



## M1350 - Cylindrical

*M13 series cylindrical surface grinder is suitable for grinding outer surface of cylinder and taper. it is suitable for single and small batch production.*

*The longitudinal movement of the workable is driven by hydraulic or by handwheel, the worktable can rotate to a certain degree so as to be suitable for grinding taper.*

*The wheelhead cross feed is driven by hydraulic, which realizes automatic periodical feed and rapid feed. it can also do rough and fine feed through handwheel.*

*The workhead spindle, wheelhead spindle, internal grinding spindle, coolant pump, hydrodynamic and hydrostatic oil pump are driven by separate motors*

*The spindle of M1350 series is supported by hydrostatic and hydrostatic lubrication, its movement on low speed is smooth.*

*The spindle of M1350 series is supported by hydrostatic and hydrodynamic bearing of high rigidity, it makes the spindle have high rotary accuracy and perfect rigidity.*

*The wheelhead of M1350 adopts double – speed motor and its speed can be changed by changing the position of belt.*

*Each moving parts of the machine has electric, hydraulic and mechanic interlock structure the machine is well designed with pleasing appearance, all control lever are centralized in panel make operating easy.*

*The wheel dresser can be assembled on the worktable surface or on the tailstock.*

*There have many different distance between the centers for choice.*

**Standard accessories:**

- (1) complete set of electrical equipment (2) coolant equipment (3) wheel periphery dresser (4) wheel flange (5) wheel balancing arbor (6) leveling wedge*
- (7) open type steady rest (8) carbide tipped center*

**Optional accessories:**

- (1) wheel balancing stand (2) magnetic separator (3) center grinding attachment*
- (4) close type steady rest (5) end wheel dresser (6) radius wheel dresser*

item/model		unit	M1350
General capacity	Distance between centers		1500、
			2000、
			3000
	Center height	mm	270
	Dia.ground (O.D.)	mm	25-500

	Max.length ground (O.D.)	mm	1500、 2000、 3000
	Max.weight of workpiece	kg	1000
workhead	Center taper	MT	6
	Spindle speed	r/min	50HZ:18-140
wheelhead	Wheel spindle speed	rpm	870
	Wheelhead rapid travel	mm	100
	max.travel	mm	437.5
	Hand feed per.rev.	mm	rough : 4 fine : 0.5
	Hand feed per gra.	mm	rough : 0.02 fine : 0.0025
	Weel size ( O.D.* W *D)	mm	750*75*305
	Peripheral velocity	m/s	
table	Hand feed per rev.	mm	5
	Max. Swiveling angle of table	clockwise	° 3° (1500) 2° (2000、3000)
		Anti clockwise	° 6° (1500) 5° (2000) 3° (3000)
	Longitudinal speed range of table	m/min	0.1-4
	tailtock	Center taper	MT
Quil travel		mm	70
motor	Wheelhead motor power	kw	15
	Workhead motor power	kw	2.2/3.6
machine	Gross weight	T	11.2 (1500) 、 13 (2000) 、 17.4 (3000)
	Packing dimension	cm	540*270*210(1500) 610*270*210(2000) 810*270*210(3000)

