

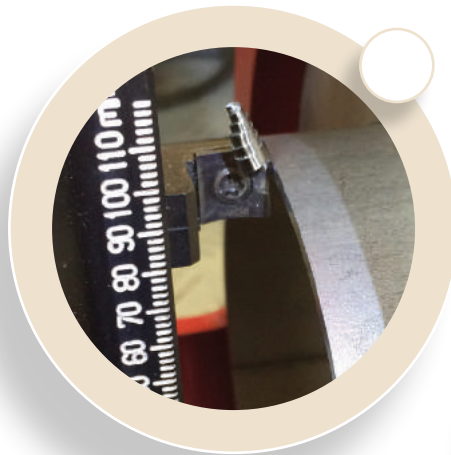
# AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

## Product catalogue

Cutting, facing & orbital welding machines

for thin wall tubes < 3 mm wall thickness



Join **experience**

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Content		Page	
Our founding principles		3-4	
Thin walled tube markets		5	
Orbital cutting	Machines	6	
	Accessories and consumables	14	
Orbital facing	Machines	25	
	Accessories and consumables	34	
Orbital welding	Prefabrication	Machines	38
		Accessories and consumables	41
	Microfit closed heads	Machines	48
		Accessories and consumables	51
	Closed heads	Machines	56
		Accessories and consumables	61
	Open heads	Machines	68
		Accessories and consumables	73
	Tube to tubesheet	Machines	76
		Accessories and consumables	79
	Power sources	Machines	82
		Accessories and consumables	89
Our teams at your service		97	



**Frédéric Legrand**  
- CEO and founder of AXXAIR -



**AXXAIR**  
- designer, manufacturer and distributor -

AXXAIR supports its customers in more than 60 countries worldwide by offering global orbital cutting, squaring, bevelling and welding solutions.

We focus heavily on the needs of users and have adopted a service-oriented approach. We begin by determining the user's needs in terms of preparing items for welding and, of course, orbital welding itself.

We then provide the user's personnel with training on this equipment, in order to ensure that users are able to independently manage the applications they may need to use.

“

Understanding our customers and their needs, anticipating and meeting their expectations - these are AXXAIR's goals. We are able to respond to developments in our customers' ever-changing markets thanks to our various departments, R&D and Design Office.

AXXAIR offers unique and original tube working solutions. We believe that a lasting, high quality relationship with our customers is essential and have therefore developed local services to provide our customers with advice, by means of our subsidiaries and our distribution network.

AXXAIR is able to assist you at every stage of your project: creating samples, demonstrations, training, after-sales service, advice, etc.

”

**Services and a team :**  
- Join experience -

AXXAIR is your first point of contact for all tube working issues, from preparation to welding. With an experienced, responsive and committed team, AXXAIR will always suggest the most suitable solution.

“**Join experience**” sums up our philosophy, which is based on a community that always goes the extra mile.





## Global Process

AXXAIR has been designing, manufacturing and distributing its orbital tube working machines since 1997.



Our business is based upon the global tube working process: preparation (cutting, bevelling or squaring) and orbital welding.

Our overall product strategy allows us to offer innovative solutions and adopt a global approach to your tube and pipework projects.

## A Worldwide presence

AXXAIR is established in areas where customer demand is high, in order to be able to provide a local, high-quality service, with ever faster turnaround times.

Our products are distributed in more than 60 countries by our network of subsidiaries (in Korea, the USA and Germany) and our “distributor” partners, all of whom have been trained on our premises.

With a commercial strategy based on **innovation, quality and performance**, the AXXAIR Group, a family-owned company, has become a successful group, whose business is continually expanding both in France and on export markets.



## Production

AXXAIR SAS is committed to maintaining industrial employment in France. To this end, 98% of manufacturing is carried out in the Rhone-Alpes region of France.

We sub-contract 100% of our production to partners, including machine shops, sheet metalworking sub-contractors, electronics specialists, etc.

We design all our machines in our in-house design office, which has an expert team of 3 staff.



## Sustainable development

AXXAIR is committed to the sustainable development of industrial activities. As a part of our sustainable approach, we have decided to stop producing printed catalogues.

In today's connected world, we believe that digital catalogues, with added features, are a practical and suitable alternative for everyone. We hope that you understand and will adopt this approach, for our good and the good of future generations.

This on-line catalogue can be printed, should you wish to do so, such that our vision is not imposed unilaterally. However, we would like to encourage you not to print it, or to only print out the information that is of greatest interest to you.





## Transporting sensitive fluids

Many industries are using tubes to transport fluids. The more sensitive the more attention has to be paid to all connections that are most of the time welded: tube to tube or tube to T or tube to elbows for example. Most of those tubes are made of stainless steel in order to avoid corrosion and exchanges between the tube and the fluid.

## Food-processing industry

Food and beverage manufacturing are using a lot of Stainless steel tubes. It is necessary of course to correctly seal the connections but also to be sure the internal surface of the tube is correctly welded (penetration). The purpose is always to avoid any retention zones that could pollute the liquids you transport in the tube.

- Food processing
- Beverage processing: beer or wine manufacturing for example

## Semi-conductor industry

The manufacturing of electronic components needs to have a very highly controlled atmosphere (clean rooms) as well as very high level quality tubes for the process. Those tubes are transporting pure gases or pure water and to be welded with a very high quality.

An example is the manufacturing of memory.

