

PNK-AC-CNC



abm
Grinding Technologies



Advanced grinding, all-in one setup...

PNK-AC-CNC

4 AXES CNC - HSS SAW GRINDING MACHINE

Automatic Chamfering

Optional Chipbreaker

The flexible, hi-tech solution

High technology to lead the ever-changing world of tool processing.

PNK-AC-CNC provides full automatic process for the HSS circular saw blades of complete tooth removing, re-toothed, re-grinding and chamfering in only 1-single pass.

PNK-AC-CNC is an ideal machine for the complete machining of metal circular saws. It guarantees optimum grinding quality with its state-of-the-art technology.

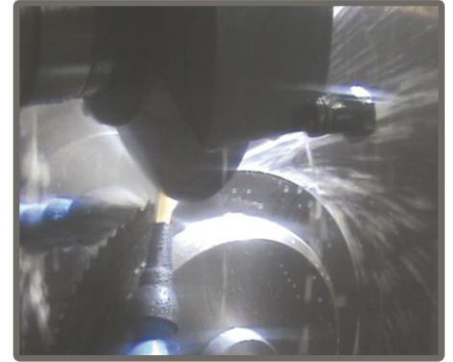
All the data related to the circular saw is entered from the control panel. Fast and precise adjustment by its manual pulse handler.



HSS Circular Saw Grinding
by Ø200mm CBN Wheel



Tooth removing Operation



Re-toothed in 1-Single Pass
by robust construction

A versatile response to meet all demands...

General Features

- 4-Axes Servo motor controlled.
- Laser probing system for automatic saw diameter measuring and teeth number calculation
- Language selection on the control panel.
- PC controlled.
- Windows® operating system.
- Maximum Ø650mm circular saw outside diameter. (optional Ø850 or bigger)
- Tooth form selection from the control panel.
- Grinding all common tooth types in one cycle.
- Automatic chamfering.
- Blade thickness input from the control panel.
- Automatic calculation of the tooth pitch.
- Absolute tooth pitch accuracy.
- Downloading a program through internet connection if demanded.
- Central lubrication.
- 17" LCD screen control panel.
- Variable grinding and grinding wheel rotation speed.
- Grinding wheel head riding on linear rails.
- Grinding and production by CBN, tooth removing by vitrified wheel.
- Smooth chamfer grinding even in saw blades with worn right-left chamfers.
- Integrated air suction system.
- Pure Oil Coolant System.
- Totally enclosed cabin for operator safety.
- Simple controls for ease of use.
- Rigid machine base.
- Ergonomic cabin for ease of loading / unloading.
- Production conformed with CE standards.



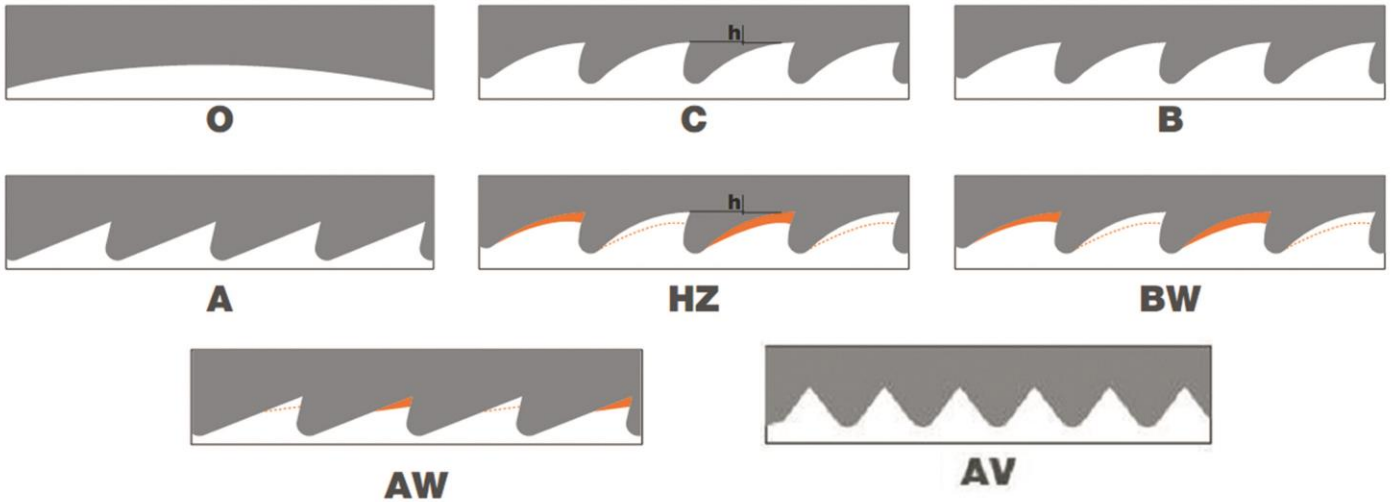
Automatic Left Chamfering



Automatic Right Chamfering

At ABM, we develop our machines, our own electronic systems and application software and manufacture all main mechanical components. Finally, we assemble and test the final product to global machine standards. Whichever ABM machine you choose for your grinding, you will know that it is built to meet all market demands.

Tooth Forms

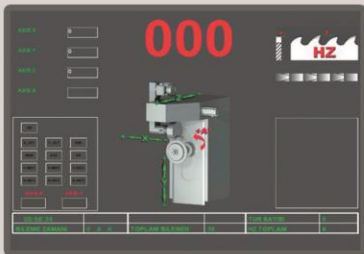


* Br/Bs forms are optional.

