

# MECATOME T215

# **AUTOMATIC MICRO-CUTTING MACHINE**

Robust and compact, the MECATOME T215 is an automatic micro-cutting machine. Its three programmable motorized axes make it a machine that adapts to all situations. The MECATOME T215 offers numerous work parameters that allow to optimize the cutting of the most complex parts.



# **Working comfort**

- · Blocking of the shaft for wheel change

- Tool-less cut-off wheel change
  Motorized Y & Z cutting axes
  Motorization of the positioning axis X (optional)
- · Light integrated into the hood:
- Anti-glare
- Optimal lighting of the working
- Guided evacuation system for residual drops
- Concealed screws for easy cleaning
- Grid allowing to retain parts and large debris



### 6 points lubrication close to the cut area

• Wheel guard including 6 lubrication points

### Safety

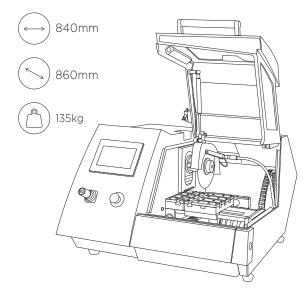
• Two-hand control



- Braked stopping of the cut-off
- Mechanical locking of the hood during operation
- · Zero speed control before unlocking
- Emergency stop button
- CE marking

### **MECATOME T215**





### **CUTTING ENVELOPE**

 $\overline{Z}$  = 60mm

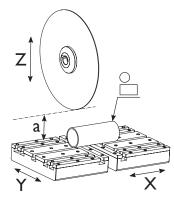
 $\bigcirc$  = 250mm

X = Option: 100mm

(a) = 40mm (cut-off wheel Ø200mm)

○ = Ø55mm

□ = 55 x 190mm



\* This illustration of the cutting envelope is to show the maximum theoretical capacity only. The actual capacity may be increased, depending on sample material, cutting frequency and selected flanges.



# **CUTTING METHODS**

Driven in assisted mode or in different programmable automatic modes, the MECATOME T215 is suitable for developing cutting methods as well as for routine use according to pre-established protocols. With an optional X-axis motorized table, the MECATOME T215 allows you to position the parts precisely and to achieve serial cuts. Both cutting axes can be driven separately or combined, depending on the need.

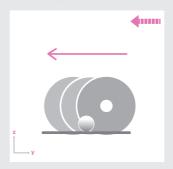
### **ASSISTED MODE**



In this mode, the user directly controls the table feed using the joystick and defines the maximum speed and the regulation if necessary.

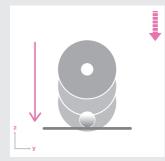
This is an efortless manual cut.

### **PULSE MODE Y**



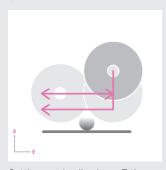
Cutting mode where the wheel advances intermittently along the Y axis. Dedicated to difficult materials or massive parts, this mode allows gradual release of the constraints and limits temperature peaks.

### **PULSE MODE Z**



Cutting mode where the wheel advances intermittently along the Z axis. Dedicated to difficult materials or massive parts, this mode allows gradual release of the constraints and limits temperature peaks.

### **COMBINED MODE**



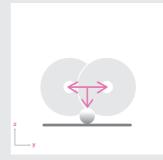
Cutting mode allowing a Z then Y cut, regulated or not. This mode increases the cutting capacity of the machine. The MULTI-COMBINED work mode allows the cut to be broken down into several stages along the Z axis. This mode is particularly dedicated to thick parts.

### PROGRESSIVE COMBINED MODE



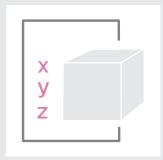
Cutting mode allowing a progression of the cut both along the Z axis and the Y axis, regulated or not. This mode optimizes the cutting time.

### **OSCILLATING MODE**



Z cutting mode, oscillating along the Y axis regulated or not. This mode is particularly dedicated to difficult to cut materials, lubrication of the cutting area is greatly improved.

### **EXPERT MODE**



Operating mode that transformes your machine into a numerical control center, dedicated to cutting. This mode is compatible with the program mode.