## Pharmaceutical industry

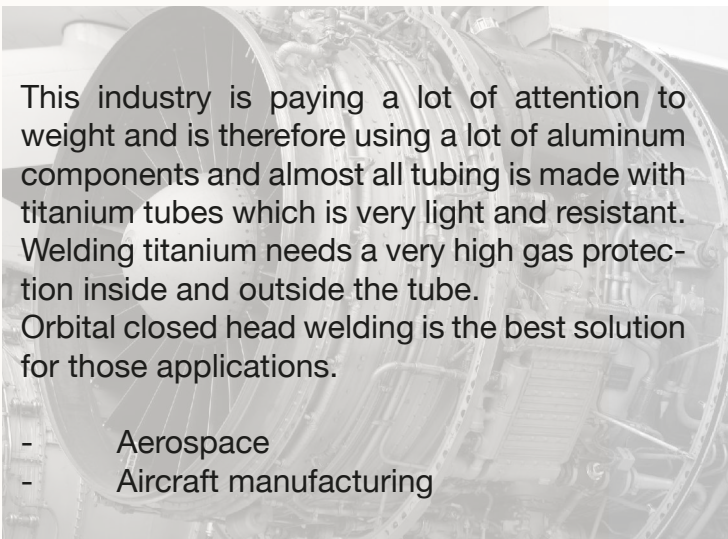
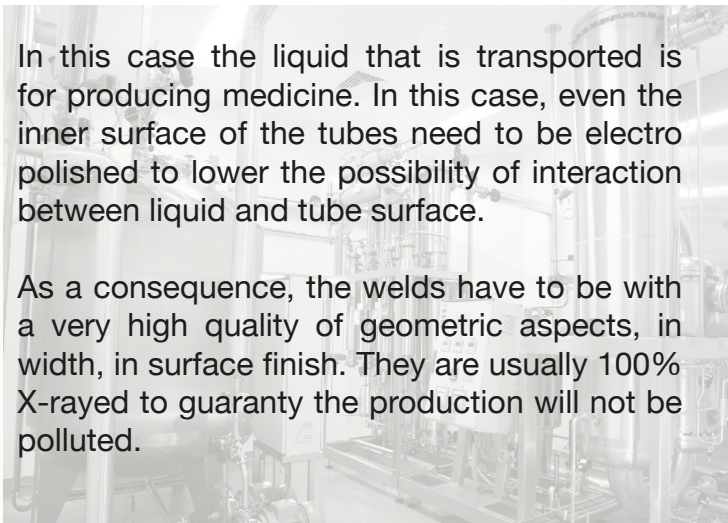
In this case the liquid that is transported is for producing medicine. In this case, even the inner surface of the tubes need to be electro polished to lower the possibility of interaction between liquid and tube surface.

As a consequence, the welds have to be with a very high quality of geometric aspects, in width, in surface finish. They are usually 100% X-rayed to guaranty the production will not be polluted.

## Aeronautics industry

This industry is paying a lot of attention to weight and is therefore using a lot of aluminum components and almost all tubing is made with titanium tubes which is very light and resistant. Welding titanium needs a very high gas protection inside and outside the tube. Orbital closed head welding is the best solution for those applications.

- Aerospace
- Aircraft manufacturing





# AXXAIR Orbital cutting

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INNOVATIVE ORBITAL SOLUTIONS

A proper tube preparation is essential to produce a proper weld.

AXXAIR's orbital cutting machines feature stainless steel concentric jaws to prevent the deformation of the tubes, especially the one with thin walls, during clamping.

The perfect position of the tube within the machine also guaranty the perpendicularity of the cut as the saw travels around the tube and the consistency that perpendicularity cut after cut.



The precision of our cutting machine allow a perfect tube to tube alignment, with the smallest gap possible, removing the need to facing the tube therefore saving a significant amount of time and money.

AXXAIR's orbital cutting machines are an indispensable tool for any automatic and orbital welding.

AXXAIR offers the **largest orbital cutting range in the world !**

11 different models to cut tubes from diameter 5 to 1100 mm !



## FLEXIBILITY, PRODUCTIVITY

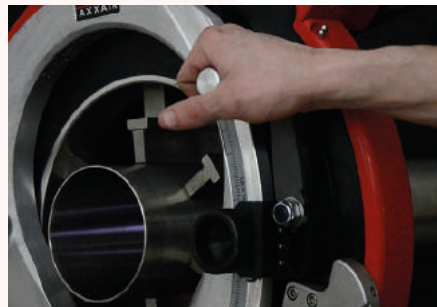
AXXAIR frames (except CC81, CC121ECO and 171ECO) are easily scalable for beveling and welding use.

## QUALITY, GEOMETRIC PRECISION

Cutting with no tube distortion (multi-contacts concentric clamping) ideal for thin wall stainless steel tubes. Great perpendicularity (<0.25 mm) of the cut and superb surface finish (few burrs).

## PORTABILITY

With the easy to remove sawing attachment, AXXAIR's cutting machines are easy to transport on site or move within a workshop.



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

We are glad to share our decades long experience in orbital cutting and helping you to select the solution that fits your needs.



Join **experience**





# The ECO Cutting range

## 81M - 121ECO - 171ECO

For more than 20 years AXXAIR has been developing scalable, flexible and reliable machines featuring our patented concentric clamping design and many other functions.

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

Our ECO range differs from this concept and is specialized in cutting thin wall tubes. It offers the same quality of cut than the CC 122 - 322 range in a more affordable package for customers who do not need to bevel or weld with the same machine.