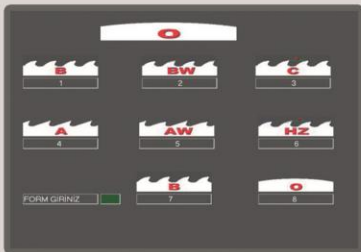
The true innovation is the product of experience and dynamics...

Technical Specifications

- HSS Circular saw outside diameter $\varnothing 80-650\text{mm}$ (Optional $\varnothing 850$ or bigger)
- Automatic Chamfering $\varnothing 200-650\text{mm}$
- Blade Thickness Maximum 8mm
- CBN Grinding Wheel $\varnothing 200\text{mm} \times 32\text{mm}$
- Bakelite Grinding Wheel $(\varnothing 150/\varnothing 200\text{mm}) \times 20\text{mm}$
- Grinding Wheel Motor Power 3 kW
- Coolant Type Ready for Pure Oil Coolant
- Coolant Pressure 10 Bars
- Motor Quantity 7 pieces
- Tooth Forms A, AV, AW, B, BW, C, Hz, O
- Operating Voltage 380V, 3Ph, 50-60Hz
- Total Power $\sim 8,50\text{kW}$
- Saw holders provided with the machine $\varnothing 20-30-32-40-50\text{mm}$
- Net/Gross Weight 1100/1125kg
- Dimensions 2100*2000*2100mm



General Operating Screen



Form Selection Screen

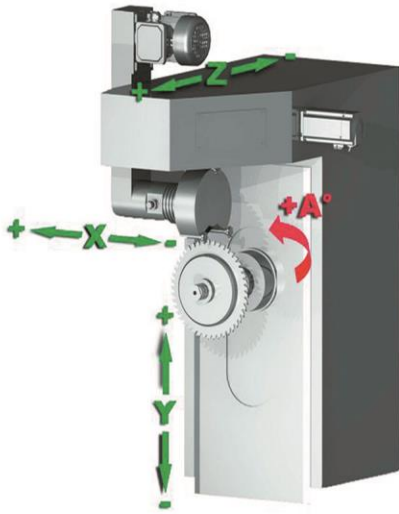


1- Free Programming (Various Parameters)

2- Programming by DIN Norms

*Unique Toolpath animation software

Axes of Machine



Design of 4-Axes
Optional 5th Axes for Chipbreaker



17" LCD Control Panel



Integrated mechanical air filtration unit



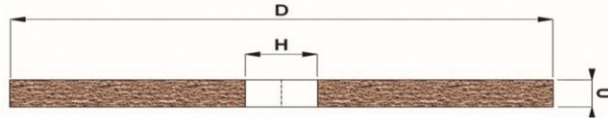
Capacity 100lt coolant container with level indicator



4-axes manual control by manual pulse handler

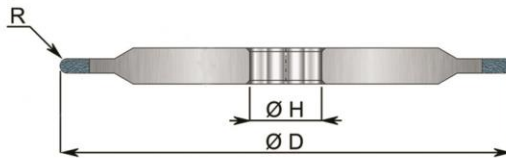
Grinding Wheels

Vitrified grinding wheel



FEPA Type 1A1
D Ø150/Ø200mm
H Ø20mm
U 3 to 10mm

CBN grinding wheel



FEPA Type 14F1
D Ø200mm
H Ø32mm
R 0.8mm

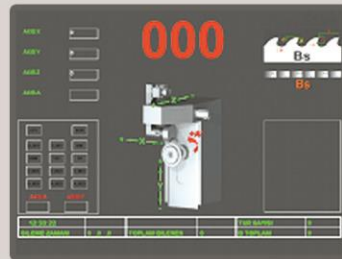
High Accuracy / High Productivity

OPTIONALS

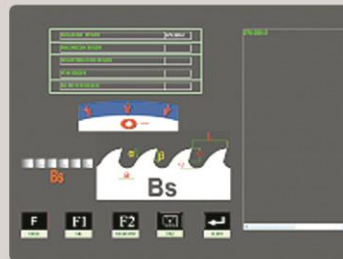
* Operating screens [Br/Bs forms with Right-Left Slots at one cycle] for machine attachment



Chipbreaker



General operating screen



Chip-breaker software production



Chip-breaker parameter input screen

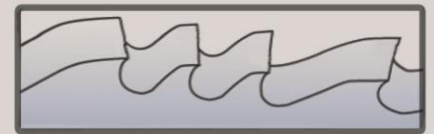
ACM

* Chip breaker grinding option

- Grinding the chip breaker slots of HSS circular saws.
- Grinding right-lefts slots in one cycle.
- As stand alone or attachment on machine



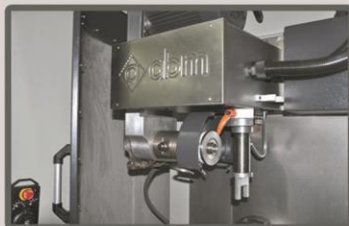
* Br/ Bs Forms



* Optional software for variable pitch (VP) blades



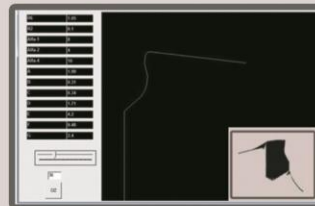
* Optional Magnetic Separator System



* Optional Laser Measuring System
(Automatic diameter and number of teeth calculation)



* Optional plunge grinding software for notches



* Optional grinding software for Cermets
FREE PROFILE PROGRAMMING



* Optional software for circular knives grinding