PREMIUM

abm
Grinding Technologies


## Advanced grinding, all-in one setup...

# PREMIUM

5 AXES DOUBLE WHEEL COMPLETE TOP AND FACE GRINDER IN ONE CYCLE

### The flexible, hi-tech solution

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

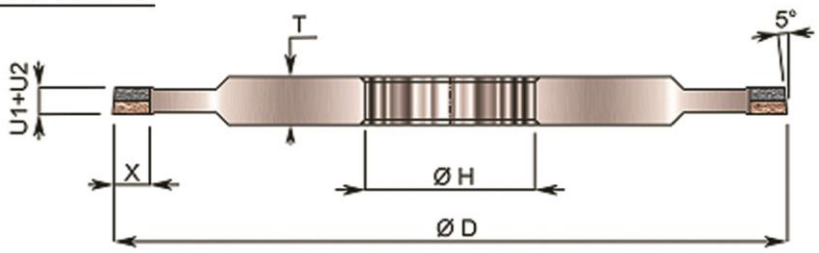
# PREMIUM

PREMIUM is a fast, PC controlled, built in one central construction top and face grinder in one clamping. PREMIUM guarantees a smooth top and face grinding for all types of tooth profiles on T.C.T. circular saws in only one cycle.

Top Grinding

## TOP GRINDING WHEEL

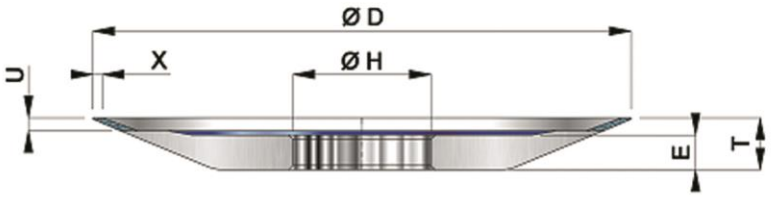
Type 14AA1
D Ø150mm
H Ø32mm




Face Grinding

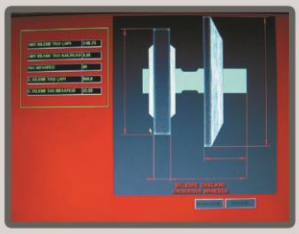
## FACE GRINDING WHEEL

Type 12V2
D Ø160mm
H Ø32mm




# A versatile response to meet all demands...


15" Touch Panel Feature



PREMIUM Grinding wheel screen

Measuring probe

PREMIUM General operating area

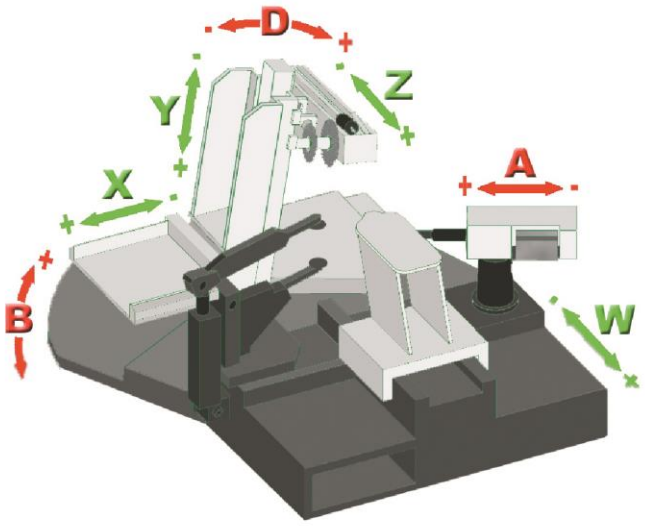
## General Features

- Complete top and face grinding in one cycle.
- 5 axes Servo motor CNC controlled. [Axes A, B, X, Y, Z]
- Skipping the broken / missing teeth.
- Repairing the newly-replaced teeth.
- Application of two grinding wheels.
- Manual W axis to adjust the saw blade holder.
- Manual D axis for manually adjustable head bevel.
- Operating screen in any language (please state the required language while ordering)
- PC controlled.
- Windows® operating system.
- Possibility of selecting the grinding program from the control panel.
- Grinding all common tooth types in one cycle.
- Integral measuring probe.
- Automatic saw blade thickness calculation either by means of measuring probe or manually entering on the control panel.
- Automatic compensation calculation by means of the measuring probe.
- Automatic kerf thickness calculation by means of a measuring probe.
- Face and top angle data collection by means of measuring probe.
- LCD screen control panel.
- Max. outside diameter Ø610mm.
- Pneumatic blade clamping.
- Totally enclosed cabin for operator safety.
- Simple controls for ease of use.
- Rigid base.
- Variable grinding speed.
- Ergonomic cabin construction for ease of loading and unloading.
- Independently adjustable grinding and indexing speeds.
- Integral air suction unit.
- Oil coolant ready.
- Production conformed with CE standards.

