

HIGH-FREQUENCY SPINDLES



ZYS
轴研科技

高速电主轴

洛阳轴研科技股份有限公司

LUOYANG BEARING SCIENCE & TECHNOLOGY CO.,LTD.



洛阳轴研科技股份有限公司积五十年开发、生产电主轴之经验，并吸收国外先进设计、制造技术，开发了“主轴结构分析计算CAD”软件，形成一套完整的电主轴设计、制造科学体系。采用GB/T19001-2008、GJB9001B-2009和ISO9001质量管理体系标准，并通过其质量认证。

洛阳轴研科技股份有限公司还是世界上为数极少的同时生产高速电主轴和高速精密主轴轴承的生产商之一，系列生产P2（ABEC9）、P4（ABEC7）高速精密角接触球轴承。

Based on the 50 years' spindle production experience, and absorbing foreign advanced design and manufacturing technology, we have developed the "CAD for spindle structural analysis and calculation", forming a complete and scientific system for spindle design and manufacture. The GB/T 19001-2008, GJB9001B-2009 and ISO9001 quality management systems have been obtained by us.

We are one of the fewest manufacturers in the world, producing high-frequency spindle and high-speed precision spindle bearings as well, and manufacturing high-speed precision angular contact ball bearings in P2 and P4 series.





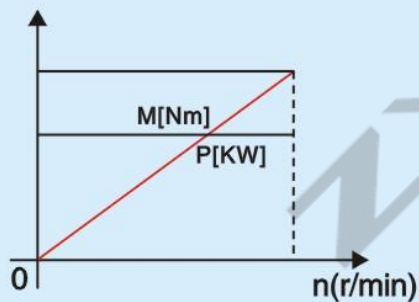
产品简介

机床主轴是机床的重要部件，传统机床主轴是通过传动装置带动主轴旋转而工作的。电主轴是电机内装式主轴单元的简称。其主要特点是将电机置于主轴内部，通过驱动电源直接驱动主轴进行工作，实现了电机、主轴的一体化功能。

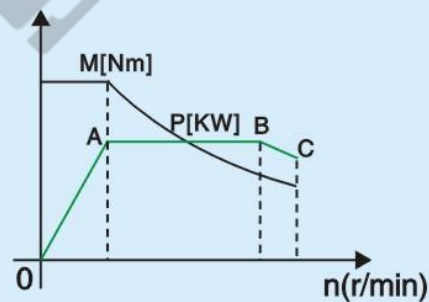
特点：

- ❑ 结构紧凑，机械效率高，噪声低，振动小，精度高。
- ❑ 运行平稳，没有冲击，使主轴轴承寿命得到延长。
- ❑ 易于实现高速化，动态精度和静态精度高，稳定性更好。
- ❑ 可在额定转速范围内实现无级变速，以适应各种工况和负载变化的要求。
- ❑ 利用驱动控制技术，可以实现准停、准位、准速功能，适应车削中心，加工中心及其它数控机床的需要。

基于上述特点，电主轴对于提高生产率与加工质量，促进相关行业的发展具有重大意义，其用途十分广泛。迄今为止，洛阳轴研科技股份有限公司已开发生产8大类，20个系列，200多种电主轴产品。额定转速从1500r/min到150000r/min；支撑形式有高速精



恒转矩主轴
Spindle with constant torque



恒功率主轴
Spindle with constant power

Brief introduction

The machine spindles are the important parts of the machine tools, which traditionally driven by the gearing. The electric spindles are the shortened name of embedded motor spindles, the main property of which is to put the motor inside the spindle, and to run by driving power. Thus to fulfill the motor and spindle compounding.

Characteristics:

- ❑ Tight structure, high mechanical efficiency, low noise, low vibration, high precision.
- ❑ Stable running, weak impaction, prolong bearing life of the spindles.
- ❑ High speed, high dynamic and static precision, high stability.
- ❑ The stepless variable speed in the range of the rated running speed is available to suit the request of various conditions and loads.
- ❑ Driving control skill makes accurate stop, accurate position and accurate speed suitable for the request of processing center and other numerical control machine tools.

Upon the above characteristics, the electric spindles play the important role in improving the production efficiency and promoting the related industry development. Up to now, Luoyang Bearing Science and Technology Co.,Ltd. has developed 8 groups' 20 series, 200 varieties of electric spindles with rated speed from 5,000 r/min to 150,000 r/min, high-speed precision rolling bearing and air static pressure bearing used as its support, the grease, oilmist, oil gas etc. for its lubrication, two kinds of output of constant torque & constant power.

各类主轴简介

- 磨削用电主轴有MD、MDF、MDT、MDS、MDK多个系列，润滑方式有油脂、油雾、油气多种方式，广泛应用于内圆磨削、外圆磨削、拉刀磨削、螺纹磨削等。
- 铣削用电主轴包括XD、XDS、XDJ三大系列，与数控铣、雕铣机及并联机床相配套，进行高速铣削和雕刻加工，适用于常规零件、工模具、木工件加工。其中XDS系列带有自动松拉刀机构。XDJ系列加工中心用电主轴装有码盘，能对转速进行精确控制和实现准停，且具有自动更换刀具功能。
- 钻削用电主轴包括ZD、ZDS两大系列，主要用于印刷电路板（PCB）、油泵油嘴等行业的小孔钻削、钻铣削加工，以满足小孔和微孔的加工需要。ZDS系列具有自动松拉刀机构，可以实现快速、自动换刀。
- ED系列高速离心机用电主轴广泛用于分离、粉碎、雾化、试验等高速离心领域。
- CD、CDJ系列高速车削用电主轴能获得好的加工精度和表面粗糙度，特别适应于铝、铜类有色金属零件的加工。
- 国内首创的LD系列高速旋辗用电主轴用于加工空调设备热交换器用内螺纹铜管。
- XP、XPJ、CPJ系列机械主轴，可用于加工中心，数控铣床，数控车床等设备，与动力联接方式有皮带传动式和直联式，具有高转速，高精度，单元化的特点。
- 其它用途电主轴包括切割机用、试验机用、驱动用主轴等，是根据用户特殊需要，而专门设计的主轴。

■ 电主轴配套电源的选择：

电主轴采用变频器作为驱动电源，主轴的参数不同，对变频器的要求也不同。选择变频器要与电主轴的参数相匹配，其中变频器额定电流至少为电主轴的1.3倍，最好在1.5倍以上。

■ 电主轴的润滑与冷却：

主轴常用的润滑方式有三种：油脂、油雾和油气。油脂润滑结构简单，但达不到很高的转速；油雾润滑效果较好，目前应用也最为广泛，它可以适应较高的转速，但它对环境有一定的影响；油气润滑效果最好，可适应更高的转速，对环境无污染，但油气润滑装置价格较高。油雾、油气润滑采用的油品一般为32号汽轮机油。

主轴开始运转之前应开启油雾或油气润滑系统，主轴停机后再关闭润滑系统。水冷却是主轴冷却的常用方式，要求冷却水有一定的防锈功能，必要时要求对冷却水进行适当过滤，在主轴运转之前应开启冷却系统对主轴开始冷却。

Brief introduction of the various spindles

- Electric spindles for grinding include MD, MDF, MDT, MDS, MDK series etc. The lubrication ways may be oil mist, oil gas etc. The grinding spindles are widely used in bore grinding, external grinding, hauling grinding, screw thread grinding etc.
- Electric spindles for milling include XD, XDS, XDJ three series, which can carry through the high-speed milling and carving processing matched with numerical control milling machine, carving & milling machine and parallel connection machine, and are suitable for the normal parts, industrial mould and wooden parts processing. The XDS serial is installed with the automatic power draw bar. With code panel for the XDJ serial electric spindle of the machining center, the rotation speed and accurate stopping can be controlled precisely and the cutter automatic changing are available.
- Electric spindles for drilling include ZD and ZDS two series. They are mainly used to small holes drilling, micro-holes drilling in PCB and pumps & nuzzles. With the automatic power draw bar, the cutter fast and automatic changing is available.
- ED series electric spindles for high-speed centrifugal devices are widely used in separation, smashing, fogging and testing etc. high speed centrifugal industry.
- CD, CDJ series electric spindles for high speed lathe work make it possible to get the fine processing accuracy and roughness, and are especially suitable for the aluminum, copper colored metal parts processing.
- LD series electric spindles for high-speed rotation rolling are used to process the inner screw thread copper pipes of the air conditioner heat exchangers.
- XP, XPJ, CPJ series mechanical spindles can be used for the processing centers, numerical control milling machines and lathes etc. Connecting the power by the strap transmission and direct-mounted ways, they have the specialty in high rotation speed and high precision.
- The other kinds of electric spindles include ones for cutting machines, testing equipments and driving, which are available on the request of customers.

Choice of the mating main power:

The converter is chosen as the electrical driving source for the electrical spindle. One spindle with different parameters will have different requirements on the converter. The converter chosen should match the parameters of the spindle. Among others, the rated current the converter should be 1.3-fold that of the spindle at the lowest, preferably 1.5-fold or higher.

The lubrication and cooling:

There are three kinds of lubrication method:grease; oil mist and oil gas. The grease lubrication is simple but cannot reach the high rotation speed. The oil mist lubrication is in good effect and is widely used but affects to the environment. The oil gas is the best one but the prict is high. The oil mist and oil gas lubrication normally use 32# steamship engine petrol.

Turning on the oil mist or oil gas lubrication system before the spindles turning and running off it after the spindles stopping. The water-cooling is the normal way to cool the spindles. The cooling water should be in antirust feature and filtered when necessary. The spindles cooling system should be turn on before running the spindles.

