

Orbital welding (welding generators)



Our new range of AXXAIR welding generators has been designed to facilitate the use and programming of your equipment. Intuitively, you will have access to sophisticated functions allowing you to make the most demanding welds with ease.

Particular attention has been paid to the choice of technologies used, while favouring as much as possible standard commercial components, in order to facilitate access to parts.

This flexibility will be a genuine asset for your future projects and allow you to be competitive in all your work.

FLEXIBILITY, PRODUCTIVITY

With the latest touch screen interface, we offer you all the possibilities including the most advanced while taking into account the users.

QUALITY AND REPEATABILITY

A classification system for programmes by welding configuration (diameter, wall thickness and head type) allow you to find the corresponding programme for the welding application you are looking for very easily. Each configuration can hold 9 programmes.

PORTABILITY

In order to facilitate mobility on site or in the workshop, transport trolleys for generators are recommended, thus enabling efficient management of the generator and its gas cylinder.



The axis board that controls the motors used on the heads was specifically designed to be able to control various motors and servo systems: DC, brushless, stepping motors, and also encoders and tachometers.

Here, the innovation resides in the ability to easily control the motors used in our competitors' heads so as to offer greater flexibility to our customers that already have them. A 32-pin "quickfit" connector allows interaction between our generator and AXXAIR welding heads and other brands.



Please do not hesitate to contact us for all enquiries relating to orbital welding generators.

We will be glad to share our know-how with you and to devise a solution that best meets your needs!



AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

SAXX-200

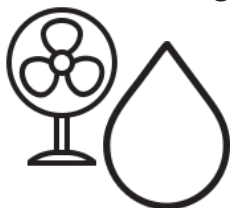
Fully-assured gas management

2 separate gas lines, free choice of inerting gas flow management



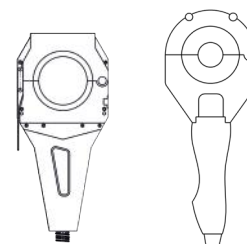
Gas flow is controlled on the generator using the buttons (flow rate displayed on the screen)

Air Cooling or Water cooling



Compatible with closed welding heads:

AMI, Polysoude, ESAB, Orbitec and Orbitalum



Interface 5.7 colour touch screen + WiFi

13 languages, possibility of remote control by smartphone or tablet



Integral printer:

Printing program and actual parameters

USB on front panel

200 programs per stick (possible to use several sticks) Remote update possible



Acquisition and documentation

Records the last 999 welds + weldreport (formatting of the data and presentation of the instructions in the form of demos)

Ppm measuring device

Capable of managing thresholds and sending an electrical pulse to the station in order to start the welding



Axis for added metal

Possibility of using Step mode

Cooler: removable without tools

Cooling capacity 700 W, min flow safety system



SAXX-200

AXXAIR welding generator options

You can now order your SAXX-200 generator with **the options you need.**

CAUTION: The options must be factory fitted. (Exception: Scool-700 cooler)

Second gas line

This second gas line allows control from the generator of **your internal inerting** and / or dual gas management of the welding torch.

- Gas savings
- Welding process safety



WIFI

This option includes a built-in **Wifi antenna** in the station. The operating distance is 20-30 m depending on the environment.

We have authorized remote control via a smartphone or tablet. In fact, one application provides access to all functions, including programming.



Wire feed

This option includes the axis board and the connectors. It must be completed by the dispenser (see accessories).

The Axxair welding generator makes it possible to use the **step mode** and to **synchronize the wire feed** with the current pulse

WATER cooler

Removable cooler without tools with a cooling capacity of **700W** with a flow safety sensor. It is essential to use in all water cooled machines.

