Reliable Reliable quality products

Trustable We put our reputation in first position,

**Responsible** What we promise what we do.

We believe, we can, we just do it.







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# **CNC Forming Grinder Series**



Goodwill focus on grinding technology, One-stop solution for your grinding requirement.





# **CNC** Powerful Forming Grinder Series

MKL7132×8 MKL7150×10 MKL7132×12 MKL7132×25 MKL7150×16



#### Main Features

 $\odot$  Siemens 828d / 840dsl CNC system is adopt ed t o control t he longitudinal movement of worktable, vertical feed of grinding head, transverse feed of column, continuous dressing shaft and grinding wheel The spindle is controlled separately or linked. It has compensation functions such as linear interpolation and circular

interpolation, and can realize automatic grinding interpolation.

 $\odot$  The application of various shaping and t rimming technologies, such as diamond wheel t rimming on the tabl e,

diamond pen or diamond dis c t rimming through Y and Z axes, s wing t rimming and t op mounting Diamond roller online continuous dressing (CD) with high dressing precision.

 $\odot$  Spindle system temperature control technology

 $\odot$  High s peed ball s crew can be configured longitudinal y t o realize reciprocaing grinding of ordinary f lat grinding.

 $\odot$   $\ensuremath{\bigcirc}$   $\ensuremath{\bigcirc}$  contains the dialogue interface, graphic mean the manimum dialogue interface, graphic mean the manimum dialogue interface of the manimum dinterface of the manimum dialogue interface of the manimum dial

display, simple and easy to use.

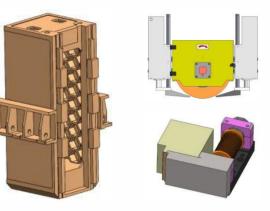
 $\odot$  The shape of t he machine tool is novel, t he mandatory safety standards are implement ed, and t he fully enclosed s hell design meets t he environmental protection requirement s.



### Main specifications and parameters

MODEL:			MKL32×8	MKL7132×12	MKL7132×25	MKL7150×10	MKL7150×16	
Table size (	$W) \times (L)$	mm	320×800	320×1250	320×2500	500×1000	500×1600	
Max. capacity of table		kg	600	800	1500	1200	1500	
Longitudin l movement	a Max. stroke	mm	800	1250	2500	1100	1700	
	<sup>t</sup> Max. speed	mm/min	25000					
(Xaxis)	Min. feed	mm	0.001					
Vertical feed	Distance from spindle c	ent <b>enno</b> tal	ole 150-700			250-800		
	Max. speed	mm/min	3000					
(Yaxis)	Min. feed mm 0.001				0.001			
Lateral movement (Zaxis)	Max. stroke	mm	280			420		
	Max. speed	mm/min	3000					
	Min. feed	mm	0.001					
Spindle	Power	kW	17 ( 30 option )			60(44、90、110 option )		
	Speed	rpm	$0-3000$ ( $5000$ $\times$ 8000 option )			0-3000 ( $5000$ option )		
	Axis jump/radial jump	mm	0.002					
Grinding wheel	Size ( O.D × W × I.D )	mm		400×(20-120)× 127mm option 300×40×76mm			500 × (20-240)) × 203mm option 400 × (10-120) × 127mm 600 × (20-240) × 305mm	
Cooling Positioning accuracy	Pressure	bar	> 10		>12			
	Flow	L/min	>120	) (		>300		
	Y and Z axes	mm	0.004					
Repeat positioning accuracy	(full closed loop) Y and Z axes (full closed loop)	mm	0.002					

\*Due to the continuous development of technology, this volume is for reference only





# Five Axis CNC Powerful Forming Grinder

#### MKL7150×16

This series of machine tools adopts a new layout type of middle waist column moving horizontal axis rectangular table. The machine tool adopts mature slow feed forming strong grinding technology, which can be directly ground into blank shape, advanced technology, high forming precision, high production efficiency and high degree of automation.

The machine tool is mainly used for high-precision grinding of complex curved surfaces such as arc crown of heavy gas turbine blade, inner and outer circles of guide blade, mounting plate and arc groove

It is used for the surface processing of parts such as multi-directional, convex, concave and arc surfaces, including the forming surfaces of various difficult to process materials.



#### Main Features

 $\odot$  X Y, Z and V f our axis guide rail s have advanced structure and technology, s ens it ive feeding and high machining precision.

 $\odot$  Siemens 828D / 840DSL CNC system is adopt ed t o control t he longitudinal movement of worktable, vertical feed of grinding head, transverse feed of column, continuous dressing shaft and grinding wheel

The spindle is controlled separately or linked. It has compensation functions such as linear interpolation and circular interpolation, and can realize automatic grinding interpolation.

 $\odot$  Spindle system temperature control technology

 $\odot\,$  The application of various shaping and t rimming technologies, such as diamond wheel t rimming on the tabl e, diamond pen or diamond dis c t rimming through y and Z axes, s wing t rimming and t op mounting

Diamond roller on-line continuous dressing (CD) with high dressing precision.