主轴代号标识



120 MD 60 Y 6

功率 Kw (S6)

润滑方式

Z: 油脂润滑

Y: 油雾润滑

Q: 油气润滑

每分钟千转数

磨用

MD 外径定位无法兰

MP 磨用皮带轴

MDF 外径定位带法兰

MDT 台阶式外形主轴

MDS 台阶式外带法兰

MDK 其它磨用主轴

铣用

XD 中小型铣削

XP 铣削用皮带轴

XDJ 铣削加工中心

XDS 自动松拉刀铣削

车削

CD 车削用电主轴

CP 车削机械主轴

旋辗

LD 旋辗用电主轴

离心

ED 离心机用电主轴

切割

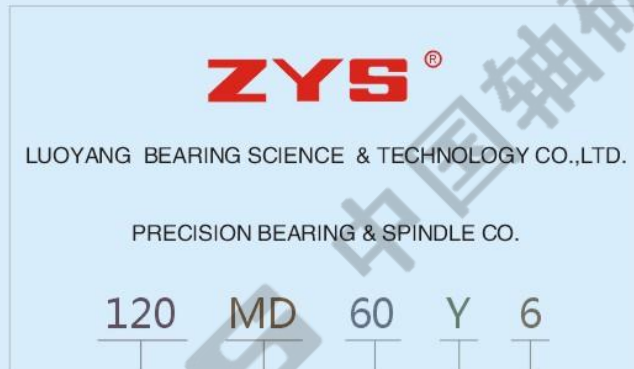
QD 切割机用电主轴

试验机

SD 试验机用电主轴

安装外径

Spindle identification code



Power Kw (S6)

Lubrication

Z: grease
Y: oil/mist
Q: oil/air

RPM × 1000

Grinding

MD Oriented by outer diameter without flanged
MP Mechanical grinding spindles
MDF Oriented by outer diameter flanged
MDT Step form
MDS Step form with flange
MDK Other type grinding spindles

Milling

XD High-frequency carving and milling spindles
in middle-small size
XP Mechanical milling spindles
XDJ Milling machining center
XDS Milling with automatic power draw bar

Turning

CD High-frequency turning spindles
CP Mechanical turning spindle

Rotation
rolling

LD High-frequency spindles for rotation-rolling

Centrifugal
device

ED High-frequency spindles for high speed
centrifugal devices

Cutting

QD High-frequency spindles for cutting

Tester

SD High-frequency spindles for tester

Fixing outer diameter

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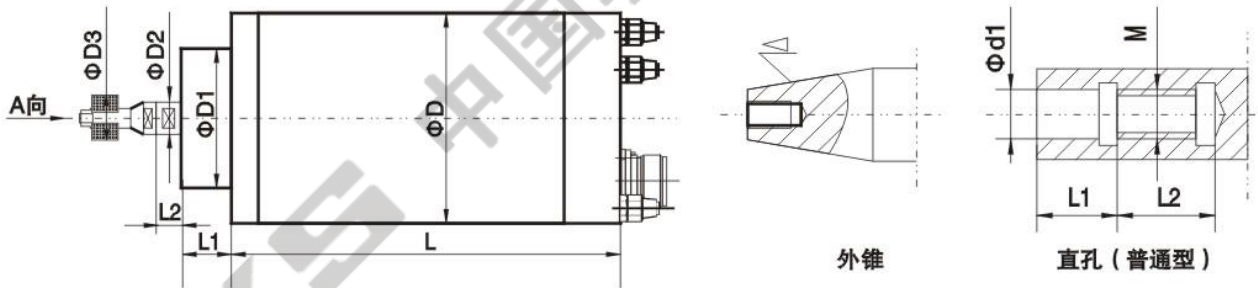
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磨削用电主轴 High-frequency grinding spindles



转轴与砂轮接杆联接参数 Connecting parameter between shaft and wheel bar

技术参数 Technical parameters

型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm			轴承 (P4级) Bearing (P4)	旧型号 Old type	
	功率 Power KW (S6) (S1)	电压 Voltage V	电流 Current A (S6) (S1)	转速 Speed r/min	频率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M			L2
65MD80Y0.9	0.9 0.53	220	5 3	80000	1333	65	130	45	11	11.8	8	6	12	M6	9	1-B7001 1-B7001	DZ60-80
65MD48Z0.48	0.48 0.3	245	1.92 1.2	48000	800	65	107	10	13	8	10	4.2	2	M4	7	1-B7001 1-B7001	-
80MD08Z0.64	0.64 0.4	220	2.3 1.4	8000	133.3	80	205	50	2.5	27	4	转轴外锥1:5			2-H71906 1-B7003	-	
80MD15Z0.4G	0.4 0.25	250	1.6 1	15000	250	80	145	70	24	25	15	6	10	M6(左)	12	2-H71906	DZ15K*
80MD60Y1.5	1.5 0.9	153	9 5.4	60000	1000	80	160	55	24	14	9	8	16	M8	14	2-B7002	DZ60B
80MD90Y2.5	2.5 1.5	220	10.8 6.5	90000	1500	80	170	58	22	11	10	6	11	M6	11	2-B7001	GDZ90
80MD100Y1.2	1.2 0.75	220	5.6 3.5	100000	1666	80	235	62	20	12	10.5	内锥 1:10	12	Φ6	6	1-SM6001 1-SM6001	GDZ100U

注：“*”表示该型号电主轴从A向看转轴为顺时针方向旋转，无“*”表示从A向看转轴为逆时针方向旋转。



型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电 流 Current A (S6) (S1)	转 速 Speed r/min	频 率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M	L2		
80MD120Y0.9	0.9 0.55	220	4.6 2.8	120000	2000	80	150	48	8	10	5	5	9	M5	8	1-VEB10 1-VEB10	2GDZ120
80MD150Q0.8	0.8 0.5	350	3 1.9	150000	2500	80	110	8	12	-	-	3.175	14	-	-	1-VEB08/NS 1-VEB08/NS	-
90MD06Z0.4W	0.4 0.24	380 300	1 0.6	6600 3000	110 50	90	218	70	24	18	32	转轴为外锥1:5				2-B7004 1-6033ZZ	DZ06*
100MD20Z1.2	1.2 0.75	380	2.6 1.6	20000	334	100	219	32	35	10	9	-				2-7007 1-7004	-
100MD60Y4	4 2.5	350	10 6.3	60000	1000	100	185	66	24	16	8	8	13	M8 × 1	15	2-B7003 2-B7003	GDZ60B
100MD60Q9	9 5.6	350	13.3 8.3	60000	1000	100	255	-	-	28	9	8	16	M8 × 1	15	2-VEX30/NS 2-VEX20/NS	2GDZ60Q
120MD04Z2.4	2.4 1.5	280	5.4 3.4	4000	133.3	120	310	108	12.5	50	49	转轴为外锥1:5				2-7012 2-7006	-
120MD24Z5.5	5.5 3.3	250	18 11	24000	400	120	255	92	30	28	12	16	27	M16 × 1.5	20	2-B7006 2-B7005	GDZ24K
120MD24Y12	12 7.2	350	30 18	24000	800	120	315	70	10	43	8	22	38	M22 × 2	24	2-B7009 2-B7006	2GDZ24N
120MD30Y11	11 6.6	350	30 17.8	30000	1000	120	315	70	10	33	7	20	34	M20 × 1.5	19	2-B7007 2-B7006	2GDZ30N

型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电 流 Current A (S6) (S1)	转 速 Speed r/min	频 率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M	L2		
120MD36Y8.5	8.5 5	350	18 11	36000	600	120	255	92	30	28	12	16	27	M16 × 1.5	20	2-B7006 2-B7005	GDZ36B
120MD36Y8.5C	8.5 5	350	18 11	36000	600	120	255	92	28	33	15	20	34	M20 × 1.5	20	2-B7007 2-B7005	GDZ36C
120MD42Y9	9 5.5	350	20 12	42000	700	120	230	90	27	23	12	14	24	M14 × 1.5	19	2-B7005 2-B7004	GDZ42S
120MD48Y5.8	5.8 3.5	350	15 9	48000	800	120	230	80	23	23	14	14	24	M14 × 1.5	19	2-B7005 2-B7004	GDZ48
120MD51Y6.5	6.5 3.9	350	17 10.2	51000	850	120	325	70	12	23	6.5	14	24	M14 × 1.5	18	2-B7005 2-B7004	2GDZ51N
120MD51Y8	8 4.8	350	20 12	51000	850	120	250	70	12	23	13	14	23	M14 × 1.5	19	2-B7005 2-B7004	2GDZ51
120MD51Q8	8 4.8	350	20 12	51000	850	120	232	80	30	23	10	14	23	M14 × 1.5	19	2-B7005 2-B7004	2GDZ51Q
120MD60Y6	6 3.6	350	16 10	60000	1000	120	220	70	11	18	11	10	19	M10 × 1.5	19	2-B7004 2-B7003	2GDZ60
120MD60Y6A	6 3.6	350	16 10	60000	1000	120	265	70	28	15.8	10	9	18	M8 × 1.25	14	2-B7004 2-7003	-
120MD75Y3.5	3.5 2.1	350	9 5.4	75000	1250	120	190	65	24	16	9	9	17	M9 × 1.25	14	2-B7003 2-B7001	2GDZ75
120MD75Q4	4 2.4	380	9 5.4	75000	1250	120	192	66	23	16	9	9	17	M9 × 1.25	14	2-B7003 2-B7002	2GDZ75Q
120MD75Q8	8 5	350	18.4 11.5	75000	1250	120	210	80	25	18.5	13	10	19	M10 × 1.5	19	2-VEX20/NS 2-VEX17/NS	-
120MD150Y0.6	0.6 0.4	220	4.6 2.8	150000	2500	120	140	120	18	9.9	9	5	7	M5	8	1-B71900 1-B71900	2GDZ150

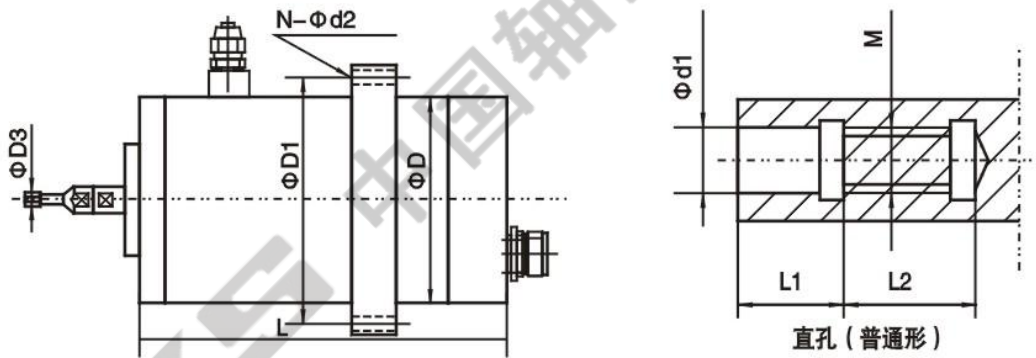
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140MD36Y9	9 5.5	350	17.6 11	36000	600	140	244	95	36	28	24	16	24	M16×1.5	20	2-B7006 2-B7005	-
140MD60Q9	9 5.6	350	13.3 8.3	60000	1000	149.8	260	129.7	50	53	13.5	16	25	M16×1.5	19	2-VEX30/NS 2-VEX25/NS	-
150MD18Z9	9 5.5	350	22.4 13.5	18000	300	150	290	95	40	38	18	22	36	M22×2	28	2-B7008 2-B7007	DZ18G
150MD18Y14.5	14.5 8.6	350	32 20	18000	300	150	327	110	38	43	22	25	40	M25×2	30	2-B7009 2-B7008	GDZ18A
150MD24Z7.5	7.5 4.5	350	16.3 9.8	24000	400	150	280	88	40	33	15	20	34	M20×1.5	19	2-B7007 2-B7006	DZ24G
150MD24Z12.5	12.5 7.5	350	26.7 16	24000	400	150	300	88	40	33	15	20	34	M20×1.5	19	2-B7007 2-B7008	GDZ24G
150MD24Y12.5	12.5 7.5	350	26.7 16	24000	400	150	310	98	32	38	19	22	38	M22×2	26	2-B7008 2-B7007	GDZ24A
150MD24Y16	16 10	350	38 23	24000	800	150	320	105	30	43	18	25	42	M25×2	25	2-B7009 2-B7007	2GDZ24
150MD30Q23	23 14.4	380	49 30	30000	1000	149.8	260	129.7	50	53	13.5	32	50	M32×2	26	2-VEX55/NS 2-VEX40/NS	-
150MD36Y11	11 7	350	30 15.6	36000	600	150	270	105	32	33	14	20	34	M20×1.5	20	2-B7007 2-B7006	2GDZ36
150MD40Y8	8 5	220 350	16 10.5	10000 40000	167 667	150	340	108	33	33	41	ER25				2-VEX35 2-B7006	-
170MD04Z4.5	4.5 2.5	350	14.4 9	7000 4000	166.7	170	326	210	20	119	35	转轴为内锥1:10				3-7010 2-B7007	-
170MD05Z7.5	7.5 4.5	380	14.4 9	5000	167	170	370	110	40	43	60	转轴为外锥1:5				2-B7009 2-B7009	-

