

# 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.



Adjustable, anti-vibration feet

#### **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 area
- 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

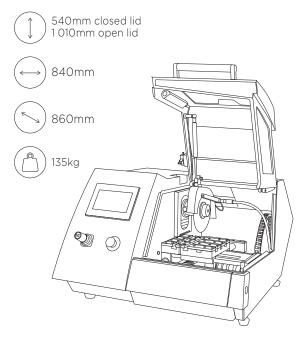
#### Safetv

• Two-hand control



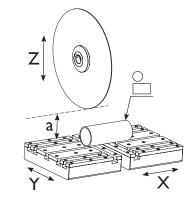
- Braked stopping of the cut-off wheel
- Mechanical locking of the hood during operation
- · Zero speed control before unlocking
- Emergency stop button
- CE marking

#### **MECATOME T215**



#### **CUTTING ENVELOPE**<sup>\*</sup>

- **Z** = 60mm
- (Y) = 250mm
- 🗶 = 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**

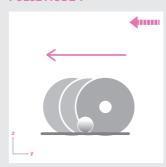
Driven in assisted mode or in different programmable automatic modes, the MECATOME T215 is suitable for developing cutting methods as well as for routine use according to pre-established protocols. With an optional X-axis motorized table, the MECATOME T215 allows you to position the parts precisely and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

#### **ASSISTED MODE**



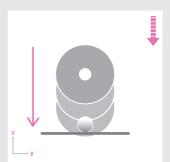
In this mode, the user directly controls the table feed using the joystick and defines the maximum speed and the regulation if necessary. This is an efortless manual cut.

#### **PULSE MODE Y**



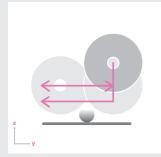
Cutting mode where the wheel advances intermittently along the Y axis. Dedicated to difficult materials or massive parts, this mode allows gradual release of the constraints and limits temperature peaks.

#### **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**



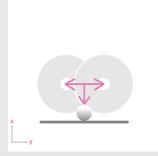
Cutting mode allowing a Z then Y cut, regulated or not. This mode increases the cutting capacity of the machine. The MULTI-COMBINED work mode allows the cut to be broken down into several stages along the Z axis. This mode is particularly dedicated to thick parts.

#### 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; 1/100<sup>th</sup> precision • Position the parts • Carry out serial cuts Ref. 51461

#### **25L RECIRCULATING TANK**

Double filtration system: mechanical, optional magnetic Ref. 5462



POSITIONING LASER Visualize the cutting line Ref. 51463



SUCTION & EXTRACTION Mist extraction with fluid recovery Ref. 51464

## **CHARACTERISTICS MECATOME T215**

HOOD	
	Metal Frame & PETG
Туре	Stainless steel cutting chamber
	Two-hand control for table positioning, when hood open
Safety	Mechanical locking of the hood during cutting
	Braked stopping of the cut-off wheel
Fumes extraction	Zero speed check before unlocking the hood Option: mist extraction with fluid recovery
Fumes extraction	Option. Thist extraction with huid 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	
Type of the cut-off wheel	Resinoid & Metallic
Size of the cut-off wheel	from Ø75 to Ø200mm
Rotation speed	from 300 to 6000 RPM
Arbor size	12,7mm
CONTROL	Touchscreen
Control interface	3-dimensional joystick with 2 shortcut buttons
Security access	Can be activated
Programmability	Up to 100 programs, password protected
- rogrammability	
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 x 210mm Right table: 142 x 210mm
Distance between cut-off wheel and table	40mm (with Ø 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
Recirculation tank	Integrated - Capacity 10L
	Option: 25L external tank and pump
Type of filtration	Integrated: Grid & 100μm filter, optional magnetic filter External: Washable 100μm cloth filter, magnetic filter
Method of directing pumped coolant	6 lubrication points in the cut-off wheel guard
ERGONOMICS	
Internal lighting	LED lighting integrated into the hood (IP 68)
Spray nozzle for cleaning	Quick connector, linked to main lubrication point
Cutting disc change	Tool-less cut-off wheel changing system
No-load sound level	< 70 dB

### **ACCESSORIES**

Cast in one piece quick clamping

SAMPLE HOLDERS

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

#### **STAINLESS STEEL VICES & CLAMPING SYSTEM**



vice left Ref. 51466

Sample chucks



vice right Ref. 51465

V shaped sample chuck Ref. 51715

Cast in one piece quick clamping



Quick clamping vice for long samples Ref. 51469



Kopal clamp Ref. 50616 Kopal kit Ref. 50613



Orientable chuck (to be used with aluminium plates Ref. 51162 and 51163) - Ref. 51156



Chuck for cylindrical sample

OTHER ACCESSOIRIES



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

#### **CONSUMABLES**

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

		REF.	ABRASIVE	Ø
			Ferrous mat	terials
	AO	01046	Al <sub>2</sub> O <sub>3</sub>	Ø 125 x 0,5 x 12,7mm
		01043	Al <sub>2</sub> O <sub>3</sub>	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 <sub>2</sub> O <sub>3</sub>	Ø 200 x 0,8 x 25,4mm*
		Non-ferrous materials		
	MNF	01005	SiC	Ø 200 x 1,6 x 25,4mm*
	U	01041	SiC	Ø 100 x 0,3 x 12,7mm
	Ferrous & non-ferrous materials			ous materials
	ΛTΜ	01100	SiC	Ø 180 x 0,5 x 25,4mm*
_	5	01101	SiC	Ø 200 x 0,5 x 25,4mm*
	S	01060	SiC	Ø 180 x 0,5 x 25,4mm*
*	* 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
B	02065	Ø 150 x 0,6 x 12,7mm
	02056	Ø 175 x 0,7 x 12,7mm
	02039	Ø 200 x 0,9 x 32mm*
* to be used with reduction rings ref. 51331		
DEDUCTION DIVISOR		

#### **REDUCTION RINGS\***

REF.	DESIGNATION	Ø
Pack of 5		
51324	Reduction ring aluminium	25,4 / 12,7mm
51331	1 Reduction ring aluminium 32 / 12,7mm	
51332	Reduction ring aluminium	25,4 / 12,7mm
* Other diameters on request.		



Irregular shaped sample chuck Ref. 51716

Vice chuck for longitudinal cuts



Ref. 51717

Chuck for small samples (vice type) Ref. 51713

#### METALLIC CUT-OFF WHEELS

	REF.	Ø
		Ceramic & non-ferrous materials
	02058	Ø 75 x 0,5 x 12,7mm
٣	02033	Ø 100 x 0,5 x 12,7mm
I DN	02035	Ø 125 x 0,5 x 12,7mm
DIAMOND LR	02037	Ø 150 x 0,6 x 12,7mm
D	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
D	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
÷	02060	Ø 100 x 0,3 x 12,7mm
DIAMOND LM+	02063	Ø 125 x 0,5 x 12,7mm
MON	02064	Ø 150 x 0,6 x 12,7mm
DIA	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
DIAMOND ELD	02101	Ø 125 x 1,4 x 12,7mm
IONE	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
* 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

