SMTW

Experience efficiency and precision

with SMTW Grinding machine

The professional grinding solutions provider

SHANGHAI MACHINE TOOL WORKS LTD.

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SHANGHAI MACHINE TOOL WORKS LTD.

Company Overview

- SMTW, one of the largest leading manufacturers of precise grinding machines in China, was founded in 1946.
- SMTW covers more than 354,200 square meters area and has 560 employees, 214 of whom are technicians.
- The annual capacity of production keeps at a high level of more than 1600 sets.
- Businesses: Grinding machine manufacturing, forming machine, service (maintenance, spare parts, pan-semiconductor)
- SMTW grinding machine of domestic market share keeps about 30%, among which cylindrical grinder is up to more than 50%.
- With 40 years of rich export experience, SMTW has exported Hi-Tech grinding machines to more than 90 countries and regions including Europe, North America and South America, etc.

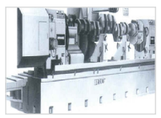
History

1946 SMTW Established

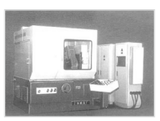
1950 Chinese First Grinder

1959 First Roll Grinder

1975 First Lage size Crankshaft Grinder



1986 First Gear Grinder



1996 Reformed to SMTW Ltd.

2003 First large CNC Cylindrical Grinder

2006 First large CNC Roll Grinder

2009 First large CNC Crankshaft Grinder

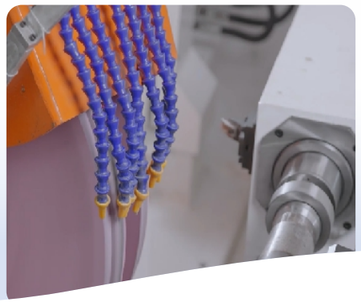
2013 First large CNC Roll Grinder MKA84300

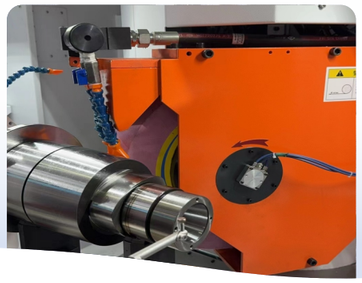
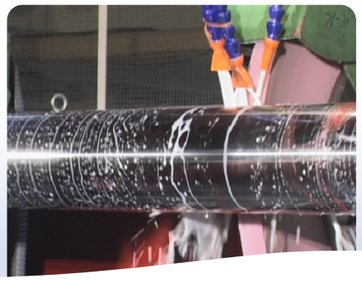
2016 H367

2018 MK8232/SDx750

2021 Mk1632

2023 H377



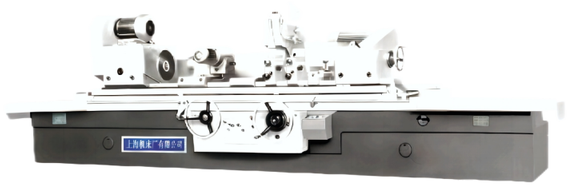

Cylindrical Grinder

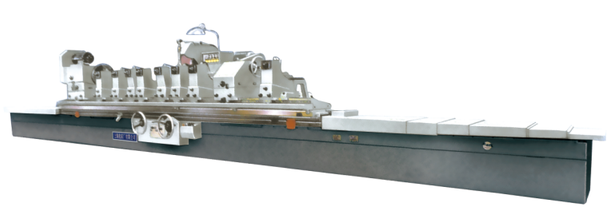
SMTW cylindrical grinders are engineered with robust construction and high-quality components to ensure long-term reliability and performance. From precision engineering to heavy-duty industrial applications, SMTW cylindrical grinders are trusted worldwide for their accuracy, efficiency, and durability.

Features

Conventional manual models offer simplicity and flexibility, allowing operators to adjust settings and perform grinding operations manually. While they may lack the automation features of CNC and PLC-controlled models, they are often preferred for applications that require customized setups or frequent adjustments.