型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电流 Current A (S6) (S1)	转速 Speed r/min	频率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M	L2		
170MD06Z6	6 3.75	380	12 7.5	6000	200	170	369	136	44	45	100	17	5	-	-	2-B7012 2-B7010	GDZ06
170MD07Z8.5W	8.5 5	350	19 11.5	7000	234	170	320	120	117	50	74	转轴为外锥1:5				3-VEX55 2-VEX45	2GDZ07*
170MD09Q20	20 12.5	350	43 26.9	9000	300	170	383	124	40	53	22	36	40	M33×2	30	2-B7011 2-B7009	GDZ09
170MD12Y16	16 10	350	36 22	12000	400	170	330	124	40	53	22	36	40	M33×2	30	2-B7011 2-B7009	GDZ12R-10
170MD12Y20	20 12	350	41.5 25	12000	400	170	370	124	40	53	22	36	40	M33×2	30	2-B7011 2-B7009	GDZ12R-12
170MD12Y32	32 20	350	63.2 39.5	12000	400	170	370	124	40	53	22	36	40	M33×2	30	2-B7011 2-B7009	GDZ12R-20
170MD15Y16	16 10	350	35 21.2	15000	500	170	325	116	38	48	24	28	47	M28×2	25	2-B7010 2-B7009	GDZ15R
170MD15Y20	20 12	350	46.3 27.8	15000	500	170	320	116	38	53	17	32	50	M30×2	25	2-B7011 2-B7009	2GDZ15
170MD18Y16	16 10	350	35 21.2	18000	600	170	305	110	40	43	22	25	42	M25×2	24	2-B7009 2-B7008	GDZ18R
170MD18Z16	16 10	350	21 12.7	18000	300	170	340	120	46	43	20	25	42	M25×2	26	2-B7009 2-B7007	GDZ18G
170MD24Q20	20 13	350	42 26	24000	400	170	340	138	39	53	21	32	50	M32×2	25	2-VEX55 2-VEX45	-
170MD36Q13.6	13.6 8.5	350	28.6 18	36000	600	170	390	115	40	43	32	25	38	M25×2	29	2-VEX45/NS 2-VEX35/NS	-
170MD60Q7.2	7.2 4.5	380	14.4 9	48000 60000	800 1000	170	220	-	-	28	6.5	16	24	M16×1.5	20	2-VEX30 2-VEX20	-



型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电流 Current A (S6) (S1)	转速 Speed r/min	频率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M	L2		
180MD48M	3.5 2.2	350	9 5.6	48000	800	180	387	130	20	31	23	16	27	M16 × 1.5	20	6009VV 6008VV	-
200MD03Z6.5W	6.5 4	380	15 9	3000	50	200	317	150	83	68	122	转轴为外锥1:7			3-B7016 2-B7011	GDZ03ML	
200MD06Z12.8	12.8 8	380	24 15	6000	100	200	395	150	72	57.5	74	转轴为外锥7:24			3-B7012 2-B7010	-	
210MD05Z16	16 10	195	36.8 23	5000	167	210	403	140	44	55	35	转轴为外锥1:8			2-7212 2-B7009	-	
210MD09Y33	33 20.6	350	70 43.8	90002	300	210	403	140	44	55	54	转轴为外锥1:8			2-7212 2-B7009	2GDZ09	
240MD015Z10	10 6.25	350	30 18.75	1500	50	240	410	190	92	85	24	转轴为外锥1:5			3-7017 2-7012	GDZ015	
250MD10Y17	17.6 11	350	38.4 24	10000	333.3	250	350	140	15	53	28	25	35	M24 × 1.5	33	2-B7011 2-B7009	-

特种磨削用电主轴 High-frequency spindles for special grinding



直孔 (普通形)

转轴与砂轮接杆联接参数

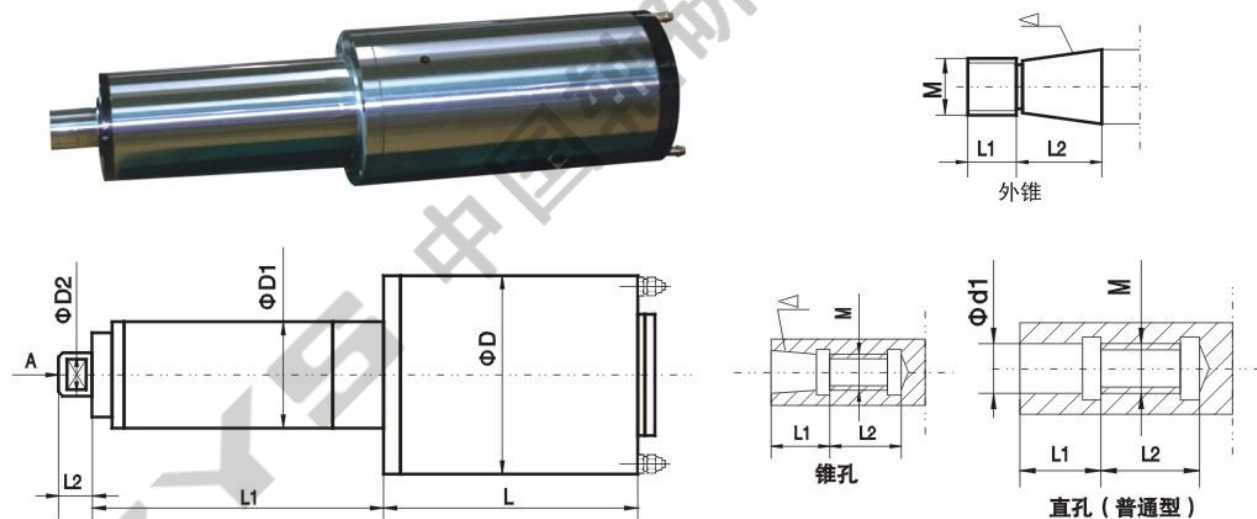
Connecting parameter between shaft and wheel bar

技术参数 Technical parameters

型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm				轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电流 Current A (S6) (S1)	转速 Speed r/min	频率 Frequency Hz	D	L	D1	N-d2	d1	L1	M	L2		
70MDF150Q0.8	0.8 0.5	350	4.2 2.5	150000	2500	70	125	81	4-6.2	5	8	M5 × 1	9	1-VEB10/NS 1-VEB10/NS	DZ150F
70MDF120Y0.8	0.8 0.5	220	3.7 2.2	120000	2000	70	124	81	8-6	4	9	M4	7	2-VEX09	DZ120F
70MDF90Y0.8	0.8 0.5	220	4.3 2.6	90000	1500	70	125	81	8-6	5	10	M5 × 1	6	2-B7000	DZ90F
85MDF60Y1.3	1.3 0.8	220	6 3.6	60000	1000	85	136	98	8-6	8	15	M8	14	2-B7001	DZ60FB
105MDF45Y4.8	4.8 3	350	12.2 7.6	45000	750	105	190	117	8-7	14	24	M14 × 1.5	20	2-B7005 2-B7004	GDZ45F
110MDF42Y5.8	5.8 3.5	215	15 9	42000	700	110	224	130	4-9.5	14	25	M14 × 1.5	19	2-VEX25 2-VEX20	GDZ42F
111MDF46Y5.8	5.8 3.5	350	13 8	46000	766	111	266	130	4-9.5	14	24	M14 × 1.5	19	2-VEX25 2-VEX20	GDZ46F
115MDF15Z7.5	7.5 4.5	380	16.8 10.5	15000	500	115	265	138	6-7	13	5	M12	50	2-B7008 2-B7008	-
150MDF24Y12	12 7.5	350	26 16	24000	400	150	270	180	6-9	20	34	M20 × 1.5	20	1-VEX35 2-VEX30	-
200MDF05Z12.5	12.5 7.5	350	24 15	5000	166.6	200	310	-	6-13.5	转轴外锥1:5				1-7213 1-7011	-
200MDF15Z20	20 12	350	46.3 28.9	15000	500	200	610	225	6-13.5	转轴外锥1:5				5-B7009 1-B7006	-



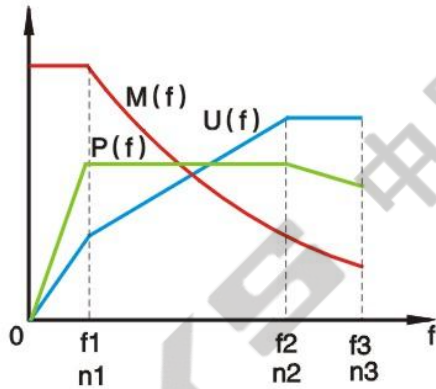
型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电流 Current A (S6) (S1)	转速 Speed r/min	频率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M	L2		
55MDT20Z0.9	1.44 0.9	290	4.3 2.7	20000	667	92	162	55	180	18	8.5	转轴外锥1:5			2-71904 2-71903	-	
92MDT20Z0.8	1.3 0.8	290	4.3 2.7	20000	667	92	178	58	202	18	1.5	转轴外锥1:10			2-71904 2-71903	-	
120MDT12Z3.2	3.2 2	350	6.8 4.2	12000	200	120	170	60	180	16	12	转轴外锥1:8			4-7203 1-6003	-	
120MDT12Z5	5 3.2	350	6.5 4	12000	200	120	215	80	323	28	74	莫式 2号锥	64	M14×1.5	23	2-B7006 2-B7005 1-B7002	-
120MDT24Z3.2	3.2 2	380	6.5 4	24000	400	120	240	70	190	29	35	1:5	32	M10×1 (左)	23	3-B7006 2-B7006	GDZ24MK
120MDT24Z5.3G	5.3 3.2	380	10.8 6.5	24000	400	120	240	70	190	28	30	1:5 锥孔	32	M10×1 (左)	18	3-7006 2-7006	-
125MDT08Z1.6W	1.6 1	400	4 2.4	8400	280	125	150	100	166	38	18	1:12 锥孔	18	M12×1 (左)	22	4-7008 1-7004	-
130MDT20Z1.5	1.5 1.5	220 350	5 3	7500 20000	125 333	130 130	164 164	60 60	250 250	20 20	44 44	转轴外锥1:7.5			2-71905 2-71905 1-6002	-	
130MDT24Z12K3	12 7.5	350	24.8 15.5	24000	400	130	172	70	293	28	19	16	24	M16×1.5 (左)	23	2-B7006 2-B7005	-
130MDT24Z7.5	7.5 4.5	350	20 12	24000	400	130	150	80	310	28	32	16	24	M16×1.5	23	2-B7006 1-6002ZZ	-



