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PNK-AC CNC
CNC - HSS CIRCULAR SAWS GRINDING MACHINE

PNK-AC CNC

Fully automatic manufacturing or regrinding of HSS cold saw blades including 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 set-up and adjustment of all axis using the electronic handwheel.



HSS circular saw grinding by CBN wheel



Tooth removal program



4.5 hp motor allows manufacturing in a single pass



Automatic left chamfering



Automatic right chamfering

PNK-AC-CNC at a glance:

- 4-Axes servo motor controlled
- PC controlled
- Multi-lingual Windows® operating system with 17" LCD control screen
- Grinding all common tooth types to DIN standards in one cycle
- Automatic chamfering
- Blade thickness input from the control panel
- Automatic calculation of the tooth pitch
- Absolute tooth pitch accuracy
- Ethernet port for remote programming and troubleshooting
- Central lubrication system
- Variable grinding and wheel rotation speed
- Grinding head feeds on linear rails
- Manufacturing and sharpen using CBN using CBN or switch to vitrified for tooth removal
- Smooth chamfer grinding even in saw blades with worn right-left chamfers
- High pressure coolant system for use with oil or water-based coolants
- Totally enclosed cabin for operator safety
- Rigid machine base reduces vibration
- Ergonomic cabin for ease of loading / unloading
- Production conformed with CE standards
- Multitap transformer - Accepts 208, 220, 240, 440, 480V power

OPTIONAL:

- Laser probing system for automatic saw diameter measuring and teeth number calculation

PNK-AC CNC

Technical specifications:

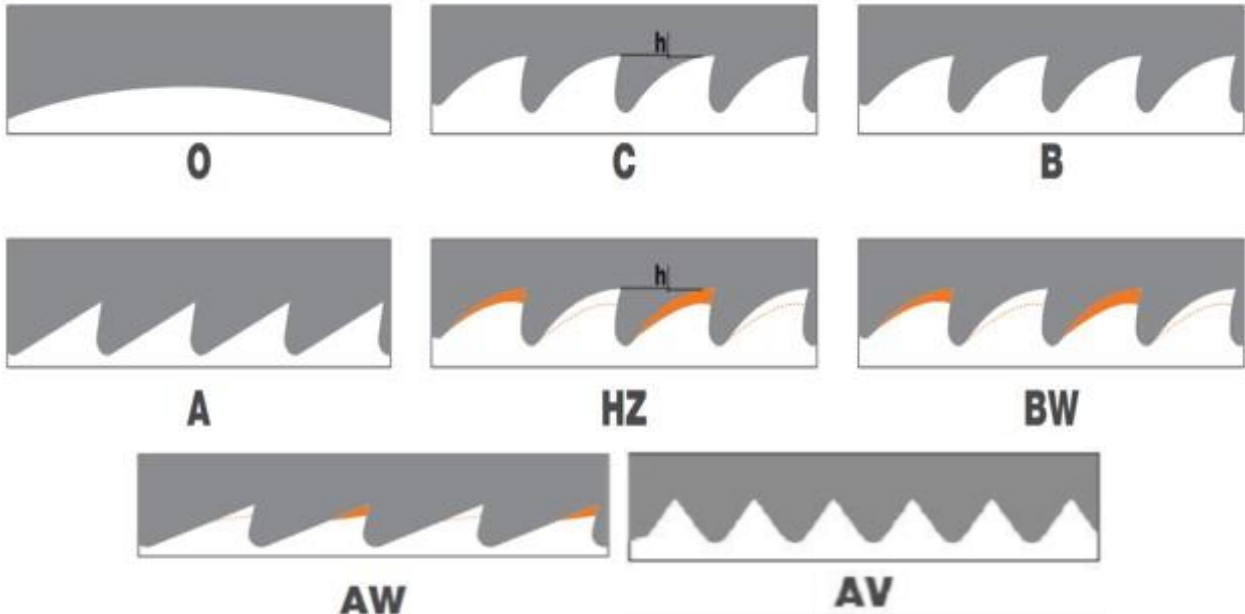
HSS Circular saw outside diameter	32")
Automatic chamfering	Ø200-810mm
Blade thickness	Maximum 8mm
CBN grinding wheel	Ø200mm x 32mm
Bakelite grinding wheel	Ø150mm x 20mm
Grinding wheel motor power	4.5hp
Coolant type	Ready for Pure Oil Coolant System Castrol Carecut®ES2 or CLC Carbo Grind
Coolant pressure	10 Bar
Motor quantity	7
Tooth forms	A, AV, AW, B, BW, C, Hz, O
Operating voltage	220V
Total power	~8,20kW
Net/gross weight	2450/2500lbs
Dimensions	2100*2000*2100mm

Saw holders provided with the machine:

Ø20 – 30 – 32 – 40 – 50 mm

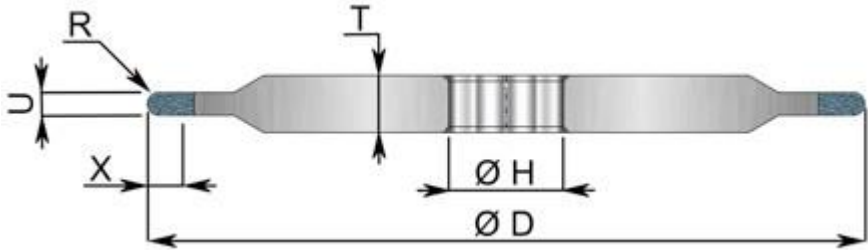
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Tooth forms:



Grinding Wheels:

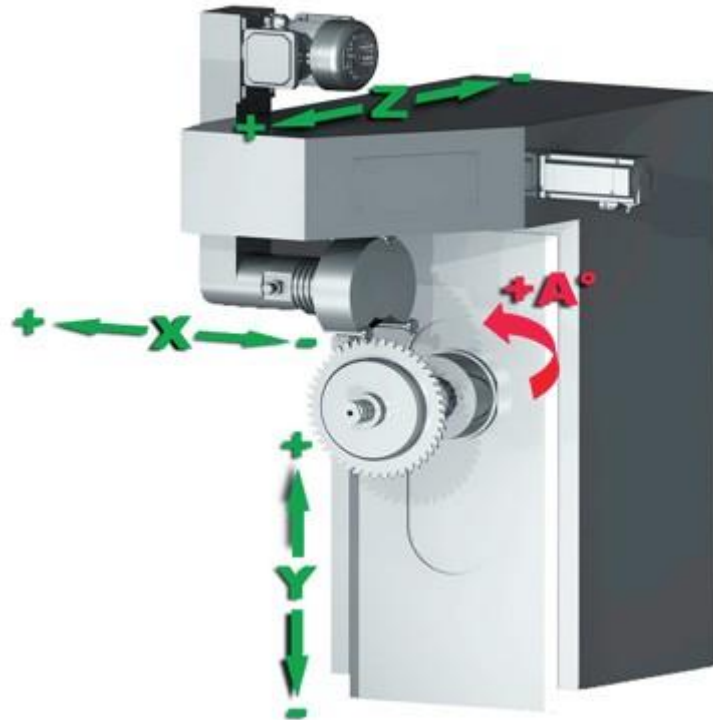
CBN grinding wheel:



Type 14F1 D
Ø200mm H
Ø32mm
R 0.45mm min

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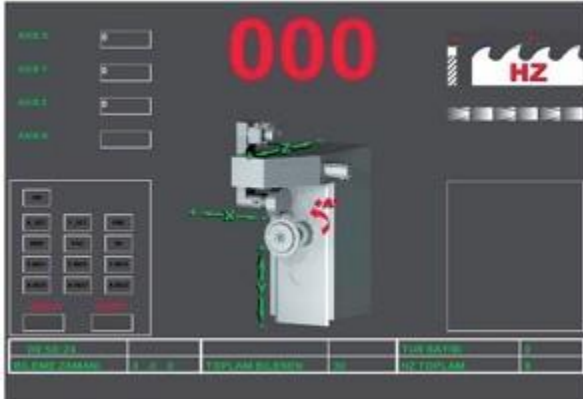
Axes of the Machine:



Motors of the machine:

	Power (kW)	Revolution(r.p.m.)	Voltage	Additional features
Axis X	0.75	3000	-	Servo motor
Axis Y	0.75	3000	-	Servo motor
Axis Z	0.75	3000	-	Servo motor
Axis A	0.75	3000	-	Servo motor
Grinding wheel motor	3	2800	-	AC motor (Speed controlled)
Coolant pump	0.75	2800	380V-3phases	AC motor
Mist extraction unit motor	0.37		220V-1phase	AC motor

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PNK-AC CNC general operating screen