項目 Item / 型號 Model	單位 Unit	MW1320	M1332	M1350	M1363	M1380
<b>● 一般能力 General capacity</b>						
頂尖距 Distance between centers	mm	500、750	1000、1500、2000、3000	1500、2000、3000、4000	2000、3000、4000、5000	3000、4000、5000
中心高 Center height	mm	135	180	270	370	500
可磨外圓直徑範圍 Dia. Ground(O.D)	mm	5~200	8~320	25~500	30~630	50~800
可磨外圓最大長度 Max. length ground(O.D)	mm	500、750	1000、1500、2000、3000	1500、2000、3000、4000	2000、3000、4000、5000	3000、4000、5000
可磨工件最大重量 Max. weight of work piece	kg	100	150	1000	3000	3000
<b>● 頭架 Workhead</b>						
中心鐘度 Center taper(MI)	莫氏(MI)	4	5	6	公制(metric)80 #	公制(metric)100 #
主軸轉速 Spindle speed	r/min	50-HZ:25~380 Stepless	26、52、90、130、180、260	50-HZ:18~180 stepless	50-HZ:10~100 stepless	50-HZ:10~100 stepless
<b>● 砂輪架 Wheelhead</b>						
砂輪主軸轉速 Wheel spindle speed	r/min	1335	1100	870	870	870
快速進給量 Wheelhead rapid travel	mm	50	50	100	100	100
最大移動量 Max. travel	mm	205	235	438	475	550
手動一轉砂輪架移動量 Hand feed per. rev		粗 rough: 2 精 fine:0.5	粗 rough: 2 精 fine:0.5	粗 rough:4 精 fine: 0.5	粗 rough:4 精 fine: 0.5	粗 rough:4 精 fine: 0.5
手動一轉砂輪架移動量 Hand feed per. gra		粗 rough:0.01 精 fine:0.0025	粗 rough:0.01 精 fine:0.0025	粗 rough:0.02 精 fine:0.0025	粗 rough:0.02 精 fine:0.0025	粗 rough:0.02 精 fine:0.0025
砂輪最大尺寸(外径×寬度×孔徑) Wheel size (OD×WD)	mm	500×50×203	600×63×305	750×75×305	750×75×305	750×75×305
砂輪線速度 Peripheral velocity	m/s	35	35	35	35	35
<b>● 工作臺 Table</b>						
手動一轉工作臺移動量 Hand feed per. rev	mm	6	6	5	5	5
工作臺最大旋轉角度 Max. swiveling angle of table	順時針 Clockwise	3°	3° (1000、1500)、2° (2000、3000)	3° (1500)、2° (2000、3000)、1° (4000)	2° (2000)、1° (3000、4000、5000)	2° (2000)、1° (3000、4000、5000)
	逆時針 Anticlockwise	9° (500)、8° (750)	7° (1000)、6° (1500)、5° (2000)、3° (3000)	6° (1500)、5° (2000)、3° (3000)、2° (4000)	4° (2000)、3° (3000)、2.5° (4000)、1.5° (5000)	4° (2000)、3° (3000)、2.5° (4000)、1° (5000)
工作臺縱向移動速度範圍 Longitudinal speed range of table	m/min	0.1~4	0.1~4	0.1~3	0.1~2.5	0.1~2.5
<b>● 尾架 Tailstock</b>						
中心鐘度 Center taper(MI)	莫氏(MI)	4	4	6	公制(metric)80 #	公制(metric)100 #
尾架套筒手動移動量 Quill travel	mm	30	30	70	70	70
<b>● 電動機 Motor</b>						
砂輪架電機功率 Wheelhead motor power	kW	5.5	11	15	22	22
頭架電機功率 Workhead motor power	kW	1.1	0.75/1.5	4	15	15
<b>● 機床 Machine</b>						
毛重 Gross weight	t	4 (500)、4.2 (750)	5.3 (1000)、6.1 (1500)、7.9 (2000)、9.9 (3000)	11.2 (1500)、13 (2000)、17.4 (3000)、20 (4000)	22 (2000)、28 (3000)、34 (4000)、39 (5000)	30 (3000)、36 (4000)、41 (5000)
包裝體積 (長×寬×高) Packing dimension	cm	235×203×205(500)	322×200×205(1000)	510×228×210(1500)	695×242×226(2000)	890×260×230(3000)
		275×203×205(750)	422×200×205(1500) 540×200×205(2000) 739×200×205(3000)	585×228×210(2000) 785×228×210(3000) 1000×228×210(4000)	890×242×226(3000) 1100×242×226(4000)	1100×260×230(4000) 分散包裝床身長1250(5000)