转轴与砂轮接杆联接参数
Connecting parameter between shaft and wheel bar

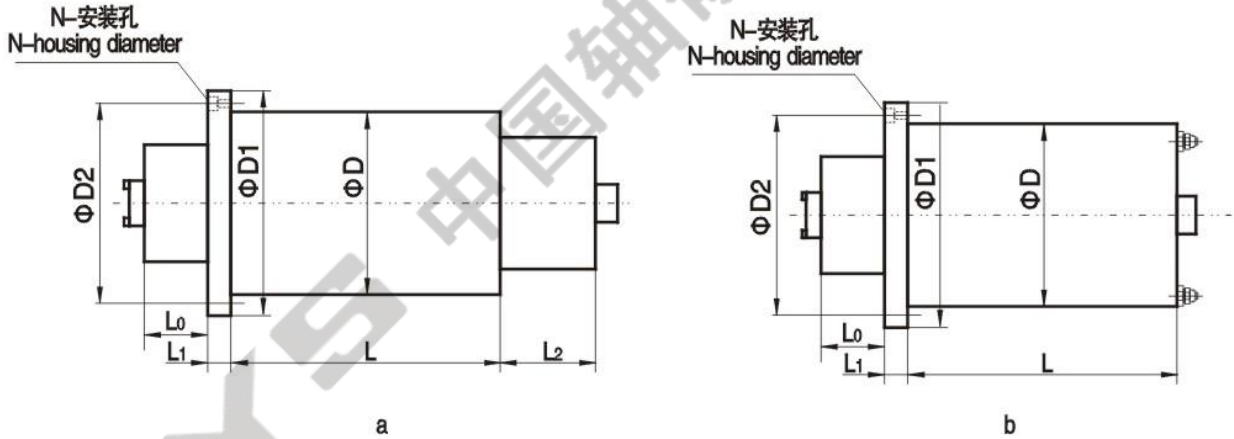
型号 Type	电机参数 Motor parameter					外形尺寸 Boundary dimension mm						轴端接杆联接尺寸 Connecting bar dimension from shaft end mm				轴承 (P4级) Bearing (P4)	旧型号 Old type
	功率 Power KW (S6) (S1)	电压 Voltage V	电 流 Current A (S6) (S1)	转 速 Speed r/min	频 率 Frequency Hz	D	L	D1	L1	D2	L2	d1	L1	M	L2		
130MDT24Z7.5A	7.5 4.5	350	20 12	24000	400	130	172	80	400	28	60	1:10 锥孔	28	M14×1.5 (左)	24	2-B7005 1-6002ZZ	-
140MDT05Z25	25 15	350	52.8 33	5000	167	140	315	80	580	50	26	外锥 1:5	35	M36×1.5 (左)	45	3-VEX55 1-6077ZZ	-
140MDT12Z4.0	4 2.5	380	12.8 8	12000	200	140	215	90	280	43	22	25	42	M25×2	30	2-B7009 2-B7006	-
150MDT18Z3.5	3.5 2.2	220	12.5 7.9	18000	300	150	150	100	215	28	20	16	22	M14×1.5	25	2-C136206 1-D36204J	DZ18P
150MDT18Z5.8	5.8 3.5	220	20.7 12.5	18000	300	150	150	100	215	28	20	16	22	M14×1.5	25	4-B7206 1-B7204	-
160MDT03Z3.6A	3.6 2.25	380	6.7 4.2	3000	50	160	240	76.2	318	25.4	55	外锥 7°	15	M12×1	31	2-B7006 1-B7006	-
160MDT05Z4	4 2.4	220 350	8.5 5	3000 6000	50 100	160	240	105	480	40	112	外锥 1:10	15	M20×1 (左)	40	2-7009 1-6007	-
170MDT15Z26	26 16	350	54.4 34	15000	500	170	225	100	250	38	24	28	47	M28×2 (左)	25	2-B7008 1-B7006	-
220MDT03Z11.5W	11.5 7	350	23.2 14	3000	100	220	275	120	550	53	95	1:8 锥孔	70	M45×1.5	25	3-B7011 1-B7007	-

加工中心铣削电主轴 High-frequency milling spindles for machining center



技术参数 Technical parameters

型号 Type	转速 Speed r/min	转矩 Torque Nm	功率 Power Kw	n1-n2 r/min	电压 Voltage V	电流 Current A	f3 hz	润滑 Lub	轴承 Bearing	轴端 Shaft end
318XDJ04Y	4000	200	6.3	300-3000	120 380	61	133.3	油脂 Grease	4-7020 2-7018	BT50
260XDJ12Y	12000	112	14	1200-8000	150 350	56.8	400	油脂 Grease	4-VEX65/NS 2-VEX55	BT40
260XDJ10Y	10000	110	14	1200-8000	150 350	53	333	油脂 Grease	4-VEX70 2-VEX55	BT40
240XDJ10Y	10000	66	5.5/7.5	800-8000	150 380	32.4	333	油脂 Grease	3-VEX65 2-VEX55	BT40
240XDJ10YB	10000	89	28	3000-10000	380	85	333	油脂 Grease	4-VEX65 2-VEX55	BT40
220XDS15Y6.5	15000	33	6.5	2000-15000	160 380	31	166.7	油脂 Grease	3-VEX50 2-VEX45	BT30
200XDJ24Y	24000	32	22	6500-12000	300 380	53	400	油气 Oil/air	3-VEX65 2-VEX55	HSK-E50
200XDS24Y	24000	32	22	6500-12000	300 380	53	400	油气 Oil/air	3-VEX65/NS 2-VEX55/NS	HSK-E50
170XDS13Y15	13000	35	15	4000-8000	220 380	30	433.3	油脂 Grease	2-VEX65/NS 2-VEX45/NS	BT40
160XDS30Y	30000	9.5	22	23000-30000	380	42	500	油气 Oil/air	2-VEX45/NS 2-VEX45/NS	HSK-E40
120XDS20	20000	3	3	10000-20000	380	7.72	666.7	油脂 Grease	2-VEX50/NS 2-VEX35	BT30
120XDS20B	20000	3.82	4	10000-20000	333.3 666.7	16.5 10.5	666.7	油脂 Grease	2-VEX50/NS 2-B7007	BT30
220XD08	8000	28.6	6	2000-8000	160 380	31	133.3	油脂 Grease	3-VEX65 2-B7009	ISO 40
160XD12	12000	8.3	3.5	4000-8000	220 380	12.9	400	油脂 Grease	2-B7010 2-B7009	ISO 30
150XD20	20000	4	2.5	6000-20000	220 344	9.5	333.3	油脂 Grease	2-B7008 2-B7007	ISO 30
120XD12	12000	4.8	1	2000-12000	220	2.4	400	油脂 Grease	2-B7008 2-B7005	ISO 30

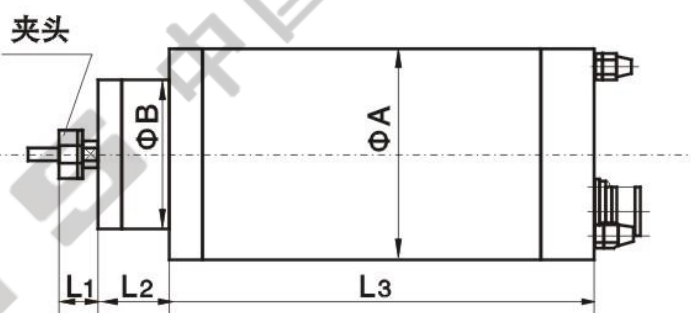


安装尺寸 Dimension

型号 Type	D	L	D1	D2	L0	L1	L2	N-安装孔 N-fixing hole	图样 Drawing	备注 Remark
318XDJ04Y	318	570	400	360	90	30	240	6-M12	a	有准停 Accurate stop
260XDJ12Y	260	380	320	290	148	26	215	8-M12	a	有准停 Accurate stop
260XDJ10Y	260	380	320	290	94	20	200	8-M12	a	有准停 Accurate stop
240XDJ10Y	240	380	290	265	132	22	290	8-M12	a	有准停 Accurate stop
240XDJ11YB	240	480	290	265	78	25	-	8-M12	b	有准停 Accurate stop
220XD15Y6.5	220	352	268	240	52	22	214	6-M10	a	-
200XDJ24Y	200	450	238	216	13	30	220	12-M8	a	有准停 Accurate stop
200XDS24Y	200	450	238	216	13	30	160	12-M8	a	-
170XDS13Y15	170	311	220	194	69	25	107	6-M8	a	-
160XDS30Y	160	330	198	176	16	18	76	6-M8	a	-
120XDS20	120	342	150	135	69	15	-	6-M6	b	-
120XDS20B	120	312	150	135	69	15	-	6-M6	b	-
220XD08	220	345	268	240	45	20	-	6-M8	b	-
160XD12	160	338	210	185	-	20	-	8-M8	b	-
150XD20	150	287	190	170	-	16	-	6-M8	b	-
120XD12	120	260	150	135	-	20	-	12-M6	b	-