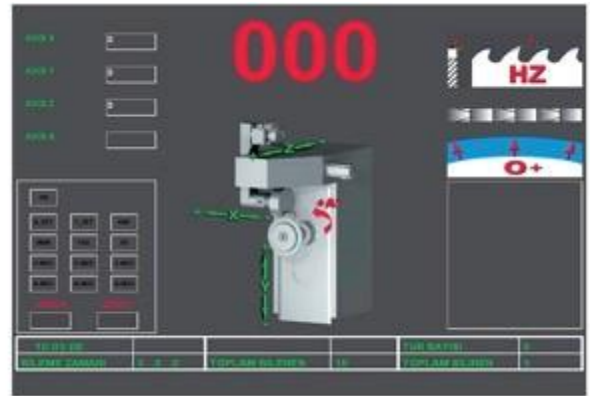


Form selection screen

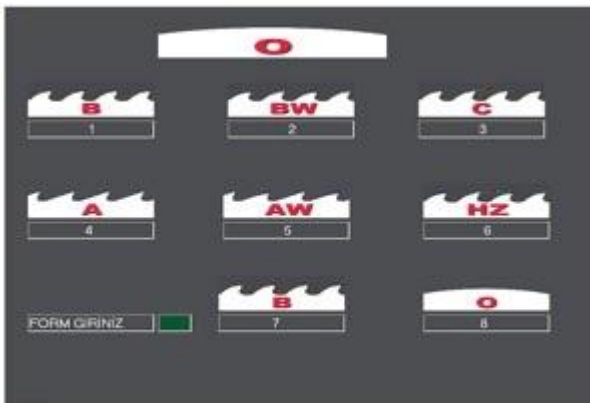


- 1- Free programming (various parameters)
- 2- Programming by DIN norms

****Unique toolpath animation software***



Re-toothing manufacturing screen



Re-toothing form selection screen



Re-toothing parameter input screen

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Highlights:



LCD Control Panel



Integrated air suction unit.



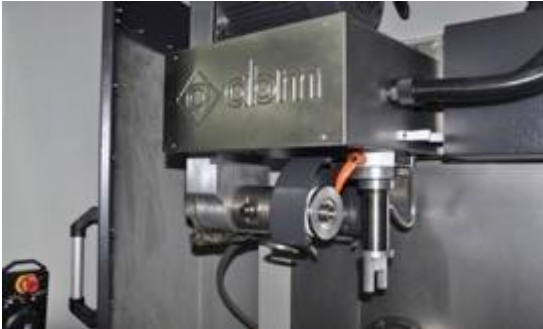
26 gal coolant tank with level indicator



4-axes adjust electronic handwheel

Optional Accessories:

- Laser system for automatic number of teeth calculation and saw blade diameter



- Magnetic separator unit

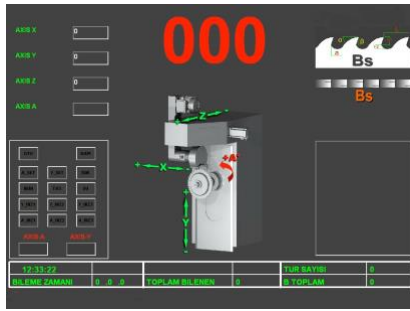


- Chip breaker unit attachment (Br, Bs forms) (Attached on the machine)

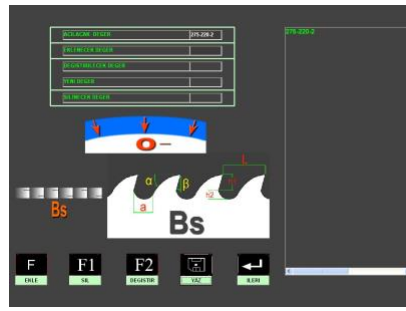


- Grinding the chip breaker slots of HSS circular saws.
- Grinding offsetting right-lefts slots in one cycle.
- High speed spindle system

Operating screens [Bs form with Right-Left Slots]



General operating screen

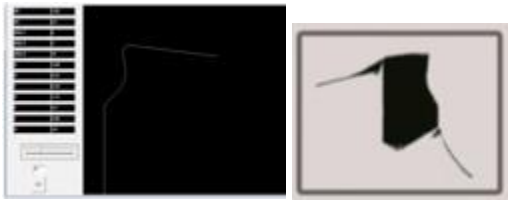


Slot making – calling saved saw program



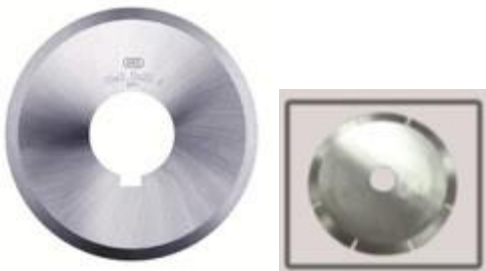
Slot making parameter input screen

- Cermet grinding software (Free profile programming for Flytek Raptor, Stahlte,etc



- Grinding of curved face cermet blades

- Software for circular knives (The grinding angle capacity should be informed prior to order)



Plunge Grinding Software

- Software for saw body complete profile grinding (gumming) and carbide seat grinding (including winter tooth shape) Recommended for Saw Doctor Shops who are working for sawmills



- Air dryer unit (Protection for pneumatic air supply)



- Saw Holder (5 pieces of saw holders will be included Free of Charge. Additional saw holders are optional)



Saw holder 20 - 45mm

Saw holder 50 - 90mm

Bigger custom sizes are quoted up on to request.