	工作台尺寸 Dimension of working table	700*450mm	1000*500mm	1100*700mm
	工作台承重 Max. Loading capacity	300 kg	500 kg	800 kg
	工作台型槽(槽数尺寸×间距) T-slot of working table (number of slots, dimension, spacing)	3~18x100mm	5~18x100mm	5~18x140mm
主轴 Spindle	主轴锥孔 The spindle taper hole	BT40	BT40	BT40
	主轴最高转速 Max. Speed of spindle	8000rpm/10000rpm	8000rpm/10000rpm	8000rpm/10000rpm
	主轴内孔圆度精度 Deviation of inner hole of spindle inner hole 特装支撑架量 Quantity of guide sleeve Support frame	0.005 mm 1个 PCS	0.005 mm 1个 PCS	0.005 mm 1个 PCS
进给速度 Feed Speed	快速移动 Fast move	10m/min	10m/min	10m/min
	Z轴进给速度范围 Z drilling lead rate range	0~500 mm/min	0~500 mm/min	0~500 mm/min
精度 accuracy	定位精度 Positioning accuracy	±0.005 mm	±0.005 mm	±0.005 mm
	重复定位精度 Repeat positioning accuracy	±0.005 mm	±0.005 mm	±0.005 mm
动力参数 Power parameter	主轴电机功率 Spindle servo motor	5.5kw	11kw	11kw
	X轴进给电机功率 X Axis Servo motor	2.6kw	4.4 kw	4.4 kw
	Y轴进给电机功率 Y Axis Servo motor	2.6kw	4.4 kw	4.4 kw
	Z轴进给电机功率 Z Axis Servo motor	5.5kw	5.5 kw	5.5 kw
	丝杠进给电机功率 Axis Servo motor	1kw	1kw	1kw
冷却系统 Cooling System	机床总功率 Total Power	26 kw	38kw	38kw
	冷却系统压力范围 Max. pressure of cooling system	2~120 kgf /cm	2~120 kgf /cm	2~120 kgf /cm
	冷却液最大流量 Max. Flow of coolant liquid	40L /min	40L /min	40L /min
	切削液容量 Capacity of cutting oil tank	200L	300L	300L
	油泵电机功率 Motor power of oil pump	5.5 kw*2	5.5 kw*2	5.5 kw*2
尺寸及重量 Size & Weight machine tool	磁性过滤精度 Magnetic filtration accuracy	20um	20um	20um
	机床占地面积(长×宽) Floor Area of machine (length*width)	2200mmx2600mm	2800mmx4600mm	3500mmx3800mm
	机床重量 Weight	3400mm	3420mm	3400mm
系统 System	机床重量 weight	4ton	5.2ton	7ton
数控系统 CNC system	台湾 SYNTEC 数控系统 Taiwan SYNTEC system	台湾 SYNTEC 数控系统 Taiwan SYNTEC system	台湾 SYNTEC 数控系统 Taiwan SYNTEC system	

因产品不断改进开发，参数规格及外观图只供参考，具体以实物为准，详情请参阅网站：<http://www.zongjet.com>

Due to the continuous improvement of products, specifications and pictures are for reference only. For details, please visit our website: <http://www.zongjet.com>

## PROCESSING CASE 加工案例



# ZJZ SERIES AXIS CNC DEEP HOLE DRILLING MACHINE TOOL

## ZJZ系列轴类数控深孔钻



本机床专为棒材轴类产品的加工而研发，根据用户的产能需求有单轴、双轴、四轴可供选择，工件的装夹可采用三爪卡盘或自驱式锥盘，切实为用户提供最适宜的解决方案。

This machine is designed and developed for processing bar shaft products. Uniaxial, biaxial, four axis are optional according to user's demand. Three jaw chuck or self drive cone disc are adopted, to provide the most appropriate solutions to users.

用于加工汽车变速箱二轴、 $\Phi 3\text{mm}$ 不锈钢深孔加工、40Cr圆棒深孔加工等。  
Used for processing output shaft of automobile transmission  $\Phi$  Mm stainless steel deep hole processing, 40Cr round bar deep hole processing, etc.



