

Fully Automatic Grooving Insert Grinder

GIG-202

WAIDA

STANDARD SPECIFICATIONS

Workpiece	Objects of grinding	Standard grooving insert with horizontal indexing 2 corner / Vertical indexing 2 corner / Equilateral triangle shape
	Material	Carbide, Cermet, Ceramics, CBN, PCD
	Grinding part	Standard tool edge (Including front and side relief)
Spindle	Spindle	Manual clamping/unclamping HSK spindle
	Wheel size	Grinding wheel outside diameter Φ 250 mm Sub wheel outside diameter Φ 125 mm
	Rotation speed	800~5,000 min ⁻¹
	Motor output	AC3.0 kW
Grinding unit Grinding wheel up/down axis (Z axis)	Maximum rapid feed rate	10,000 mm/min
Grinding unit Grinding wheel angle varying axis (B axis)	Travel	50 deg (-20 deg~+30 deg)
	Maximum rapid feed rate	2,000 deg/min
Grinding unit Grinding wheel left/right axis (Y axis)	Maximum rapid feed rate	15,000 mm/min
	Travel	270 deg (-135 deg~+135 deg)
Work table horizontal rotation axis (C axis)	Maximum rapid feed rate	18,000 deg/min
	Maximum rapid feed rate	10,000 mm/min
Work table back/forward axis (X axis)	Maximum rapid feed rate	10,000 mm/min
	Wheel size	Outside diameter Φ 100 mm
Dressing device	Rotation speed	800~1,500 min ⁻¹
Measuring device	Thermal displacement, Blank, Finished product measurement	
Oil cooling unit	Cooling for spindle, C axis	
Hydraulic unit	Driving for tool rest	

OPTION

All axes feed back scale specification	XYZBC axis with scale	
Grinding wheel measuring device	Contact type measuring by probe Front and periphery part of grinding wheel Contact type measuring by probe Front part of sub wheel	
In-process cleaning device	Wheel size	Outside diameter Φ 150 mm
	Rotation speed	600 min ⁻¹ (Variable speed 300~1,000)
Loading device	Robot	FANUC articulated robot
	No. of pallet	2 pallets (Pallet changer specification: 1 pallet)
	Vertical pallet type	Standard type (240×300 mm) T-type (190×370 mm)
	Work indexing device	Indexing angle each 30 deg
AWC spindle specification	Spindle	Automatic attaching/detaching HSK spindle
	Hand changer	Work loading hand/Sub wheel loading hand, Hand stocker
	Sub wheel stocker	No. of sub wheel stocker: 3
Sub wheel flange	For manual clamping For AWC	
	Work turning device	1 pc
For lay down placement	Lay down hand	Magnet attraction hand
	Lay down hand	Vacuum suction hand
	Lay down hand	Inner hole chucking hand
Camera for lay down pallet	For lay down pallet Work position/phase	
Pallet changer	No. of pallet	10 pallets
Grinding wheel balancer	For Φ 250 grinding wheel	
Balance measuring device	1 set	

NC STANDARD SPECIFICATIONS

NC unit	FANUC Series 31i-Model B5
Control axis	5 axes X,Y,Z,B,C
Maximum simultaneous control axis	5 axes

DRIVE SOURCE

Total electric capacity	11 kVA AC200 V (50/60 Hz)
Compressed air Required air pressure	0.45~0.55 MPa
Air consumption	500 N ℓ /min (Loading device specification)
	Vertical pallet specification: another dry air more than 300 N ℓ /min(ANR) is required.

MACHINE SIZE

W×D×H	2,735×2,100×2,370 mm
Machine weight	6,500 kg

Grinding fluid supply device	Sedimentation type 300 ℓ
Mist collector	
Work washing device	Tank circulation type
Splash gun / Air gun	
Oil grinding specification	
Coolant temperature controller	
Automatic fire extinguisher	
Tool rest	Triangular, Dog bone, Top notch, Pin type
	For lay down pallet, according with work

JIGS OPTION

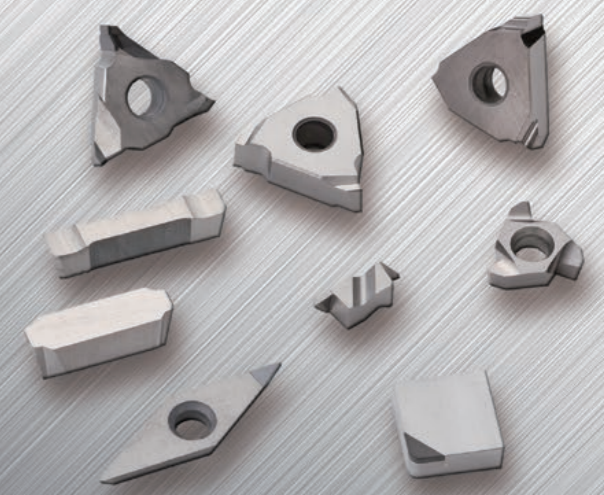
Grinding wheel	
Dressing wheel	
In-process cleaning wheel	
Indexing chip holder	
Robot finger	
Tool rest jig	
Work pallet	

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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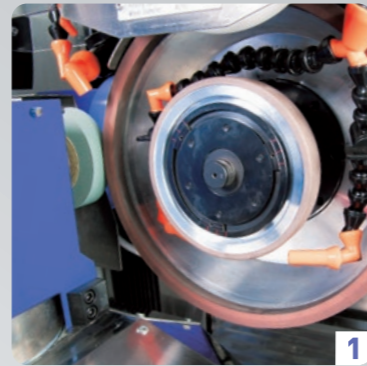


