

# **MECATOME T 210**

PRECISION MICRO CUTTING MACHINE



Powerful machine for the cutting of hardest and softest materials.

Precise and reliable, Mecatome T210 integrates

3 regulation systems for a perfect cutting.





# **FUNCTIONALITIES**

### REF. 51400

### The best in its class

Width 758mm

**Depth** 753mm

Height closed lid 505mm

Height opened lid 955mm

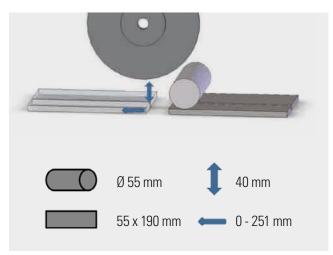
**Weight** 90 kg

Conformity

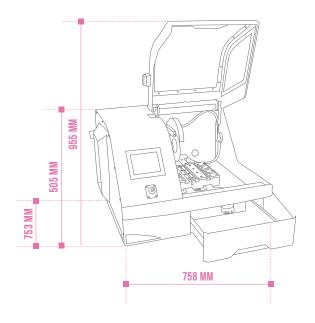


The MECATOME T 210 integrates oversized mechanical parts (spindles, bearings, guidance system, motor, etc...) for an unequalled reliability.



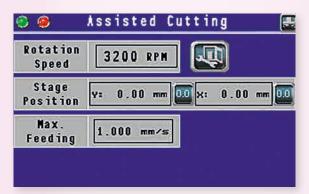






## **FUNCTIONING**

# 3 EXCLUSIVE CUTTING MODES



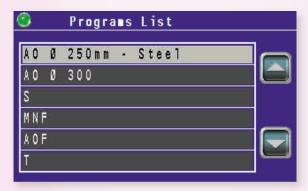
### **ASSISTED**

In this mode, the user controls the feed speed of the table using the joystick and defines the maximum speed. This is manual cutting without any effort.



### **AUTOMATIC**

In this mode in particular, the machine performs the cut(s) automatically. After selection of the cut-off wheel speed and feed speed of the table, the feed speed can be regulated automatically if required according to the motor load. If the pulsed cutting mode has been selected, the cutting will be performed according to pause times specified by the user. All the control systems can be used at the same time.



#### **PROGRAMMABLE**

The user performs the cutting according to parameters previously defined in the programs.

- MECATOME T210 has been designed to cut middle size workpieces and to achieve serial cuts thanks to the optional X axis.
- The motor and the transmission run towards the cut-off wheel have been optimised: ultra-resistant spindle, double row of bearings, V-ribbed belt, variable frequency control, etc.
- The new step motors offer an incomparable positioning accuracy of the cutting table; the variable cut-off wheel speed from 200 to 6000rpm optimises the cut through all types of materials.
- The Y and X tables (X table in option) can be guided directly by the joystick. The touch screen provides a number of exclusive advantages, including programming, indication of table movements, legibility and simplicity of use.
- Very spacious, the MECATOME T210 integrates a large cutting table with interchangeable stainless steel strips. The maintenance of the MECATOME T210 is particularly easy, thanks to its internal design and inbuilt cleaning kit. The grooved table is compatible with all commercially-available clamping systems.

# **ACCESSORIES**

#### **Vices and Holders**

51319

Quick clamping vice right side

51321

Quick clamping vice left side

51356

Quick clamping vice for long sample

50613

Box of Kopal holders

50616

Kopal holding

#### **Flanges**

51326

Set of stainless steel flanges Ø 50 mm for wheels Ø 100 to 150 mm

Set of stainless steel flanges Ø 35 mm for wheels Ø 75 to 100 mm

51325

Set of stainless steel flanges Ø 75 mm for wheels Ø 150 to 200 mm

#### Tables and positioning

51420

Motorised traversing table

51355

Manual traversing table

51430

Positioning Laser

#### Sample chucks

51715

V Shaped sample chuck

51717

Vice chuck for longitudinal cuts

Chuck for small samples (vice type)

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

51714

Chuck for cylindrical sample (up to 32mm)

Irregular shaped sample chuck

Set of 5 aluminium plates 60 x 25mm for sample sticking (to be used with Ref. 51156)

51163

Set of 5 aluminium plates 40 x 25mm for sample sticking (to be used with Ref. 51156)

Sample chucks (to use only with a transversal table). Allow the use of all Mecatome T180 chucks

