Permanent Magnet Electric Spindle
永磁电主轴

优势 Advantages

低速强力切削 Low-speed powerful cutting

启动扭矩大，0速下即可输出全部扭矩，最佳性能秒触达，扩大机床低速强力切削和高速精密切削应用范围。

High starting torque, capable of outputting all torque at 0 speed, with optimal performance achieved in seconds, expanding the application range of machine tools for low-speed powerful cutting and high-speed precision cutting.

高度精度切削 High precision cutting

振动低至0.3mm/s，精度轴径跳端跳动达到1um，提高工件表面加工精度。

The vibration is as low as 0.3mm/s, and the precision of the shaft diameter jumping end reaches 1um, improving the surface processing accuracy of the workpiece.

应用领域 Application Areas

电主轴的应用领域涵盖了许多需要高速、高精度旋转动力的工业和制造过程，它们有助于提高生产效率、精度和质量，因此在各种行业中得到广泛使用。

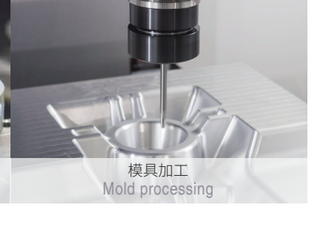
The application fields of electric spindles encompass various industrial and manufacturing processes that require high-speed and high-precision rotational power. They contribute to enhancing production efficiency, precision, and quality, thus finding extensive use across diverse industries.

新能源汽车
New Energy Vehicles

航天航空
Aerospace

造船工业
Shipbuilding Industry

3C电子
3C Electronics



模具加工
Mold processing

公司研发的“稀土同步电机技术”使电主轴在零速到额定转速范围内为严格的恒力矩输出，额定转速到最高转速之间实现恒功率宽调速范围，特别适合于低速强力切削、高速精度切削。

The company's "Rare Earth Synchronous Motor Technology" enables the electric spindle to provide a strict constant torque output within the zero-speed to rated speed range and achieve a wide constant power variable speed range from rated speed to maximum speed. It is particularly suitable for low-speed heavy cutting and high-speed precision cutting.

恒功率宽调速范围已突破1:6大关，可适应许多高速、高效加工场合，主要使用在拥有“工业母机”之称的机床领域中。

The wide constant power variable speed range has exceeded a 1:6 ratio, making it suitable for many high-speed, high-efficiency machining applications, primarily used in the field of machine tools commonly known as "industrial mothership.

主轴参数

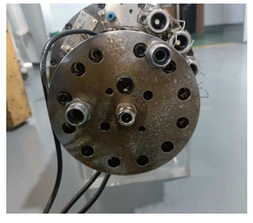
Spindle parameters

参数范围 Series Model	单位 Unit	钻攻机电主轴 Drilling and tapping machine spindle	车床电主轴 Lathe motor spindle	雕铣机电主轴 Milling machine spindle	加工中心电主轴 Machining center electric spindle
刀柄规格 Toolholder specifications		BT30	A2-5、6	BT30	BT30、40
额定转矩 T Rated torque	N.m	6	15、53.2、96	5.3	11.5、25、29
最大转矩 T_max Maximum torque	N.m	6	6	7.8	17、29、50
额定转速 n Rated speed	rpm	12000	3000、1350、1100	12000	4000、5000、8000
最大转速 N_max Maximum speed	rpm	24000	3000、7000、4500	24000	21000、21000、18000
电压等级 V Voltage level	V	380	380	380	380
额定电流 I_n Rated current	A	22	15、30、45	22	20、33、28
最大电流 I_max Maximum current	A	40	23、50、100	33	32、70、55
功率 P Power	kW	S1:7.5 S6:15	S1：4.75、7.5、11 S6：11、11、18	S1:6.7 S6:10	S1:4.8、13、12 S6:7.5、18、20

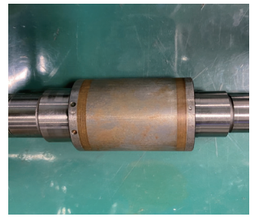
维修案例

Repair Cases

摩尔坐标磨磨头维修
Mole coordinate grinding head repair



凯斯勒电主轴维修
Kessler Electric Spindle Repair



豪威马磨床电主轴维修
Hauzer coordinate grinding head repair

摩尔坐标磨磨头维修
Mole coordinate grinding head repair