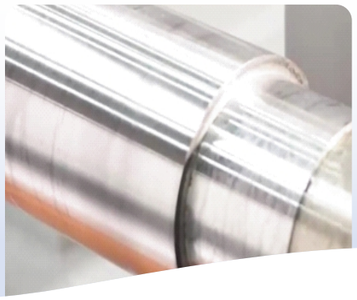
SMTW cylindrical grinders are renowned for their precision and versatility in grinding cylindrical components with exceptional accuracy. Available in various configurations, including CNC-controlled, PLC-controlled, and conventional manual models, these grinders cater to a wide range of machining



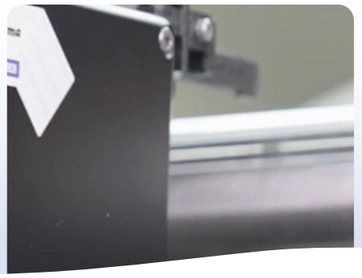


	MA1320/H	M1332B	MQ1350B	H169	H147
Max.grinding diameter (mm)	200	320	500	500	630
Min.grinding diameter (mm)	8	8	25	30	30
Max.grinding length (mm)	500/750	500/1000/1500	1000/1500/2000	5000	4000
		2000/3000	3000/4000	8000	
Center height (mm)	135	180	270	300	350
Max.workpiece weight (kg)	50	150	1000/2000	3000	1200
Wheel size (mm)	∅ 400x50x∅203	∅600x75x∅203	∅750x75x∅305	∅750x75x∅305	∅750x75x∅ 305
Wheel peripheral speed (m/s)	35	35	35	17.5/35	35

H163	H164	MC1363/H	M1380/H	H248	H259	H247
630	630	500	800	800	800	800
30	30	30	50		**50**	50
3000	2000	2000/3000	3000/4000	6000	8000	10000
		4000/5000	5000			
350	350	300	500	500	500	500
1200	1200	3000	5000	6000	6000	6000
∅750×75×∅305	∅750×75×∅305	∅750×75×∅305	∅900×75×∅305	∅750×75×∅305	∅750×75×∅305	∅750×75×∅305
35	35	17.5/35	17.5/35	22.5/45	22.5/45	22.5/45





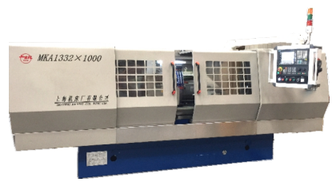



CNC Cylindrical Grinder

CNC-controlled cylindrical grinders offer advanced automation and programmability, allowing for precise control over grinding parameters such as speed, feed rate, and depth of cut. This enables efficient production of complex components with consistent quality and tight tolerances.

Features

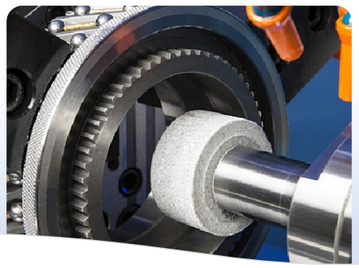
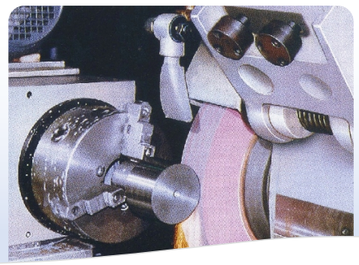
PLC-controlled models provide a balance between automation and manual control, offering programmable logic for repetitive tasks while still allowing operators to intervene when necessary. This versatility makes them suitable for both small-batch and high-volume production environments.




