

WAIDA

**Fully Automatic
Insert Periphery Grinder**

APX-40



- The further meeting automation needs by laying down workpieces
- Achieves high accuracy by improving the resolution of measuring device
- Improved operability with a large touch panel

Fully Automatic Insert Periphery Grinder

APX-40

Machine standard specification		
Workpiece	Objects of grinding	Periphery and K land (both sides) on indexable inserts(standard/small size) Both side k-land can be ground by 180 degrees reversal of insert with robot.
	Material	Carbide, Cermet, Ceramics, CBN, PCD
	Minimum inscribed circle	Equilateral Triangle 3.97mm
		Ohrrers 4.76mm
	Maximum circumscribed circle	45mm
X axis (In-feed)	Maximum travel	-10~+115 (mm)
	Maximum rapid feed rate	10 m/min
	Motor	AC servo motor
	Feed back scale	Absolute linear scale
Y axis (Oscillation)	Maximum travel	-30~+200 (mm)
	Maximum rapid feed rate	10 m/min
	Motor	AC servo motor
B axis (Insert rotation)	Maximum rapid feed rate	600°S ⁻¹ (100 min ⁻¹)
	Motor	AC servo motor
	Feed back scale	ABS rotary encoder
C axis (Swiveling table)	Maximum travel	-90~+36deg(Some limitations depending on the conditions.)
	Maximum rapid feed rate	9,000°/min
	Motor	AC servo motor
	Feed back scale	ABS rotary encoder
Spindle	Grinding wheel size	Outside diameter Φ 350mm
	Spindle rotation speed	500~2000min ⁻¹
	Motor	3 phase induction motor
Tail stock	Maximum travel	16mm
	Maximum chuck pressure	10kN [Theoretical value at the time of 7MPa.]
Dressing device	Diameter of dressing wheel	Outside diameter Φ 125mm
	Wheel rotation speed	300~1500min ⁻¹
	Motor	AC servo motor
Centering pin device		Exchanging system
Automatic centering device Control system	Control system	Back/forward, up/down automatic control
	No. of Centering Blocks	1pcs
	Motor	AC servo motor
Measuring device	Measuring probe	Flat type carbide probe Φ 7
Loading/unloading device	Control axis	Articulated 6 axes
	Robot hand	Loading hand, unloading hand each 1 set, insert pusher
Work stock	Pallet type	Standard pallet (240mmx300mm)
		T-type pallet (190mmx370mm)
	No. of pallet (vertical)	2 pallets
Standard Accessories	Tool box	
	Spanner(for exchange of dressing wheel, for exchange of driving arbor)	
	T shape wrench (for exchange of grinding wheel)	

Drive source		
Electric		AC200V (50/60Hz)
Total Electric Capacity		10kVA
Compressed Air	Primary Pressure	0.35MPa or More
	Air Consumption	450NL/min
Hydraulic Unit	Maximum Pressure	7MPa

NC standard specification		
NC Unit		FANUC Series 31i-MODEL B plus
	Control Axis	X axis (In-feed)
		Y axis (Oscillation)
		B axis (Insert rotation)
		C axis (Swiveling table)
Maximum Simultaneous Control Axis		4 axes

Option		
Y axis(Oscillation) scale	Feed back scale	Absolute linear scale
Thickness measuring device		
AE Sensor		
Manual Centering device	Control system	Back/forward, up/down manual adjustment system
	Drive system	Back/forward, up/down air cylinder
	No. of Centering Blocks	1pcs
Phase measuring device		
In-process cleaning device	Cleaning wheel size	Outside diameter Φ 150mm
	Wheel rotation speed	300~1,500min ⁻¹
	Motor of rotation	Brushless motor
	In-feed speed	0~240mm/min
	Motor of feeding	5 phase stepper motor
Washing device		
Mist collector		
Pallet changer	Motor	AC servo motor
	No. of pallet	10 pallets
Workpiece for lay down pallet specification		Magnetic specification(cylinder type)
		Magnet and suction specification(vacuum suction type)
		Turning station
Splash gun / Air gun		
Measuring device (for large diameter workpiece)		
Air blow for measuring		
Drain pipe		
APX Tool Lab license		
Camera for lay down pallet		
Grinding fluid supply device	Tank capacity	300L
	Enable to install cuspon filter	
Oil grinding specification	Automatic fire extinguisher	Fully automatic fire extinguishing system
	Fire damper	
	Coolant temperature controller	
	Oil flow sensor	

Jigs option		
Grinding wheel		
Dressing wheel		
In-process cleaning wheel		
Driving arbor		
Clamping arbor		
Centering block		
Robot finger		
Centering pin		
Work guide		
Pallet		

Machine size		
WxDxH		2,740x2,100x2,440mm
Machine weight		6,000kg

Note

※This product may be regulated by the Foreign Exchange and Foreign Trade Control Law. Be sure to consult us before exporting the product to a foreign country.

※Specifications in this catalog may be changed without notice due to improvement of the product, etc.

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