- Increasing the duty cycle



SAXX-200

Technical characteristics

Duty cycle:

230 V		110 V	
25 %	200 A	35 %	140 A
60 %	140 A	60 %	115 A
100 %	115 A	100 %	100 A

Power supply:

- Single phase network **with earth**
- Supply voltage: 110 to 230 V +/-15%
- Input current consumed 23A at 230V and 32A at 110V
- Frequency: 50/60Hz
- Cable supplied: HO7RN-F 3x2.5 mm² black, length 3m

Gas supply:

- Maximum inlet pressure: 5 bars
- Maximum flow rate: 50 l / min per gas line
- Inlet connectors: M12x100 male
- Outlet connectors: female blanking union Series 20

Technology:

- Colour touch screen 5.7"
- 13 languages
- Up to 16 users with passwords and custom permissions
- Simple and intuitive programming with automatic parameter calculation and programming
- 200 programs in 20 sectors maximum / key

Integral printer:

- 32 characters / line
- Print program and actual parameters



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Intelligence:

- Alarms: More than 30 alarms to protect the system and check that welding is normal.
- Welding voltage measured in increments of 0.1 A
- Minimum pulse time of 50 ms

Auxiliary connector:

- Possibility of triggering the welding start via an oxygen meter (dry contact)

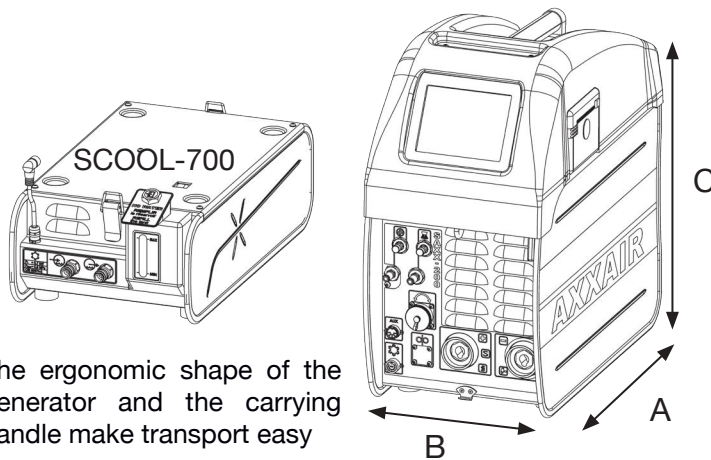
Wi-fi: (Option)

Remote control of the screen on smartphone or tablet via application, range: 20 to 30 m

Cooling connector:

For SCOOOL-700 cooler only: It must be connected to a SAXX200 to operate (No standalone operation)

- Max pressure: 5 bars
- Cooling power according to CEI60974-2 standard: 0.7 kW



The ergonomic shape of the generator and the carrying handle make transport easy

	Product Code	Description	Net weight	Customs code	Dimensions A x B x C (mm)
NEW	SAXX-200	Orbital TIG station, 200A, auto-voltage, one line of gas, air cooled	21 kg	85153 10000	468 x 249 x 482
Option	SCOOOL-700	Cooler (water), 700W for SAXX-200	8 kg	85159 00090	468 x 249 x 146
Option	SGAS	Second digital gas line on SAXX-200	-	85159 00090	-
Option	SWIFI	Wifi antenna for SAXX-200 for remote control	-	85159 00090	-
Option	SWIRE	Wire board for SAXX-200	-	85159 00090	-



