

## 北二机床产品



## B2-K087 车桥专用数控端面外圆磨床

### B2-K087 Car Axle Special CNC End Face Cylindrical Grinding Machine

B2-K087车桥专用数控端面外圆磨床是我公司自行研制的具有国际先进水平的大、中规格数控外圆磨床产品，具有高刚性、高效率及高适应性的特点。本机床适合在汽车车桥的大批量生产中使用，是操作简便、性能可靠、加工精度高的生产型数控端面外圆磨床。

B2-K087 Car Axle Special CNC End Face Cylindrical Grinding Machine is a kind of CNC machine tool, developed for automobile industry on basis of years experience accumulated by the Company in design, manufacture and application of new technology for CNC grinding machines. It features high rigidity, efficiency and adaptability and is suitable for precise processing car axle component shaft ends. It offers simple operation and reliable performance.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	B2 - K087
最大回转直径 Max. swiveling diameter	mm	Φ640
顶尖距 Distance between Centers	mm	2700
中心高 Height of center	mm	335
最大磨削直径 Max. grinding diameter	mm	Φ500
顶尖间最大重量 Max. workpiece weight between centers	kg	500
控制系统 Control System		FANUC / SIEMENS
砂轮 (最大) Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ750×250×Φ305
	线速度 Linear speed	mm/sec 50
	全行程 Total travel	mm 350
砂轮架 Wheel head	进给速度 Feed speed	mm/min 0.1 - 5000
	最小设定单位 Min. setting unit	mm 0.001
	斜置角度 Oblique angle	度(°) 20
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable
	进给速度 Feed speed	mm/min 0.01 - 5000
	最小设定单位 Min. setting unit	mm 0.001
头架 Work head	顶尖 Center	MT.NO.5
	转速 Rotating speed	r/min 15 - 150 (无级调速) (stepless)
尾架 Tailstock	顶尖 Center	MT.NO.5
	顶尖行程 Travel of center	mm 100
	砂轮主轴电机 Power of wheel spindle motor	kW 37
	砂轮架进给 Torque of wheel head feeding motor	N.m 30 (FANUC) / 36 (SIEMENS)
电气系统 Electrical system	工作台进给 Torque of worktable feeding motor	N.m 30 (FANUC) / 36 (SIEMENS)
	头架主轴 Power of work head spindle motor	kW 5.5 (4P)
	液压泵 Hydraulic pump motor	kW 1.1 (4P)
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 2.2 (4P)
容积 Cubage dimension	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 75
	主轴轴承油箱 Spindle bearings oil tank	L 75
机床净重 Net weight		kg 18000



## B2-K089 双砂轮架数控车轴磨床

### B2-K089 Double Wheel Head CNC Axle Grinding Machine

**B2-K089** 双砂轮架数控车轴磨床是北京第二机床厂有限公司在成熟产品的技术平台上、针对轨道交通行业的高性能动车车轴精加工需求而研制的能够在一次装卡中，通过两个砂轮架的顺序、独立进给，完成对车轴两端的所有外圆、端面 and 过渡圆弧面的高精度、高效率成型磨削的数控加工机床。该机床采用双砂轮架移动式布局，固定式工作台，刚性高、布局紧凑的一体式矩形结构床身。机床整机刚性高、承载大、精度高、性能优，特别适用于高性能动车车轴的高速、精密磨削。

**B2-K089** Double Wheel head CNC Axle Grinding Machine is a kind of special designed machine focus on axle grinding of bullet train in the railway transportation industry. The designing of the machine is based on the mature technology of our company. It can finish grinding of cylindrical surface, end face and transition circular arc on both ends of axle in one chucking. The double wheel head structure, fixed working table are employed on this machine. Bed of the machine is of Rectangular shape and it characterized by high rigidity and compact layout. The whole machine is with features on good rigidity, excellent loading capacity, and high machining precision; it's suitable for precise grinding of bullet train axle.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	B2 - K089
最大回转直径 Max. swiveling diameter	mm	Φ630
顶尖距 Distance between Centers	mm	3000
中心高 Height of center	mm	335
最大磨削直径 Max. grinding diameter	mm	Φ630
顶尖间最大重量 Max. workpiece weight between centers	kg	1500
控制系统 Control System		SIEMENS
砂轮 (最大) Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ900×300×Φ305
	线速度 Linear speed	50/60
	全行程 Total travel	330
砂轮架 (X轴) Wheel head (X axis)	进给速度 Feed speed	0.05 - 5000
	最小设定单位 Min. setting unit	0.001
	斜置角度 Oblique angle	度(°) -70 70
滑台 Sliding table	进给速度 Feed speed	0.05 - 5000
	最小设定单位 Min. setting unit	0.001
头架 Work head	顶尖 Center	MT.NO.6
	转速 Rotating speed	r/min 30 - 300 (无级调速) (stepless)
尾架 Tailstock	顶尖 Center	MT.NO.6
	顶尖行程 Travel of center	mm 90
	砂轮主轴电机 Power of wheel spindle motor	kW 37
	砂轮架进给 Torque of wheel head feeding motor	N.m 36 (SIEMENS)
电气系统 Electrical system	工作台进给 Torque of worktable feeding motor	N.m 36 (SIEMENS)
	头架主轴 Power of work head spindle motor	kW 5.5k
	液压泵 Hydraulic pump motor	kW 1.1 (4P)
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 3.75 (4P)
容积 Cubage dimension	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 75
	主轴轴承油箱 Spindle bearings oil tank	L 300 x 2
机床净重 Net weight		kg 30000