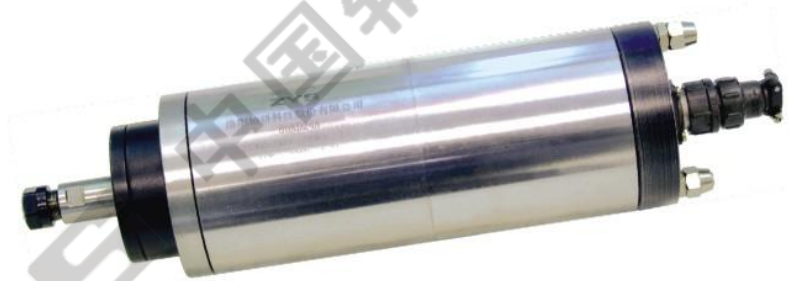
中小型铣削用电主轴

High-frequency carving and milling spindles in middle-small size



技术参数 Technical parameters

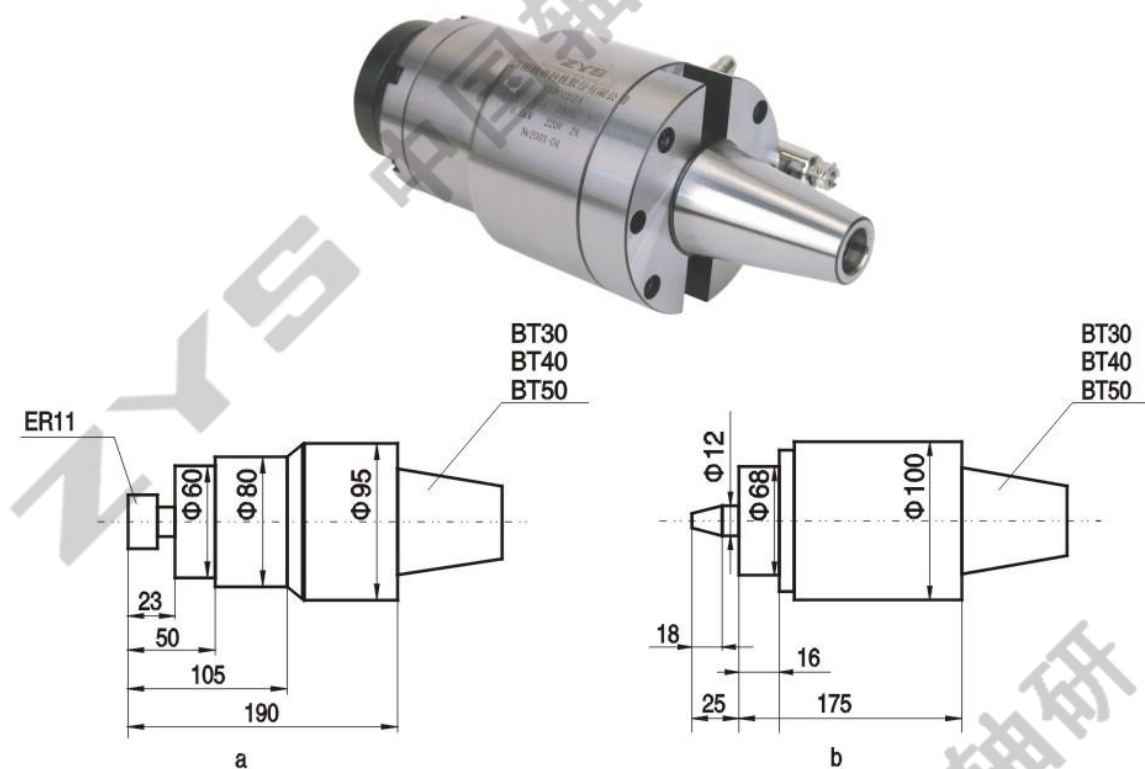
型号 Type	转速 Speed r/min	功率 Power (S1)Kw	电压 Voltage V	电流 Current A	频率 Frequency Hz	配变频器 Converter KVA	夹头 Chuck	最大夹持 Max gripping diameter of chuck
62XD45	45000	0.45	220	2.5	750	2.2	ER11	φ7
80XD24	24000	1.2	220	4.5	400	2.2	ER11	φ7
100XD24	24000	1.5	350	3.8	400	2.2	ER16	φ10
120XD08	8000	2	350	2.7	267	3.5	ER25	φ16
150XD08	8000	3.7	380	8	266.7	6	ER25	φ16
150XD18	18000	10	380	19.8	300	16	BT40	-
150XD20Q	20000	2.5	344	9.5	333.3	5	BT30	-
160XD05	5000	3.5	380	12.9	166.6	6	BT30	-
160XD08	8000	6	350	13.2	267	10	ER32	φ20
170XD06	6000	6.5	350	17	100	10	ER40	φ30
170XD10	10000	4	350	8.8	333.3	8	BT40	-
170XD15	15000	14	350	30	500	24	ER25	φ16
170XD16Z21	21000	21	380	59	533.3	35	ER40	φ30
200XD08	8000	5.5	380	10.8	266.6	10	ISO30	-
260XD008	800	7.5	350	17	266.7	12	CAT50	-



尺寸参数 Dimension

型号 Type	轴承 Bearing	L1	L2	L3	A	B
62XD45	B7002/B7001	20	7	130	62	45
80XD42	2-B7004/B7002	35	21	200	80	60
100XD24	2-B7004/2-B7003	35	35	200	100	70
120XD08	2-B7008/2-B7007	50	66	300	120	94
150XD08	2-B7009/2-B7008	29.7	53	297	150	110
150XD18	2-VEX50/2-VEX35	14	80	289	150	135
150XD20Q	2-7010/2-B7007	14	74	280	150	125
160XD05	2-B7010/2-B7009	17	72	328	160	116
160XD08	2-B7010/2-B7009	60	40	338	160	116
170XD06	2-B7011/2-B7009	70	45	385	170	116
170XD10	3-7013/2-7010	11	94	295	170	135
170XD15	3-B7009/2-7009	42	83	345	170	129
170XD16Z21	2-VEX55/2-B7009	62	58	367.5	170	130
200XD08	3-1013/2-B7010	14	97	378	200	160
260XD008	4-B7002/2-B7012	48	174.5	390	259.5	215.5

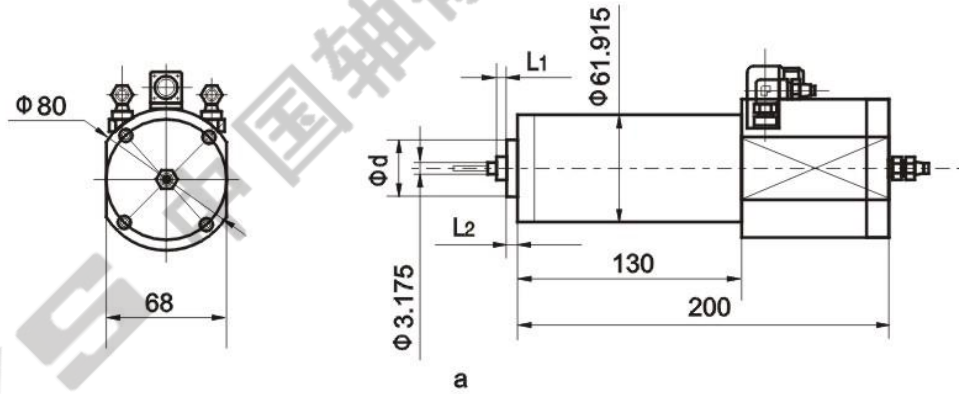
加工中心增速头 Speed-increasing head for machining center



技术参数 Technical parameters

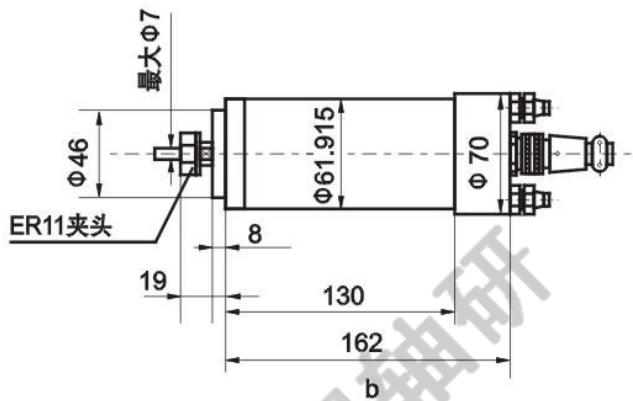
型号 Type	D × L mm	转速 Speed r/min	功率 Power Kw	电压 Voltage V	电流 Current A	频率 Frequency Hz	变频器 Converter KVA	轴承 Bearing	轴端接口 Shaft end connecting	用途 Application	图号 Drawing No.
BT50XD24	95 × 190	24000	0.5	220	2	400	0.75	2-B7004 1-B7002	ER11	加工中心BT50 轴用铣削增速头	a
BT50XD24A	95 × 190	24000	0.5	220	3.8	400	0.75	2-B7004 1-B7002	ER11	加工中心BT50 轴用铣削增速头	a
BT40XD24	95 × 190	24000	0.5	220	2	400	0.75	2-B7004 1-B7002	ER11	加工中心BT40 轴用铣削增速头	a
BT30XD24	95 × 190	24000	0.5	220	2	400	0.75	2-B7004 1-B7002	ER11	加工中心BT30 轴用铣削增速头	a
BT50MD36	100 × 175	36000	2	380	5	600	2.2	2-B7003 1-B7002	1:10锥轴	加工中心BT50 轴用磨削增速头	b
BT40MD36	100 × 175	36000	2	380	5	600	2.2	2-B7003 1-B7002	1:10锥轴	加工中心BT40 轴用磨削增速头	b
BT30MD36	100 × 175	36000	2	380	5	600	2.2	2-B7003 1-B7002	1:10锥轴	加工中心BT30 轴用磨削增速头	b

PCB专用电主轴 High-frequency spindles special for PCB



尺寸参数 Dimension

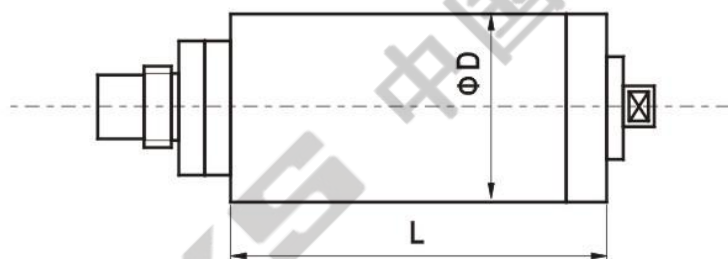
型号 Type	L1	L2	d	夹头 Chuck	图 Drawing
62ZDS60	5.5	5.5	36	EX1010	a
62ZDS80	6	9	38	EX1010	a
62XDS42	7.5	6	46	EX820	a
62XDS51	13	6	42	EX820	a
62XD45	13	7	46	ER11	b



技术参数 Technical parameters

型号 Type	转速 Speed r/min	功率 Power(S1) Kw	电压 Voltage V	电流 Current A	频率 Frequency Hz	轴承 Bearing	变频器 Converter KVA	用途 Application
62ZDS60	60000	0.5	220	2.2	1000	2-SN708	2.2	自动换刀钻削
62ZDS80	80000	0.5	115	2.5	1333	728X2CT-2Z	2.2	自动换刀钻削
62XDS42	42000	0.5	220	2.2	700	B7002/B7001	2.2	自动换刀铣削
62XDS51	51000	0.5	220	2.2	850	7001X2CT-2Z	2.2	自动换刀铣削
62XD45	45000	0.5	220	2.5	750	B7002/B7001	2.2	手动换刀铣削