Join **experience**



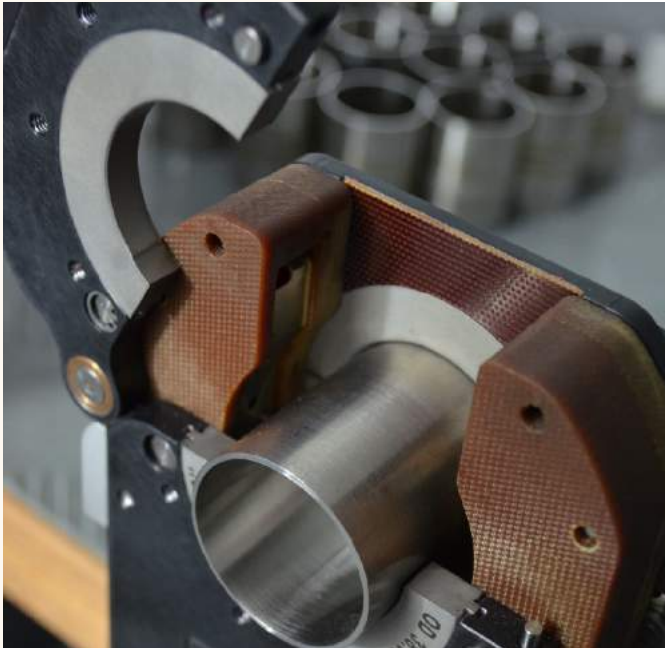
Orbital welding (Closed head)

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Our range of closed welding heads (SATF series) allows you to make very high quality welds in a minimum space.

These heads have been studied to meet the most stringent welding requirements and in the tightest areas.

This type of equipment is mainly used in the aerospace, semiconductor, pharmaceutical or food industries. It is essential for welding titanium which is very sensitive to oxidation.



Closed heads provide optimum gas protection (closed chamber) which results in welds with very limited colouration. They are recommended for welding stainless steel tubes of wall thickness <3 mm in simple fusion without added wire.

The alloy parts of the machine are designed to accept any type of assembly and to offer more welding possibilities.

A control keypad is integrated into the handle of the machine. It allows you to control all primary functions of the head. The welding cycle is visualized by an LED.

The SATF range, combined with our AXXAIR welding generators and its permanent control of the welding parameters, guarantees repeatable and quality welding. This type of weld can be inspected using the most stringent means, such as X-ray inspection.

FLEXIBILITY, PRODUCTIVITY

Productivity remains our primary concern. A liquid cooling circuit has been developed to increase the machine life cycle and also to allow a high welding rate.

QUALITY AND REPEATABILITY

Thanks to its new adjustable closing system and the carefully designed shape of its jaws, the SATF range allows optimum tube positioning (concentricity between the axis of rotation of the electrode and your tube) while controlling the tightening forces so as not to distort or mark your tubes.

PORTABILITY

In order to allow you to weld in restrictive conditions and locations, the size and weight of the machines have been optimized. Our welding cable, housed in an ultra flexible and very resistant protective sheath, also facilitates manipulation of the welding head.



Please do not hesitate to contact us for all enquiries relating to orbital welding technology.

We will be glad to share our know-how with you and to devise a solution that best meets your needs!



Join **experience**



SATF-40NDHX - 65NDHX - 115NDHX

Protection

High protection against arcing outside the electrode

Power drive system with encoder

Allows STARTING IN ALL ANGULAR POSITIONS of the electrode

Water cooled



Length of the cable: 5 metres

Compatible with SAXX welding generators



These heads can also be used on the old AXXAIR welding stations with adapter cables

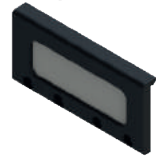
Transport + suspension

These heads are delivered in their work site case and with a suspension assembly



Viewing window

Fixed and transparent option



Strengthening of closing systems

Adjustable force closing systems. Allows precise adjustment of the force of the jaws on the tube to be welded according to its geometry



Fine tube welding

Up to 2.5 mm (3 mm in some cases)

Remote control keypad

It incorporates an LED on the handle to indicate whether the machine is in welding cycle or not.



SATF 40NDHX - 65NDHX - 115NDHX

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Technical characteristics:

Maximum welding current	120 A
100% Duty cycle	60 A

The new NDHX heads are used with SAXX range welding stations.

Changes have been incorporated in the upper part, for the closing and flap guide systems. The new adjustable force closing system allows you to precisely set the force of the jaws on the tube to be welded according to its geometry. Closing is more precise and the parts to be welded are better positioned.