锥顶式夹装  
Cone top clamp



自定心夹装锥  
Self centering clamping cone



卡盘式夹装  
Chuck clamp

### ZJZ系列轴类数控深孔钻技术规格

Technical specification for ZJZ series axis CNC deep hole drilling machine tool

项目Items		ZJZ500	ZJZ1000	ZJZ1500
加工能力 Processing Capacity	加工孔径范围 Machining aperture range	$\varnothing 4 \sim \varnothing 30\text{mm}$	$\varnothing 4 \sim \varnothing 30\text{mm}$	$\varnothing 4 \sim \varnothing 30\text{mm}$
	最大钻孔深度 Maximum drilling depth	500mm	1000mm	1500mm
	最大工件长度 The maximum length of workpiece	600mm	1100mm	1600mm
	主轴数量 Qty. of spindle	1个PCS(可选Qnew2-3P)	1个PCS(可选Qnew2-3P)	1个PCS
主轴 Spindle	主轴中心距 Spindle centerline spacing	200mm	200mm	200mm
	主轴最高转速 Maximum Speed of spindle	4500rpm	4500rpm	4500rpm
	主轴进给速度 Spindle feed speed	100mm/min	100mm/min	100mm/min
	主轴快移速度 Spindle fast moving speed	1000mm/min	1000mm/min	1000mm/min
	主轴电机 Spindle Motor	7.5kw	7.5kw	7.5kw
功率 Power	机床总功率 Total Power	18kw	18kw	18kw
	冷却液压力范围 Pressure range of cooling liquid	2~10MPa	2~10MPa	2~10MPa
	冷却液流量范围 Flux range of cooling liquid	0~200L/min	0~200L/min	0~200L/min
机床 Machine Tool	机床占地面积(长×宽) Floor Area of Machine (Length*Width)	4300×2700×1900mm	4800×2800×1900mm	5000×2800×2000mm
	机床重量Weight	5ton	7ton	10ton

因产品不断改进并变，参数规格及外观图片仅供参考，具体以实物为准，详情请登录网站：<http://www.zonjet.com>  
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## PROCESSING CASE

### 加工案例



汽车变速箱二轴  
Biaxial for automobile gearbox



$\Phi 3\text{mm}$  不锈钢深孔加工  
 $\Phi 3\text{mm}$  stainless steel  
Deep hole processing



40Cr圆棒深孔加工  
40Cr rod deep hole processing

# ZJG SERIES TUBE PLATE DEEP-HOLE DRILLING MACHINE TOOL

## ZLG系列管板深孔钻



ZJG系列管板数控深孔钻床是一种管板深孔加工专用自动化控制机床。  
ZJG series tube plate CNC deep-hole drilling is one of the deep-hole automatic control machine tools for special purpose.

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。ZJG系列管板数控深孔钻床还可以根据用户需求选择外排屑枪钻或内排屑BTA。

There are both single axis processing and multiple axis processing function. The CNC programming automatic processing ensures the good quality such as the spacing of hole, diameter tolerance, verticality, harshness, etc. It's totally different from the traditional processing ways of multiple collections, which extremely improves the production capacity. There is also optional chip conveyors: outside chip conveyor gun drill or inner chip conveyor BTA.

ZJG系列管板数控深孔钻床适合加工各类管板，如列管式换热器、压力容器、冷凝器、蒸发器、锅炉、中央空调、海水淡化系统、石油冶炼系统等。

ZJG series tube plate CNC deep-hole drilling machine tools are suitable for various of tube plate processing, such as tube heat exchanger, pressure vessel, condenser, evaporator, boilers, central air conditioning, seawater desalination system, oil refining system, etc.