旋碾用电主轴 High-frequency spindles for rotation-rolling



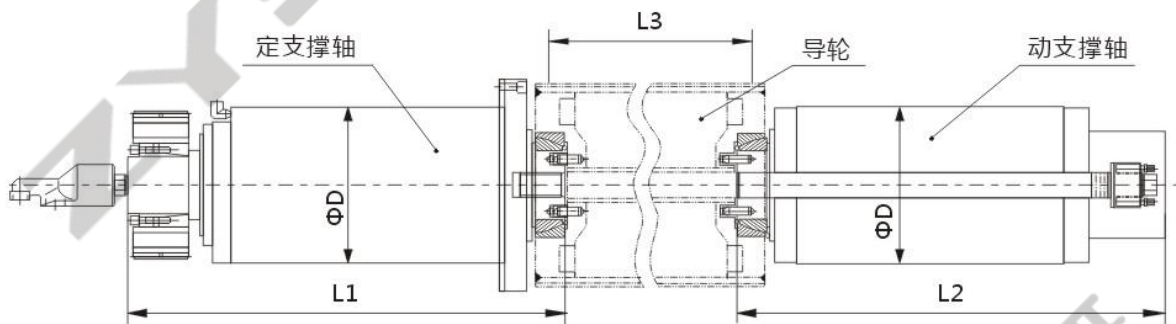
技术参数 Technical parameters

型号 Type	D×L mm	转速 Speed r/min	功率 Power Kw	频率 Frequency Hz	电压 Voltage V	电流 Current A	润滑 Lub.	冷却 Cooling	轴承 Bearing	用途 Application
170LD15	170 × 370	15000	18	250	380	32	油雾	水冷	3-VEX55 2-VEX50	旋碾 φ 16以下内波纹铜管
170LD18	170 × 350	18000	12	300	380	24	油雾	水冷	3-B7011C/P4 2-B7009C/P4	旋碾 φ 12以下内波纹铜管
170LD24	170 × 350	24000	10	400	380	20	油雾	水冷	3-B7009C/P4 2-B7007C/P4	旋碾 φ 10以下内波纹铜管
170LD24Q	170 × 350	24000	15	400	380	26	油气	水冷	3-B7009C/P4 2-B7007C/P4	旋碾 φ 10以下内波纹铜管
150LD30	150 × 290	30000	5.5	500	300	18	油雾	水冷	3-B7007C/P4 2-B7006C/P4	旋碾 φ 8以下内波纹铜管
170LD35Q	170 × 350	35000	8	583.3	380	18	油气	水冷	3-VEX40/NS 2-VEX35/NS	旋碾 φ 8以下内波纹铜管
170LD35QA	170 × 350	35000	12	583.3	380	25	油气	水冷	2-VEX40/NS 2-VEX40/NS	旋碾 φ 8以下内波纹铜管
170LD45Q7.5	170 × 350	45000	7.5	1500	350	18.2	油气	水冷	2-VEX35/NS 2-VEX30/NS	旋碾 φ 6以下内波纹铜管

硅片多线切割机主轴 Belt driven spindles for multi wire saw

硅片多线切割机主轴（线切机轴承箱）用于硅片切割机设备，主轴组由定支撑轴、动支撑轴和导轮组成，中间通过拉杆联结（如图示）。目前已经为国内太阳能电池板硅片加工企业提供进口替代主轴，并为国内线切机床设备制造企业批量供应主轴。

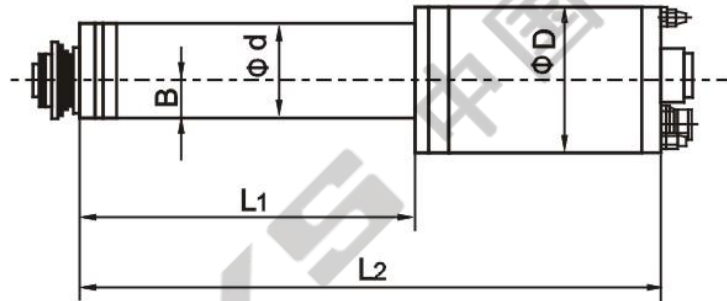
The spindle for silicon slice multi wire saw machine (the bearing box of wire saw machine) is used to silicon slice saw machine. The spindle group is composed of fixed support shaft, movable support shaft and guide roller, which are connected through draw bars. Recently, we have supplied the domestic solar panels silicon slice manufacturers with our spindles to replace imported ones, as well as the domestic wire saw machine manufacturers with batch production of spindles.



技术参数 Technical parameters

型号 Type	转速 Speed r/min	D	L1	L2	切割硅棒长度 L3	用途 Application
175QP02	2000	175	484	282	450	硅片多线切割机用
180QP02	2000	180	346	231	350	硅片多线切割机用
210QP015	1500	210	442	295	500	硅片多线切割机用
270QP01	1000	270	575	563	1000	硅片多线切割机用
310QP012	1200	310	645	510	800	硅片多线切割机用

划片用电主轴 High-frequency spindles for cutting

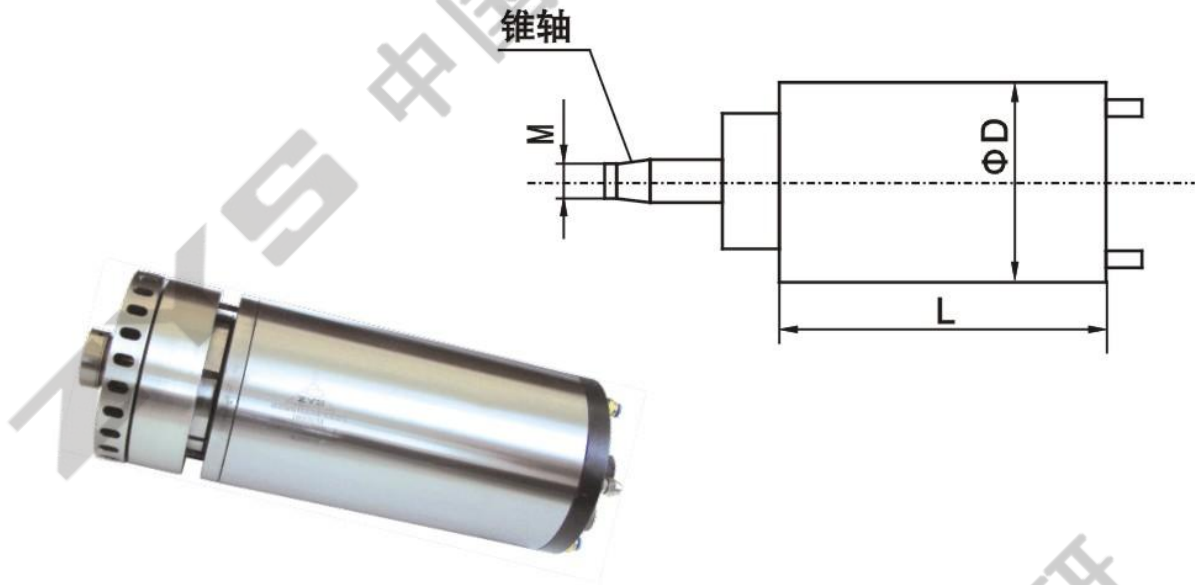


技术参数 Technical parameters

型号 Type	转速 Speed r/min	功率 Power(S1) Kw	电压 Voltage V	电流 Current A	频率 Frequency Hz	变频器 Converter KVA	D	d	B	L1	L2	用途 Application
70GD30Q	30000	0.085	153	0.5	500	2.2	70	44	22	165	310	硅片切割机用
80GD30Q	30000	0.5	165	2.5	500	2.2	80	60	22.5	215	355	硅片切割机用
80GD30QA	30000	1	153	5.2	500	2.2	80	46	23	185	340	硅片切割机用
82GD30Q	30000	0.4	220	1.6	500	2.2	82	44	22	190	340	硅片切割机用
80GD40Q	40000	0.5	220	2.5	667	2.2	80	60	22.5	249	389	硅片切割机用
92GD40Q	40000	0.75	220	2.6	666	2.2	92	70	23	210	362	硅片切割机用

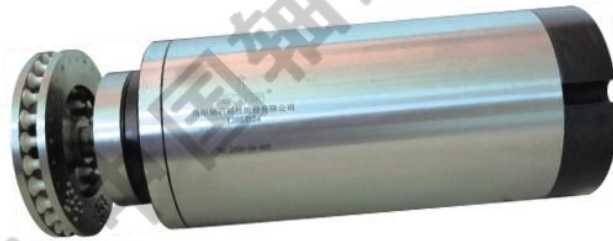
高速离心机用电主轴

High-frequency spindles for high speed centrifugal devices



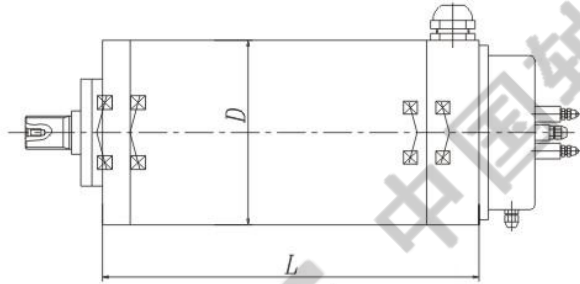
技术参数 Technical parameters

型号 Type	ΦD×L mm	转速 Speed r/min	功率 Power Kw	电压 Voltage V	电流 Current A	频率 Frequency Hz	变频器 Converter KVA	冷却 Cooling	轴承 (P4级) Bearing (P4)	轴端接口 Shaft end connecting	用途 Application
95ED40	95 × 162	40000	0.75	350	3.6	500	0.75	水	1-B7002 1-B7001	1:10锥轴 M8 × 1.25	雾化干燥
100ED30	100 × 210	30000	1.0	350	2.2	500	2.2	水	2-VEX20 2-VEX17	1:10锥轴 M12 × 1	雾化干燥
120ED12	120 × 315	12000	3.6	380	6.8	200	5.5	水	2-B7009 2-B7006	1:5锥轴	雾化干燥
120ED24	120 × 246	24000	3	350	8	400	5.5	水	2-B7006 2-B7005	1:10锥轴 M16	雾化干燥
120ED24C	120 × 278	24000	5.5	350	13	400	7.5	水	2-B7006 2-B7006	1:10锥轴 M16 × 1	雾化干燥
120ED50	120 × 250	50000	4.8	350	11.5	833	7.5	水	2-B7005C 2-B7004C	1:5锥轴	雾化干燥
145ED80	145 × 140	80000	1.2	350	3.2	1334	1.5	风	1-B7001 1-B7001	1:49锥孔 M4	离心分离
150ED18	150 × 297	18000	7.5	350	16	300	11	水	2-B7007 2-B7007	1:10锥轴 M20 × 1	雾化干燥



型号 Type	ΦD×L mm	转速 Speed r/min	功率 Power Kw	电压 Voltage V	电流 Current A	频率 Frequency Hz	变频器 Converter KVA	冷却 Cooling	轴承 (P4级) Bearing (P4)	轴端接口 Shaft end connecting	用途 Application
150ED30	150×270	30000	8	350	16.6	500	12	水	2-C136107Y 2-C136107Y	1:5锥轴	雾化干燥
170ED08	170×315	8000	7.5	350	16	267	11	水	1-B7012 1-B7010	1:5锥轴	离心粉碎
170ED15A	170×346	15000	12	350	26	500	18	水	3-B7011C 2-B7009C	1:5锥轴	雾化干燥
170ED15	170×340	15000	15	380	30	250	18.5	水	2-B7009 2-B7008	7:24锥轴 M20×1	雾化干燥
180ED15A	180×302	15000	15	380	23	250	15	水	2-B7009 2-B7008	1:10锥轴 M35×1.5	雾化干燥
180ED15	180×302	15000	11	380	22	250	15	水	2-B7009 2-B7008	1:10锥轴 M35×1.5	雾化干燥
200ED12	200×369	12000	18	380	30	200	25	水	2-B7010 2-B7009	1:10锥轴 M40×1.5	雾化干燥
200ED24	200×220	24000	2.2	350	4.8	400	3.7	风	1-B7005 1-B7005	φ20轴头 2.5槽	离心分离
200ED30	200×242	30000	2.2	350	7.5	500	3.7	风	1-B7005 1-B7005	φ16轴头 φ6槽	离心分离
230ED10	230×500	10000	22	380	38	166	25	水	2-B7012 2-B7011	1:10锥轴 M50×1.5	雾化干燥
255ED05	225×270	5000	2.3	350	5.5	167	3.7	风	1-B7006 1-B7006	φ25轴头 3.5槽	离心分离
255ED07	225×305	7000	2.3	350	5.5	233	3.7	风	1-B7006 1-B7006	φ16轴头 φ6槽	离心分离
120SD24	120×260	24000	3.3	350	7.4	400	5.5	水	2-B7007 2-B7005	压帽M33×1 1:8锥孔	离心试验
120SD36	120×270	36000	5	350	11	600	7.5	水	2-B7005 2-B7005	1:20锥轴 M12	离心试验