#### Other accessories

51006

Base Cabinet Width 770mm x depth 880mm x height 855mm

51440

25 L external pump and tank



REF. 50616



REF. 51715



REF. 51717



REF. 51713



REF. 51156



REF. 51714



REF. 51716



REF. 51325 - 51326 - 51327



REF. 51355



REF. 51410



REF. 51006



REF. 51440

# VARIOUS CLAMPING SYSTEMS

#### **QUICK CLAMPING VICES**



REF. 51319 - 51321



### **KOPAL HOLDERS**



REF. 50613

# **CHARACTERISTICS**

HOOD	
Туре	PETG enclosure with metal hinges
Safety	Interlock switch keeps hood locked during cutting
MOTORIZATION-POWER SUPPLY	intended switch recept hood locked during cutting
Power	1 500 W
Power supply	220 V / Single phase / 50 Hz
Control of the motor	Frequency inverter
CUT-OFF WHEELS	
Type of cut-off wheels	Resin bonded and metal bonded
Cut-off wheel size range	From Ø 75 to Ø 203mm
Rotation speed	From 300 to 6.000 RPM
Arbor size	12.7mm
CONTROL	
Control Interface	Color touch control screen
Security Access	Can activate password protection
Programmability	Up to 100 programs protected by password
CUTTING	
Cutting modes	Assisted. automatic. programmed. pulse mode
Type of table movement	Motorised Y axis motion
Y axis speed	From 0.01 to 3mm/s
Cutting control	Automated regulation optimised to the motor ratings
Y axis range	Optional 251mm Y-axis movement of the table
X axis range	Optional 100mm X-axis movement of the table
Z axis range	60mm
Serial sectioning	Option (motorised X table)
Dimensions of the tables	Left table: 82 x 210mm-Right table: 142 x 210mm
Positioning Laser	Option
Space under cut-off wheel	40mm (with cut off wheel Ø 200mm)
Type of table	Treated aluminum table with exchangeable stainless blocks
Holders	Sample carrier arm will accept a wide variety of holders
LUBRICATION-COOLING	
Pump & tank	Integrated-Capacity 10 L-Option: 25 L external pump and tank
Type of lubrication	Internal recirculating pump or optional external recirculating unit
Method of directing pumped coolant	6 nozzles in the blade guard
Type of filtration	Integrated: filtration grid-External: 100 µm washable filter cloth
ERGONOMICS	
Internal lighting	Internal lighting by LED
Spray nozzle for cleaning	Integrated

# **CONSUMABLES**

#### STANDARD RESINOID CUT-OFF WHEELS

REF.	DESIGNATION DIAMETER		HARDNESS	MATERIALS
01040	Type A abrasive Al <sub>2</sub> O <sub>3</sub> (ferrous materials)	Ø 100 x 0.3 x 12.7mm	100 - 350 Hv	Low carbon, mild and extra mild and treated steels with medium cross-sections
01046		Ø <b>125</b> x 0.5 x 12.7mm	300 - 500 Hv	Treated steels, stainless steels, refractory metals, alloyed cast irons
01043	Type AO abrasive AI,O, (ferrous materials)	Ø <b>150</b> x 0.5 x 12.7mm		
01002	abiasivo Ai <sub>2</sub> o <sub>3</sub> (iorroad materials)	Ø <b>200</b> x 1.6 x 25.4mm*		
01001	Type AOF II abrasive AI <sub>2</sub> O <sub>3</sub> (ferrous materials)	Ø 200 x 0.8 x 25.4mm*	80 - 300 Hv	Rubber bonded cut-off wheel, thin section cutting, low cross-section sintered steels, hard metal layers
01041	Type C abrasive SiC (non ferrous materials)	Ø 100 x 0.3 x 12.7mm	30 - 350 Hv	Aluminium, copper and alloys, non ferrous metals, titanium and alloys
01005	Type MNF abrasive SiC (non ferrous materials) Ø 200 x 1.6 x 25.4mm*		30 - 350 Hv	Aluminium, copper and alloys, non ferrous metals, titanium and alloys
01060	Type SiC Ø 180 x 0.5 x 25.4mm*		450 - 700 Hv	Treated steels, with fragile coatings, difficult materials

<sup>\*</sup> To be used with reduction ring (Ref. 51324)

#### DIAMOND CUT-OFF WHEELS

REF.	DESIGNATION	DIAMETER	MATERIALS
02030	Type LM	Ø 75 x 0.3 x 12.7mm	
02031		Ø 100 x 0.3 x 12.7mm	
02034		Ø 125 x 0.5 x 12.7mm	Coronica compositos tungetos carbido alumino cintered carbidos
02036		Ø <b>150</b> x 0.6 x 12.7mm	Ceramics, composites, tungsten carbide, alumina, sintered carbides
02055		Ø 175 x 0.7 x 12.7mm	
02038		Ø 200 x 0.9 x 32mm*	
02057	Type LM+	Ø 75 x 0.3 x 12.7mm	
02060		Ø 100 x 0.3 x 12.7mm	
02063		Ø 125 x 0.5 x 12.7mm	Ceramics (large sections), tungsten carbide, silicon carbide, plasma deposit, mounted samples,
02064		Ø <b>150</b> x 0.6 x 12.7mm	refractory materials, minerals, concretes
02066		Ø 175 x 0.7 x 12.7mm	
02040		Ø 200 x 0.9 x 32mm*	
02058	Type LR	Ø 75 x 0.5 x 12.7mm	
02033		Ø 100 x 0.5 x 12.7mm	Composites, plasma deposit, ceramics, electronic components
02035		Ø 125 x 0.5 x 12.7mm	
02037		Ø 150 x 0.6 x 12.7mm	
02067		Ø 175 x 0.9 x 12.7mm	
02041		Ø <b>200</b> x 0.9 x 32mm*	

Metallic bond. High concentration disc to cut hard materials such as:

ceramics (large sections), tungsten carbide, silicon carbide, plasma deposit, mounted samples, refractory materials, minerals, concretes...

#### BORON CARBIDE CUT-OFF WHEELS

REF.	DESIGNATION	DIAMETER	MATERIALS	
02059	Type NB	Ø 75 x 0.5 x 12.7mm	Cast irons, treated steels, hard and high speed steels	
02062		Ø 100 x 0.5 x 12.7mm		
02050		Ø 125 x 0.5 x 12.7mm		
02065		Ø <b>150</b> x 0.6 x 12.7mm		
02056		Ø 175 x 0.7 x 12.7mm		
02039		Ø 200 x 0.9 x 32mm*		
NB	Resin bond. High concentration disc of boron nitride edge to cut: ————————————————————————————————————			

<sup>\*</sup> To be used with reduction ring (Ref.

51331)

LM+

LR



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