机床的细节  
The details of the machine



双主轴枪钻  
Double spindle



BTA一体管板机  
BTA all in one tube plate machine

## ZJG系列管板数控深孔钻 Technical Specifications of ZJG Series Tube Plate Deep-hole Drilling Machine Tool

项目Items		ZJG08-2525	ZJG08-3020	ZJG08-4020	ZJG08-6030
加工能力 Processing Capacity	枪钻直径 Diameter of hole drilling	φ10-20mm			
	BTA	φ20-40mm			
	枪孔深度范围 Depth Range of the Hole	800mm			
加工行程 Processing Range	最大工件直径 Maximum Diameter	2500mm	3000mm	4000mm	6000mm
	X轴行程 X Axis Processing Range	2500mm	3000mm	4000mm	6000mm
	Y轴行程 Y Axis Processing Range	2500mm	2000mm	2000mm	3000mm
	Z轴行程 Z Axis Processing Range	850mm			
主轴 Spindle	主轴数量 Qty. of spindle	2个pcs (可选1-4个Optional 1-4pcs)			
	中心距 (可调) Centerline Spacing (adjustable)	220-320mm			
	主轴转速 Spindle speed	100-3000r/min			
	进给速度 Feed speed	0-3000mm/min			
功率 Power	主轴电机 Spindle Motor	15kw	15kw	15kw	15kw
	X轴伺服电机 X Axis Servo Motor	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机
	Y轴伺服电机 Y Axis Servo Motor	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机
	Z轴伺服电机 Z Axis Servo Motor	27Nm	27Nm	27Nm	27Nm
	W轴伺服电机 W Axis Servo Motor	27Nm	27Nm	27Nm	27Nm
	V轴伺服电机 V Axis Servo Motor	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机	36Nm 1.4 伺服减速机
	机床总功率 Total Power	90kw	90kw	90kw	90kw
	冷却系统 Cooling System	压力范围 Pressure Range	2-10MPa	2-10MPa	2-10MPa
流量范围 Flow Range	10-200L/min	10-200L/min	10-200L/min	10-200L/min	
油箱容量 Capacity of Oil Tank	2000L	2000L	2000L	2000L	
工作台 Working Table	工作台平面尺寸 Surface Size	2000 × 1600mm	3000 × 2500mm	4000 × 2600mm	6000 × 4000mm
	工作台承重 Max. Loading capacity	20T	30T	50T	60T
	立板尺寸 Size of Standing Board	800 × 800 × 2000 mm	800 × 600 × 2700 mm	1200 × 1500 × 4000 mm	1400 × 1800 × 6000 mm
	立板数量 Qty of Standing Board	2个pcs			
机床 Machine Tool	机床重量 Wight	30 ton	50 ton	60 ton	80 ton
	外形尺寸 Size	6500 × 9500mm	7400 × 10000mm	7500 × 11000mm	8000 × 13000 mm
	机床高度 Height	5500mm	5000mm	5000mm	6000mm

图片不断开发，参数规格及外形图片仅供参考，具体以实物为准，详情请查询网站：<http://www.zonjet.com>  
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## PROCESSING CASE 加工案例