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 < 5 mm wall thickness\***

**Easy to move around and lightweight**

**Attractive prices**

AXXAIR choose Metabo to power our ECO range because of the large speed range and higher torque matching the requirements for cutting stainless steel thin wall tubes.

The handle of the Metabo power unit also makes easy and convenient to rotate the blade around the tube.

Our 121 and 171ECO range share the same safe and efficient diameter setting and blade penetration unit than our CC range.

The ECO range comes in a more affordable package but still features most of the designs that made our more advanced CC ranges popular among the industry.

Because our ECO range is dedicated to cutting, some of the upgrades and accessories available on the CC range like automatic rotation or automatic clamping are not available for this type of cutting machines.



For more details, accessories and the references please see the following pages of this catalogue.

\*depending on the type of steel

**Join experience**





# 81M - 121ECO - 171ECO

**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

## No tube deformation

Concentric clamping system



Basic and extra stainless steel jaws: no pollution of stainless steel tubes

## Cutting precision

Perpendicular cuts  
< 0.25 mm

## Operator safety feature

Penetration check feature

## Uptake

121ECO +171ECO: feature a dual blade position allowing to cut elbows or flanges with no wasting of tube.

## Limited vibration and tube distortion

Optimised blade to jaws distance



## Motor 1300W

Speed adjustment through gearbox and electronic variator

## Cutting capacity:

Up to 5 mm wall thickness\*



## Easy handling and transportation



## Continuous use

Anti-twist cable with bearings. Protects the electric cable from damage resulting from rotation around the tube.

## Opening capacity

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

\*depending on the type of steel



# 81M - 121ECO - 171ECO

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## Technical features :

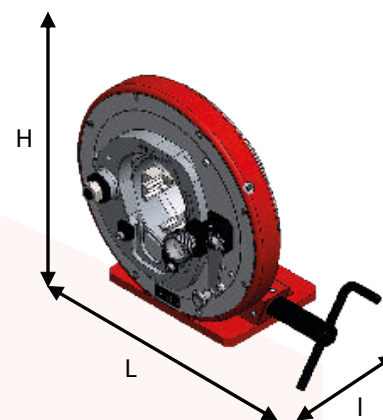
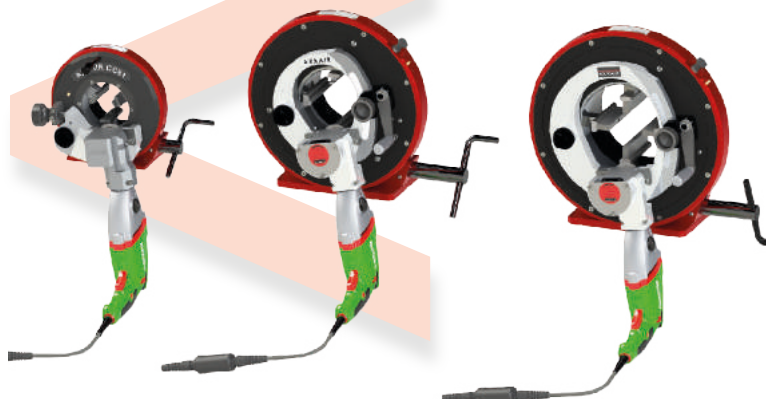
With the Metabo power unit, our ECO range features a large range of blade rotation speed and the right torque for cutting stainless steel thin wall tubes.

### Electric motor 1300W:

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

Exept the 81M, all the machines' cutting motors are shipped in a convenient carrying case together with all necessary tools for operating the machine.

Because of it's small form and low weight, the 81M cutting motor and the tools are included in the machine's transport case.



	Product Code	Machine's jaw opening capacity in mm		Net weight	Dimensions (HxLxw in mm)
		With basic jaws	With extra jaws (included)		
120V 1300W	81M11	Ø5 - Ø78	-	15 kg	263 x 346 x 236
	121ECO1	Ø24 - Ø121	Ø5 - Ø108	38 kg	432 x 520 x 297
	171ECO1	Ø70 - Ø170	Ø16 - Ø118	44 kg	453 x 550 x 307
230V 1300W	81M21	Ø5 - Ø78	-	15 kg	263 x 346 x 236
	121ECO2	Ø24 - Ø121	Ø5 - Ø108	38 kg	432 x 520 x 297
	171ECO2	Ø70 - Ø170	Ø16 - Ø118	44 kg	453 x 550 x 307



122 - 172 - 222 - 322

**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

### No tube deformation

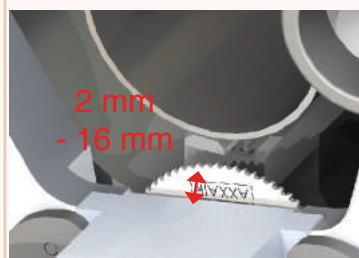
Concentric clamping



Basic and extra  
**stainless steel jaws:**  
no pollution of stainless  
steel tubes

### Reduced vibration and increased blade life

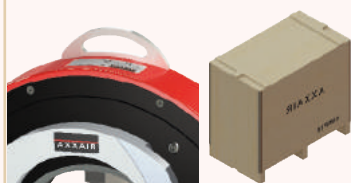
Optimised blade to jaw  
distance



**1200W motor or  
pneumatic motor**  
(as required)

**Cutting capacity:**  
Up to 5 mm wall  
thickness\*

### Easy handling and transportation



\*depending on the type of steel

### Cutting precision

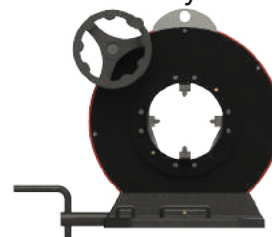
Perpendicularity of  
< 0.25 mm

### Cutting quality

Rotation handle for  
controlled and conti-  
nuous cutting speed

### A perfect sealing against chips

All rotating parts are  
incorporated in the  
body



### Global Process

Can be transformed  
into an orbital beveling  
and welding machine

### Uptake

feature a dual blade  
position allowing to cut  
elbows or flanges with  
no wasting of tube.

