

# MECATOME T300

Innovation in cutting

CUTTING

MOUNTING

POLISHING

HARDNESS AND MICROSCOPY



## Manual and automatic cutting machine.

**Powerful:** MECATOME T300 is equipped with a powerful motor controlled by a frequency inverter.

**Reproducible:** memorisation of the last parameters used.

**Efficient:** all parameters can be adjusted.

**Simple:** easy to use control panel with large display.

**Intelligent:** automatic adjustment of the feed table according to the load of the motor.



FRANCE SWITZERLAND SHANGHAI HONG KONG



# MECATOME T300

The versatile cutting machine: from precision cut to large samples from manual cutting to automatic regulation

## Operation

MECATOME T300 is a robust, powerful and reliable cutting machine integrating the latest technologies to ensure easy use and simple maintenance. Ø 250 or 300mm cutting disks combined with variable speeds allowing for optimum cutting results with all types of materials. The design means that large and bulky shaped components can be cut, as well as bars.

- With manual cutting, the user may adjust the disk speed before or while cutting without need to stop the machine.  
It is also possible to move the table forwards or backwards during cutting, to permanently modify the cutting angle: harder-to-handle materials may therefore be cut without need for excessive effort.
- With automatic cutting, the following functions optimise results:
  - variable disk speed for precise disk adaptation according to the material
  - variable movement of the table for the rapid cutting of easy-to-handle materials or small items, and the slow cutting of hard-to-handle materials or large items.
  - adjustment of effort thresholds to optimise forward speed according to the resistance sensed during cutting and to accelerate cutting to an optimum.
  - direct cutting function for the rapid processing of easy-to-handle materials
  - pulse cutting function for hard-to-handle materials, enhancing the cooling down of the workpiece and the regeneration of the disk.
  - programmable cutting length function to gain time in mass cutting, or stop cutting at a given distance.
  - rapid return function at the end of cutting and automatic stopping of the machine enabling operator free cutting.
  - rapid positioning of the table to reduce adjustment time prior to cutting.
- The powerful and silent motor is controlled by the frequency inverter to increase reliability over time and ensure a high level of safety with progressive acceleration (no sudden movements in transmission) and the immediate stopping of the disk. The frequency inverter will also ensure a constant torque independently to the load applied.
- The control panel combines all machine commands and access to functions:
  - variable disk speed
  - variable feed speed for the table
  - programmable cutting length
  - manual or automatic cutting
  - direct cutting or with pulse cutting system
  - programming of effort thresholds to regulate forward motion
- The MECATOME T300 working table is deep and wide, allowing for the application of the different fixturing systems often used with larger machines. Double rapid-grip vices, or vices for long items, as well as Kopal clamps can be attached to the table. A transversal table is available as an option, enabling the cutting of slices without need to disassemble the workpiece or for precise positioning.
- The transparent cover and inner lighting provide optimum visibility. Gas absorbers mean the cover can be opened and shut easily. Extensive cover clearance simplifies access to the working table and the handling of vices.

It is also possible to install rubber curtain in the side openings to cut large workpieces or bars which overhang the machine.

- The liquid filter system using mobile and cleanable filters allows for cutting without the need to handle cutting sediment, enhancing the quality and finish of cutting.  
The clean liquid can also be used to effectively and rapidly clean the machine with the spray nozzle. The low lying base of the cutting compartment also simplifies cleaning, guaranteeing an extended life cycle for the MECATOME T300.
- The 55-litre cooling tray combined with a powerful pump and a multi-jet watering system (on the disk and on the workpiece to be cut) ensures the optimal cooling of the workpiece.
- A Ø 75mm sleeve, available as an option, allows a vapour extractor to be connected, reducing condensation within the cutting compartment and increasing visibility.



## Technical glossary

**Memorisation:** the most recent parameters applied are memorised. This is particularly helpful for mass cutting, or for cutting identical workpieces.

**Automatic regulation:** an electronic device measuring the effort of the various motors regulates the forward motion of the working table during automatic cycles. Maximum and minimum thresholds may be easily configured by the operator to adapt the parameters on the basis of the types of workpieces and materials. It is also possible to configure response time for adjustment.

**Pulsation cutting:** the MECATOME T300 has 2 cutting modes: direct or with pulse

cutting system. With the direct mode, automatic forward motion is continuous, and only speed is regulated if necessary. With the pulse system mode, forward motion is alternated with stops for optimum cooling of the workpiece. Forward motion and stopping time may be configured separately per 1/10<sup>th</sup> of a second. Forward motion speed may be regulated.

