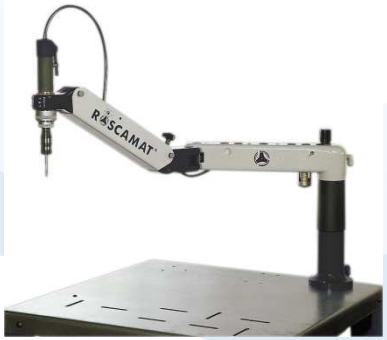
ROSCAMAT®

ARTICULATED ARM TAPPING MACHINES



PNEUMATIC & ELECTRIC MODELS











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DESCRIPTION

- The tapping arm, ROSCAMAT, consists of a pendular parallelogram that is balanced by a pneumatic spring, plus a radial arm. The gas spring and radial arm assembly fixes the motor head and keeps it perpendicular to the working area.

- Motors are equipped with a quick-change system and is rotated by compressed air that has previously been filtered and lubricated by a unit for that purpose (**Pneumatic models**) or by a High Frequency motor regulated by means a variator board (**Electric models**).

- There are different models, all of them adapted with quick change system to the modules, tapholders, taps and shank tooling so that we get an important time saving and productivity growth in tapping operations.

APPLICATIONS

Which kind of industries need **Roscamat**?

- Moulds
- Dies
- Car industry
- Auxiliary in CNC machines
- Plate industry
- Mechanization industry,…

Other operations:

- Drill (soft materials: Aluminium, foundry, wood, etc.)
- Countersink hole
- Screwing, riveting, etc.
- Helicoils inserts.
- Load balance, weightless arms. (3ARM www.3arm.net)

WHY ROSCAMAT?

DESIGN: - Pioneers on monoarm tapping machine providing high rigidity.
- Special attention to all finished parts, shape, edges and colours.
- Hidden cables: no parts which can get hooked up.

VIBRATIONS:
because of the structure monoarm, rigidity and requirements of minimum tolerances at production, we have eliminate any vibration caused by the arm.

POWER: powerful motor, pneumatic or electric

TOUGH: Any component largely dimensioned over its normal estimated value.
-Strong arm section with different thickness at both sides.

LIGHT & FLEXIBLE: Manufactured in aluminium, easy to set up and move to any working point of the plant.
Particular ergonomy and sensitivity so that it is possible to tap M2 without difficulty
Other possible operations with the machine: reaming, countersinking, screwing, helicoil insert.
The quality and use of first worldwide known trademarks on the machine components (SMC, FESTO, INA-FAG-SKF, NTK, tolerances, grinded gears, precision required, surface treatments,) guarantee the big differences among our competitors'.

Because ***after 26 years designing and manufacturing*** tapping arm machines, we have manufactured more than **17500 machines** which are working into the five continents. Our customers keep everyday working with our reliable machines.

PNEUMATIC MODELS

Roscamat-200

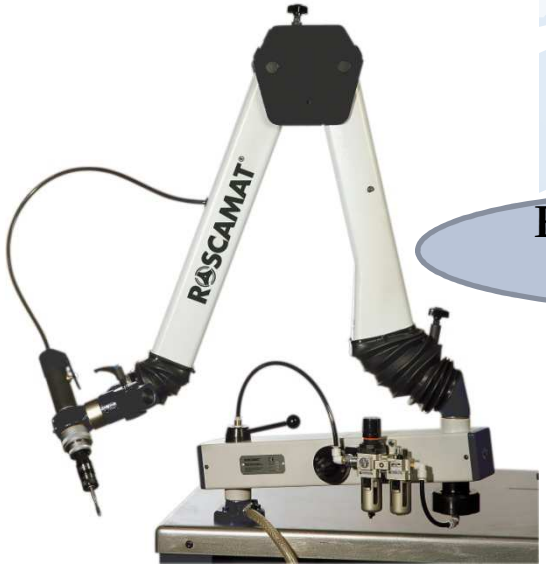




Roscamat-400

Roscamat-500





Roscamat-500 RH
(revolving head)

PNEUMATIC MODELS



ROSCAMAT-200

- 2 motor options:

  TS VII 350 rpm, tapping capacity: M2-M14 / # 0- 9/16

  TS VII 750 rpm, tapping capacity: M2-M10 / # 0- 3/8”

1 SPEED (Without modular system, fixation direct to tap holders - chucks)

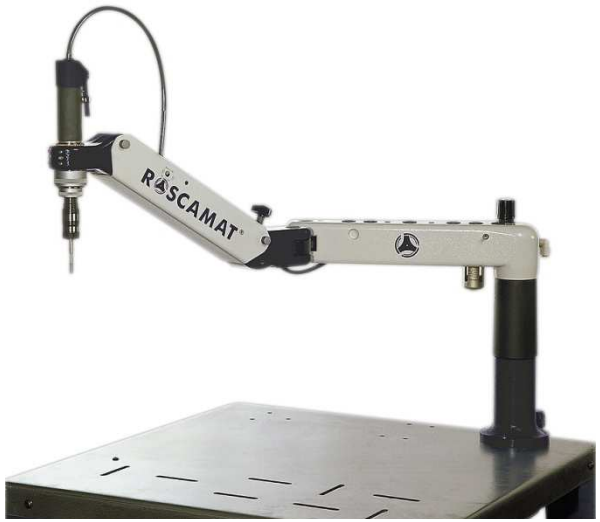
Working area: radius: 935 mm. / 37” High: 660 mm. / 26”

Optional: Orientable head member VH (Vertical-horizontal)

- Technical dates

Motor	Speed (rpm)	Max. Torque Nm	Ø Coupling Diameter	Max. Thread Aluminium	Max. Thread Steel<100 Kg
202A0102	350	36	19/1	M16 - 5/8”	M14 – 9/16”
202B0102	750	17	19/1	M12 – 1/2”	M10 – 3/8”

PNEUMATIC MODELS





ROSCAMAT-400 & ROSCAMAT-500

Capacity: M2-M24 / # 0 – 7/8” (steel < 80 Kg.)
Pneumatic motor TS-VIII, 730 W.
Modular system, 6 tapping speeds
1 drilling speed

Difference:

- Working area:

ROSCAMAT-400, radius =1100 mm. / 43”
high = 680 mm. / 27”

ROSCAMAT-500, radius = 2120 mm. / 83”
high = 1100 mm. / 44”

Options:

- Orientable head member: **ROSCAMAT-400 VH**
  ROSCAMAT-500 VH
  with 4 positions to 90º (vertical-horizontal)
- Tool lubrication equipment (L)

* *Both models can mount orientable head member and tool lubrication equipment (L)*

PNEUMATIC MODELS



ROSCAMAT-500 RH (revolving head)

- Capacity: M2-M24 / # 0 – 7/8" (steel < 80 Kg.)
- Pneumatic motor TS VIII, 730 W.
- Modular system, 6 tapping speed
  1 drilling speed
- Working area: radius = 2180 mm. / 83"
  high = 1110 mm. / 44"

- Multiposition headmember:

- Tapping in any position.
- Keep it perpendicular to the working area.

Options:

- Tool lubrication equipment (L)

Modular System – Pneumatic models

- The modular system consisting in a series of 7 quick-change modules (reducers) is provided for coupling the motor giving 7 different speeds.



- Only models Roscamat Series 400 and Series 500

(**Roscamat 200: does not use modular system**)

Module	Max. Speed (rpm)	Max. Torque (Nm)	Ø Coupl. (mm)	Max. Thread Aluminium	Max. Thread Steel<90 kg	Max. Thread Steel>90 kg
90	90	150	31	M16-M27 / 5/8”-1”	M16-M24 / 5/8”-15/16”	M22 / 7/8”
170	170	79	31	M16-M22 / 5/8”–7/8”	M16-M18 / 5/8”-3/4”	M16 / 5/8”
300	300	44	19	M2-M16 / #0–5/8”	M2-M16 / #0-5/8”	M14 / 9/16”
550	550	24	19	M2-M14 / #0–9/16”	M2-M12 / #0-1/2”	M10 / 3/8”
750	750	17	19	M2-M12 / #0–1/2”	M2-M10 / #0-3/8”	M8 / 5/16”
1.050	1.050	12,5	19	M2-M8 / #0–5/16”	M2-M8 / #0-5/16”	M6 / 1/4”
2.100	2.100	6	Cone B16	To drill up to Ø8 mm / *5/16”* (aluminium, foundry)		

PNEUMATIC MODELS

ROSCAMAT 500 VH vs ROSCAMAT 500 RH

- Both machines have the same tapping capacity and working area, M2 to M24.

- **The orientable headmember VH** *only* can only be settled in *vertical* and/or *horizontal position*.

  The operator must balance *by hand* the arch described by the machine during tapping operations.

- **The ROSCAMAT-500 RH** can be settled in any angle and keep the perpendicularity with the working plane.

  It is provided with an internal mechanism to compensate the arch described by the machine when tapping.

ELECTRIC MODELS



MOSQUITO
ROSCAMAT



green power

TIGER
ROSCAMAT





SHARK
ROSCAMAT

DESIGN QUALITY
ROSCAMAT
Made in Barcelona

ELECTRIC MODELS



- *2 motor options with 1 speed*:
  TS VII 300 rpm, **tapping capacity: M2-M14 / #0-9/16”**
  TS VII 600 rpm, **tapping capacity: M2-M10 / #0-3/8”**

- *1 motor with 2 speeds (300 and 600 rpm)*

(**WITHOUT Modular system, fixation direct to tap holders-chuc**

Working area: Radius: 767 mm / 30”
High: 396 + 120 mm. / 20.28”



Optional: * orientable head MOSQUITO - VH
* Tool lubrication with timer

Motor	Speed (rpm)	Max. Torque (Nm.)	Ø Coupling. (mm.)	Max. Thread Aluminum	Max. Thread Steel<100 Kg
AF220301	300	36	19	M16 / 5/8”	M14 / 9/16”
AF220201	600	17	19	M12 / 1/2”	M10 / 3/8”
AF220101	300 & 600	36	19	M16 / 5/8”	M14 / 9/16”

ELECTRIC MODELS



Tapping capacity: M2-M27 (M33) / #0 – 1 1/8
High frequency motor
Keep the torque
Maximum torque (module 90)=150 Nm
Working area: radius ➔1020 mm. / 40”
high➔ 535 mm. / 21”
Modular system: 1 Motor➔5 speeds

- Equipped with:
- Electronic speed variator
- Right and left-hand rotation control

- Optional:
- Tool lubrication with timer
- Depth control



ELECTRONIC MODELS

TIGER - **VH**

ROSCAMAT

green power

Is supplied with an articulated of easy handling which allows us to locate the motor in vertical or horizontal position.



WORKING AREA:
Radius: 1160 mm. / 45”
High: 535 mm. / 21”

ROSCAMAT - TIGER



Modular System

Module	Max. Speed (rpm)	Max. Torque (Nm)	Ø Coupl. (mm)	Max. Thread Aluminium	Max. Thread Steel<90 kg	Max. Thread Steel>90 kg
90	90	150	31	M16-M27 / 5/8”-1”	M16-M24 / 5/8”-15/16”	M22 / 7/8”
170	170	79	31	M16-M22 / 5/8”–7/8”	M16-M18 / 5/8”-3/4”	M16 / 5/8”
300	300	44	19	M2-M16 / #0–5/8”	M2-M16 / #0-5/8”	M14 / 9/16”
550	550	24	19	M2-M14 / #0–9/16”	M2-M12 / #0-1/2”	M10 / 3/8”
750	750	17	19	M2-M12 / #0–1/2”	M2-M10 / #0-3/8”	M8 / 5/16”
1.050	1.050	12,5	19	M2-M8 / #0–5/16”	M2-M8 / #0-5/16”	M6 / 1/4”
2.100	2.100	6	Cone B16	To drill up to Ø8 mm / *5/16”* (aluminium, foundry)		

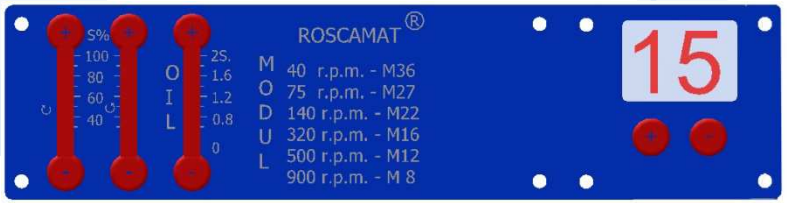
ELECTRIC MODELS



green power

SHARK ROSCAMAT

- Tapping capacity: **M3-M36 (M42) / #0-1 3/8”**
- High Frequency Motor
- Keep the torque
- Maximum torque (module 40)=340 Nm
- Working area: radius ➔1215 mm. / 48”
  High➔ 810 mm. / 32”
- Modular system: 1 Motor➔6 speeds



- Equipped with:

- Tool lubrication with timer
- Depth control (mm.)

DESIGN QUALITY ROSCAMAT Made in Barcelona

ELECTRONIC MODELS

SHARK - VH



- Orientable headmember vertical-horizontal

- Maximum thread in vertical position: M36(M42) / 1.3/8” (1.5/8”)
- Maximum thread in horizontal position: M27 / 1”

**Attention:*

- Module 40 cannot be used in horizontal operations)

ROSCAMAT- SHARK



Modular System

green power

Module	Max. Speed (rpm)	Max. Torque (rpm)	Coupling diameter (mm.)/size	Max. thread Aluminium	Max. Thread steel<90 Kg.	Max. Thread steel>90 Kg.
40	40	340	48 /3	M42 / 1.5/8"	M36 / 1.3/8"	M33 / 1.1/4"
75	75	185	31 /2	M33 / *1.1/4"*	M27 / *1"*	M27 / *1"*
140	140	95	31 /2	M27 / *1"*	M22 / *7/8"*	M22 / *7/8"*
320	310	44	19/1	M20 / *13/16"*	M16 / *5/8"*	M16 /*5/8"*
500	480	28	19/1	M16 / *5/8"*	M12 / *1/2"*	M12 / *1/2"*
900	900	15	19/1	M10 / *3/8"*	M8 / *5/16"*	M6 / *1/4"*

DESIGN QUALITY ROSCAMAT Made in Barcelona

SETTING IN OPERATION

- Minimum points for an optimum operation

Pneumatic machines	
Supply pressure	6 - 8 bar for full power
Compressor power	5,5 Hp
Minimum inside Ø diameter	12 mm / 1/2"

Electric machines	
Supply power	SINGLE phase socket (220 V or 110 V supply) with ground wire

BEST WAY FOR SELLING:
MAKING DEMONSTRATIONS

- ***PREVIOUS CONDITIONS TO MAKE A SUCCESSFUL DEMOSTRATION OF ROSCAMAT MACHINES***

  Before visiting a customer with the purpose to make a demonstration, we must consider the following points:

  1.1 **Pneumatic machines**: Pressure, flow rate and diameter of the air installation:
  You must check that the customer has the suitable compressor (5,5 Hp minimum) and a air flowrate between 600-700 lts/min.

  1.2 **Electric machines**: Check the electricity power supply and the ground wire.

  2. Material and work conditions of the customer:

  - Material to tape
  - nr. of threads to make
  - actual process of thread mechanization

  3. Taps and lubrication:
  It is very important to use quality taps according to each material just as their lubrication.

BEST WAY FOR SELLING:
MAKING DEMONSTRATIONS

4) Workbench:

Check that the surface is flat and with enough space. If we are tapping out of the workbench when we have fixed the machine, we must consider the irregularities of the floor just as the angle differences between the piece and the base of the machine.

5) Fixation of pieces on tapping:

It is very important to fix the piece before to start the demonstration, otherwise we'll cause the rotation of the piece with the risk to break the tap.

Other warnings:
a) visit the customer with the suitable modules to make his job.
b) Take own taps and tapholders.
c) Take hose, we avoid loosing time and use of hose of other dimensions.
d) Cutting oil
e) Tools, quick-change connection and clamps.

Considering this 5 points, we are in conditions to make a successful demonstration, and we can avoid any setback in the customer's house.

ACCESSORIES-TABLES









	500x500x900 *19 11/16”x19 11/16”x35 7/16”*	700x700x850 *27 9/16”x27 9/16”x33 7/16”*	850x850x850 *33 7/16”x33 7/16”x33 7/16”*	1150x850x850 *43 5/16”x33 7/16”x33 7/16”*
R-200	●	●	●	●
R-400	●		●	●
R-500			●	●
R-Mosquito	●	●	●	●
R-TIGER			●	●
R-SHARK			●	●
Max. Weight on table	75 Kg.	150 Kg.	200 Kg	500 Kg.

Provided with 4 wheels, notches for attaching the work pieces or tools, supports for tapholders, and lockable drawer (1150x850)

ACCESSORIES - TOOLING







	Tapholder with/without clutch			Small clamp	Big clamp	Magnetic support
	Ø19 mm	Ø31 mm	Ø48 mm			
R-200	●			●	●	●
R-400	●	●		●	●	●
R-500	●	●			●	●
R-Mosquito	●			●	●	●
R-TIGER	●	●		●	●	●
R-SHARK	●	●	●		●	●



Threading die holder
Capacity range: M5-M20



Long threading die holder
Capacity range: M6-M12



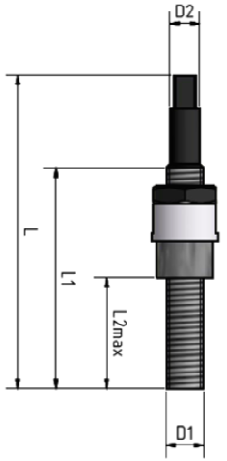
Quick change extension
Length = 80 mm
Ø Coupling =19 mm



Reducing cup
Ø48 ➔ Ø31
Ø48 ➔ Ø19
Ø31 ➔ Ø19



Helicoils



ACCESSORIES- SUPPORTS





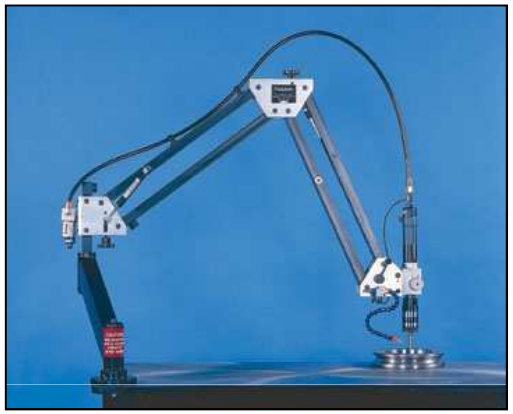


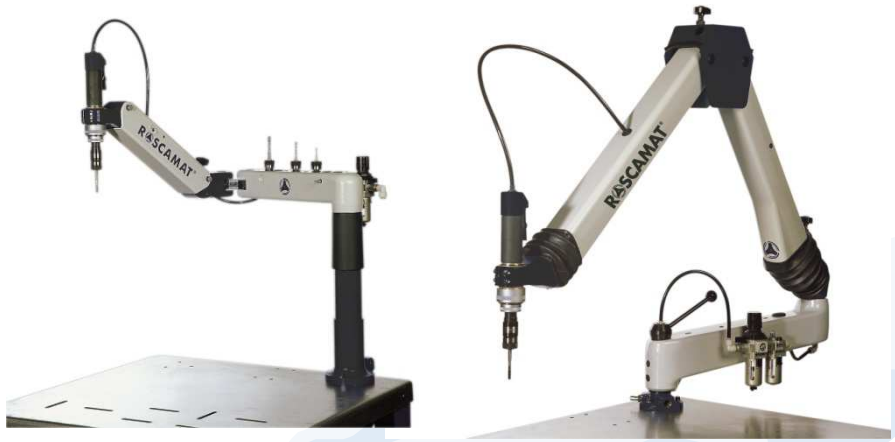
	Column 350x350x750 mm. *13 3/4"x13 3/4x29 1/2"*	Trolley with column 700x700x940 mm. *27 ½"x27 ½"x37"*	Lifter	
			Pneumatic 550 mm. *19 ½"*	Mechanic 500 mm. *21 ½"*
R-200	●	●	●	●
R-400	●	●	●	●
R-500	●	●	●	
R-Mosquito	●	●	●	●
R-TIGER	●	●	●	
R-SHARK	●	●	●	
	For fixing the machine on the floor by means of 4 metallic dowels	For moving the working unit.	It consists of a collapsible column and a torsion (vertical cylinder)	

The lifter can be mounted onto the column, trolley or onto a table.

Comparative

ROSCAMAT - Others





ROSCAMAT-400 / ROSCAMAT-500

- 2 Speeds, 400-100 rpm
- Tapping Capacity: M3-M20 (M24)
- Tap holder size 2 (+ reducing cup from 31/2 to 19/1)
- Weight= 26 Kg.
- Design: Sticks, low stability and strength
- High level of noise
- No balanced (dampers of low sensitivity)
- Outside cables
- Steel framework

- 6 Speeds, 1 motor: 90,170,300,550,750,1050 rpm
- Tapping capacity: M2-M24 (M27)
- Tap holder size 1 and 2
- Weight: 18 Kg.
- Mono arm design: high stability and strength
- Low level of noise: Motor made by ourselves
- High sensitivity of the arm in any position
- Cables inside
- Aluminum framework, big thickness in the cross section

Comparative
ROSCAMAT - Others



- 2 Speeds, 150-500 rpm
- Tapping capacity: M3-M24
- Tap holder size 2 (+ reducing cup from 31/2 to 19/1)
- Weight: 30 kg.
- Electronic equipment outside
- Design: Sticks, low stability and strength
- No balanced (dampers of low sensitivity)
- Outside cables
- Steel framework
- Automatic tool lubrication with compressed air



ROSCAMAT-TIGER

- 6 Speeds, 90,170,300,550,750,1050 rpm
- Tapping capacity: M2-M27 Al: M33
- All type of chucks: size 1, 2 and 3
- Weight = 23 Kg.
- Electronic equipment built in the arm
- Mono arm design: high stability and strength
- High sensitivity of the arm in any position
- Cables inside the arm
- Aluminum framework
- Automatic tool lubrication with electric pump

Comparative
ROSCAMAT - Others



- 2 Speeds, (375 max. Rpm)
- Tapping capacity: M4-M30
- Only size 2 tap holder-chuck (+ reducing cup from 13/2 to 19/1)
- Weight: 170 Kg., Hydraulic equipment located in table or outside.
- Design: Sticks, low stability and strength
- Motor power: 3-4 Kw (high consumption)
- Dampers of low sensitivity
- Awkwardly movement
- Steel framework
- Automatic tool lubrication with compressed air



- 6 speeds, 40-900 rpm
- Tapping capacity: M3-M36, Al: (M39)
- All type of tapholders: Size 1, 2 and 3
- Weight: 43 Kg.
- Mono arm design: High stability and strength
- Motor power: 2 Kw.
- Dampers of high sensitivity
- Light and flexible movement
- Aluminum framework
- Automatic tool lubrication with electric pump
- Depth control, etc…