		MKA1320/H	MK1320/H	MKA1332	Mk1332	MKA1350B
Max.grinding diameter	mm	200	200	320	320	500
Min.grinding diameter	mm	8	8	8	8	25
Max.grinding length	mm	500/750	500/750	500/1000	500/1000/1500	1500/2000
				1500/2000	2000/3000	3000/4000
Max.workpiece weight	kg	50	50	150	150	1000
Center height	mm	125	125	180	270	300
Wheel size	mm	∅400×50×∅203	∅400×50×∅203	∅600×75×∅305	∅600×75×∅305	∅750×75×∅305
Wheel peripheral speed	m/s	35	35	35	35	45

MKC1380/H	MK13100/H	MK13125/H	MK13160/H	H234	H235
800	1000	1250	1600	320	500
80	100/200	100/200	400	10	50
3000/4000/5000	4000-12000	300-12000	4000-12000	750/1000	1000/2000/3000
				1500/2000	
5000	25000	25000	30000	150	1500
900	700/900	700	900	270	300
∅900×75×∅305	∅900×75×∅305	∅900×75×∅305	∅900×75×∅305	∅750×75×∅305	∅750×75×∅305
45	45	45	45	45/60	45/50



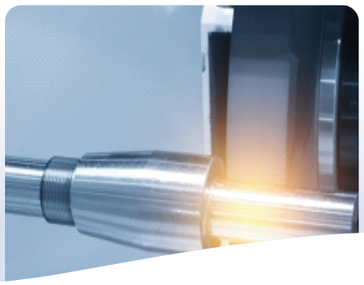
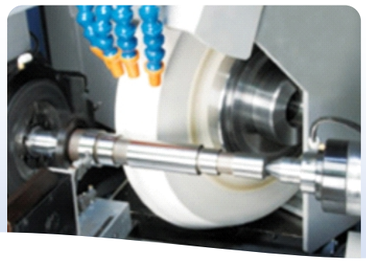

Universal Cylindrical Grinder

Universal cylindrical grinder adopted an additional internal grinding attachment to grind the ID. The headstock and wheel head bases are rotatable, and equipped with live spindle in the workhead.

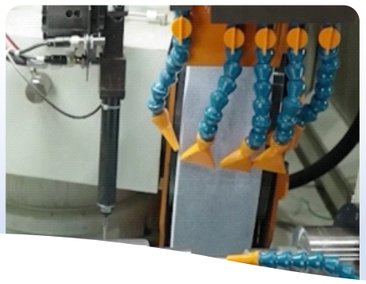
Features

The longitudinal movement of the worktable can be driven by hydraulic infinitely variable speed adjustment and it can also be driven by a handwheel.
The wheel head transverse feed is controlled by hydraulic. It can also be manually operated for coarse and fine feed by the handwheel.

		MA1420/H	M1432B	MGA1432A	M1450B	H148	MKA1420A	MK1432/H
Max.grinding diameter	mm	200	320	320	500	630	200	320
Min.grinding diameter	mm	8	8	8	25	50	5	
Max.grinding length	mm	500/750	1000/1500	500/1000/1500	1500/2000	4000	500/750	1000/1500
			2000/3000	2000/3000	3000/4000			
Center height	mm	180	180	180	270	350	135	180
Max.workpiece weight	kg	50	150	150	1000	3000	50	150
Wheel size		∅400×50×∅203	∅400×50×∅203	∅400×50×∅203	∅500×75×∅305	∅500×75×∅305	∅400×50×∅203	∅400×50×∅203
Wheel peripheral speed	m/s	35	35	35	35	35/17.5	35	35





Angular Approach Cylindrical Grinder

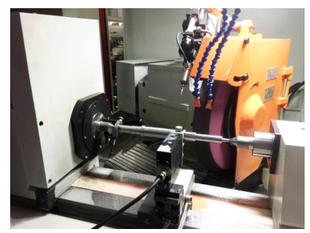
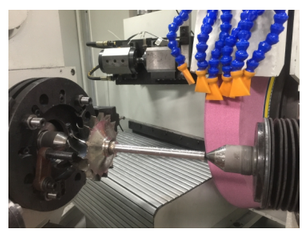
Angular Approach cylindrical grinders, equipped with CNC control models, represent cutting-edge precision and efficiency in cylindrical grinding technology. These grinders are meticulously engineered to offer superior performance in machining cylindrical components with complex geometries and tight tolerances. The angular approach design allows for enhanced flexibility in grinding operations, enabling users to achieve precise contours and angles with ease.