**Frequency inverter:** "inverter" technology. This unit controls the three-phase motors. The following functions are used on the MECATOME T300: speed regulator, constant torque and speed independently to load, progressive acceleration

and immediate stop, overload safety device and feedback for a steady forward motion according to effort.

**Filtering:** new generation filters have been developed for the MECATOME T300 in order to improve the quality of cutting, but importantly to simplify user tasks such as cleaning the machine or draining the cooling tray. The cooling tray only contains cooling water, and the liquid is clear and practically free of deposits and cutting waste. Draining is simple and infrequent.

**Safety locking:** in application of safety standards, interlocking prevents the cover from opening during the cutting cycle when the disk is rotating.

# MECATOME T300

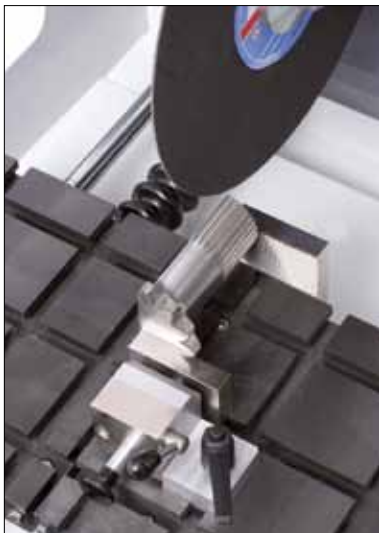
## VICES AND HOLDERS



**50906**  
Double quick clamping vices.



**50613**  
KOPAL holders.



**51356**  
Vice for long sample.



**51610 + 51319**  
Transversal table  
+ Quick clamping vice  
(right).



**TANK WITH FILTER**  
Tank and pump  
with removable filter



**51610 + 51330**  
Transversal table  
with rotating holder.



## Technical specifications of the MECATOME T300

Cut-off wheel diameter	250 or 300mm
Cut-off wheel speed	1000 - 4000rpm
Motor power	3.8kW
Progressive acceleration of the cut-off wheel	✓
Immediate stop of the cut-off wheel	✓
Feed speed of the table	10 - 125mm/min
Automatic adjustment of the feed speed according to the motor load	✓
Adjustment of effort thresholds	✓
Direct cutting	✓
Pulse cutting system	✓
Programmable cutting length	✓
Variable positioning of the feed table	yes, 450mm/min
Rapid return at end of cutting	✓
Arm blocking for automatic cutting	✓
Cutting arm travel	125mm
Cooling of the cut-off wheel and the workpiece thanks to for 4 nozzles	✓
Electronic keyboard	✓
Large digital display	✓
Easy programming of cutting parameters	✓
Memorisation of the last parameters used	✓
Emergency stop	✓
Cast iron working table	390 x 230mm
Table stroke	250mm
T groove, 12mm	✓
Transversal table with digital vernier	✓ (optional)
Inner position of the cut-off wheel	230mm left side, 330mm right side
Clearance under a new Ø 300mm cut-off wheel	80mm
Clearance under a new Ø 250mm cut-off wheel	105mm
Available volume under a new Ø 300mm cut-off wheel	300 x 500 x 80mm
Available volume under a new Ø 250mm cut-off wheel	300 x 500 x 105mm
Theoretical capacity of a new Ø 300mm cut-off wheel	Ø 110mm / 95 x 150mm
Theoretical capacity of a new Ø 250mm cut-off wheel	Ø 85mm / 80 x 130mm
Bar clearance on both sides of the machine	✓ (300 x 80mm)
Transparent cover	✓
Large cover opening for easy access	✓
Assisted opening and closing of cover	✓
Suction hole for cutting vapours	✓ (Ø 75mm)
Rapid changing of the cut-off wheel	✓
Cooling tray with powerful pump	✓ (55 litres)
Filter system with cleanable mobile filter	✓
Spray nozzle for cleaning	✓
Easy cleaning of the cutting compartment	✓
Lighting of the cutting compartment (20W)	✓
Safety locking	✓
Noise at 1 metre	66 dB
Voltage	400 Volts, three phase, 50Hz
Dimensions (l x d x h)	650 x 810 x 600mm
Weight	120kg

### PRESI, it's also



MECATOME T330



MECAPRESS 3



LE CUBE



MINITECH 233



MECATECH 334



**PRESI**

38320 Brié-et-Angonnes - Grenoble - France. Tel.: +33 (0)4 76 72 00 21. Fax: +33 (0)4 76 72 05 84. E-mail: presi@presi.com