The heads are cooled in two ways: on the electrode holder by contact and on the outer aluminium plates in the lower part.

This cooling is essential to guarantee a long service life of the parts because it minimizes distortion effects due to expansion.

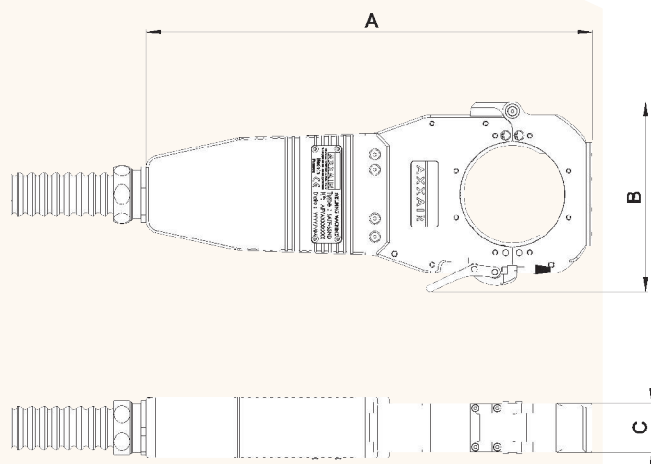
- Cable extensions
- Remote electrodes
- Flange for welding elbows



Specific features

Option: Possibility of mounting a window in the upper part thus verifying the correct positioning of the electrode, for the parts to be welded, before starting the cycle.

CAUTION: If you use the head with a window, it is necessary to wear suitable eye protection (welding mask).



Product Code	Description	Tube welding machine for the following diameters (in mm):	Net weight	Customs code	Dimensions (AxBxC in mm)
SATF-40NDHX	Water-cooled closed head for SAXX	ø 6 to ø 40 mm	8.8 kg	85153 10000	336 x 122 x 40
SATF-65NDHX	Water-cooled closed head for SAXX	ø 6 to ø 65 mm	9.2 kg		366 x 152 x 40
SATF-115NDHX	Water-cooled closed head for SAXX	ø 25 to ø 115 mm	9.9 kg		421 x 222 x 40



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.



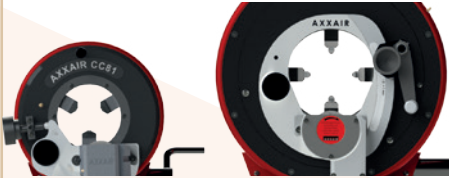
81M - 121ECO - **NEW** 171ECO

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No tube deforming

Concentric clamping system



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

Operator safety feature

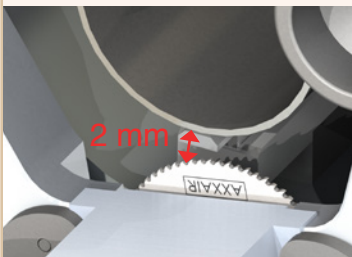
Penetration check feature

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



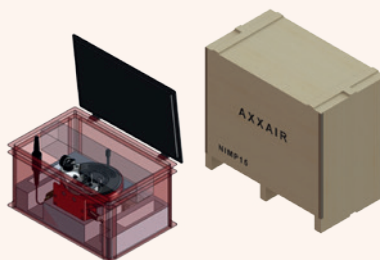
Cutting precision

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.

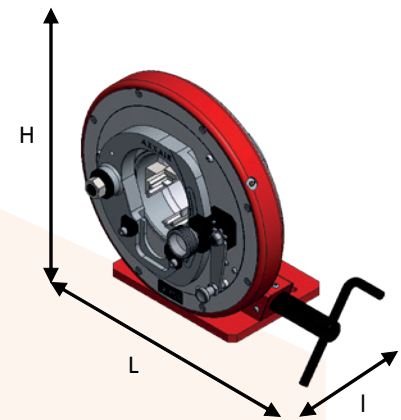
Electric motor 1300W:

- 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



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