# OPTIONS



# TRANSVERSAL TABLE WITH MOTORIZED MOVEMENT

### Travel distance 100mm; 1/100th precision

- Position the parts
- Carry out serial cuts Ref. 51461

# PRESI S S S S

# POSITIONING LASER Visualize the cutting line Ref. 51463



### SUCTION & EXTRACTION Mist extraction with fluid recovery

Ref. 51464

### **25L RECIRCULATING TANK**

Double filtration system: mechanical, optional magnetic Ref. 5462

### **CHARACTERISTICS MECATOME T215**

HOOD

Metal Frame & PETG

Type Stainless steel cutting chamber

Two-hand control for table positioning, when hood open

Mechanical locking of the hood during cutting

Braked stopping of the cut-off wheel

Zero speed check before unlocking the hood

Fumes extraction Option: mist extraction with fluid recovery

MOTORISATION - POWER SUPPLY

Nominal power S1 1500W Nominal power S2 2200W Nominal power S3 2700W

Motor Asynchronous motor controlled by frequency inverter

Power supply 230V - Single phase - 50/60Hz

**CUT-OFF WHEEL** 

Kind of the cut-off wheelResinoid & MetallicSize of the cut-off wheelfrom Ø75 to Ø200mmRotation speedfrom 300 to 6000 RPM

Arbor size 12,7mm

CONTROL

Safety

Control interface Touchscreen

3-dimensional joystick with 2 shortcut buttons

Security access Can be activated

Programmability Up to 100 programs, password protected

CUTTING

Operating mode Assisted, Automatic, Program Mode

Cutting modes Regulated, Pulse Cutting, Combined, Oscillating

table automation Y-axis movement
Cutting control Feeding Regulation

Cutting axis Motorized Y & Z axes (The X axis being a positioning axis)

Y axis travel 250 mm

Y axis speed from 0,01 to 3mm/s

Z axis travel 60mm

Z axis speed from 0.01 to 3mm/s

Serial cutting Option: motorized x-axis table, travel distance 100mm

Table dimensions Left table:  $82 \times 210$ mm Right table:  $142 \times 210$ mm

Distance between cut-oof wheel and table 40mm (with  $\emptyset$  200mm cut-off wheel)

Positionning laser Option: Laser Class 1M; Po = 1mW; I = 635nm

Table type Treated aluminum table, interchangeable stainless steel pallets
Holders T-slotted table (12mm) accepting all commercial clamping systems

LUBRICATION - COOLING

Type of lubrication By pump, flow rate 45L/min

Booker lating topk

Integrated - Capacity 10L

Recirculation tank

Option: 25L external tank and pump

Type of filtration

Integrated: Grid & 100 µm filter, optional magnetic filter

External: Washable 100 µm cloth filter, optional magnetic filter

External: Washable 100 µm cloth filter, optional magnetic filter

Method of directing pumped coolant 6 lubrication points in the cut-off wheel guard

**ERGONOMICS** 

Internal lightingLED lighting integrated into the hood (IP 68)Spray nozzle for cleaningQuick connector, linked to main lubrication pointCutting disc changeTool-less cut-off wheel changing system

No-load sound level < 70 dB

### **ACCESSORIES**

### STAINLESS STEEL VICES & CLAMPING SYSTEM



Cast in one piece quick clamping vice left Ref. 51321



Cast in one piece quick clamping



Quick clamping vice for long



Kopal clamp Kopal kit

OTHER ACCESSOIRIES



Base cabinet for automatic cutting machine (large model) Ref. 51470

### **SAMPLE HOLDERS**



Sample chucks (to use only with a motorized transversal table)
Ref. 51410



**V** shaped sample chuck Ref. 51715

Irregular shaped sample chuck Ref. 51716



Vice chuck for longitudinal cuts



Chuck for small samples (vice type) Ref. 51713



Chuck for cylindrical sample

### **CONSUMABLES**

### **RESINOID CUT-OFF WHEELS**

	REF.	ABRASIVE	Ø
Ferrous materials			
	01046	Al <sub>2</sub> O <sub>3</sub>	Ø 125 x 0,5 x 12,7mm
9	01043	$Al_2O_3$	Ø 150 x 0,5 x 12,7mm
	01002	Al <sub>2</sub> O <sub>3</sub>	Ø 200 x 1,6 x 25,4mm*
⋖	01040	Al <sub>2</sub> O <sub>3</sub>	Ø 100 x 0,3 x 12,7mm
AOFII	01001	$Al_2O_3$	Ø 200 x 0,8 x 25,4mm*
		Non-ferrous n	naterials
MΝ	01005	Non-ferrous n	ø 200 x 1,6 x 25,4mm*
C MNF	01005 01041		
		SiC	Ø 200 x 1,6 x 25,4mm* Ø 100 x 0,3 x 12,7mm
		SiC SiC	Ø 200 x 1,6 x 25,4mm* Ø 100 x 0,3 x 12,7mm
	01041	SiC SiC Ferrous & non-ferr	Ø 200 x 1,6 x 25,4mm* Ø 100 x 0,3 x 12,7mm ous materials

<sup>\*</sup> to be used with reduction rings ref. 51324

### **METALLIC CUT-OFF WHEELS**

	REF.	Ø
Hard ferrous materials		
	02059	Ø 75 x 0,5 x 12,7mm
	02062	Ø 100 x 0,5 x 12,7mm
CBN	02050	Ø 125 x 0,5 x 12,7mm
8	02065	Ø 150 x 0,6 x 12,7mm
	02056	Ø 175 x 0,7 x 12,7mm
* to be	02039 used with red	Ø 200 x 0,9 x 32mm* uction rings ref. 51331

**REDUCTION RINGS\*** 

REF.	DESIGNATION	Ø
	Pack of 5	
51324	Reduction ring aluminium	25,4 / 12,7mm
51331	Reduction ring aluminium	32 / 12,7mm
51332	Reduction ring aluminium	25,4 / 12,7mm

<sup>\*</sup> Other diameters on request.

### **METALLIC CUT-OFF WHEELS**

	REF.	Ø
		Ceramic & non-ferrous materials
	02058	Ø 75 x 0,5 x 12,7mm
~	02033	Ø 100 x 0,5 x 12,7mm
ND	02035	Ø 125 x 0,5 x 12,7mm
DIAMOND LR	02037	Ø 150 x 0,6 x 12,7mm
□	02067	Ø 175 x 0,7 x 12,7mm
	02041	Ø 200 x 0,9 x 32mm*
	02030	Ø 75 x 0,3 x 12,7mm
Σ	02031	Ø 100 x 0,3 x 12,7mm
DIAMOND LM	02034	Ø 125 x 0,5 x 12,7mm
AMO	02036	Ø 150 x 0,6 x 12,7mm
	02055	Ø 175 x 0,7 x 12,7mm
	02038	Ø 200 x 0,9 x 32mm*
	02057	Ø 75 x 0,3 x 12,7mm
<del>+</del> Σ	02060	Ø 100 x 0,3 x 12,7mm
ND L	02063	Ø 125 x 0,5 x 12,7mm
DIAMOND LM+	02064	Ø 150 x 0,6 x 12,7mm
70	02066	Ø 175 x 0,7 x 12,7mm
	02040	Ø 200 x 0,9 x 32mm*
		Composit & plastic materials
0	02100	Ø 100 x 1,4 x 12,7mm
) ELI	02101	Ø 125 x 1,4 x 12,7mm
DIAMOND ELD	02102	Ø 150 x 1,4 x 12,7mm
DIAN	02103	Ø 175 x 1,4 x 12,7mm
_	02104	Ø 200 x 1,4 x 12,7mm

 $<sup>^{\</sup>ast}$  to be used with reduction rings ref. 51331

### **ANTIRUST** COOLANT

REF.	DESIGNATION
01025	1L bottle
01090	5L drum
01026	10L drum

### **ANTIFOAM AGENT**

REF.	DESIGNATION
01094	1L bottle
01095	5L drum
01096	10L drum

### **ANTISEPTIC** LIQUID

REF.	DESIGNATION
01093	500CC bottle
01097	1L bottle
01098	5L drum



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