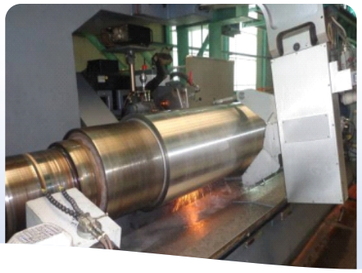
Features

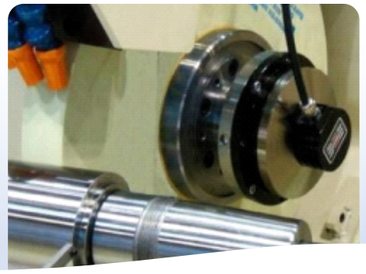
The longitudinal movement of the worktable can be driven by hydraulic infinitely variable speed adjustment and it can also be driven by a handwheel.The transverse feed of the wheelhead is controlled by hydraulic for micro automatic feed or manually by handwheel.

The rapid advance and withdrawal of the wheelhead and the angular approach feed are inclined.The workpiece, grinding wheel, oil pump, and coolant pump are each driven by separate motors.

		MKE1620A	MKB1632/H	MQ1650A	MK1632A
Max.grinding diameter	mm	200	320	500	320
Min.grinding diameter	mm	8	8	25	0
Max.grinding length	mm	500/750	500	1000/1500	500/1000/1500
				2000/3000	
Center height	mm	135	180	270	200
Max.workpiece weight	kg	50	150	1000	80
Wheel size		∅450×50×∅203	∅600×75×∅305	∅750×75×∅305	∅600×80×∅305
Wheel peripheral speed	m/s	35	45	35	45/60/80

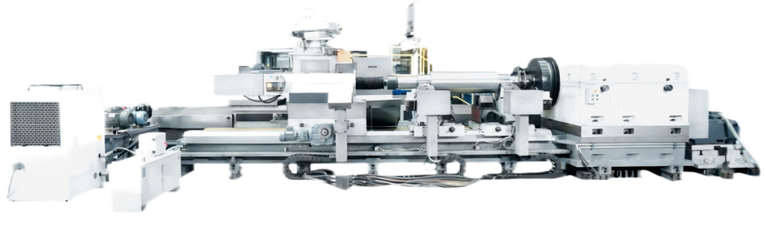




Roll Grinder

The conventional roll grinder is a unique type of roll grinder developed by SMTW. It equipped with a profile molding attachment for profile grinding. it can also grind cylindrical rolls and other cylindrical workpieces. It is primarily used in the metallurgical, rubber, and printing industries for processing various high-precision rolls.

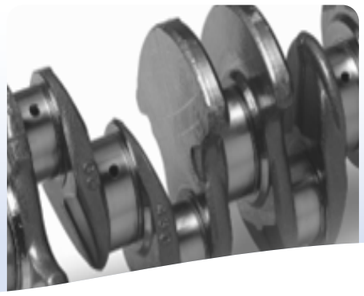
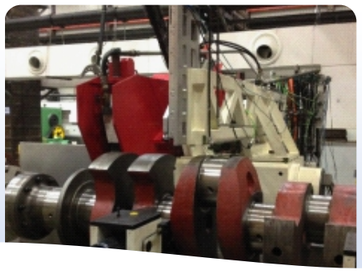
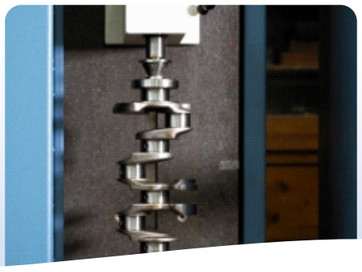
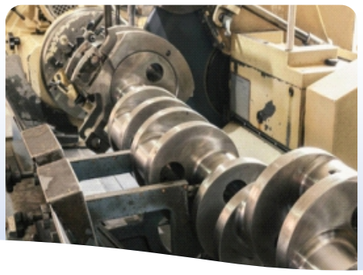
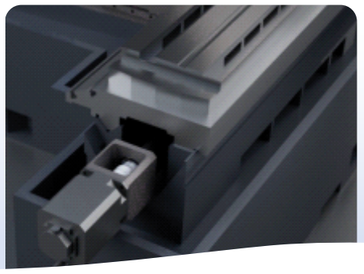
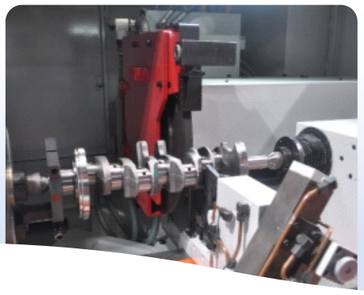