## B2-K1016 型数控凸轮轴磨床

### B2-K1016 CNC Camshaft Grinding Machine

**B2-K1016**型数控凸轮轴磨床是我公司自行设计、自行研发的用于凸轮轴磨削的高档数控机床。该机床应用生产型数控磨床设计方法和数控非圆磨削技术实现凸轮型面数控联动磨削，加工柔性强，操作简便可靠，并具有高刚度、高效率、高可靠性的特点，达到国际先进水平。

Being a top grade CNC machine tool, B2-K1016 CNC camshaft grinding machine is designed and developed by ourselves. The machine is designed for camshaft grinding. Based on design method of production type CNC grinding machine and non-round grinding technology, the machine tool realizes cam profile CNC linkage grinding. With strong processing flexibility, simple and reliable operation, the machine tool is of international advanced standard for its high stiffness, efficiency and reliability.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	B2 - K1016
最大回转直径 Max. swiveling diameter	mm	Φ360
顶尖距 Distance between Centers	mm	750 / 1000
中心高 Height of center	mm	180
最大磨削直径 Max. grinding diameter	mm	Φ320
顶尖间最大重量 Max. workpiece weight between centers	kg	150
控制系统 Control System		FANUC / SIEMENS
砂轮 (最大) Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ370 (CBN)
	线速度 Linear speed	mm/sec 120
砂轮架 Wheel head	全行程 Total travel	mm 330
	进给速度 Feed speed	mm/min 0.1 - 40000
	最小设定单位 Min. setting unit	mm 0.001
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable
	进给速度 Feed speed	mm/min 0.1 - 20000
	最小设定单位 Min. setting unit	mm 0.001
头架 Work head	顶尖 Center	MT.NO.5
	转速 Rotating speed	r/min 0 - 200 (无级调速) (stepless)
尾架 Tailstock	顶尖 Center	MT.NO.5
	顶尖行程 Travel of center	mm 60
	砂轮主轴电机 Power of wheel spindle motor	kW 30
	砂轮架进给 Torque of wheel head feeding motor	N.m 9000 (FANUC) / 5880 (SIEMENS)
电气系统 Electrical system	工作台进给 Torque of worktable feeding motor	N.m 22 (FANUC) / 27 (SIEMENS)
	头架主轴 Power of work head spindle motor	kW 10
	液压泵 Hydraulic pump motor	kW 0.75 (4P)
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)
容积 Cubage dimension	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45
	主轴轴承油箱 Spindle bearings oil tank	L 100
机床净重 Net weight		kg 11000



## B2-K1018型 双砂轮架随动式数控曲轴磨床

### B2-K1018 Double Wheel Head Follow-up CNC Crankshaft Grinding Machine

B2-K1018型双砂轮架随动式数控曲轴磨床采用先进的跟随摆动式磨削连杆颈技术，通过两个砂轮架进给轴（X1、X2轴）与工件回转轴（C1、C2轴）联动配合装置实现全闭环控制，可以同时磨削曲轴两个任意相位的连杆颈，也可同时磨削一个连杆颈和一个主轴颈或两个主轴颈。彻底解决传统偏心夹具式曲轴磨床加工柔性差、调整复杂的问题。可一次装夹完成对曲轴连杆颈、主轴颈、止推面的精密加工，是曲轴零件批量加工的精良设备，操作简便、性能可靠、加工精度高。

B2-K1018 Double Wheel Head Follow-up CNC Crankshaft Grinding Machine is applied the advanced technology of follow-up swing type grinding rod journal, and by means of CNC linkage between two grinding wheel feed axes (X1 and X2 axis) and workpiece rotation axes (C1 and C2 axis) as well as on-line measurement under full closed loop control, synchronous grinding of rod journals with different phases, one main journal and one crankpin or two main journals on crankshaft can be realized, thus thoroughly resolved the weakness of poor flexibility and complicated adjusting on the traditional eccentric clamp type crankshaft grinding machine. The machine tool is capable of one-time clamping to ensure the accurate processing of the crankpin, main journal and thrust surface of the crankshaft. The machine features on easy operating, reliable capacity and high machining precision.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	B2 - K1018
最大回转直径 Max. swiveling diameter	mm	Φ520
顶尖距 Distance between Centers	mm	600 / 1200
中心高 Height of center	mm	350
顶尖间最大重量 Max. workpiece weight between centers	kg	150
控制系统 Control System		FANUC / SIEMENS
砂轮 (最大)	外径×宽×内径 OD×W×ID	Φ650×(16 - 80) (CBN)
Grinding wheel (Max.)	线速度 Linear speed	mm/sec 120
砂轮架 (X轴)	全行程 Total travel	mm 400
Wheel head (X axis)	进给速度 Feed speed	mm/min 0.01 - 60000
	最小设定单位 Minimum setting unit	mm 0.0001
后置下滑台 (Z轴)	型式 Type	后置纵向移动 Backward longitudinal movement
Backward lower	进给速度 Feed speed	mm/min 0.02 - 20000
sliding table (Z axis)	最小设定单位 Minimum setting unit	mm 0.001
头架	顶尖 Center	专用卡盘 Special purpose chuck
Work head	转速 Rotating speed	r/min 0 - 200 (无级调速) (stepless)
尾架	顶尖 Center	专用卡盘 Special purpose chuck
Tailstock	转速 Rotating speed	r/min 0 - 200 (无级调速) (stepless)
	顶尖行程 Travel of center	mm 100
电气系统	砂轮主轴电机 Power of wheel spindle motor	kW ~30
Electrical system	砂轮架进给 Feeding of wheel head	直线电机 Linear motor
	后置下滑台进给 Feeding of backward sliding table	N.m 30
总功率 Total power	kW	~160
机床净重 Net weight	kg	~25000