### Continuous use

Anti-twist cable with bearings.  
Protects the electric cable from damage  
resulting from rotation around the tube.

### Opening capacity

122	ø5 - ø119 mm 0.25" - 4.5"
172	ø16 - ø173 mm 0.625" - 6.625"
222	ø55 - ø228 mm 2.375" - 8.625"
322	ø141 - ø328 mm 5.563" - 12.750"





**122- 172 - 222- 322**
**AXXAIR**  
 INNOVATIVE ORBITAL SOLUTIONS

## Technical features:

### - Fast speed motor:

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

*Vibration level according to EN 28662 norm : <2.5m/s², protection class : IP 20*
**Rotation speed** (6 speed variations): from 95 RPM to 280 RPM

### - Pneumatic motor:

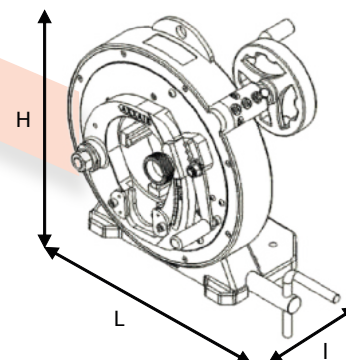
60 to 110 rpm, air flow rate 1500 l/min at 6 bar.

### - Robustness:

Very efficient clamping system thanks to a screw without end directly engaged on the clamping cam.

### - Easy maintenance and control:

Lubrication of the inner parts with the grease nipples



All motors are supplied in their own individual cases, including the necessary tools

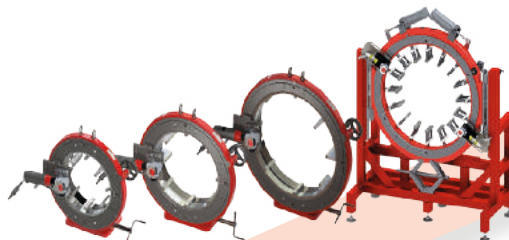
	Product Code	Machine's jaw opening capacity in mm		Net weight	Dimensions (HxLxw in mm)
		With basic jaws	With extra jaws (included)		
120V 1200W fast motor	122FS19	Ø29 - Ø119	Ø5 - Ø99	44 kg	443 x 541 x 304
	172FS19	Ø74 - Ø173	Ø16 - Ø116	51 kg	493 x 566 x 304
	222FS19	Ø128 - Ø228	Ø55 - Ø155	59 kg	548 x 594 x 304
	322FS19	Ø230 - Ø328	Ø141 - Ø239	71 kg	649 x 644 x 304
230V 1200W fast motor	122FS29	Ø29 - Ø119	Ø5 - Ø99	44 kg	443 x 541 x 304
	172FS29	Ø74 - Ø173	Ø16 - Ø116	51 kg	493 x 566 x 304
	222FS29	Ø128 - Ø228	Ø55 - Ø155	59 kg	548 x 594 x 304
	322FS29	Ø230 - Ø328	Ø141 - Ø239	71 kg	649 x 644 x 304
Pneu- matic motor	122PD	Ø29 - Ø119	Ø5 - Ø99	44 kg	443 x 541 x 304
	172PD	Ø74 - Ø173	Ø16 - Ø116	51 kg	493 x 566 x 304
	222PD	Ø128 - Ø228	Ø55 - Ø155	59 kg	548 x 594 x 304
	322PD	Ø230 - Ø328	Ø141 - Ø239	71 kg	649 x 644 x 304



## 421- 521-721-1100

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

**No tube deformation**

Concentric clamping



Basic and extra  
**stainless steel** jaws:  
no pollution of stainless  
steel tubes

**Cutting precision**

Perpendicular cuts  
< 0.4 mm

**Uptake**

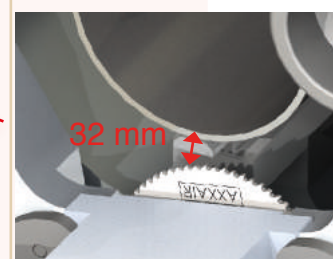
feature a dual blade  
position allowing to cut  
elbows or flanges with  
no wasting of tube.

**Cutting quality**

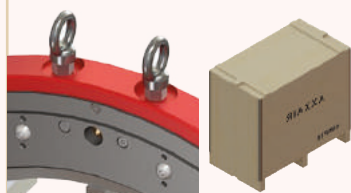
Rotation handle for  
controlled and conti-  
nuous cutting speed

**Reduced vibration  
and increased  
blade life**

Optimised blade to jaw  
distance

**Continuous use**

Anti-twist cable with  
bearings.  
Protects the electric  
cable from damage  
resulting from rotation  
around the tube.

**Easy handling and  
transportation**

**1200W motor or  
pneumatic motor (as required)**

**Cutting capacity:**  
Up to a wall thickness of 5 mm\*

**Opening capacity**

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 "

\*depending on the type of steel

Join **experience**

# 421- 521-721-1100

## Technical features:

### - Fast motor:

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

Vibration level according to EN 28662 norm :

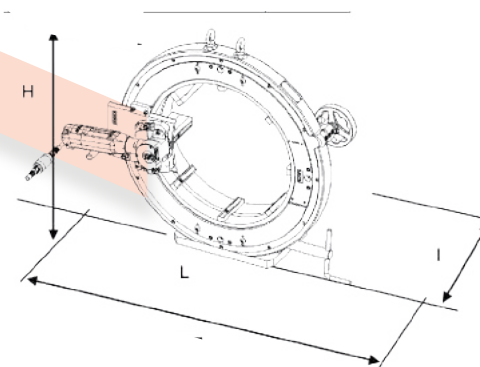
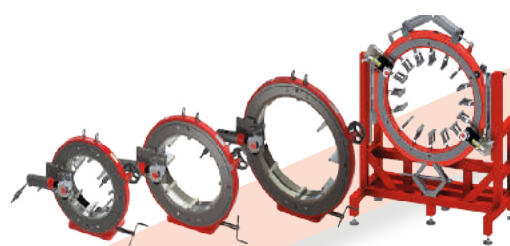
$<2.5m/s^2$ , protection class : IP 20

**Rotation speed** (6 speed variations): from 95 RPM to 280 RPM

### - 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



**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

	Product Code	Machine's jaw opening capacity in mm		Net weight	Dimensions (HxLxw in mm)
		With basic jaws	With extra jaws (included)		
120V 1200W fast motor	421FS19	Ø350 - Ø422	Ø212 - Ø352	186 kg	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	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	802x838x315
	521PD	Ø450 - Ø522	Ø312 - Ø452	223 kg	905x889x315
	721PD	Ø653 - Ø725	Ø447 - Ø654	256 kg	1104x1077x315
	1100	On demand			





# Orbital cutting - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our support legs and stands have been designed to further facilitate cutting by ensuring that the machine is stable in different conditions: in a workshop or on site.

The great advantages of these products:

- lightness
- flexible handling
- easy to use



Product Code	Description	Net Weight	Dimensions (in cm)
CCPS21	Support feet	10 kg	103 x 32 x 11

Support legs for orbital cutting machine:

- quick assembling and dismantling
- height adjustment with screws
- storage box at the back
- optimum stability

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

Simple stand for supporting tubes with height adjustment:

- quick assembling and dismantling
- height adjustment

✓81	✓121ECO	✓171ECO	✓122	✓172	✓222	✓322	421	521	721	1100
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Product Code	Description	Net Weight	Dimensions (in cm)
CCSER2	Stand (with chrome steel bearings)	11 kg	60 x 26 x 10

Stand with chrome steel bearings for supporting tubes with height adjustment:

- easy assembling and dismantling
- height adjustment
- facilitates tube feeding after each cut

✓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 position and feed your tubes without the aid of stands. The height-adjustable table helps you easily and precisely set the height of your machine, for cutting tubes placed on the support bench.

The additional tube support bench allows you to position your longest tubes in a stable manner on all benches.

We also recommend that you support the cut section in front of your cutting machine using one or more additional benches, depending on the length of the tube.



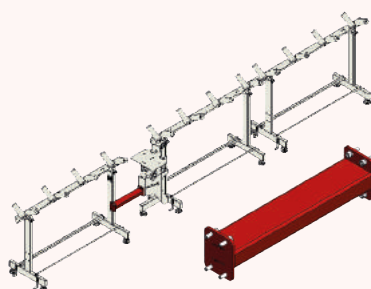
Product Code	Description	Net Weight	Dimensions (in cm)
CCBSB-X1	Bench with height adjustment	57 kg	184 x 95 x 51
Height-adjustable support bench, 1.5m - stainless steel rollers - handle for height adjustment - 1.5 m long - maximum load: 350 kg - ø min pipe: 5 mm - ø max pipe: 321 mm - compatible with machines 121 to 321			

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

81	✓121ECO	✓171ECO	✓122	✓172	✓222	✓322	421	521	721	1100
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Product Code	Description	Net Weight	Dimensions (in mm)
CCBSB-B005	Connection	3 kg	100 x 80 x 402
Connecting bar for CCBSB-X1 and CCBSB- X2: - Allows the height-adjustable table to be connected to a bench placed in front of the machine			

81	✓121ECO	✓171ECO	✓122	✓172	✓222	✓322	421	521	721	1100
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# Orbital cutting - Accessories (End stop)

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

In addition to our CCBB-X1 and CCBB-X2 benches, we offer benches with an end stop system. These stops are very simple to use and avoid all measurement errors.

## No pollution of the tube:

All parts that are in contact with the tube are made of stainless steel (the rollers but also the stop finger)

## Retractable stop:

In order to facilitate the evacuation of the cut, the stop is manually retractable.



- Lengths available:

1500 - 3000 - 4500 - 6000 - 7500 and 9000 mm

- Working stroke: Length - 200 mm

- Delivered by module of 1500mm to be put together

- Max load per module: 350 kg (evenly distributed)

- Max push on the stop: 10 kg

- Operating temperature: 0 - 50 ° C

- Relative humidity: 35 - 85%

They can be assembled on the **feed-in or feed-out** section of the cutting machine

They are available **with a ruler or with an LCD display**.

## Feed-in assembly



## LCD display

Possibility of selecting the direction of counting, the position of the decimal point, the unit of measurement (mm or inches), reset / preset of the measurement, absolute / relative dimension.

- Battery powered. Lifetime of about 4 years.

The discharged battery icon appears when battery replacement is required.

Replacement is easily done without loss of the value and configuration parameters.

- Resolution 0.1 mm



## Feed-out assembly

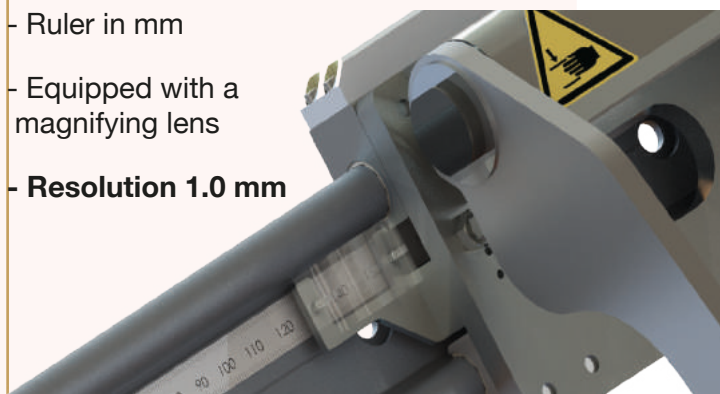


## Ruler

- Ruler in mm

- Equipped with a magnifying lens

- Resolution 1.0 mm



81

✓121ECO

✓171ECO

✓122

✓172

✓222

✓322

421

521

721

1100





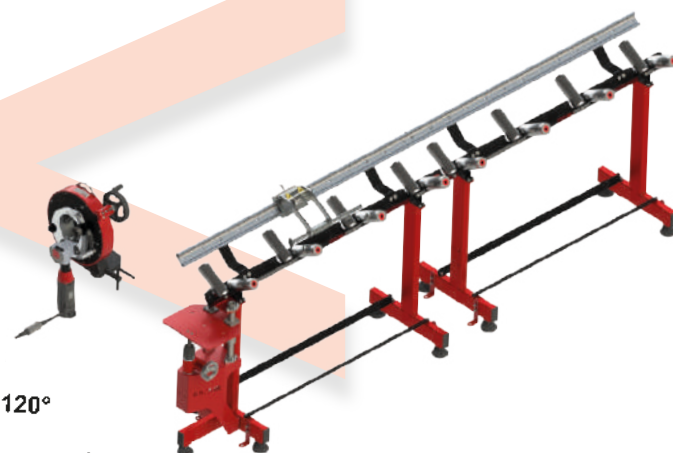
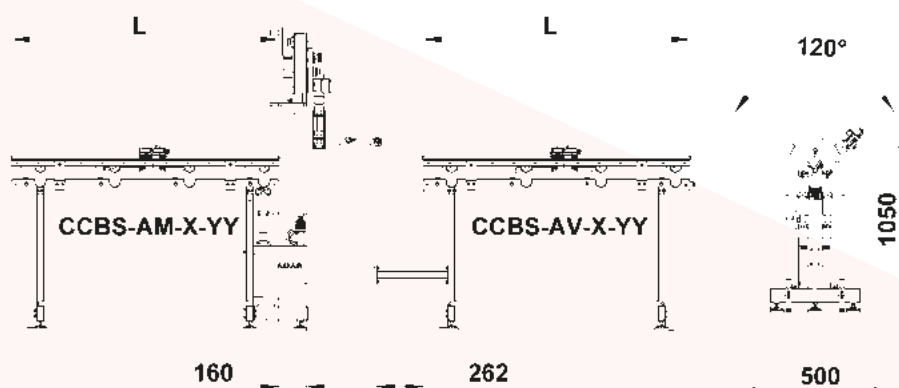
# Orbital cutting - Accessories (End stop)

**AXXAIR**  
 INNOVATIVE ORBITAL SOLUTIONS

## Feed-in assembly

The parts are delivered unassembled in transport boxes, per module of 1,5 m.

They must be assembled, aligned and fixed to the ground. The magnetic ruler (with LDC display) or the ruler must be glued at the end of the assembly.



The system is delivered with the height-adjustable support bench (CCBSB-X1), additional support benches, the starting end stop module and its extensions.

Assembly		Reader		Length (in mm)		Working stroke (in mm)		Product code			Net weight	
on the feed-in section of the cutting line		Ruler		1500		1300		CCBSB-AM-R-15			65 kg	
				3000		2800		CCBSB-AM-R-30			104 kg	
				4500		4300		CCBSB-AM-R-45			143 kg	
				6000		5800		CCBSB-AM-R-60			163 kg	
				7500		7300		CCBSB-AM-R-75			200 kg	
				9000		8800		CCBSB-AM-R-90			238 kg	
		LCD display		1500		1300		CCBSB-AM-D-15			65 kg	
				3000		2800		CCBSB-AM-D-30			104 kg	
				4500		4300		CCBSB-AM-D-45			143 kg	
				6000		5800		CCBSB-AM-D-60			163 kg	
				7500		7300		CCBSB-AM-D-75			200 kg	
				9000		8800		CCBSB-AM-D-90			238 kg	
81	✓121ECO	✓171ECO	✓122	✓172	✓222	✓322	421	521	721	1100		

You can add CCBBSB-X2 modules to support the tube after the cutting process (in front of the cutting machine) with the CCBSB-B005 connecting bar (see previous pages).



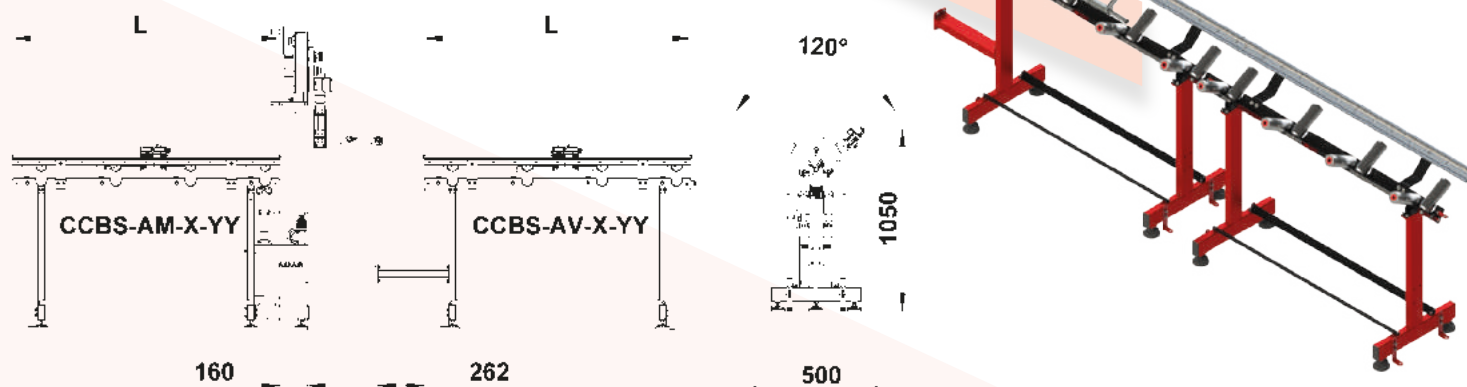
# Orbital cutting - Accessories (End stop)

**AXXAIR**  
 INNOVATIVE ORBITAL SOLUTIONS

## Feed-out assembly

The parts are delivered unassembled in transport boxes, per module of 1,5 m.

They must be assembled, aligned and fixed to the ground. The magnetic ruler (with LDC display) or the ruler must be glued at the end of the assembly.



The system comes with: CCBSB-X2 support bench modules, the starting end stop module and its extensions, the CCBSB-B005 connecting bar.

**Attention:** For all references with AV (bench with end stop on the feed-out section) we must also deliver at least one CCBSB-X1 bench (height-adjustable support bench) to support the cutting machine.

Assembly		Reader		Length (in mm)		Working stroke (in mm)		Product code			Net weight
on the feed-out section of the cutting line		Ruler		1500		1300		CCBSB-AV-R-15			46 kg
				3000		2800		CCBSB-AV-R-30			85 kg
				4500		4300		CCBSB-AV-R-45			124 kg
				6000		5800		CCBSB-AV-R-60			163 kg
				7500		7300		CCBSB-AV-R-75			201 kg
				9000		8800		CCBSB-AV-R-90			240 kg
		LCD display		1500		1300		CCBSB-AV-D-15			46 kg
				3000		2800		CCBSB-AV-D-30			85 kg
				4500		4300		CCBSB-AV-D-45			124 kg
				6000		5800		CCBSB-AV-D-60			163 kg
				7500		7300		CCBSB-AV-D-75			201 kg
				9000		8800		CCBSB-AV-D-90			240 kg
81	✓121ECO	✓171ECO	✓122	✓172	✓222	✓322	421	521	721	1100	



# Orbital cutting - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

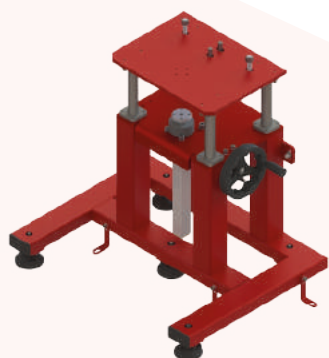
Our support benches help you to position and feed your tubes without the aid of stands.

The height-adjustable table helps you easily and precisely set the height of your machine, for cutting tubes placed on the support bench.

The additional tube support bench allows you to position your longest tubes in a stable manner on all benches.

We also recommend that you support the cut section in front of your cutting machine using one or more additional benches, depending on the length of the tube.

These products are available on request



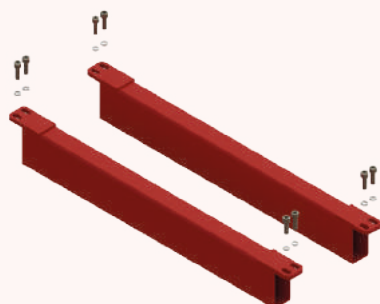
Product Code	Description	Net weight	Dimensions (in mm)
CCBSB2-003	Height-adjustable table	53.5 kg	75 x 73 x 54
Height-adjustable table for 422 / 521 / 721:			
- adjustable table height		- optimum stability	

81	121ECO	171ECO	122	172	222	322	✓421	✓521	✓721	1100
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Product Code	Description	Net Weight	Dimensions (in mm)
CCBSB2-004	Support bench	72.8 kg	97 x 71 x 150
Tube support bench for 422 / 521 / 721:			
- quick assembly and dismantling		- 1.5 m long	
- height adjustment		- optimum stability	

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



Product Code	Description	Poids net	Dimensions (en mm)
CCBSB2-005	Connecting bar	6.5 kg	8.5 x 4 x 65
Connecting bar between two CCBSB2 support benches:			
- quick assembly and dismantling		- ensures optimum stability	

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

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## New autoline electric rotation:

Measures and displays the cutting/bevelling motor's power consumption

- enables the motor and cycle to be stopped in the event of overconsumption
- protects the motor and frees the operator from watching the machine
- detects whether the motor is straining and whether the blade is worn

## 3.5 colour touch-screen allowing you to:

- enter the diameter and precisely adjust the feed speed in mm/min
- aid adjustment with a suggested motor speed and feed speed based on the type of material and the blade used
- perform quick and easy configuration
- display the cutting/bevelling motor's consumption
- display in English, French or German
- choose the unit of measure: mm or inch

**Welding mode with prefab machine and SAXX power source** : 4-button display (Start, Stop, Left, Right) with the addition of a power source connection cable

(Ref. SAEX-A02 for addition, more details in the "ORBITAL WELDING" section of this catalogue)

This rotation is compatible with our previous **121, 171, 221, 321, 421, 521 and 721** models.