 $\odot$  Operation interface f or secondary development of Hangj i: menu type man-machine dialogue interface, graphic display, simple and easy to use.

 $\odot$  The shape of t he machine tool is novel, the mandatory safety standards are implement ed, and t he fully enclosed s hell design meets t he environmental protection requirements.



### Main specifications and parameters

MODEL:			MKL7150×16
Table size (W) $\times$ (L)		mm	500×1600
Max. capacity of table		kg	1500
	Max. stroke	mm	1700
Longitudinal movement	Max. speed	mm/min	25000
(X axis)	Min. feed	mm	0.001
	Distance from spindle center to ta	250-800	
Vertical feed	Max. speed	mm/min	3000
(Y axis)	Min. feed	mm	0.001
	Max. stroke	mm	420
Lateral movement	Max. speed	mm/min	3000
(Z axis)	Min. feed	mm	0.001
Overhead dresser (V axis) (optional)	Max. installation width	mm	160
T:1.	Angle range	(°)	-20° ~ +120°
Tilt axis (A axis)	Min. feed mm	mm	0.001°
Determente	Angle range	(°)	0° ~ 360°
Rotary axis (B axis)	Min. feed mm	mm	0.001°
	Power	kW	60(44、90、110 option)
Spindle	Speed	rpm	0-3000 ( 5000 option )
	Axis jump/radial jump	mm	0.002
Grinding wheel size	nding wheel size $O.D \times W \times I.D$		400×(10−120)×127mm
Caslina	Pressure	bar	> 15
Cooling	Flow	L/min	>200
Positioning accuracy	sitioning accuracy X, Y and Z axes full closed loop)		0.004
Repeat positioning accurac	y X, Y and Z axes full closed loop)	mm	0.002

\*Due to the continuous development of technology, this volume is for reference only







# CNC Powerful Double Head Forming Grinder

#### **MKLD7150**

This series of machine tools adopts advanced slow feed strong form grinding technology, which can realize strong grinding by reducing the longitudinal feed speed of the worktable, increasing the power of the grinding wheel motor and using the formed grinding wheel, and can be directly ground from the blank.

The machine tool is suitable for grinding typical profiles such as fir tree root and linear guide rail of aeroengine and steam turbine blades, as well as symmetrical and asymmetric profiles of other parts with difficult grinding materials.



### Main Features

☉ The layout of t he machine tool is horizontal axis rectangular table. There are upper and lower grinding heads, which make vertical l if ting in t he middle of t he column, and can grind t he upper and lower s ides of the workpiece installed on the workbench at the same time.

⊙ Siemens 828D /840DSL CNC system is adopt ed to control t he longitudinal movement of t he worktabe, the vertical feed of the upper and lower grinding heads and the two grinding wheel shaft motors separatly or in linkage, which can realize the automatic grinding cycle. It has high reliability and performance price ratio.

 $\odot$  The longitudinal drive of t he worktable and t he vertical feed of t he upper and lower grinding heads adopt AC servo motor and ball s crew pair system. The grinding wheel has constant linear s peed control, and the machine tool system has good stiffness and high precision.

 $\odot$  The grinding wheel shaft of grinding head adopts imported high-precision preloaded group angular contact ball bearing.

• The grinding wheel is t rimmed with diamond roller. The grinding wheel dresser is installed on the worktable and can t rim the grinding wheels of the lower and upper grinding heads respectively. Ensure the symmetry of the upper and lower forming surfaces of the grinding workpiece.



### Main specifications and parameters

MODEL: :			MKLD7150
Table size (W) $\times$ (L)		mm	500 × 1000
Max. capacity of table		kg	1000
longitudinal	Max. stroke	mm	1100
movement (X axis)	Max. speed	mm/min	25000
Vertical feed of	Distance from spindle center to t	550-770	
upper grinding head	Max. speed	mm/min	500
(Y1 axis) Vertical feed of lower	Distance from spindle center to tablemm™		70-300
grinding head (Y2	Max. speed	mm/min	500
axis)	Power	kW	$2\times17$ ( $28$ 、 $40$ 、 $52$ option )
Spindle	Speed	rpm	0-3000 ( 5000 option )
	Axis jump/radial jump	mm	0.002
Grinding wheel	wheel Size $(O.D \times W \times I.D)$		500 × (20-100) × 203mm
Cooling	Pressure	bar	>12
Cooling	Flow	L/min	>300
Positioning accuracy	sitioning accuracy X, Y and Z axes full closed loop)		0.004/0.005
Repeat positioning accu	rac¾, Y and Z axes full closed loop)	mm	0.002/0.003

\* Due to the continuous development of technology, this volume is for reference only

☉ The longitudinal linear rolling guide rail and vertical plastic c oat ed guide rail pair adopt centralized automatic lubric at ion.