蒸汽锅炉加热管支撑板  
Steam boiler heating tube support plate



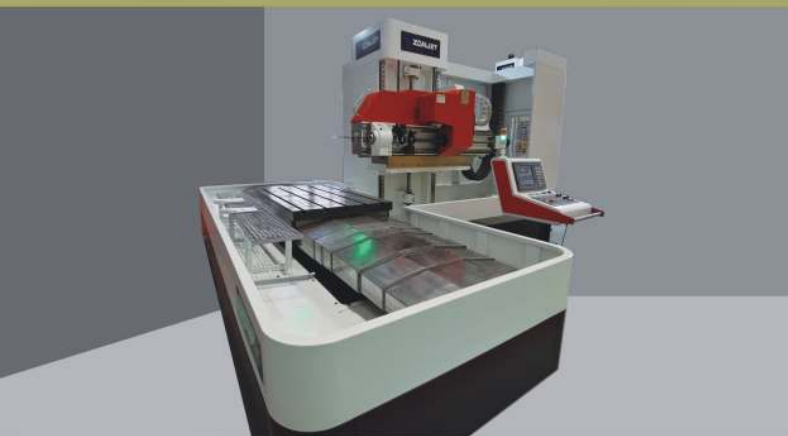
冷凝器  
Condenser



冷凝器前板  
The front plate of condenser

# ZJF SERIES OF NON-STANDARD CUSTOM DEEP HOLE DRILLING

## ZJF系列非标定制深孔钻



### 双主轴带铣功能深孔钻床

可根据用户需求增加数控回转工作台、自动刀库等功能，主要用于热流道等多工序零件的加工需求，作为深孔加工、铰加工的专用机床，产能和精度将会得到极大的提升！

Double spindle deep hole drilling machine with milling function can increase the functions of CNC rotary table and automatic tool magazine according to the user's requirements, mainly used for the processing requirements of multi process parts such as hot runner. As a special machine tool for deep hole machining and milling, its productivity and precision will be greatly improved!



四轴钻铣一体结构  
Four axis drilling and milling  
integrated structure



六轴钻铣一体结构  
Six axis drilling and milling  
integrated structure



三轴枪钻、BTA一体结构  
Three axis gun drill and BTA  
integrated structure

### 带刀库六轴深孔钻

双回转、刀库、钻铣一体五轴定制机床，应用范围：油路板、散热器及批量零件的复杂工序加工。

Single rotation, tool magazine, drilling and milling integrated five axis customized machine tool. Application scope: complex process processing of oil circuit board, radiator and batch parts.



工作台上下结构  
Upper and lower structure  
of worktable



六主轴自动上下料结构  
Six spindle automatic loading and  
unloading structure



双坐标双主轴结构  
Double coordinate double spindle structure

# STANDARD CONFIGURATION

## 标准配置



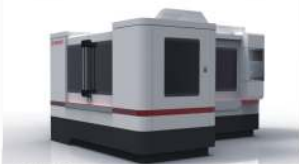
**油冷机:**智能控制切削油温度, 提高钻头的使用寿命及钻孔精度。

**Oil cooler:** intelligently control the cutting temperature, and extend the service life and precision of the gun drilling.

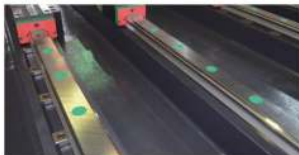


**LED照明灯:**机床照明全部采用LED灯, 节能的同时保持亮度高, 使用寿命长。

**LED lights:** LED lights are used for the machine illumination, which is bright enough, lasts longer life and saves more energy.



**全封闭防护:**整机使用全封闭防护罩, 安全、环保、美观。 Completely enclosed protection; the whole machine is protected by a completely enclosed shield, it's safe, environmental and beautiful.



**床身:**机床结构使用优质铸件, 运动部件采用进口导轨配合丝杆传动。

**Basement of Machine:** High-quality cast for the machine frame, imported guide rail and ball screw For movement parts.



**主轴结构:**根据深孔钻的加工特性订制专用主轴, 操作便捷且具有更高的扭力保证。

**Spindle structure:** Special spindle is set according to the process characteristics of deep-hole drilling, it's easy to operate and higher torque is ensured.



**工作台防滑栏:**增加工作台的操作空间, 并提高操作的安全性。

**Skipproof barrier on operating platform:** the skipproof barrier enlarges the operating space, which improve the operating safety.



**强磁排屑机:**磁力吸附切屑在不锈钢板上移动, 非常适合磁性材料的排屑。

**Strong magnetic chip conveyor:** the chips adsorbed by the magnetic force, move on the stainless steel plate. It's suitable for magnetic materials.



**过滤液压油箱:**滚动式纸带过滤器, 可及时抽换过滤器, 更换方便, 过滤精度高。

**Hydraulic tank filter:** Scrolling paper filter, which can be removed and replaced paper conveniently, is of high filter accuracy.

## OPERATION SYSTEM

### 操作系统

人机对话模式方便直观, 代码编程模式, 快捷高效

Man-machine dialogue mode, and intuitive, code programming mode, fast and efficient.