## B2-K1020/K1022型 车轴专用数控高速(端面)外圆磨床

### B2-K1020/K1022 Train Axle High Speed CNC (End Face) Cylindrical Grinding Machine

B2-K1020、B2-K1022型数控车轴磨床是北京第二机床厂有限公司在成熟产品的技术平台上，针对轨道交通行业的高性能动车车轴精加工需求而研制的生产型数控磨床。机床适用于大批量加工高铁等车轴类零件的轮座面、密封座面的外圆、端面 and 过度圆弧的高精度、高效率成型磨削的数控加工，具有刚性高、承载大、精度高、性能优等特点。

CNC axle grinder is Beier Machine Tool Works Co., Ltd on a mature product technology platform, in order to meet fine finishing of high performance train axles of Rail transportation industry requirement, developed production-CNC grinding machine B2-K1020, B2-K1022. Machine is suitable for large batch processing high-speed railway axle wheel seat surface, cylindrical sealed surface, end-face and excessive arc section, with high rigidity, strong bearing, high accuracy, high efficiency.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	B2-K1020	B2-K1022
最大回转直径 Max. swiveling diameter	mm	Φ630	
顶尖距 Distance between Centers	mm	3000	
中心高 Height of center	mm	335	
最大磨削直径 Max. grinding diameter	mm	Φ500	
顶尖间最大重量 Max. workpiece weight between centers	kg	1500	
控制系统 Control System		SIEMENS / FANUC	
砂轮 (最大)	外径×宽×内径 OD×W×ID	mm Φ750×300×Φ305	Φ750×350×Φ305
Grinding wheel (Max.)	线速度 Linear speed	mm/sec 50	
	全行程 Total travel	mm 430	
砂轮架	进给速度 Feed speed	mm/min 0.05 - 5000	
Wheel head	最小设定单位 Min. setting unit	mm 0.001	
	斜置角度 Oblique angle	度(°) 0	20
	型式 Type	两层调维工作台 Two layer conical degree adjusting worktable	
工作台	进给速度 Feed speed	mm/min 0.05 - 5000	
Worktable	最小设定单位 Min. setting unit	mm 0.001	
头架	顶尖 Center	MT.NO.6 / 公制 metric 80	
Work head	转速 Rotating speed	r/min 20 - 200 (无级调速) (stepless)	
尾架	顶尖 Center	MT.NO.6 / 公制 metric 80	
Tailstock	顶尖行程 Travel of center	mm 90	
	砂轮主轴电机 Power of wheel spindle motor	kW 37	
	砂轮架进给 Torque of wheel head feeding motor	N.m 36 (SIEMENS) / 30 (FANUC)	
电气系统	工作台进给 Torque of worktable feeding motor	N.m 36 (SIEMENS) / 30 (FANUC)	
Electrical system	头架主轴 Power of work head spindle motor	kW 5.5	
	液压泵 Hydraulic pump motor	kW 1.1 (4P)	
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 3.75 (4P)	
容积	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 75	
Cubage dimension	主轴轴承油箱 Spindle bearings oil tank	L 300	
机床净重 Net weight	T	22	





## B2-K3000型高精度复合磨削中心

### B2-K3000 High Precision Complex Grinding Center

B2-K3000型B2-K3000系列高精度复合磨削中心是我公司在多年数控磨床设计制造的基础上,引进国外先进技术、消化吸收,创新开发的具有自主知识产权,国际先进水平的高档数控机床。

Based on our years experience over designing and manufacturing CNC grinding machines and digested international advanced technology, B2-K3000 series high precision complex grinding center is a high grade CNC machine tool of advanced international level, innovated and developed by our company with proprietary intellectual property rights.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	B2 - K3020	B2 - K3032
顶尖距 Distance between Centers	mm	500 / 750 / 1000	500 / 1000 / 1500
中心高 Height of center	mm	160	180
最大磨削直径 Max. grinding diameter	mm	Φ200	Φ320
内孔磨削范围 Range of internal grinding	mm	Φ13 - Φ80	Φ16 - Φ125
顶尖间最大重量 Max. workpiece weight between centers	kg	150	
控制系统 Control System	FANUC / SIEMENS		
配置砂轮数	3个(外圆,端面外圆,内圆)		
Range of internal grinding	(cylindrical grinding wheel, end face grinding wheel and internal grinding wheel)		
砂轮架(X轴)	进给速度 Feed speed	mm/min	0.1 - 5000
Wheel head(X axis)	最小设定单位 Min. setting unit	mm	0.001
工作台	型式 Type	两层调锥工作台	
Worktable	进给速度 Feed speed	mm/min	0.1 - 5000
	最小设定单位 Min. setting unit	mm	0.001
头架	顶尖 Center	MT.NO.5	
Work head	转速 Rotating speed	r/min	30 - 300 (无级调速) (stepless)
尾架	顶尖 Center	MT.NO.4	
Tailstock	顶尖套筒行程 Travel of center sleeve	mm	35 (手动 manual) / 60 (液动 hydraulic)
机床净重 Net weight	kg	8000 / 9000 / 10000	10000 / 12000 / 14000



## MGK1320/1420型 高精度数控(万能)外圆磨床

### MGK1320/MGK1420 High Precision CNC (Universal) Cylindrical Grinding Machine

MGK1320、MGK1420型高精度数控(万能)外圆磨床是我公司在多年数控磨床设计制造、使用经验和新技术应用的基础上,开发的高档数控机床产品。具有通用化、模块化程度高,高精度、高刚性、高适应性的特点。适用于军工、航空、航天、精密机械加工车间小批量,精度要求高的零件加工。操作简便、性能可靠、加工精度高。

As the high end CNC machine products, MGK1320 and MGK1420 CNC (universal) cylindrical grinding machines are independently developed on the basis of applying new technologies and rich experience of designing and manufacturing CNC grinding machines. Characterized by universalization, high-degree modularization, high rigidity, high efficiency, high adaptability, high precision, easy to operate and reliable performance, these machines are suitable for small-lot productions in workshops of military industries, aviation industry, aerospace industry and common precision machining.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MGK1320 × 750	MGK1420 × 750
最大回转直径 Max. swiveling diameter	mm	Φ220	
顶尖距 Distance between Centers	mm	750	
中心高 Height of center	mm	160	
最大磨削直径 Max. grinding diameter	mm	Φ220	
顶尖间最大重量 Max. workpiece weight between centers	kg	100	
控制系统 Control System	FANUC / SIEMENS		
砂轮(最大)	外径×宽×内径 OD×W×ID	Φ500×75×Φ203	
Grinding wheel (Max.)	线速度 Linear speed	mm/sec 35	
	全行程 Total travel	mm 227	
砂轮架	进给速度 Feed speed	mm/min 0.1 - 5000	
Wheel head	最小设定单位 Min. setting unit	mm 0.001	
	斜置角度 Oblique angle	度(°) 90	
工作台	型式 Type	两层调锥工作台	
Worktable	进给速度 Feed speed	mm/min 0.1 - 5000	
	最小设定单位 Min. setting unit	mm 0.001	
头架	顶尖 Center	MT.NO.4	
Work head	转速 Rotating speed	r/min 30 - 300 (无级调速) (stepless)	
	内圆磨削电机 Power of internal grinding motor	kW — 0.55	
内孔磨削	内磨磨削范围 Range of internal grinding	mm — Φ13-Φ80	
Internal grinding	最大内圆磨削长度 Max. length of internal	mm — 125	
	卡盘夹持最大工件重量 Max. workpiece weight held by chuck	kg — 30	
尾架	顶尖 Center	MT.NO.4	
Tailstock	顶尖行程 Travel of center	mm 60	
	砂轮主轴电机 Power of wheel spindle motor	kW 7.5	
	砂轮架进给 Torque of wheel head feeding motor	N.m 8 (FANUC) / 16 (SIEMENS)	
电气系统	工作台进给 Torque of worktable feeding motor	N.m 12 (FANUC) / 16 (SIEMENS)	
Electrical system	头架主轴 Power of work head spindle motor	kW 0.75 变频电机 / 1.1 变频电机	
	液压泵 Hydraulic pump motor	kW 0.75 (4P)	
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)	
容积	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45	
Cubage dimension	主轴轴承油箱 Spindle bearings oil tank	L 45	
机床净重 Net weight	kg	6000	6500



## MGK1332/MGK1432型 高精度数控（万能）外圆磨床

### MGK1332/MGK1432 CNC (Universal) Cylindrical Grinding Machines

MGK1332、MGK1432型高精度数控（万能）外圆磨床是我公司在多年数控磨床设计制造、使用经验和新技术应用的基础上，开发的高档数控机床产品。具有通用化、模块化程度高，高精度、高刚性、高适应性的特点。适用于军工、航空、航天、精密机械加工车间小批量，精度要求高的零件加工。操作简便、性能可靠、加工精度高

As the high end CNC machine products, MGK1332 and MGK1432 CNC (universal) cylindrical grinding machines are independently developed on the basis of applying new technologies and rich experience of designing and manufacturing CNC grinding machines. Characterized by universalization, high-degree modularization, high rigidity, high efficiency, high adaptability, high precision, easy to operate and reliable performance, these machines are suitable for small-lot productions in workshops of military industries, aviation industry, aerospace industry and common precision machining.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MGK1332 × 750 × 1000 × 1500	MGK1432 × 750 × 1000 × 1500
最大回转直径 Max. swiveling diameter	mm	Φ350	
顶尖距 Distance between Centers	mm	750/1000/1500	
中心高 Height of center	mm	180	
最大磨削直径 Max. grinding diameter	mm	Φ320	
顶尖间最大重量 Max. workpiece weight between centers	kg	150	
控制系统 Control System		FANUC / SIEMENS	
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ500×75×Φ203	
	线速度 Linear speed	35	
	全行程 Total travel	300	
砂轮架 Wheel head	进给速度 Feed speed	0.1 - 5000	
	最小设定单位 Min. setting unit	0.001	
	斜置角度 Oblique angle	90	
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable	
	进给速度 Feed speed	0.1 - 5000	
	最小设定单位 Min. setting unit	0.001	
头架 Work head	顶尖 Center	MT.NO.5	
	转速 Rotating speed	30 - 300 (无级调速) (stepless)	
内孔磨削 Internal grinding	内圆磨削电机 Power of internal grinding motor	— 1.1	
	内磨磨削范围 Range of internal grinding	— Φ16 - Φ125	
	最大内圆磨削长度 Max. length of internal grinding	— 160	
	卡盘支持最大工件重量 Max. workpiece weight held by chuck	— 30	
尾架 Tailstock	顶尖 Center	MT.NO.5	
	顶尖行程 Travel of center	60	
电气系统 Electrical system	砂轮主轴电机 Power of wheel spindle motor	kW 7.5	
	砂轮架进给 Torque of wheel head feeding motor	N.m 22 (FANUC) / 27 (SIEMENS)	
	工作台进给 Torque of worktable feeding motor	N.m 22 (FANUC) / 27 (SIEMENS)	
	头架主轴 Power of work head spindle motor	kW 1.5 变频电机 variable frequency motor	
	液压泵 Hydraulic pump motor	kW 0.75 (4P)	
容积 Cubage dimension	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)	
	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45	
机床净重 Net weight		kg 10000 / 11000 / 13000 / 1050 / 1150 / 13500	



## MGK1350/MGK1450型 高精度数控（万能）外圆磨床

### MGK1350/MGK1450 High Precision CNC (Universal) Cylindrical Grinding Machine

MGK1350、MGK1450型高精度数控（万能）外圆磨床是我公司在多年数控磨床设计制造、使用经验和新技术应用的基础上，开发的高档数控机床产品。具有通用化、模块化程度高，高精度、高刚性、高适应性的特点。适用于机床主轴、车轴、齿轮轴等中型零件的精密加工，操作简便、性能可靠。

As the high end CNC machine products, MGK1350 and MGK1450 CNC (universal) cylindrical grinding machines are independently developed on the basis of applying new technologies and rich experience of designing and manufacturing CNC grinding machines. Characterized by universalization, high-degree modularization, high rigidity, high efficiency, high adaptability, high precision, easy to operate and reliable performance, these machines are suitable for precision machining of medium-sized parts, such as spindle, car axle, gear shaft etc.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MGK1350 × 1500 × 2000 × 2500 × 3000	MGK1450 × 1500 × 2000 × 2500 × 3000
最大回转直径 Max. swiveling diameter	mm	Φ500	
顶尖距 Distance between Centers	mm	1500/2000/2500/3000	
中心高 Height of center	mm	275	
最大磨削直径 Max. grinding diameter	mm	Φ500	
顶尖间最大重量 Max. workpiece weight between centers	kg	1000	
控制系统 Control System		FANUC / SIEMENS	
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ600×75×Φ305	
	线速度 Linear speed	35 / 45	
	全行程 Total travel	380	
砂轮架 Wheel head	进给速度 Feed speed	0.05 - 5000	
	最小设定单位 Min. setting unit	0.001	
	斜置角度 Oblique angle	90	
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable	
	进给速度 Feed speed	0.05 - 5000	
	最小设定单位 Min. setting unit	0.001	
头架 Work head	顶尖 Center	MT.NO.6	
	转速 Rotating speed	15 - 150 (无级调速) (stepless)	
内孔磨削 Internal grinding	内圆磨削电机 Power of internal grinding motor	— 1.1	
	内磨磨削范围 Range of internal grinding	— Φ50 - Φ200	
	最大内圆磨削长度 Max. length of internal grinding	— 200	
	卡盘支持最大工件重量 Max. workpiece weight held by chuck	— 60	
尾架 Tailstock	顶尖 Center	MT.NO.6	
	顶尖行程 Travel of center	80	
电气系统 Electrical system	砂轮主轴电机 Power of wheel spindle motor	kW 11	
	砂轮架进给 Torque of wheel head feeding motor	N.m 22 (FANUC) / 27 (SIEMENS)	
	工作台进给 Torque of worktable feeding motor	N.m 30 (FANUC) / 36 (SIEMENS)	
	头架主轴 Power of work head spindle motor	kW 3 变频电机 variable frequency motor	
	液压泵 Hydraulic pump motor	kW 0.75 (4P)	
容积 Cubage dimension	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)	
	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45	
机床净重 Net weight		kg 12000/13000/14000/15000/12500/13500/14500/15500	



## MGK1363/1463型 高精度数控（万能）外圆磨床

### MGK1363/MGK1463 High Precision CNC (Universal) Cylindrical Grinding Machine

MGK1363、MGK1463型高精度数控（万能）外圆磨床是我公司在多年数控磨床设计制造、使用经验和新技术应用的基础上，开发的高档数控机床产品。具有通用化、模块化程度高，高精度、高刚性、高适应性的特点。适用于机床主轴、车轴、齿轮轴等大型零件的精密加工，操作简便、性能可靠。

As the high end CNC machine products, MGK1363 and MGK1463 CNC (universal) cylindrical grinding machines are independently developed on the basis of applying new technologies and rich experience of designing and manufacturing CNC grinding machines. Characterized by universalization, high-degree modularization, high rigidity, high efficiency, high adaptability, high precision, easy to operate and reliable performance, these machines are suitable for precision machining large-sized parts, such as spindle, car axle, gear shaft etc.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MGK1363 × 2000 × 2500 × 3000	MGK1463 × 2000 × 2500 × 3000
最大回转直径 Max. swiveling diameter	mm	Φ630	
顶尖距 Distance between Centers	mm	2000 / 2500 / 3000	2000 / 2500 / 3000
中心高 Height of center	mm	335	
最大磨削直径 Max. grinding diameter	mm	Φ630	
顶尖间最大重量 Max. workpiece weight between centers	kg	1000	
控制系统 Control System		FANUC / SIEMENS	
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ750×75×Φ305	
	线速度 Linear speed	35 / 45	
	全行程 Total travel	380	
砂轮架（X轴） Wheel head(X axis)	进给速度 Feed speed	0.05 - 5000	
	最小设定单位 Min. setting unit	0.001	
	斜置角度 Oblique angle	90	
工作台 Worktable	型式 Type	两层调整工作台 Two layer conical degree adjusting worktable	
	进给速度 Feed speed	0.05 - 5000	
	最小设定单位 Min. setting unit	0.001	
头架 Work head	顶尖 Center	MT.NO.6	
	转速 Rotating speed	15 - 150 (无级调速) (stepless)	
内孔磨削 Internal grinding	内圆磨削电机 Power of internal grinding motor	— 1.1	
	内磨磨削范围 Range of internal grinding	— Φ50 - Φ200	
	最大内圆磨削长度 Max. length of internal	— 200	
	卡盘支持最大工件重量 Max. workpiece weight held by chuck	— 60	
尾架 Tailstock	顶尖 Center	MT.NO.6	
	顶尖行程 Travel of center	80	
	砂轮主轴电机 Power of wheel spindle motor	kW 37	
	砂轮架进给 Torque of wheel head feeding motor	N.m 30 (FANUC) / 36 (SIEMENS)	
	工作台进给 Torque of worktable feeding motor	N.m 30 (FANUC) / 36 (SIEMENS)	
电气系统 Electrical system	头架主轴 Power of work head spindle motor	kW 3 变频电机 variable frequency motor	
	液压泵 Hydraulic pump motor	kW 1.1 (4P)	
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 2.2 (4P)	
容积 Cubage dimension	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45	
	主轴轴承油箱 Spindle bearings oil tank	L 45	
机床净重 Net weight		kg 16000/17000/18000 17000/18000/19000	



## MKS1320/MKS1620型 数控（端面）外圆磨床

### MKS1320/1620 CNC (End Face) Cylindrical Grinding Machine

MKS1320、MKS1620型数控（端面）外圆磨床是我公司引进日本丰田工机先进技术，经消化吸收、创新研制的具有国际先进水平的中规格数控外圆磨床产品，具有高刚性、高效率及高适应性的特点。适合在汽车、摩托车、空压机、轴承等行业的大批量生产中使用，也适用于军工、航空、航天、一般精密机械加工车间小批量，精度要求高的零件加工，是操作简便、性能可靠、加工精度高的生产型数控外圆磨床。

As medium-size CNC cylindrical grinding machines with international advanced level, MKS1320 and MKS1620 CNC (endface) cylindrical grinding machines are independently developed and manufactured through the Company's import, digestion and absorption of advanced technologies of TOYODA. They are with the characteristics of high rigidity, high efficiency and high adaptability. Being the productive CNC cylindrical grinding machines with features easy-to-operate, reliable performance and high processing precision, these machine tools are suitable for the usage in mass productions for industries including automobile, motorbikes, air compressors, bearings and also small-scale high precision productions in workshops of military industries, aviation industry, aerospace industry.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MKS1320 × 320 × 630 × 750	MKS1620 × 320 × 630 × 750
最大回转直径 Max. swiveling diameter	mm	Φ220	
顶尖距 Distance between Centers	mm	320 / 630 / 750	
中心高 Height of center	mm	160	
最大磨削直径 Max. grinding diameter	mm	Φ200	
顶尖间最大重量 Max. workpiece weight between centers	kg	100	
控制系统 Control System		FANUC / SIEMENS	
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ500×110×Φ203.5 / Φ600×80×Φ305 / Φ410 - Φ500 (CBN)	
	线速度 Linear speed	mm/sec 45 / 60 / 80 (CBN)	
	全行程 Total travel	mm 227	
砂轮架（X轴） Wheel head(X axis)	进给速度 Feed speed	mm/min 0.1 - 5000	
	最小设定单位 Min. setting unit	mm 0.001	
	斜置角度 Oblique angle	度(°) 90	60
工作台 Worktable	型式 Type	一体式单层工作台 One layer integrated worktable	
	进给速度 Feed speed	mm/min 0.1 - 5000	
	最小设定单位 Min. setting unit	mm 0.001	
头架 Work head	顶尖 Center	MT.NO.4	
	转速 Rotating speed	r/min 30 - 300 (无级调速) (stepless)	
尾架 Tailstock	顶尖 Center	MT.NO.4	
	顶尖行程 Travel of center	mm 60	
	砂轮主轴电机 Power of wheel spindle motor	kW 7.5 / 11	
	砂轮架进给 Torque of wheel head feeding motor	N.m 8 (FANUC) / 16 (SIEMENS)	
电气系统 Electrical system	工作台进给 Torque of worktable feeding motor	N.m 12 (FANUC) / 16 (SIEMENS)	
	头架主轴 Power of work head spindle motor	N.m 4.7 (FANUC) / 6 (SIEMENS)	
	液压泵 Hydraulic pump motor	kW 0.75 (4P)	
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)	
容积 Cubage dimension	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45	
	主轴轴承油箱 Spindle bearings oil tank	L 45	
机床净重 Net weight		kg 4500/5500/6500 4500/5500/6500	





## MKS1320H/G、MKS1620H/G 型 数控（端面）外圆磨床

### MKS1320H/G And MKS1620H/G CNC (Endface) Cylindrical Grinding Machine

MKS1320H/G、MKS1620H/G型数控（端面）外圆磨床是我公司消化吸收国外先进技术，自行研制的中、小规格数控外圆磨床产品，具有结构紧凑，整体刚性强，精度高等特点。本机适合在大批量生产中使用，是操作简便、性能可靠、高性价比的数控外圆磨床。

As the small and medium-size CNC cylindrical grinding machines with international advanced level, MKS1320H/G and MKS1620H/G CNC (endface) cylindrical grinding machine are independently developed and manufactured through the Company's import, digestion and absorption of overseas advanced technologies, with the characteristics of compact structure, high rigidity and high precision. Being the productive CNC cylindrical grinding machines of easy-to-operate, reliable performance and high cost performance, these machine tools are suitable for the usage in mass productions.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MKS1320H MKS1620H	MKS1320G MKS1620G
最大回转直径 Max. swiveling diameter	mm	Φ220	
顶尖距 Distance between Centers	mm	500	
中心高 Height of center	mm	160	125
最大磨削直径 Maximum grinding diameter	mm	Φ200	
顶尖间最大重量 Max. workpiece weight between centers	kg	50	
控制系统 Control System	FANUC / SIEMENS		
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ600×80×Φ305 Φ500×80×Φ203.5	
	线速度 Linear speed	45 35 / 45	
	全行程 Total travel	270 220	
砂轮架（X轴） Wheel head (X axis)	进给速度 Feed speed	0.1 - 5000	
	最小设定单位 Minimum setting unit	0.001	
	斜置角度 Oblique angle	度(°) 90 (1320型) / 60 (1620型)	
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable	
	进给速度 Feed speed	0.1 - 5000	
	最小设定单位 Minimum setting unit	0.001	
头架 Work head	顶尖 Center	MT.NO.4	
	转速 Rotating speed	r/min 30 - 300 (无级调速) (stepless)	
尾架 Tailstock	顶尖 Center	MT.NO.4	
	顶尖行程 Travel of center	mm 25 / 60	
	砂轮主轴电机 Power of wheel spindle motor	kW 7.5 / 11	
	砂轮架进给 Torque of wheel head feeding motor	N.m 12 (FANUC) / 11 (SIEMENS)	
	工作台进给 Torque of worktable feeding motor	N.m 8 (FANUC) / 11 (SIEMENS)	
电气系统 Electrical system	头架主轴 Power of work head spindle motor	kW 0.75 (4P)	
	液压泵 Hydraulic pump motor	kW 0.75 (4P)	
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)	
容积 Cubage dimension	液压油 + 润滑油油箱 Hydraulic and lubricating oil tank	L 45	
	主轴轴承油箱 Spindle bearings oil tank	L 45	
机床净重 Net weight		kg 4000	



## MKS1332/MKS1632型 数控（端面）外圆磨床

### MKS1332 And MKS1632 CNC (Endface) Cylindrical Grinding Machines

MKS1332、MKS1632型数控（端面）外圆磨床是我公司在多年数控磨床设计制造、使用经验和新技术的基础上，开发的中、高档系列数控机床产品。具有通用化、模块化程度高，高刚性、高效率及高适应性的特点。已应用于汽车发动机曲轴、凸轮轴，传动系统中传动轴、半轴、齿轮轴，差速器壳体、法兰盘等零件的大批量生产型加工；也适用于军工、航空、航天、一般精密机械加工车间小批量，精度要求高的零件加工，是操作简便、性能可靠、加工精度高的数控外圆磨床。

As middle and high grade CNC machine tools, MKS1332 and MKS1632 CNC (end face) cylindrical grinding machines are independently developed on the basis of applying new technologies and rich experience of designing and manufacturing CNC grinding machines. Characterized by the universalization, high-degree modularization, high rigidity, high efficiency, high adaptability, high precision, easy to operate and reliable performance, these machines are suitable for the mass productive processing of automobile engine crankshaft, camshaft, differential housing, flange plate, and parts of transmission system, such as transmission shaft, half shaft, gear (wheel) shaft, etc., in addition, they also can be applied in the small-scale high precision productions in workshops of military industries, aviation industry, aerospace industry and common precision machining.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MKS1332 ×750 ×1000 ×1500	MKS1632 ×750 ×1000 ×1500
最大回转直径 Max. swiveling diameter	mm	Φ350	
顶尖距 Distance between Centers	mm	750	1000 1500
中心高 Height of center	mm	180	
最大磨削直径 Maximum grinding diameter	mm	Φ320	
顶尖间最大重量 Max. workpiece weight between centers	kg	150	
控制系统 Control System	FANUC / SIEMENS		
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ750×120×Φ305 / Φ500 (CBN)	
	线速度 Linear speed	mm/sec 45 / 60 / 80 (CBN)	
	全行程 Total travel	mm 330	
砂轮架（X轴） Wheel head (X axis)	进给速度 Feed speed	mm/min 0.1 - 5000	
	最小设定单位 Minimum setting unit	mm 0.001	
	斜置角度 Oblique angle	度(°) 90 90 90 60 60 60	
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable	
	进给速度 Feed speed	mm/min 0.1 - 5000	
	最小设定单位 Minimum setting unit	mm 0.001	
头架 Work head	顶尖 Center	MT.NO.5	
	转速 Rotating speed	r/min 30 - 300 (无级调速) (stepless)	
尾架 Tailstock	顶尖 Center	MT.NO.5	
	顶尖行程 Travel of center	mm 60	
	砂轮主轴电机 Power of wheel spindle motor	kW 18.5	
	砂轮架进给 Torque of wheel head feeding motor	N.m 22 (FANUC) / 27 (SIEMENS)	
	工作台进给 Torque of worktable feeding motor	N.m 22 (FANUC) / 27 (SIEMENS)	
电气系统 Electrical system	头架主轴 Power of work head spindle motor	kW 22 (FANUC) / 27 (SIEMENS)	
	液压泵 Hydraulic pump motor	kW 0.75 (4P)	
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75 (4P)	
容积 Cubage dimension	液压油+润滑油油箱 Hydraulic and lubricating oil tank	L 45	
	主轴轴承油箱 Spindle bearings oil tank	L 45	
机床净重 Net weight		kg 10000 11000 13000 10000 11000 13000	



## MKS1350/1363、MKS1650/1663型 数控（端面）外圆磨床

### MKS1350/1363 And MKS1650/166 CNC(endface) Cylindrical Grinding Machines

MKS1350/1363、MKS1650/1663型数控（端面）外圆磨床是我公司引进国外先进技术，经消化吸收，自行设计开发制造的大型数控机床产品。具有通用化、模块化程度高，高刚性、高效率及高适应性的特点。适用于大型轴类零件成批或大批量生产场合，是操作简便、性能可靠、加工精度高的大型数控外圆磨床。

MKS1350/1363 and MKS1650/166 CNC (endface) cylindrical grinding machines are large-size CNC machine tools independently designed, developed and manufactured through the Company's import, digestion and absorption of overseas & domestic advanced technologies. They are characterized by the universalization, high-degree modularization, high rigidity, high efficiency and high adaptability. Being large-size CNC cylindrical grinding machines of convenient operations, reliable performance and high processing precision, the series of machine tools are suitable for mass production of parts of large-size shaft parts.

#### 技术参数

#### Technical parameters

项目 ITEM	单位 UNIT	MKS1350 / MKS1363				MKS1650 / MKS1663			
		×1500	×2000	×2500	×3000	×1500	×2000	×2500	×3000
最大回转直径 Max. swiveling diameter	mm	Φ540/Φ670				Φ540/Φ670			
顶尖距 Distance between Centers	mm	1500	2000	2500	3000	1500	2000	2500	3000
中心高 Height of center	mm	275/335				275/335			
最大磨削直径 Maximum grinding diameter	mm	Φ500/Φ630				Φ500/Φ630			
顶尖间最大重量 Max. workpiece weight between centers	kg	1000/2000							
控制系统 Control System		FANUC/SIEMENS							
砂轮（最大） Grinding wheel (Max.)	外径×宽×内径 OD×W×ID	Φ750×120~200×Φ305/Φ900×100×Φ305							
	线速度 Linear speed	mm/sec 45/60							
	全行程 Total travel	mm 390/450							
砂轮架（X轴） Wheel head (X axis)	进给速度 Feed speed	mm/min 0.1 - 5000							
	最小设定单位 Minimum setting unit	mm 0.001							
	斜置角度 Oblique angle	度(°) 90				60			
工作台 Worktable	型式 Type	两层调锥工作台 Two layer conical degree adjusting worktable							
	进给速度 Feed speed	mm/min 0.1 - 5000							
	最小设定单位 Minimum setting unit	mm 0.001							
头架 Work head	顶尖 Center	MT.NO.6/公制 metric 80							
	转速 Rotating speed	r/min 15 - 150 (无级调速) (stepless)							
尾架 Tailstock	顶尖 Center	MT.NO.6/公制 metric 80							
	顶尖行程 Travel of center	mm 70							
电气系统 Electrical system	砂轮主轴电机 Power of wheel spindle motor	kW 18.5/22(MKS1350/MKS1650), 30/37(MKS1363/MKS1663)							
	砂轮架进给 Torque of wheel head feeding motor	N.m 22(FANUC)/27(SIEMENS)(MKS1350/MKS1650) 30(FANUC)/36(SIEMENS)(MKS1363/MKS1663)							
	工作台进给 Torque of worktable feeding motor	N.m 22(FANUC)/27(SIEMENS)(MKS1350/MKS1650) 30(FANUC)/36(SIEMENS)(MKS1363/MKS1663)							
	头架主轴 Power of work head spindle motor	kW 4/5.5				4/5.5			
容积 Cubage dimension	液压泵 Hydraulic pump motor	kW 0.75(4P)							
	砂轮主轴轴承润滑油泵 Power of wheel spindle bearing lubrication pump	kW 0.75(4P)							
	液压油+润滑油油箱 Hydraulic and lubricating oil tank	L 45/75							
机床净重 Net weight	T	11/14	12/16	13/18	14/20	11/14	12/16	13/18	14/20

## 机电院机床产品