● 主要參數 Main parameter

项目 Description	型号 Model	参数 Specifications						
	单位 Unit	MW1320	MW1420	M1432B	M1350	M1450	M1363	M1380
<b>● 一般能力 General capacity</b>								
顶尖距 Distance between centers	mm	500, 750	500, 750	1000, 1500	1500, 2000, 3000	1500, 2000, 3000	3000, 4000, 5000	3000, 4000, 5000
中心高 Center height	mm	135	135	180	270	270	335	500
可磨外圆直径范围 Dia. Ground(O.D)	mm	5~200	5~200	8~320	25~500	25~500	30~630	50~800
可磨内孔直径范围 Dia. Ground(I.D)	mm	—	25~100	30~100	—	30~200		
可磨外圆最大长度 Max. length ground(O.D)	mm	500, 750	500, 750	1000, 1500	1500, 2000, 3000	1500, 2000, 3000	3000, 4000, 5000	3000, 4000, 5000
可磨内孔最大长度 Max. length ground(I.D)	mm	—	100	125		320		
可磨工件最大重量 Max. weight of work piece	Kg	—	100	150	1000	1000	3000	5000
<b>● 头架 Workhead</b>								
体座回转角度 Swiveling angle	°	—	+90°	+90°		+90°		
中心锥度 Center taper(MT)	MT	4	4	4	6	6	公制(metric)80#	公制(metric)100#
主轴转速 Spindle speed	r/min	50HZ:25~380	50HZ:25~380	50HZ:25~220	50HZ:18~140	50HZ:20~224	50HZ:8~150	50HZ:6~80
<b>● 砂轮架 Wheel head</b>								
砂轮主轴转速 Wheel spindle speed	rpm	1335	1670	1670	870	1330/665	740	740
快速进给量 Wheelhead rapid travel	mm	50	50	50	100	100	100	100
最大移动量 Max. travel	mm	205	205	246	437.5	370	475	550
回转角度 Swiveling angle	°		±30°	±30°		-30°		
手轮一转砂轮架移动量	mm	粗 rough: 2 精 fine: 0.5		粗 rough: 4 精 fine: 0.5		粗 rough: 6 精 fine: 0.5		
手轮一格砂轮架移动量	mm	粗 rough: 0.01 精 fine: 0.0025		粗 rough: 0.02 精 fine: 0.0025		粗 rough: 0.02 精 fine: 0.0025		
砂轮最大尺寸(外径×宽度×孔径) wheel size	mm	500×50×203	400×50×203	400×50×203	750×75×305	500×75×305	900×75×305	900×75×305
砂轮线速度	mm	35	35	35	35	35/17.5	35	35
<b>● 内圆磨具 Internal grinding device</b>								
主轴转速 Spindle speed	r/min	—	10000	10000	—	7000	—	—
砂轮尺寸 wheel size	mm	—	最大 max: 35×25×10 最小 min: 17×20×6	最大 max: 50×25×13 最小 min: 17×20×6	—	最大 max: 175×32×32 最小 min: 30×25×10	—	—
<b>● 工作台 Table</b>								
手轮一转工作台移动量 Hand feed per. rev	mm	6	6	6	5		5	5
工作台最大回转角度 Max. swiveling angle	顺时针 clockwise	°	3°	3°	3° (1500), 2° (2000, 3000)		2° (3000), 1° (4000, 5000)	
	逆时针 anticlockwise	°	9° (750), 8° (500)		7° (1000), 6° (1500)		6° (1500), 5° (2000), 3° (3000)	
工作台纵向移动速度范围	m/min	0.1~4	0.1~4	0.1~4	0.1~3	0.1~3	0.1~4	0.1~4
<b>● 尾架 Tailstock</b>								
中心锥度 Center tape(MT)	MT	4	4	4	6	6	公制(metric)80#	公制(metric)100#
套筒手动移动量 Quill travel	mm	30	30	30	70	70	100	100
<b>● 电动机 Motor</b>								
砂轮架电机功率 Wheelhead motor power	Kw	5.5	4	5.5	15	5/7.5	18.5	18.5
内圆磨具电机功率 Internal grinding	Kw		1.1	1.1		1.5		
头架电机功率 Workhead motor power	Kw	0.75	0.75	1.5	2.2/3.6	4	5	10
<b>● 机床 Machine</b>								
毛重 Gross weight	t <sub>s</sub>	4 (500), 4.2 (750)	4.1 (500), 4.3 (750)	5.3 (1000), 6.1 (1500)	11.2 (1500), 13 (2000), 17.4 (3000)		25(3000), 28 (4000), 30 (28/3000), 31 (4000), 35	
包装体积 (长×宽×高) Packing dimension	cm	260×206×205(500) 300×206×205(750)	260×206×205(500) 300×206×205(750)	338×200×205(1000) 438×200×205(1500)	540×270×210(1500) 610×270×210(2000) 810×270×210(3000)			

由于技术不断进步，更改恕不通知。Because of constant development of technique, the information will be changed without notice.