



技术协议

Technical Agreement

产品型号：Z3050*16/1

Product model: Z3050*16/1

产品名称：摇臂钻床

Product name: Radial drilling machine

甲方：

Party A:

乙方：沈阳机床股份有限公司

Party B: Shenyang Machine Tool Co., Ltd

Z3050×16/1

甲方：_____公司

乙方：沈阳机床股份有限公司

_____公司（以下简称：甲方）订购沈阳机床股份有限公司（以下简称：乙方）生产的 Z3050×16/1 摇臂钻床 ___台。经双方友好协商，达成以下技术协议。

一. 功能及特点说明 **Functions and features**

1. 主要用途 **Main Application**

Z3050×16/1 型摇臂钻床，适用于在大、中型零件上钻孔、扩孔、铰孔、镗平面及攻螺纹。在具有工艺装备的条件下，可以进行镗孔。

Z3050X16/1 is suitable for drilling, reaming, boring, countersinking, tapping and facing on large and medium-sized workpieces. Under the provision of appropriate situation, it can also be utilized for boring operations.

2. 主要特点 **Main features**

2.1 摇臂上导轨、主轴套筒及内外柱回转滚道等处均采用表面淬火处理，延长了机床的使用寿命。

The guideways on the arm, spindle sleeve, and rotating raceways of both inner and outer columns are all treated with surface quenching, significantly extending the service life of the machine tool.

2.2 所有操纵手柄均集中安放在很方便的位置，且操纵轻便。

All operating handles are conveniently located in a centralized area, ensuring easy manipulation and control.

2.3 主轴正反转、停车（制动）、变速、空挡五个动作，均用一个手柄控制，使用方便。

The forward and reverse rotation of the spindle, stopping (braking), gear shifting, and neutral position are controlled by a single handle, providing user-friendly operation

2.4 主轴箱、摇臂、内外柱采用液压驱动的菱形块夹紧机构，夹紧可靠。

The spindle box, arm, and both inner and outer columns are equipped with hydraulic clamping mechanisms using clamping blocks, ensuring reliable and secure fastening

2.5 采用液压预选变速机构，可节省辅助时间。

A hydraulic pre-selector gearbox is adopted, reducing auxiliary time during gear changes

2.6 有完善的安全保护装置，符合国际通用标准。

The machine has a comprehensive safety protection system that conforms to international universal standards

2.7 主轴箱、立柱的夹紧或松开可单独夹紧，也可同时夹紧。

The clamping or releasing of the headstock and column can be performed individually or simultaneously

3. 大件 **Major components**

立柱、摇臂、主轴箱等大件均采用高强度铸铁，提高了大件的刚度和强度。

Large parts such as the column, arm, and headstock are made from high-strength cast iron, enhancing the rigidity and strength of these components

4. 润滑 Lubrication

主轴箱内部、摇臂与立柱等均采用自动润滑。摇臂导轨、摇臂升降机构等采用手动润滑。

The internal parts of the headstock, as well as the arm guide way and the arm lifting mechanism, are lubricated automatically. The arm guide way and the arm elevating mechanism are manually lubricated

5. 电气 Electrical system

本机床使用三相 380V/50Hz 交流电源。控制电路、照明电路、指示灯均由控制变压器供电。

This machine operates on a three-phase 380V/50Hz AC power supply. Control circuits, lighting circuits, and indicator lights are all powered by a control transformer

二. 主要规格及技术参数 Main specification and parameter

项目 Item	规格 Specification	单位 Unit	备注 Remark
最大钻孔直径 Max. drilling diameter	50	mm	
主轴中心线至立柱母 线距离 Distance from spindle centerline to the reference line of the column	最大 Max	1600	mm
	最小 Min	350	mm
主轴箱水平移动距离 Horizontal traverse of the headstock	1250	mm	
摇臂升降距离 Ram lifting distance	580	mm	
摇臂回转角度 Arm swing angle	±180	度 Degree	
主轴圆锥孔 Spindle taper bore	莫氏 5 号 Morse #5		
主轴转速范围 Range of spindle feed rates	25-2000	r/min	
主轴转速级数 Number of spindle steps	16	级 Step	
主轴进给量范围 Range of spindle feeding	0.04-3.2	mm/r	
主轴进给量级数 Number of spindle feeding steps	16	级	
主轴行程 Spindle travel	315	mm	
主轴允许最大扭矩 Max. allowable torque of spindle	500	N.M	
主轴允许最大进给力 Max. feeding thrust of spindle	18000	N	

主电机功率 Main motor power	4	KW	
摇臂升降电机功率 Power of ram lifting motor	1.5	KW	
液压夹紧电机功率 Power of hydraulic clamping motor	0.75	KW	
冷却泵电机功率 Power of the coolant pump motor	0.09	KW	
机床最大轮廓尺寸 (L×W×H) Overall dimension	2500×1070×2840	mm	
机床重量 Machine weight	3500	Kg	

三、随机文件: Documents

序号	技术资料名称 Item	份数 Qty	备注 Remark
1	机床使用说明书 (机械、电气) Operation manual (Mechanical, electric)	1 copy	
2	维修配套目录 Maintenance and repair spare parts directory	1 copy	
3	合格证 Certificate of conform	1 copy	
4	装箱单 Packing list	1 copy	

四、不可抗拒的事故: Force majeure incidents

由于严重的灾害 (如火灾、水灾、雪灾、地震等) 及甲乙双方同意的其它不可抗拒的事故, 致使一方不能履行本协议时, 遇到上述事故的一方必须立即 (以最快的速度) 将影响本协议的情况, 以传真或电报方式通知对方, 并以航空特快专递形式提供事故的详细情况, 以及影响本协议履行程度的证明文件, 此证明文件应由受事故影响一方公证部门盖章, 受上述事故影响而拖延的时间应在原定交货期的基础上顺延。

In the event of severe calamities (such as fire, flood, snowstorm, earthquake, etc.) and other unforeseeable circumstances agreed upon by both Party A and Party B that render one party unable to fulfill this agreement, the affected party shall immediately (with utmost urgency) notify the other party of the impact on this agreement via fax or telegram, and provide detailed information about the incident along with supporting documents authenticated by the notarization department, demonstrating the extent to which the fulfillment of this agreement is affected. The time delayed due to such incidents shall be correspondingly extended based on the original delivery schedule.

五、协议作为合同附件签字后与合同同时生效。

The agreement, once signed as an annex to the contract, shall take effect simultaneously with the contract.

六、其它未尽事宜，双方友好协商解决。

Other matters not covered herein shall be amicably resolved through consultation between both parties

甲 方：_____公司

乙 方：沈阳机床股份有限公司

Party A:

Party B: Shenyang Machine Tool Co., Ltd

代表签字:

代表签字:

日 期:

日 期: