

The ECO Cutting range

81M - 121ECO - 171ECO



For 20 years AXXAIR has been developing and offering scalable, flexible and reliable machines with many functions based on a patented concentric clamping system.

The frames of our cutting machines 122 - 322 (page 9-11) can be fitted with a cutting motor, a bevelling motor or with a TIG welding torch.

Our ECO range differs from this concept; it only offers a pipe cutting function for customers searching for alternatives.

We developed the ECO cutting range in order to respond to these users looking simply for a cutting solution for thin tubes.

Machines dedicated to thin tubes <3 mm wall thickness

Easy to transport and less heavy

Attractive prices

METABO motorisation offers a large speed range and a torque big enough for thin stainless steel tube applications. This motor also has a handle that gives the possibility for the motor to be turned manually around the machine.

The design of the 121ECO and the new 171ECO, has the same system to set diameters and blade penetration as our range x22.

Thus, these machines benefit from very performing characteristics and a design especially made for our evolutive range.

Our Eco range does not come with accessories such as rotation autoline and automatic electric clamping.



For more details, accessories and the references please see pages 7 et 8 of this catalogue.





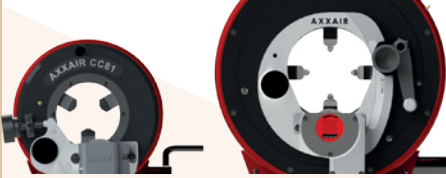
81M - 121ECO - **NEW** 171ECO



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INNOVATIVE ORBITAL SOLUTIONS

No tube deforming

Concentric clamping system



Basic and extra stainless steel jaws: no pollution of the pipes

Operator safety feature

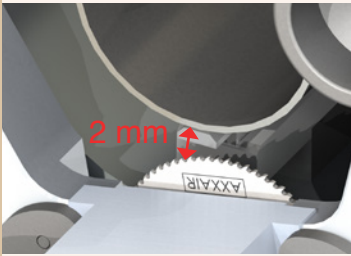
Penetration check feature

Elbow Cutting

121ECO + 171ECO: double shafted cutting motor with 2 blade positions

Limited vibration and tube distortion

Optimized blade-jaws distance



Motor 1300W

Adjustment via the speed changer

Cutting capacity:

Up to 5 mm wall thickness



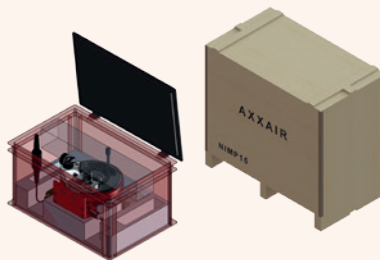
Cutting precision

Perpendicular cuts < 0.25 mm

Continuous use

Anti twist cable

Easy handling and transportation



Cutting range

81M	ø5 - ø78 mm 0.25 - 3 "
121ECO	ø5 - ø121 mm 0.25 - 4.5 "
171ECO	ø16 - ø170 mm 0.625 - 6.625 "



81M - 121ECO - 171ECO

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Technical features :

METABO motorisation offers a large range of speed and an adequate torque for thin wall stainless steel tubes applications.

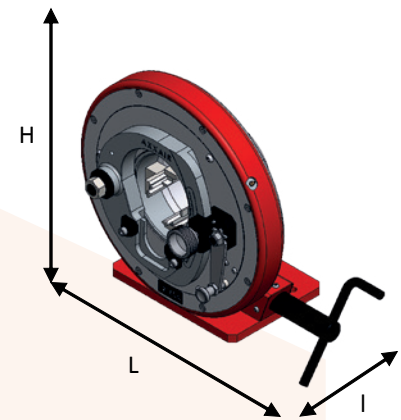
Electric motor 1300W:

- Mechanical gearbox and electric speed variator
- 50/60 HZ
- single-phase motor



All motors are delivered in their individual case, including the necessary tools

The 81M's motor and its necessary tools are put directly in the transport box.



	Reference	Tube cutting machine for following diameters (in mm):		Net weight	Customs Code	Dimensions (HxLxw in mm)
		With basic jaws	With extra jaws (included)			
120V 1300W	81M11	Ø5 - Ø78	-	15 kg	846150 9000	263 x 346 x 236
	121ECO1	Ø24 - Ø121	Ø5 - Ø108	38 kg		432 x 520 x 297
	NEW 171ECO1	Ø70 - Ø170	Ø16 - Ø118	44 kg		453 x 550 x 307
230V 1300W	81M21	Ø5 - Ø78	-	15 kg	846150 9000	263 x 346 x 236
	121ECO2	Ø24 - Ø121	Ø5 - Ø108	38 kg		432 x 520 x 297
	NEW 171ECO2	Ø70 - Ø170	Ø16 - Ø118	44 kg		453 x 550 x 307



Join **experience**





NEW PRODUCTS in the orbital cutting range CCx22

Customer experience and continuous improvement policy have lead our developpers to redesign part of our cutting program. The purpose is to offer easier and stronger clamping and chip sealing. Quality is higher than ever and stability has been improved.



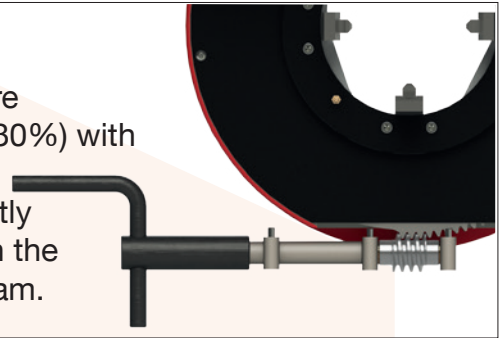
Robustness



Handling facility

Inclusion of a lifting ring on the machine for on site or workshop use.

Clamping system more efficient (+30%) with an endless screw directly engaged on the clamping cam.

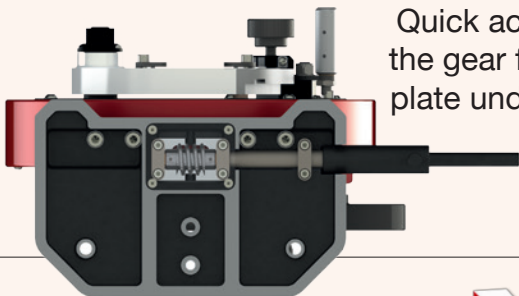


Maintenance and control facility

Greasing of the internal rotating parts through greaser

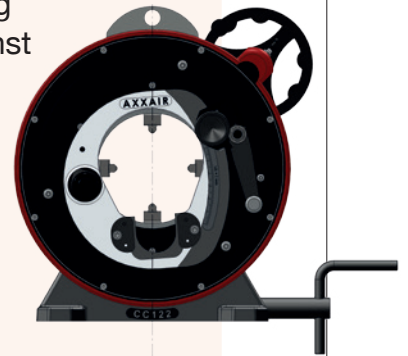
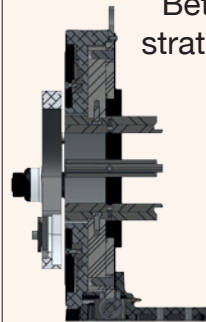


Quick access to the gear from the plate underneath



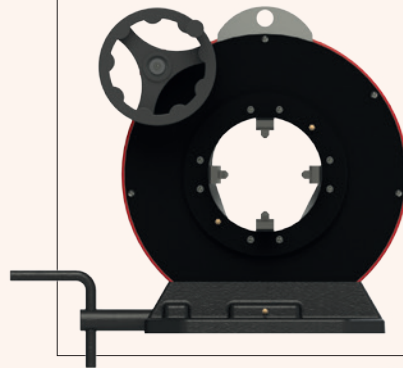
Perfect sealing to chips

Better sealing strategy against chips

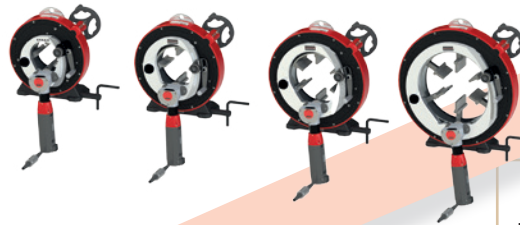


All rotating parts are incorporated in the body

No more moving parts are visible at the back of the machine



122 - 172 - 222 - 322



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INNOVATIVE ORBITAL SOLUTIONS

No tube deforming

Concentric clamping system



Basic and extra stainless steel jaws: no pollution of the pipes

Cutting quality

Rotation handle for controlled and continuous cutting speed

Elbow cutting

Double shafted cutting motor with 2 blade positions

Cutting precision

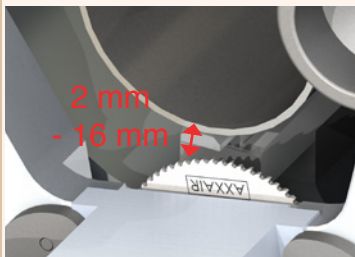
Perpendicular cuts < 0.25 mm

1200W motor or pneumatic motor (user's choice)

Cutting capacity:
Up to 7 mm wall thickness

Vibration reduction and increase in blades lifecycle

Optimized blade-jaws distance



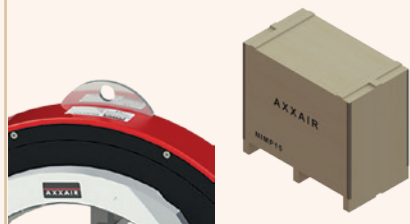
Global Process

May be transformed into a beveling and orbital welding machine

Continuous use

Anti-twist cable

Easy handling and transportation



Cutting range	
122	ø5 - ø120 mm 0.25 - 4.5 "
172	ø16 - ø170 mm 0.625 - 6.625 "
222	ø59 - ø225 mm 2.375 - 8.625 "
322	ø140 - ø330 mm 5.563 - 12.750 "



122- 172 - 222- 322

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INNOVATIVE ORBITAL SOLUTIONS

Technical features:

- Fast motor:

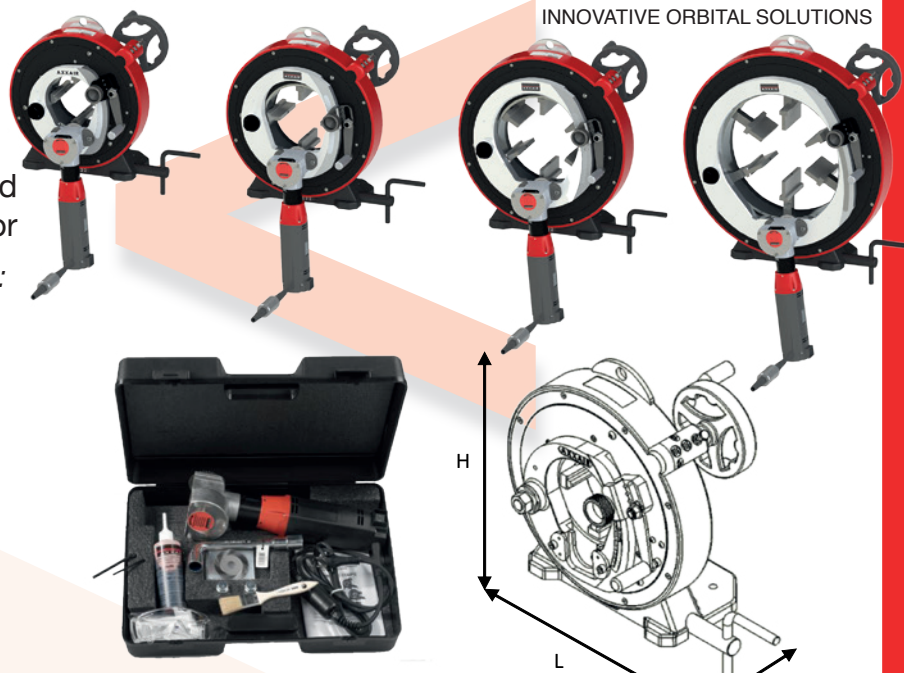
120V or 230V, 1200W, electronic speed variator with torque compensator

Vibration level according to EN 28662 norm : <math>< 2.5\text{m/s}^2</math>, protection class : IP 20

- Pneumatic motor:

60 to 110 rpm, air flow rate 1500 l/min at 6 bar.

All motors are delivered in their individual case, including the necessary tools.

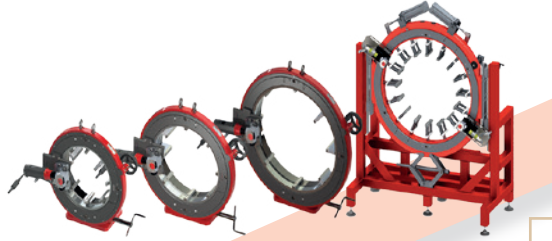


	Reference	Tube cutting machine for following diameters (in mm):		Net weight	Customs Code	Dimensions (HxLxw in mm)
		With basic jaws	With extra jaws (included)			
120V 1200W fast motor	NEW 122FS19	Ø24 - Ø120	Ø5 - Ø108	44 kg	846150 9000	443 x 541 x 304
	NEW 172FS19	Ø70 - Ø170	Ø16 - Ø118	51 kg		493 x 566 x 304
	NEW 222FS19	Ø116 - Ø225	Ø59 - Ø172	59 kg		548 x 594 x 304
	NEW 322FS19	Ø257 - Ø330	Ø140 - Ø270	71 kg		649 x 644 x 304
230V 1200W fast motor	NEW 122FS29	Ø24 - Ø120	Ø5 - Ø108	44 kg	846150 9000	443 x 541 x 304
	NEW 172FS29	Ø70 - Ø170	Ø16 - Ø118	51 kg		493 x 566 x 304
	NEW 222FS29	Ø116 - Ø225	Ø59 - Ø172	59 kg		548 x 594 x 304
	NEW 322FS29	Ø257 - Ø330	Ø140 - Ø270	71 kg		649 x 644 x 304
Pneu- matic motor	NEW 122PD	Ø24 - Ø120	Ø5 - Ø108	44 kg	846150 9000	443 x 541 x 304
	NEW 172PD	Ø70 - Ø170	Ø16 - Ø118	51 kg		493 x 566 x 304
	NEW 222PD	Ø116 - Ø225	Ø59 - Ø172	59 kg		548 x 594 x 304
	NEW 322PD	Ø257 - Ø330	Ø140 - Ø270	71 kg		649 x 644 x 304





421- 521-721-1100



No tube deforming

Concentric clamping system



Basic and extra stainless steel jaws: no pollution of the pipes

Elbow cutting

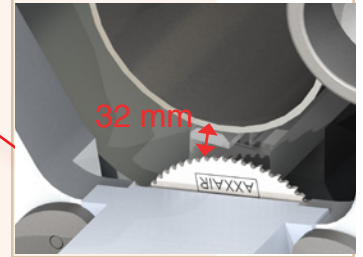
Double shafted cutting motor with 2 blade positions

Cutting quality

Rotation handle for controlled and continuous cutting speed

Vibration reduction and increase in blades lifecycle

Optimized blade-jaws distance



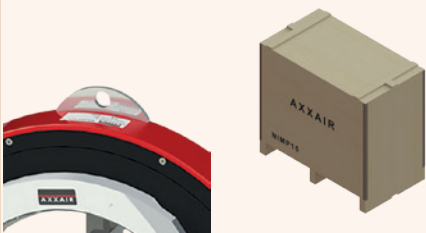
Continuous use

Anti-twist cable

Cutting precision

Perpendicular cuts < 0.4 mm

Easy handling and transportation



1200W motor or pneumatic motor
(user's choice)

Cutting capacity:
Up to 7 mm wall thickness

Cutting range

421	ø212 - ø422 mm 8.625 - 16 "
521	ø312 - ø522 mm 12.75 - 20 "
721	ø447 - ø725 mm 18 - 28"
1100	ø711 - ø1016 mm 28 - 40 "





421-521-721-1100

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INNOVATIVE ORBITAL SOLUTIONS

Technical features:

- Fast motor:

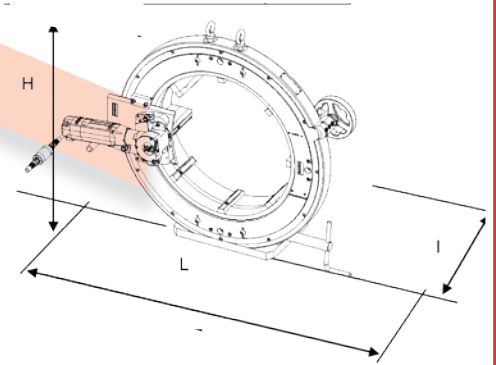
120V or 230V, 1200W, electronic speed variator with torque compensator

Vibration level according to EN 28662 norm : <math>< 2.5\text{m/s}^2</math>, protection class : IP 20

- Pneumatic motor:

60 to 110 rpm, air flow rate 1500 l/min at 6 bar

All motors are delivered in their individual case, including the necessary tools



	Reference	Tube cutting machine for following diameters (in mm):		Net weight	Customs Code	Dimensions (HxLxw in mm)
		With basic jaws	With extra jaws (included)			
120V 1200W fast motor	421FS19	Ø350 - Ø422	Ø212 - Ø352	186 kg	84615 09000	802x838x315
	521FS19	Ø450 - Ø522	Ø312 - Ø452	223 kg		905x889x315
	721FS19	Ø653 - Ø725	Ø447 - Ø654	256 kg		1104x1077x315
230V 1200W fast motor	421FS29	Ø350 - Ø422	Ø212 - Ø352	186 kg	84615 09000	802x838x315
	521FS29	Ø450 - Ø522	Ø312 - Ø452	223 kg		905x889x315
	721FS29	Ø653 - Ø725	Ø447 - Ø654	256 kg		1104x1077x315
Pneu- matic motor	421PD	Ø350 - Ø422	Ø212 - Ø352	186 kg	84615 09000	802x838x315
	521PD	Ø450 - Ø522	Ø312 - Ø452	223 kg		905x889x315
	721PD	Ø653 - Ø725	Ø447 - Ø654	256 kg		1104x1077x315
	1100	On demand				



Orbital Cutting - Accessories

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INNOVATIVE ORBITAL SOLUTIONS

In order to facilitate cutting and provide great stability to our machines, we worked on support feet and stands that can adapt to diverse conditions : either in a workshop or onsite.

The advantages of these products:

- lightness
- flexible handling
- easy to use



Reference	Description	Net Weight	Customs Code	Dimensions (in cm)
CCPS21	Support feet	10 kg	84669 37000	103 x 32 x 11

Support feet for orbital cutting machine:

- easy assembling and dismantling
- height adjustment with screws
- storage box at the back
- great stability

81	✓ 121ECO	✓ 171ECO	✓ 122	✓ 172	✓ 222	✓ 322	421	521	721	1100
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Reference	Description	Net Weight	Customs Code	Dimensions (in cm)
CCSER1	Simple stand	10 kg	84669 37000	60 x 26 x 10

Simple stand for tube support with height adjustment:

- easy assembling and dismantling
- height adjustment

✓ 81	✓ 121ECO	✓ 171ECO	✓ 122	✓ 172	✓ 222	✓ 322	421	521	721	1100
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Reference	Description	Net Weight	Customs Code	Dimensions (in cm)
CCSER2	Bearing stand	11 kg	84669 37000	60 x 26 x 10

Chrome steel bearing stand for tube support with height adjustment :

- easy assembling and dismantling
- height adjustment
- facilitate tube advancement after the cutting process

✓ 81	✓ 121ECO	✓ 171ECO	✓ 122	✓ 172	✓ 222	✓ 322	421	521	721	1100
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Orbital Cutting - Accessories

Our support benches help you to set and move tubes without the need of stands. The integrated adjustable height table helps you to adjust the height of your machine easily and precisely for a better cut.

The additional bench allows you to set the longest tubes in a more stable way. We also advise that you have one or more benches in front of your cutting machine in order to support the cut off part of the tube.

This new bench with height adjustment has had several improvements for better use:

- The rollers have been modified to include smaller diameters pipes (ø 5 to 323 mm).
- Standard angular gearbox (home manufactured) also available on the DC and other motors of the range .
- CCBSB-X1 benches compatible with length stops.

Length stops are being developed at the moment and will soon be available !



Reference	Description	Net Weight	Customs Code	Dimensions (in cm)
CCBSB-X1	Bench with height adjustment	57 kg	84669 37000	184 x 95 x 51
<u>Bench with height adjustment:</u>		- maximum load: 350 kg uniformly distributed - ø min pipe: 5 mm - ø max pipe: 321 mm - compatible with machines 121 to 321		
- stainless steel rollers				
- handle for height adjustment				
- 1.5 m long				

81	✓ 121ECO	✓ 171ECO	✓ 122	✓ 172	✓ 222	✓ 322	421	521	721	1100
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Reference	Description	Net weight	Customs code	Dimensions (in cm)
CCBSB-X2	Additional 1.5 m bench	38 kg	84669 37000	150 x 95 x 51
<u>Additional support bench:</u>		- ø min pipe : 5 mm - ø max pipe: 321 mm - compatible with machines 121 to 321		
- stainless steel rollers				
- 1.5 m long				
- maximum load 350 kg uniformly distributed				

81	✓ 121ECO	✓ 171ECO	✓ 122	✓ 172	✓ 222	✓ 322	421	521	721	1100
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Orbital Cutting - Accessories

AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

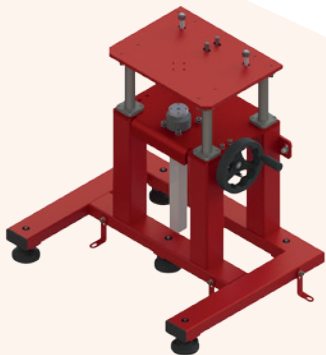
Our support benches help you to set and move tubes without the need of stands.

The integrated adjustable height table helps you to adjust the height of your machine easily and precisely for a better cut.

Products available on demand

The additional bench allows you to set the longest tubes in a more stable way.

We also advise that you have one or more benches in front of your cutting machine in order to support the removed part of the tube.



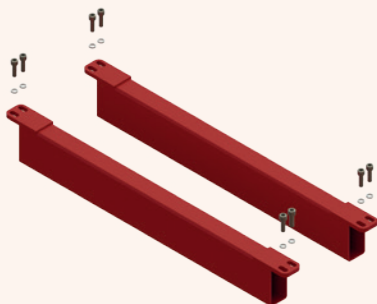
Reference	Description	Net weight	Customs Code	Dimensions (in mm)
CCBSB2-03	Adjustable height table	53.5 kg	84669 37000	
<u>Adjustable height table for 422 / 521 / 721:</u>				
- adjustable table		- great stability		

81	121ECO	171ECO	122	172	222	322	✓421	✓521	✓721	1100
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Reference	Description	Net Weight	Customs Code	Dimensions (in mm)
CCBSB2-004	Support bench	72.8 kg	84669 37000	
<u>Support bench for 422 / 521 / 721:</u>				
- fast assembly and dismantling		- 1.5 m long		
- height adjustment		- great stability		
- maximum load :				

81	121ECO	171ECO	122	172	222	322	✓421	✓521	✓721	1100
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Référence	Description	Poids net	Code douanier	Dimensions (en mm)
CCBSB2-005	Connection kit	6.5 kg	84669 37000	
<u>Connection kit for bench CCBSB2:</u>				
- fast assembly and dismantling		- help to great stability		

81	121ECO	171ECO	122	172	222	322	✓421	✓521	✓721	1100
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Orbital Cutting - Accessories

New electric rotation autoline:

- Measures and indicates cutting/beveling motor's power consumption
- Can stop motor or cycle in case of overconsumption
- Protects motor and frees operator from watching the machine
- Detects if blades are used and if the motor is forcing

3,5 color tactile screen allowing to :

- fill in the diameter and set the feed speed in mm/min
- help the correct setting by offering the right feed speed and motor speed according to the blade's type
- perform simple and fast configuration
- print cutting/beveling motor's consumption
- display options in french and english
- choose unity of measurement : mm or inch

Welding mode with prefab machine and SAXX generator: Display of 4 buttons (Start, Stop, Left, Right) with additionnal cable to the generator. (Ref. SAEX-A02 in addition, more details in «ORBITAL WELDING» part of the catalogue)

This rotation is also suitable for previous models **121,171,221, 321.**

Former rotation SAEP-00/000 is not compatible with new models 122, 172, 222, 322.



Reference	Description	Net Weight	Customs Code	Dimensions (in mm)
SAEX-00	Electric rotation autoline	6.3 kg	8515 900090	320 x 261x 193

Electric rotation autoline for CC122 to 322:

- 110 V to 230 V
- rounds regularity
- simple use
- precise setting

81	121ECO	171ECO	✓122	✓172	✓222	✓322	421	521	721	1100
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Reference	Description	Net Weight	Customs Code	Dimensions (in mm)
SAEX-000	Electric rotation autoline	6.3 kg	8515 900090	320 x 261x 193

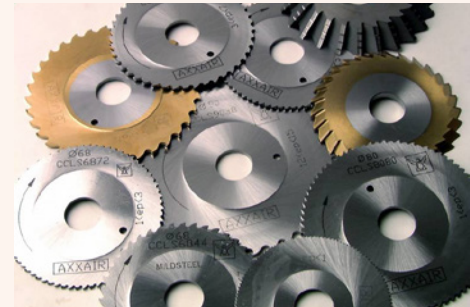
Electric rotation autoline for CC421 to 721:

- 110 V to 230 V
- rounds regularity
- simple use
- precise setting

81	121ECO	171ECO	122	172	222	322	✓421	✓521	✓721	1100
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Orbital Cutting - Consummables



Orbital cutting blades	Customs Code: 8202310000
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Blades High Speed Steel (HSS + Cobalt) sold by boxes of 5:

-The tooth pitch & design are essential for evacuating chips in order to obtain a high quality cut. AXXAIR has worked to make the most efficient blade designs to fit tube and pipe cutting applications.

-Often preferred over the blades of our competitors, AXXAIR blades are suitable with most of other cutting machines.

Reference	Cutting pipes with wall thickness of	ø of the blade	Number of teeth
LS63128	0,5 to 0,9 mm	,02 - ,04"	63 mm
LS63100	0,7 to 1,5 mm	,03 - ,06"	63 mm
LS6364	1 to 3 mm	,04 - ,12"	63 mm
LS6872	1 to 3 mm	,04 - ,12"	68 mm
LS6844	2 to 7mm	,08- ,28"	68 mm
LS8080	1 to 3 mm	,04 - ,12"	80 mm
LS8054	2 to 7 mm	,08- ,28"	80 mm

✓81	✓121ECO	✓171ECO	✓122	✓172	✓222	✓322	✓422	✓521	✓721	✓1100
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Reference	Description	Volume	Customs Code
CCLUH	Liquid lubricant	250 ml	3403198000

High performance oil lubricant, sold by boxes of 5 bottles:

- Advised for fast cutting motors (FS29/19)
- Safety instructions available on demand

81	121ECO	171ECO	✓122	✓172	✓222	✓322	✓422	✓521	✓721	✓1100
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Reference	Description	Volume	Customs Code
CCLUP	Paste lubricant	250 ml	3403198000

Paste lubricant, sold by boxes of 5 lubricants-tubes:

- Advised for metabo motors
- Safety instructions on demand

✓81	✓121ECO	✓171ECO	122	172	222	322	422	521	721	1100
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