		MG8425	MG8440B	MQ8450A	MG8463/H	MG8480/H	MK8463A
Max.grinding diameter	mm	250	400	500	630	800	630
Min.grinding diameter	mm	40	80	80	50	50	100
Max.grinding length	mm	1000/1500/2000	1700/2050	1700/2700	2000/3000/4000	2000/3000/4000	3000/4000/5000
Center height	mm	150	270	270	400	430	600
Max.workpiece weight	kg	200	1000	1500	3000	3000	5000/7000
Wheel size	mm	500×40× 305	∅750×75×∅305	∅750×75×∅305	∅750×75×∅305	∅750×75×∅305	∅750×75×∅305
Wheel peripheral speed	m/s	35	35	35	35	35	45

CNC Roll Grinder

The SMTW CNC Roll Grinder is a precision machining tool designed specifically for grinding rolls used in various industrial applications, such as steel, aluminum, paper, and rubber manufacturing. It employs advanced CNC (Computer Numerical Control) technology to achieve precise and consistent grinding results, ensuring the optimal performance of rolls in production processes.

MK8480A	MK84100A	MK84125B	MK84160A	MK84200A	MK84250A	MK84300A
800	1000	1250	1600	2000	2500	3000
100	100/200	100/200	400	600	800	800
3000/4000/5000/6000	3000-10000	4000-14000	5000-12000	5000-12000	8000-13000	8000-
500	950/1125	950/1125	1050/1250	1500	1750	2000
7000/10000	10000/20000	25000/30000	40000/80000	120000/200000	120000/250000	120000/300000
∅750×75×∅305	∅900×100×∅305	∅900×100×∅305	∅900×100×∅305	∅900×100×∅305	∅900×100×∅305	∅900×100×∅305
45	45/100	45/100	45/100	45	45	

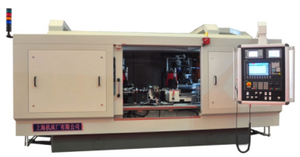
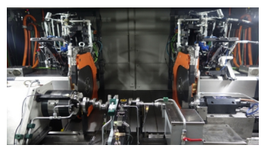
Crankshaft Grinder

The manual crankshaft grinder adopts the eccentricity adjustable chuck on the workhead and tailstock, in order to grinding to grinder crankshaft journals and pins, which is simple in structure and stable in performance.

		MQ8260B	MK8220/SD
Max.swing dia.Over table	mm	580	200
Max.grinding diameter	mm	200	60
Min.grinding diameter	mm	30	0
Max.grinding length	mm	1600	750
Center height	mm	300	245
Max.workpiece weight	kg	120	30
Wheel peripheral speed	m/s	35	150

CNC Crankshaft Grinder

The CNC version of the crankshaft grinder offers automated control, allowing for efficient and precise grinding operations with minimal human intervention. It is equipped with sophisticated software and servo motors that enable intricate machining processes and ensure consistency in output.

