



ARTI Bileme

GRINDING & WELDING MACHINERY

OTOMAT-NC5

NC AUTOMATIC T.C.T. CIRCULAR SAW GRINDER

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The OTOMAT-NC5 is a fast, NC controlled automatic face and top grinding machine that is

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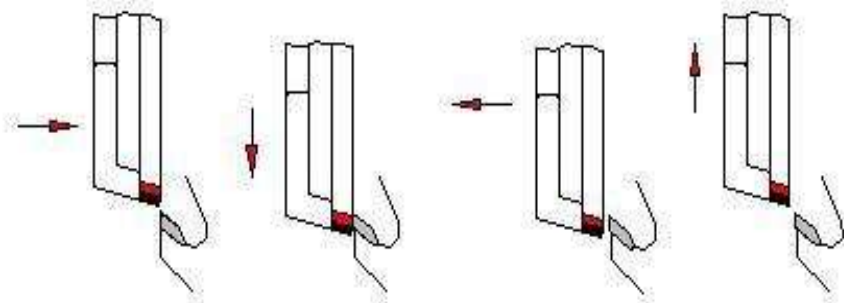
capable of grinding all standard tooth shapes on T.C.T. circular saws up to Ø810mm in one cycle.

OTOMAT-NC5 is designed to grind T.C.T. circular saw blades, generally used for cutting timber, pressboard, PVC and aluminum. Its aim is to provide a clean and undamaged cutting edge for the materials used.

There are two different grinding processes that can be performed with this machine.

Face Grinding:

Top Grinding:



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General features at a glance:

- 4 axes step motor, 1 axis servo motor controlled.
- Skipping the broken / missing teeth.
- Operating screen in any language (please state the required language in purchase order)
- Derlin jaws for hogger saws and saws with wiper slots.
- Microprocessor controlled.
- Possibility of selecting the grinding program from the control panel.
- Grinding all common tooth types in one cycle.
- ATB and combo face grinding in one cycle.
- Max. outside diameter Ø810mm.
- Clamping by step motor.
- Automatic blade thickness adjustment to self center bevels.
- Central lubrication system.
- TFT screen control panel.
- Totally enclosed cabin for operator safety.
- Simple controls for ease of use.
- Rigid base.
- Variable grinding speed.
- Ergonomic cabin for ease of loading and unloading.
- Independently adjustable grinding and indexing speeds.
- Integral air suction unit with reusable filters.
- Oil coolant ready.
- Production conformed with CE standards.

Capacity: Top/face grinding up to 150 pcs. T.C.T. circular saw blades per week.

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Technical Specifications:

Circular saw outside diameter	Ø100-810mm
Bore diameter	Ø6-90mm
Blade thickness	Max. 6.0mm
Tooth pitch	7-100mm
Grinding stroke	50mm.
Cutting angle	(-10°) - (+30°)
Radial angle	±45°
Max. Tangential angle	30°
Grinding wheel outside diameter	Ø125mm
Grinding wheel bore diameter	Ø32mm
Grinding motor	1HP
Coolant motor capacity	35lt/min.
Coolant container capacity	~60lt.
Motor quantity	8
Connected load	~2,14 kW
Voltage	380V, 3Ph, 60Hz
Net/gross weight	950/975kg
Dimensions	140*210*210cm.

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Motors on the machine:

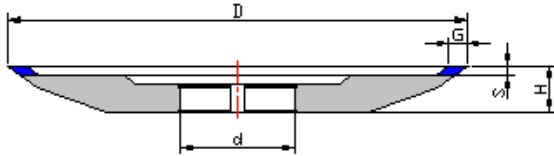
- i. Grinding wheel motor (Y axis Servo motor) – [700 Watt]
- ii. Back clearance & hook angle adjustment motor (B axis) – [0,37kW 1400 r.p.m.]
- iii. Clamping motor (U axis Step motor) – [6 Nm]
- iv. Coolant motor – [0,09 kW 2800 r.p.m.]
- v. Beveling motor (A axis Step motor) – [8,5 Nm]
- vi. Infeed motor (X axis Step motor) – [8,5 Nm]
- vii. Indexing motor (Z axis Step motor) – [8,5 Nm]
- viii. Air suction unit motor (AC motor) – [0,14kW, 2800 r.p.m., 230V, 1ph, 50Hz]

Saw blade holders provided with the machine:

Ø20 – 22 – 25 – 30 – 32 – 35 – 40 – 45 – 50 – 55mm

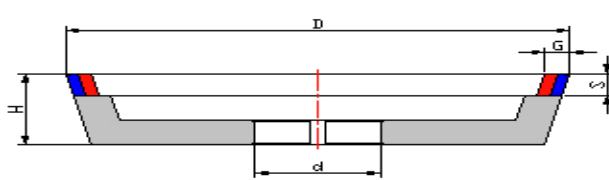
Grinding Wheels:

FACE GRINDING WHEEL



D	Ø125mm
G	5 mm
S	3 mm
H	12 mm
d	Ø32 mm
Type	4A2P

TOP GRINDING WHEEL



D	Ø125mm
G	7 mm
S	4 mm
H	18 mm
d	Ø32mm
Type	6A9

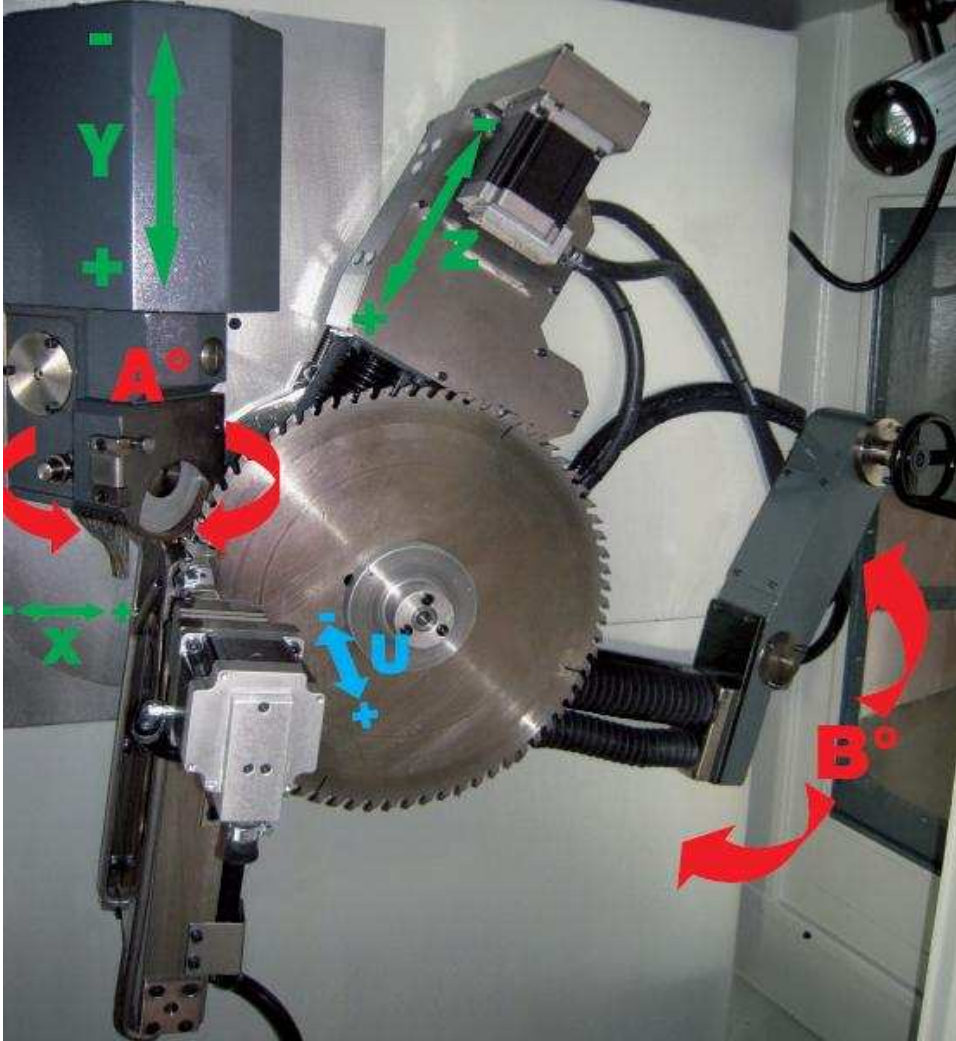
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Axes of the machine:



OTOMAT-NC5 Axes of the machine:

Infeed axis (X) – Step Motor

Grinding axis (Y) – Servo Motor

Indexing axis (Z) – Step Motor

Beveling axis (A) – Step Motor

Back clearance – hook angle adjustment axis (B) – AC Motor

Clamping axis (U) – Step Motor

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Tooth Forms and Grinding Phases













			Top	Face
Flat 		All teeth flat	1	1
		Flat-Flat (Hi-low)	1	1
ATB 		ATB (Right-Left)	1	1
		Right-Left-Left-Left	1	1
		Left-Right-Right-Right	1	1
		All right bevels	1	1
		All left bevels	1	1
Triple Chip 		Triple chip - Flat	1	1
		Triple-triple chip (Hi-low)	1	1
		Triple chip (all teeth triple chip)	1	1
		TRP-R (Triple chip with right-left corner break)	1	1
		TRP-L (Triple chip with left-right corner break)	1	1



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Pointed Top 		Flat-Pointed Top	1	1
		Pointed Top (All teeth pointed top)	1	1
5T (Combo)		5T-1 (Flat-Right-Left-Right-Left)	1	1
		5T-2 (Flat-Left-Right-Left-Right)	1	1
		5T-3 (Flat-Right-Left-Right-Left-Flat-Left-Right-Left-Right)	1	1
		5T-4 (Flat - Right-Left-Right-Left) [For saw blades with irregular tooth pitch]	1	1
		5T-5 (Flat - Left-Right-Left-Right) [For saw blades with irregular tooth pitch]	1	1
D-RIG		Flat-Right-Right-Right	1	1
D-LEF		Flat-Left-Left-Left	1	1
TRP-2F		Triple Chip-Flat-Flat	1	1
SS45		Raker Right-Left	1	1



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Warranty Period :

Mechanical Guarantee : 1 year against production faults.

Electronic Guarantee : 2 years against production faults.

(The guarantee does not cover the electrical motors and the supplied electrical materials)

Optional Supplements:

- Face grinding wheel.
- Top grinding wheel.
- Saw blade holders in various sizes.

(Saw holders up to Ø55mm are provided with the machine free of charge. Each holder for bigger diameters is optional)

- Aluminum magnetic saw holder.
- Mechanical saw holder for heavy type saw blades larger than Ø500mm.
- Closed packing.

To be invoiced separately.