试验机用电主轴 High-frequency spindles for tester

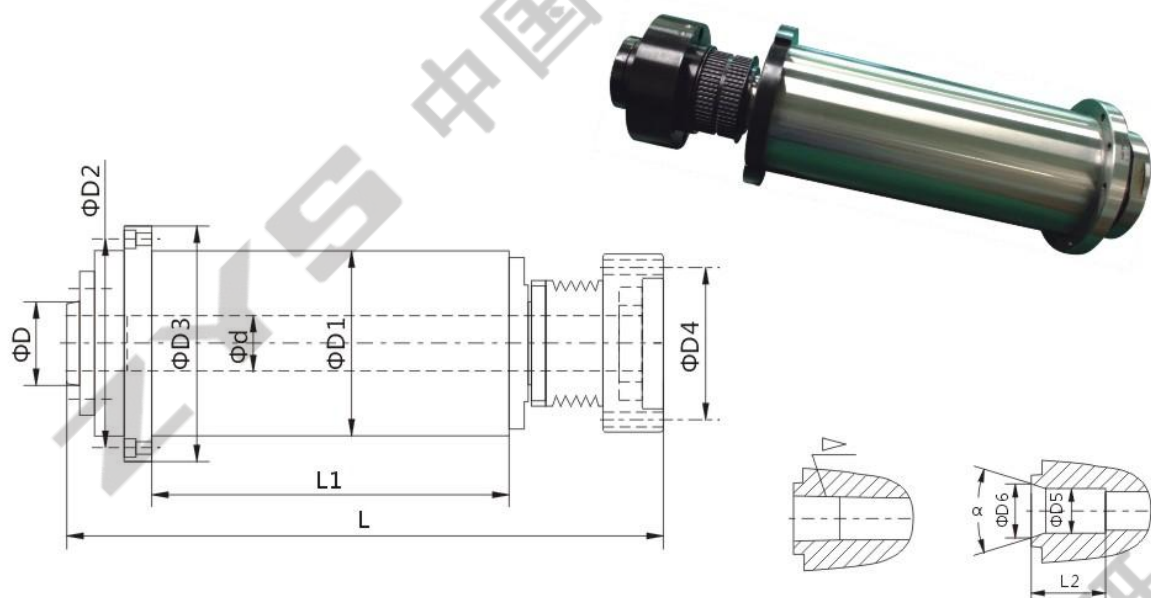


技术参数 Technical parameters

型号 Type	转速 Speed r/min	功率 Power Kw	扭矩 Torque Nm	电压 Voltage V	电流 Current A	D mm	L mm
80SD08	8000	0.48	0.6	220	2	80	184
120SD15Q1.5	15000	1.5	0.95	220	5	120	476
120SD36Y5	36000	5	1.33	350	11	120	255
120SD60	60000	6	0.95	350	16	120	178
120SD65Y4	65000	4	0.58	350	11	120	203
120SD65Y7	65000	6.8	1	380	13.3	120	193
120SD75Q4	75000	4	0.58	380	9	120	192
140SD51Q8	51000	8	1.5	350	17.6	140	270
150SD20Q	6000/20000	3	4.8	380	6	150	350
150SD22Z4.1	22000	4.1	1.78	320	9.8	150	280
150SD30	30000	11	3.5	292	30	150	302
150SD36Y18	36000	18	4.77	300	25.7	150	288
170SD15	15000	15	9.55	350	33.8	170	369
170SD12Z10	12000	9.5	7.56	280	28	170	295
170SD24	24000	30	4.8	380	57.5	170	370
170SD30	30000	30	4.8	350	34	170	312
180SD24Z30	24000	30	11.9	350	58.4	180	350
200SD25	7000/25000	37	50	380	55	200	358
200SD28	7000/28000	29.7	40.5	380	65	200	358
240SD15	3000/15000	27.5	89	380	56	240	510
240SD20YA	20000	50	23.8	380	100	240	420
260SD15Y40	3000/15000	40	127	380	169	260	432
320SD04Z26	1000/4000	26	248	380	44	320	585

车削用机械主轴（带油缸连接盘）

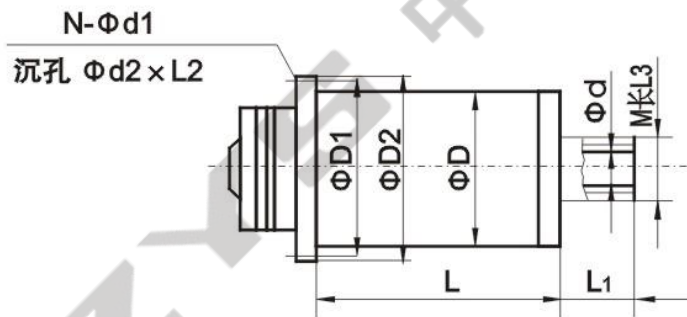
Mechanical turning spindles (with oil cylinder connecting plate)



技术参数 Technical parameters

型号 Type	D	D1	D2	D3	D4	d	L	L1	转速 Speed r/min	冷却 Cooling	轴承 Bearing	轴端 Shaft end	莫氏 Morse	α	L2	D5	D6
140CP06-A	82.58	140	160	177	115	40	580	355	6000	自然	2-7015	2-7013	A2-5	莫氏5			
140CP06-D	82.5	140	158	178	115	42	442	270	6000	自然	3-7014	2-7013	A2-5	莫氏5			
140CP06-E	82.5	140	158	185	130	49.5	503	315	6000	自然	3-7014	2-7013	A2-5	40°	90	56	60
140CP06-F	82.5	140	158	178	115	42	452	270	6000	自然	3-7014	2-7013	A2-5	莫氏5			
140CP07-A	82.58	140	160	177	115	40	580	355	7000	自然	2-7015	2-7013	A2-5	莫氏5			
140CP08-A	63.5	140	168	187	105	33	509	305	8000	自然	3-7014	NN3012	A2-4				
150CP08-A	63.51	150	170	190	115	42	460	269	8000	自然	3-7014	2-7014	A2-4	1:20			
155CP05-B	82.58	155	175	196	130	56	489	314	5000	自然	3-7016	2-7015		直孔φ56			
170CP04-A	106.4	170	195	220	130	52	576	316	4000	自然	3-7018	2-7016	A2-6	莫氏6			
170CP05-A	106.4	170	195	220	130	52	674	519	5000	自然	3-7018	2-7016	A2-6	莫氏6			
170CP05-B	106.4	170	195	220	130	52	577	316	5000	自然	3-7018	2-7016	A2-6	莫氏6			
170CP06-A	82.563	170	195	220	130	56	534	319	6000	自然	3-7016	2-7016	A2-5	莫氏6			
170CP06-B	82.5	170	190	210	140	48	500	311	6000	自然	3-7016	2-7015	A2-5				
180CP08-A	82.5	180	216	196	130	40	592	400	8000	水冷	4-7016	NN3014	A2-5				
200CP04-A	82.563	200	226	254	184	55	735	461	4000	自然	2-7022	1-NN3018	A2-5	莫氏6			
200CP05-A	106.3	200	235	260	155	56	570	315	5000	自然	3-7020	Nn3018	A2-6				
220CP04-A	139.7	220	270	295	165	70	600	370	4000	自然	3-7024	Nn3012	A2-8				

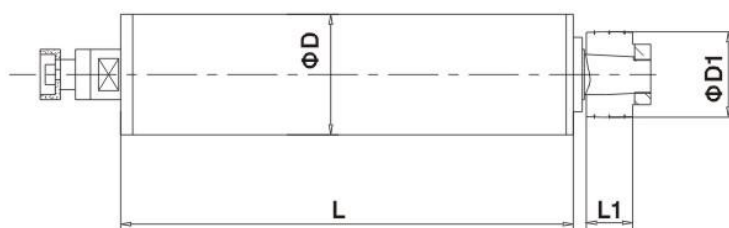
车削用电主轴 High-frequency turning spindles



技术参数 Technical parameters

型号 Type	转速 Speed r/min	KW S1	恒功率段 Constant power	电压 Voltage V	电流 Current A	频率 Frequency Hz	轴承 Bearing	轴端接口 Shaft end connecting	D	L	D1	D2	d	L1	N-d1	d2 × l2	M长L3
150CD08	8000	1.5 3.7	1500 10000	110 380	11.5 7.4	50 333.3	2-7207C/P4 2-7207C/P4	-	150	292	135	147	20	82	6-6.5	11 × 6	-
150CD12	12000	2.4	A:6000 B:12000	220 380	9.3 5.4	200 400	3-B7010C/P4 2-B7008C/P4	3号卡盘 莫式4号锥	150	320	170	194	25	42	6-9	14 × 10	M38 × 1.5 长20
170CD06	6000	3.2	A:4000 B:6000	220 300	12 8.9	133.3 200	2-B7012/P4 2-7010/P4	-	170	350	190	210	33	166	6-9	15 × 10	M45 × 1 长18
170CD10	10000	3.2	A:4000 B:8000	220 380	12 7.3	133 267	3-B7012C/P4 2-B7010C/P4	4号卡盘 莫式5号锥	170	350	190	210	33.5	58	6-9	14 × 10	M45 × 4.5 长25
200CD02	2000	6.5	2000	380	14.5	67	2-7215AC/P4 2-7011C/P4	-	200	420	225	250	35	80	8-11	18 × 10	-
200CD08	8000	6	A:2000 B:6000	220 380	31 12	67 267	3-B7014C/P4 2-B7012C/P4	5号卡盘 莫式6号锥	200	400	225	250	40	64	8-11	18 × 10	-
200CD10	10000	6	A:2000 B:10000	220 380	12 8.5	66.7 333	3-B7012C/P4 2-B7010C/P4	-	200	325	225	250	34.5	62	8-11	18 × 12	M45 × 1.5 长25
220CD03	3000	11	A:1500 B:3000	225 380	37.6 28.8	50 100	3-7215C/P4 2-7011C/P4	-	220	439	158	190	45	96	6-7	11 × 7	-
220CD08	8000	6	A:2000 B:8000	160 380	31 12	67 267	3-B7013C/P4 2-B7011C/P4	5号卡盘 莫式6号锥	220	375	240	270	45	58	8-11	18 × 13	-
230CD02	2000	6	A:1200 B:2000	210 350	30 15	40 67	3-7215AC/P4 2-7011C/P4	-	230	439	245	260	35	92	8-7	18 × 10	-
240CD06	6000	11	A:2000 B:6000	220 380	42 24	67 200	3-B7015C/P4 2-B7013C/P4	6号卡盘 莫式6号锥	240	400	265	290	50	58	8-13	20 × 13	-