MK8280/SD	MK82100/H	MMK82125/H	MK82160/H
850	1000	1250	1600
350	300	400	400
130	100	100	150
8000	3500/4000	5000-8000	5000-8000
950	530	750	850
10000	2000-3000	10000	15000
35-120	35	35m	35

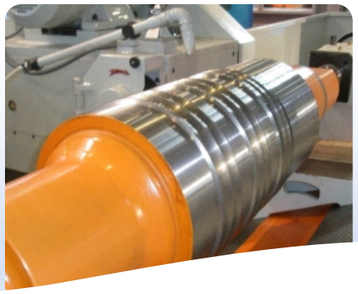
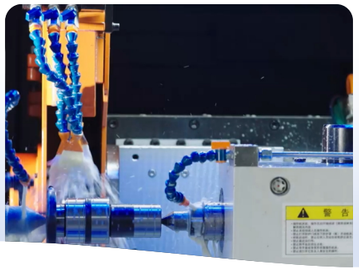
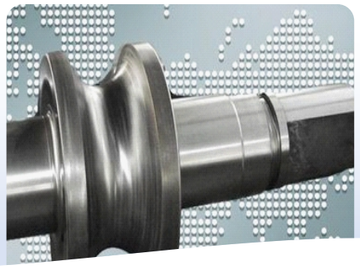


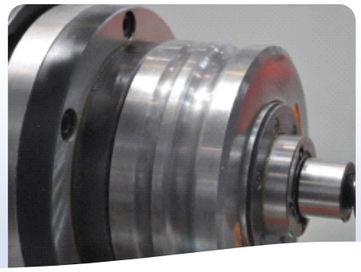

Surface Grinder

SMTW is renowned for its precision engineering in manufacturing equipment. Their built Programmable Logic Controller (PLC) integrated with manual Surface Grinder exemplifies cutting-edge technology combined with user-friendly operation.

Model	Worktable size (mm)	Max. longitudinal table travel (mm)	Max. cross feed. (mm)	Max. distance between worktable surface to spindle (mm)	Max. workpiece loaded weight (kg)	Worktable speed (m/min)	Worktable cross auto. feed (mm)	Wheel size 15(mm)
M7120x460/ZD/CK	200 x 460	540	240	475	150	5-23	0.5-15	200 x 20 x 31.75
M7130x600/ZD/CK	300 x 600	660	340	540	420	5-23	0.1-15	350 x 40 x 127
M7132x1000/ZD/CK	320 x 1000	1100	360	580	500	5-28	0.1-15	400 x 40 x 127
M7140x800/ZD/CK	400 x 800	900	440	600	520	5-25	0.5-15	350 x 40 x 127
M7140x1000/ZD/CK	400 x 1000	1100	440	580	500	5-28	0.1-15	400 x 40 x 127
MM7132x1000/ZD/CK	320 x 1000	1100	360	580	500	5-28	0.1-15	400 x 40 x 127
MM7140x1000/ZD/CK	400 x 1000	1100	440	580	500	5-28	0.1-15	400 x 40 x 127
M7150x1000/ZD/CK	500 x 1000	1140	540	750	1000	5-25	0.5-12	400 x 40 x 127
M7150x1200/ZD/CK	500 x 1200	1300	540	750	1000	5-25	0.5-12	400 x 40 x 127
M7150x1500/ZD/CK	500 x 1500	1600	540	750	1000	5-25	0.5-12	400 x 40 x 127
M7160x1200/ZD/CK	600 x 1200	1300	640	750	1000	5-25	0.5-12	400 x 40 x 127
M7160x1600/ZD/CK	600 x 1600	1700	650	750	1400	5-25	0.5-12	400 x 40 x 127
M7160x2000/ZD/CK	600 x 2000	2100	650	700	1700	5-25	0.5-12	400 x 40 x 127
M7170x2000/CK	700 x 2000	2100	750	700	1800	7-25	0.5-12	400 x 40 x 127
M71100x3000/CK	1000 x 3000	3150	1100	230-880	4800	10-28	/	500 x 60 x 203
H375	600 x 2000/3000 4000/5000	4100	640	700	1500	0.01-3	0.1-15	500 x (40-60) x 2030

Remarks: ZD (auto): Lonaitudinal, cross and vertical feed automatically with stepping motor
CK (program-controlled): Longitudinal and cross feed automatically, vertical feed controlled by servo with touch pane




Customized Grinder

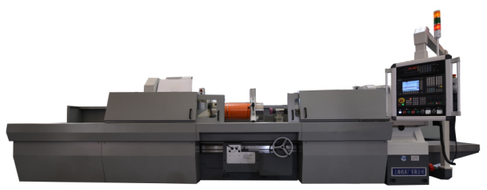
H377A

H377A high-precision compound grinding center is a new generation of compound grinding machine, which has been comprehensively upgraded by SMTW. The machine is equipped with a new grinding online performance evaluation system based on dynamic characteristics, which realizes monitoring and evaluation of grinding machine processing status and performance, ensuring the healthy operation of the machine tool at any time. It boosts the processing capabilities of industries such as military, aerospace, machine tools, automobiles, and measuring instruments to a higher level.