# PREMIUM

Become independent ! Optimum use of the unique grinding machine and the most operator-friendly control system. Special high speed set-ups can give “off-carbide” grinding time which increase productivity without depending on grinding accuracy or wheel life. ABM Control system eases the grinding operations while increasing your quality.

## Axes of Machine

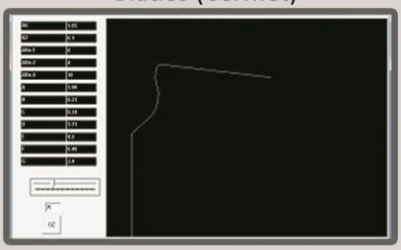



## Motors on the Machine

| | Power (kW) | Revolution (RPM) | Feeding Voltage | Additional Features |
|---|---|---|---|---|
| Axis X (Servo) | 0.75 | 3000 | - | Absolute encoder-with brake |
| Axis Y (Servo) | 0.75 | 3000 | - | Absolute encoder-with brake |
| Axis Z (Servo) | 0.75 | 3000 | - | Absolute encoder-with brake |
| Axis A (Servo) | 0.75 | 3000 | - | Absolute encoder-without brake |
| Axis B (Servo) | 0.75 | 3000 | - | Absolute encoder-with brake |
| Grinding wheel motor | 1.1 | 2900 | 380V-3phases | |
| Coolant motor | 0,75 | 2800 | 380V-3phases | |
| Air suction motor | 0,37 | 2800 | 230V-1phase, 50Hz | |

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


Module for Production of Cold Saw Blades (Cermet)



Free Profile Programming of Cold Saw Blades

Parameter input screen

## Technical Specifications

- Circular saw outside diameter — Ø100-610mm (Ø80 optional)
- Bore diameter — Min. Ø10mm
- Blade thickness — Max. 8.0mm
- Tooth pitch — Max.110mm
- Cutting angle — (-10°) - (+45°)
- Max. Tangential angle — +25°
- Grinding wheel outside diameter — Ø160mm Face/ Ø150mm Top
- Grinding wheel bore diameter — Ø32mm
- Working speed — Variable from 0,5mm to 20mm/s
- Coolant motor capacity — ~75lt/min.
- Coolant tank capacity — ~120lt.
- Feeding rate — 15 teeth/min.
- Motor quantity — 8
- Connected load — ~5kW
- Voltage — 380V, 3Ph
- Net/gross weight — 2700/2900kg
- Dimensions — 200*220*195cm.

# PREMIUM

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

## Tooth Forms Ground in One Cycle

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

| | | |
|---|---|---|
| **Pointed Top** |  | Flat-Pointed Top |
| |  | Pointed Top (All teeth pointed top) |
| **5T (Combo)** |  | 5T-1 (Flat-Right-Left-Right-Left) |
| |  | 5T-2 (Flat-Left-Right-Left-Right) |
| |  | 5T-3 (Flat-Right-Left-Left-Right-Flat-Right-Left-Left-Right) |
| |  | 5T-4 (Flat - Right-Left-Right-Left) [For saw blades with irregular tooth pitch] |
| |  | 5T-5 (Flat - Left-Right-Left-Right) [For saw blades with irregular tooth pitch] |
| **D-RIG** | +  | Flat-Right-Right-Right |
| **D-LEF** |  | Flat-Left-Left-Left |
| **TRP-2F** |  | Triple Chip-Flat-Flat |
| **COLD-SAW** Optional |  | Free Profile Programming of Cold Saw Blades LOADER is used only for production |

# High Accuracy / High Productivity

## PREMIUM Operating Screens

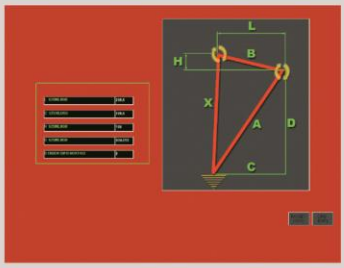

General operating screen


Calibration screen

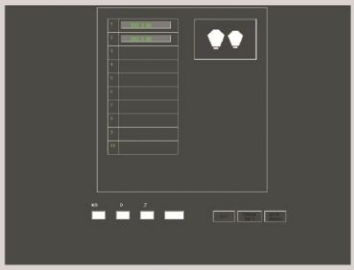

Form selection screen


Broken tooth and repair tooth screen

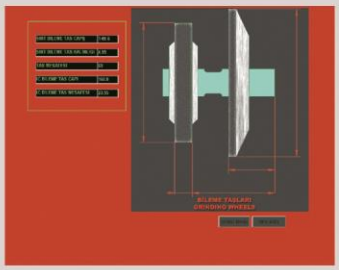
Measuring probe calibration screen




Setup screen



Listing screen



Wheel calibration screen


İTOB 10011 Sok. No:6 Tekeli, 35477, Menderes, İzmir, TÜRKİYE
Phone: +90 232 782 6644 /1468 Fax: +90 232 782 2390
www.abmgroup.com.tr • info@abmgroup.com.tr