磨削用机械主轴 Mechanical grinding spindles

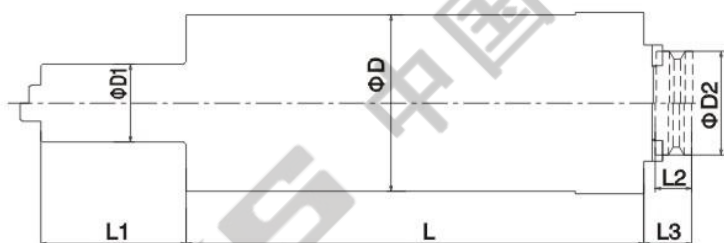


技术参数 Technical parameters

		D×L	D1×L1		前端联接尺寸 connecting dimension of shaft front end mm			
					d	L2	M	L3
58MP01	1000	58 × 114	40 × 20	2-B71905 2-B71905	-	-	-	-
60MP30	30000	60 × 250	-	2-B7005C 2-B7005C	转轴外锥 1:5			
80MP01	1000	80 × 150	-	2-7007AC 1-7206C	20	23	-	-
80MP06A	6000	80 × 200	50 × 20	3-71906 2-B7005C	转轴外锥 1:10			
80MP06B	6000	80 × 200	50 × 20	3-71906 2-B7005C	Er16夹头			
80MP10	10000	80 × 320	52 × 65	2-B7206C 2-B7206C	16	23	M16 × 1.5	20
80MP15Z	15000	80 × 400	-	3-7206C 2-7206C	30	12	M10	19
80MP18	18000	80 × 400	52 × 65	2-7206C 2-7206C	转轴外锥 1:10			

型号 Type	转速 Speed r/min	D×L	D1×L1	轴承(P4级) Bearing(P4)	前端联接尺寸 connecting dimension of shaft front end mm			
					d	L2	M	L3
80MP20	20000	80×217	38×65	1-7205 1-7205	转轴外锥 1:5			
87MP03	3000	87×405	-	4-7007C 2-7206C	转轴外锥 1:3			
95MP01	1000	95×197	100×27	2-7008AC 2-7207C	-	-	-	-
95MP05	5000	95×398	-	2-7209AC 2-7207C	转轴外锥 1:5			
95MP06	6000	95×188	80×48	2-7008AC 2-7207C	-	-	-	-
100MP10C	10000	100×525	62×65	3-B7009C 2-B7009C	22	26	M22×2	29
100MP5.8	5800	100×485	-	3-7208C 2-7207C	11	2	M10	19.5
110MP10	10000	110×199	-	2-7208AC 2-7007C	11	4	M10	21
110MP12	12000	110×400	46×65	2-7209C 2-7209C	9	4	M8	16
115MP08	8000	115×200	94.3×95	3-7009C 2-7009C	转轴外锥 1:5			
120MP10	10000	120×454	77×48	3-B7010C 2-B7010C	1:10锥	47	M20×1.5	33
140MP06	6000	140×450	115×68.3	4-7012C 2-7012C	转轴外锥 1:5			
165MP02	2000	165×77	460×45	3-7015C 2-7015C	-	-	-	-
170MP015B	1500	170×274	-	2-7216C 2-7216C	转轴外锥 1:5			
170MP02A	2000	170×470	160×94	2-7215C 4-7014C	转轴外锥 1:5			
170MP02B	2000	170×513	-	4-7215C 2-7215C	转轴外锥 1:5			
175MP03	3000	175×400	90×45	3-7216C 2-7216C	转轴外锥 1:5			

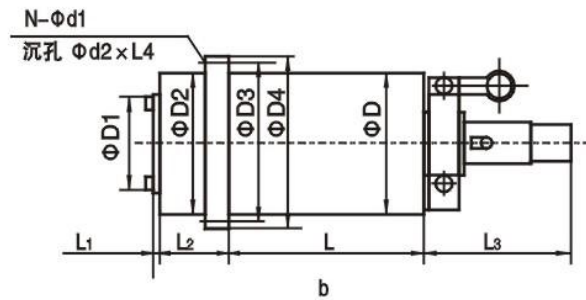
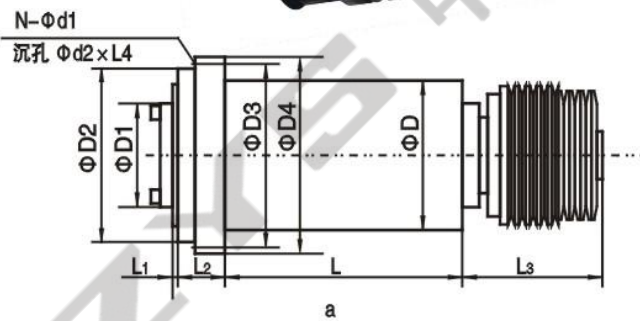
铣削用机械主轴 Mechanical milling spindles



技术参数 Technical parameters

型号 Type	转速 Speed r/min	D	D1	D2 × L2	L	L1	轴承 Bearing	轴端接口 Shaft end connecting
60XP12	12000	60	25	34 × 44	205	23	2-7005C 2-7005C	ER20
80XP06	6000	80	33	-	290	120	2-7007C 2-7006C	-
80XP10	10000	80	20	-	264	22	1-7205C 1-7205C	ER11
96XP06	6000	96	60	-	302	25	2-7007AC 2-7006AC	BT30
140XP03	3000	140	90	-	548	12	3-7212C 2-7210C	-
210XP03	3000	210	128.57	-	286	34	1-NN3020K 1-100TAC20X 1-NN3019K	BT50

加工中心用机械主轴 Mechanical spindles for machining center



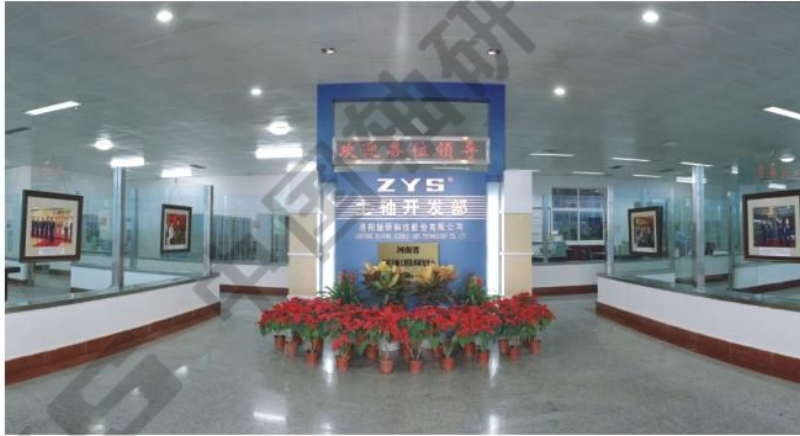
技术参数 Technical parameters

型号 Type	转速 Speed r/min	D	D1	D2	D3	D4	L	L1	L2	L3	N-d1	d2 × L4	轴承 Bearing	轴端 接口 Shaft end connecting	图号 Drawing No.
85XPJ12	12000	85	50	84	102	120	172	7	18	153	6-9	15 × 10	2-7008C 2-7007C	BT30	a
95XPJ20Z	20000	95	55.4	75	146	162	186	29	95	68.5	6-9	7 × 1.5	2-B7009C 2-B7008C	BT30	a
100XPJ12F	12000	100	60	106	120	138	171	12	33	154	6-9	14 × 9	2-7009C 2-7009C	BT30	a
130XP06	6000	130	75	110	150	170	276	25	63	77	6-9	14 × 10	3-7012C 1-NN3010K	BT40	a
130XPS08	8000	130	78	140	152	165	200	16	64	153	8-6.6	11 × 6.5	A	BT40	a
130XPS12	12000	130	78	140	152	165	200	11	69	98+55	8-6.6	11 × 6.5	B	BT40	a
150XPS03	3000	150	112	175	195	220	294	8	167	160	6-11	18 × 10	4-7018C 2-7016C	BT50	a
150XPS08	8000	150	88	155	180	202	204	20	118	84	8-11	17.5 × 11	4-7014C 2-7013C	BT40	a
150XPS12	12000	150	70	150	168	190	180	10	85	185	8-9	15 × 12	3-VEX55 2-VEX50	BT30	a
170XPS03A	3000	170	112	175	195	220	350	8	91	160	6-11	18 × 10	4-7018C 2-7016C	BT50	a
170XPS03B	3000	170	101	170	195	220	350	30	90	71	6-11	18 × 11	C	BT50	a
215XPJ04	4000	215	129	215	248	280	700	145	255	-	6-17	26 × 15	4-7022C 2-7219C	BT50	a
220XPS08	8000	220	90	180	240	270	255	20	104	261	8-11	18 × 14	3-VEX75 2-VEX65	Bt40	b

A: 4-65BNC10TY+NN3011

B: 60BNC10SN24TY+N1009CCG5

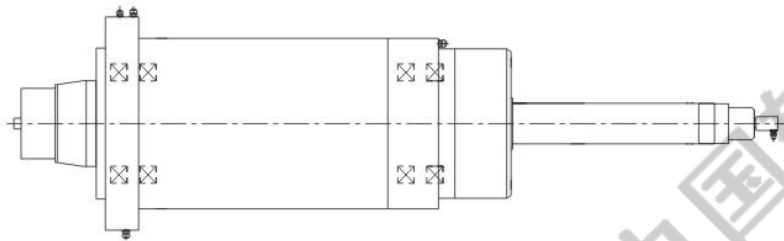
C: NN3016K+NN3014K+234416BM1



河南省机床主轴工程技术研究中心
Machine Spindle Engineering Technology Research Center of Henan Province

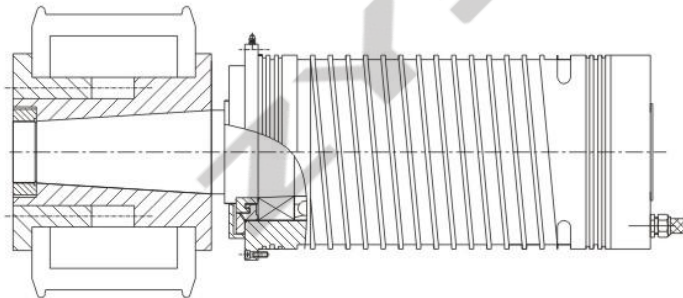
洛阳轴研科技股份有限公司可以为不同行业的客户定制特殊类型和结构的主轴产品，并能提供从产品设计直至主轴装机使用的全过程服务。

We can provide spindle products of special types and structures for different customers, as well as a whole service process from the product design to the spindle fixing and using.



400主轴用于大型金属板带抛光磨削机，功率115kW，最大输出扭矩610Nm

400 Spindles used to large grinding and polishing machines for metal plate and strip, power: 115KW, maximum output torque: 610Nm.



440主轴用于高铁无砟轨道板磨削机床，功率150kW，最大输出扭矩1200Nm

440 Spindles used to grinding machines for unballasted track in high-speed railway, power: 150KW, maximum output torque: 1200Nm.