Max. external grinding diameter	500mm
Max. grinding length	1600 mm
Max. internal grinding diameter	200 mm
Max. workpiece weight	300 kg
Center height	300 mm
Wheel peripheral speed	45m/s

H124E

This machine is suitable for grinding deep hole internal cylindrical and conical surfaces, and is capable of roughing and finishing internal grinding. The layout of the machine is longitudinal reciprocating movement of the table and transverse feeding movement of the wheelhead. The headstock spindle is driven by AC frequency conversion motor, which can do stepless speed change within the speed range.



Max. internal grinding diameter	400mm
Min. internal grinding diameter	40mm
Max. grinding depth	1000/1500/2000mm
Max. workpiece weight	1000kg
Center height	460mm
Wheel peripheral speed	35m/s

SK001/2

This machine is mainly used for rough grinding, semi-finish grinding, finish grinding and sparkless grinding of the outer circle and R-hole grooves of tungsten carbide roll rings used for high-speed wire production.

Max. grinding diameter	320mm
Max. grinding length	150mm
Min. grinding diameter	30mm
Max. loaded weight	150kg(with expansion mandrel)
Center height	180mm
Wheel peripheral speed	20m/s

SK014A/1

This machine is a high-precision special-purpose machine tool that uses green silicon carbide grinding wheels as cutting tools and is mainly used for grinding and dressing the holes and external rounds of diamond grinding wheels.

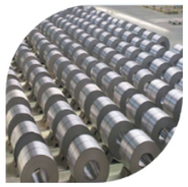
Diameter of diamond wheel	ϕ190～ϕ250mm
Max. width of diamond wheel	65mm
Arc-shaped slot of diamond wheel	R2.5～R60mm
Wheel peripheral speed	22-35m/s

Application Industries

Energy Industry

Railway Industry

Metallurgy Industry



Automobile Industry

Machine Tool Industry

Shipbuilding Industry

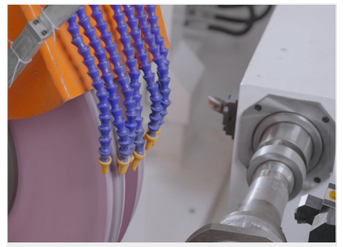
Construction machinery industry

Military Industry

The Advantages

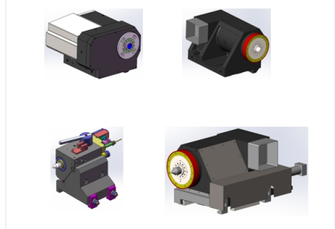
Nearly 80 years' experience

Founded in 1946, with advanced design, exquisite technology and strict management.



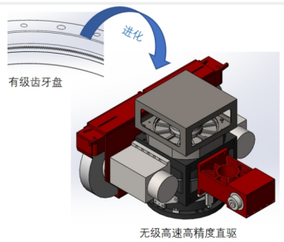
Variety of grinding wheels available

Providing the best solution for every grinding job.



Modular design

Modular design for multiple configurations.



High recision grinding wheel turret B axis

Complete grinding in one-time clamping with minimal auxiliary time and high machining accuracy.

Mineral castings bed

The integrated bed guarantees processing stability throughout the working day.

Independent research and development

Professional independent research team to develop technical support.

The User Interface

With SOMS platform, equipment management information is realized.

Diversified Product

Meet different users' grinding needs.

Customer Service

Quick respond Global.

Exported area covers more than 90 countries and rejions in the world.