该系统深度结合了深孔钻加工的特性, 对操作方式进行了非常人性化的设计, 使操作变得简单、快捷。通过逻辑控制对系统采取了高度灵活的安全措施, 任何故障异常均会出现相应的中文报警提示并及时停止运行加工, 有效保护机床工件的安全。

Deeply combining with the characteristics of deep hole drilling, this system is humanized designed, making the operation more simple and faster. The highly sensitive monitoring equipment will sound a Chinese alarm if any unusual occurs and stop processing, which is safe and found intuitively.

全新人性化设计的操作面板, 按键分区排布方式符合人们操作习惯, 功能按键均采用中/英文显示, 字母、数字全键盘设计, 让操作变的更加直观、高效、舒适。

A new panel of humanization design, key partition arrangement meets people's operation habit, the function keys are Chinese and English letters, digital display, full keyboard design, making the operation more intuitive, efficient and comfortable.

标配: 台湾新代 STANDARD: SYNTEC

选配: OPTIONAL: FANUC SIEMENS MITSUBISHI



# OPTIONAL CONFIGURATION

## 选购配置



**螺旋自动排屑机:**通过螺旋压推送切屑, 适合各种材质的加工。  
Automatic spiral chip conveyor: Chips are sent spirally. It's fit for conveying a variety of materials.



**枪钻库:**固定于机床上的便携式枪钻库, 方便存放少量常用的枪钻或工具。  
Gun drilling storehouse: the portable storehouse, which is fixed on the machine, is convenient for storing some common gun drills and tools.



**链板排屑机:**切屑直接通过传送带输送, 广泛适应于各种材质及工作环境。  
Chain plate chip conveyor: the precision components such as guide rail and ball screws are lubricated automatically, according to the settled time and quantity.



**工作楼梯:**针对大型机床的工作台高度落差, 便于操作人员攀爬。  
Working stairs: It's designed for operators who work on the platform of big machines.



**自动润滑泵:**对导轨及丝杆等精密部件的自动润滑, 定时定量控制。  
Automatic lubricating pump: the precision components such as guide rail and ball screws are lubricated automatically, according to the settled time and quantity.



**电柜空调:**智能的控制电气电柜的温度, 对电气元件起到更好的保护。  
Electrical cabinet air conditioner: Intelligently control the temperature of electrical component.

## OPTIONAL ACCESSORIES

### 选购附件



**枪钻研磨机:**  
该枪钻研磨工具采用精密滚动导轨, 高速电机, 工作运动平稳, 摩擦力小, 可精确高效地修整各种枪钻。  
Gun drill grinding machine: It's made of precision ball guide and high speed motor. With little friction force, it works stably and can grind all kinds of gun drill accurately and efficiently.



**强力铁屑除油机:**  
设有脚踏式刹车器, 能迅速有效地除去附着在铁屑上的切削油, 减少浪费。  
Strong iron remover: With brake pedal, which can remove the oil on iron quickly and effectively.



**枪钻套件:**  
导套, 胶套。  
Kit: guide sleeve, rubber sleeve.



**专用切削油:**  
润滑特性佳, 使工件表面光洁度, 含有极压添加剂, 有效保护刀具, 保持产品加工精度。  
Special cutting oil: Good lubrication improves the surface cleanliness. Extreme pressure additives are included, which protect the tools well and maintain the processing precision.



**枪钻系统:**采用外排屑枪钻系统, 是理想的深孔加工工艺。  
Gun drill system: Outside chip discharging system is a perfect deep-hole processing technology.



## 用心服务 · 真诚沟通

Sincere Service · Sincere communication

我们历来专注于数控深孔钻领域的研发与销售，密切关注用户的实用体验和反馈，进一步打造技术领域，提供一流的产品，并以客户为中心配备完善的售后服务体系，快速响应客户所遇的问题以保持机器正常运转。我们始终从客户的切身利益出发，争分夺秒提供相应解决方案，客户满意永远是我们不懈的追求。

For over the years, we focus on development and sales of CNC deep hole drilling field, highly paying attention to the practical experience and user's feedback, in order to make the first-class products. We've built up a perfect after-sales service system, considering customer's vital interest. So that in case of any problems, we response to customers quickly and find out solution immediately. We're always striving for customer's satisfaction.

全国统一服务热线  
Unified national service hotline

400-8811-377