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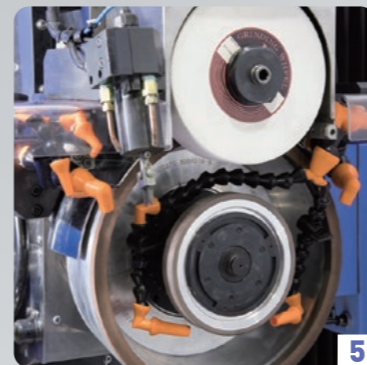
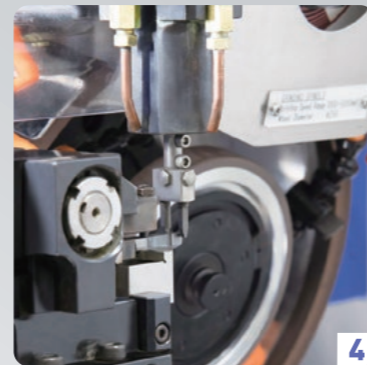
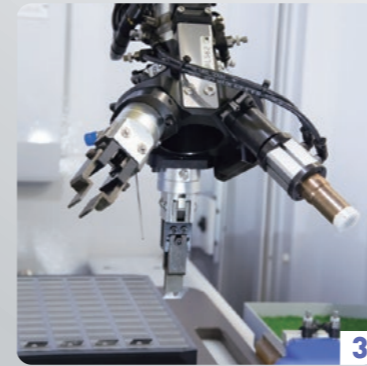
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Multifunction and high quality grooving insert grinder

Breaker grinding

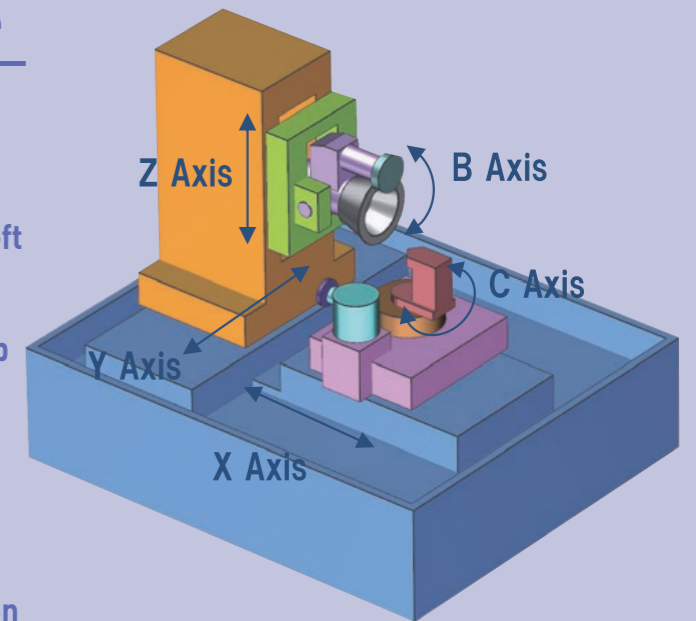


1. Dressing for periphery part
2. Sub wheel stocker [Option]
3. Robot hand [Option]
4. Work measurement
5. In-process cleaning device[Option]



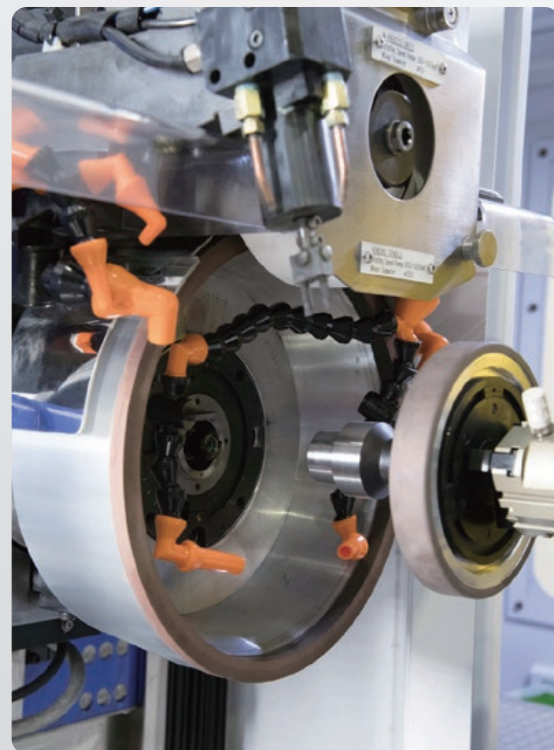
Axis structure

- X-axis Work table back /forward
- Y-axis Grinding wheel left /right
- Z-axis Grinding wheel up /down
- B-axis Grinding wheel angle varying
- C-axis Work table horizontal rotation



AWC Loading

Option



MAIN FEATURES

- 1 High precision grinding by higher rigidity and followability of wheel angle varying axis.
- 2 Wheel edge grinding for formed shape by dressing function of front and periphery part of grinding wheel.
- 3 Customer can create and edit any grinding programs by interactive software, GIG ToolLab.
- 4 Reduction of trial grinding and improvement of accuracy stability by several measuring functions (Option).
- 5 Breaker grinding and combined grinding by sub wheel.
- 6 Various options (AWC spindle specification with sub wheel, In-process cleaning device, Lay down pallet specification, Pallet changer).

Operation panel • GIG ToolLab