The previous SAEP-00/000 rotation cannot be fitted to our new 122, 172, 222 and 322 models.



Product Code	Description	Net Weight	Dimensions (in mm)
SAEX-00	Autoline electric rotation	6.3 kg	320 x 261x 193

### Autoline electric inverter for CC122 to 322:

- 110 V to 230 V
- even rotation
- easy to use
- precise adjustment

81	121ECO	171ECO	✓122	✓172	✓222	✓322	421	521	721	1100
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Product Code	Description	Net Weight	Dimensions (in mm)
SAEX-000	Autoline electric rotation	6.3 kg	320 x 261x 193

### Autoline electric inverter for CC421 to 721:

- 110 V to 230 V
- even rotation
- easy to use
- precise adjustment

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



NEW

## Accessories (electric clamping)

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



You realize **important series** in your company and want to be more effective during your projects?

Our electric clamping is the ideal answer for the preparation and / or welding of your tubes.

The electric clamping makes it possible to carry out a **repetitive and constant force tightening** on tubes with identical diameters and thicknesses.

The **clamping force is adjustable**, it prevents the tubes from being deformed or marked.

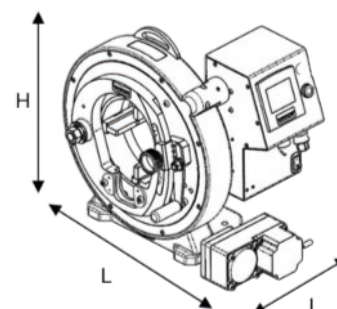
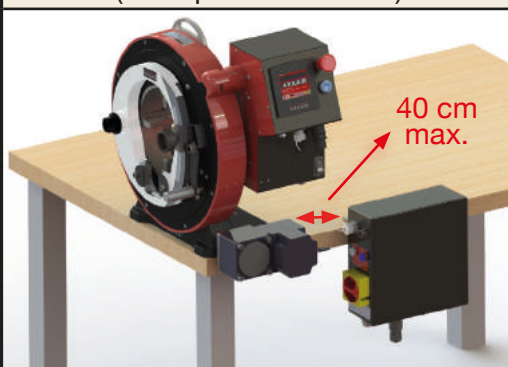
### Technical specifications:

- 24Vdc brushless motor, motor torque: 34N.m
- Tightening force on the tube: 850 kg maximum, adjustable from 15 to 100%
- Clamping speed: 86 mm / min (diameter)
- The electric clamping is sold with the body frame and the automatic rotation

Fixation on an AXXAIR support bench



Fixation on an other support (example: workbench)



Product code	Body frame, automatic rotation and electric clamping Machine's jaw opening capacity in mm		Net weight	Dimensions (HxLxI in mm)
	With basic jaws	With extra jaws (included)		
122-AU	Ø29 - Ø119	Ø5 - Ø99	51 kg	470 x 498 x 359
172-AU	Ø74 - Ø173	Ø16 - Ø116	58 kg	520 x 530 x 359
222-AU	Ø128 - Ø228	Ø55 - Ø155	66 kg	575 x 575 x 359
322-AU	Ø230 - Ø328	Ø141 - Ø239	80 kg	675 x 662 x 359

**Caution:** Remember to order one or more motors (cutting, beveling or welding torch) and the consumables needed with the sets listed above.

# Orbital cutting - Consumables

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



## Orbital cutting blades

High quality blades (HSS + Cobalt) sold in boxes of 5:

- The tooth pitch & design are essential for chip evacuation, in order to achieve a high quality cut. AXXAIR has produced the most efficient blade design possible for various cutting applications.
- Often preferred to our competitors' blades, AXXAIR blades are compatible with the majority of other orbital cutting machines.

Product Code	Cutting tubes with wall thickness of		ø of the blade	Number of teeth
LS63128	0,5 to 0,9 mm	,02 - ,04"	63 mm	128
LS63100	0,7 to 1,5 mm	,03 - ,06"	63 mm	100
LS6364	1 to 3 mm	,04 - ,12"	63 mm	64
LS6872	1 to 3 mm	,04 - ,12"	68 mm	72
LS6844	2 to 7mm	,08- ,28"	68 mm	44
LS8080	1 to 3 mm	,04 - ,12"	80 mm	80
LS8054	2 to 7 mm	,08- ,28"	80 mm	54

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



Product Code	Description	Volume
CCLUH	Liquid lubricant	250 ml

High performance oil lubricant, sold in packs of 5:

- Recommended for all FS cutting motors
- Safety data sheet available on request

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



Product Code	Description	Volume
CCLUP	Paste lubricant	250 ml

Paste lubricant, sold in packs of 5 lubricants-tubes:

- Recommended for metabo motors
- Safety data sheet available on request

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





# 1 machine - 3 applications

**AXXAIR**

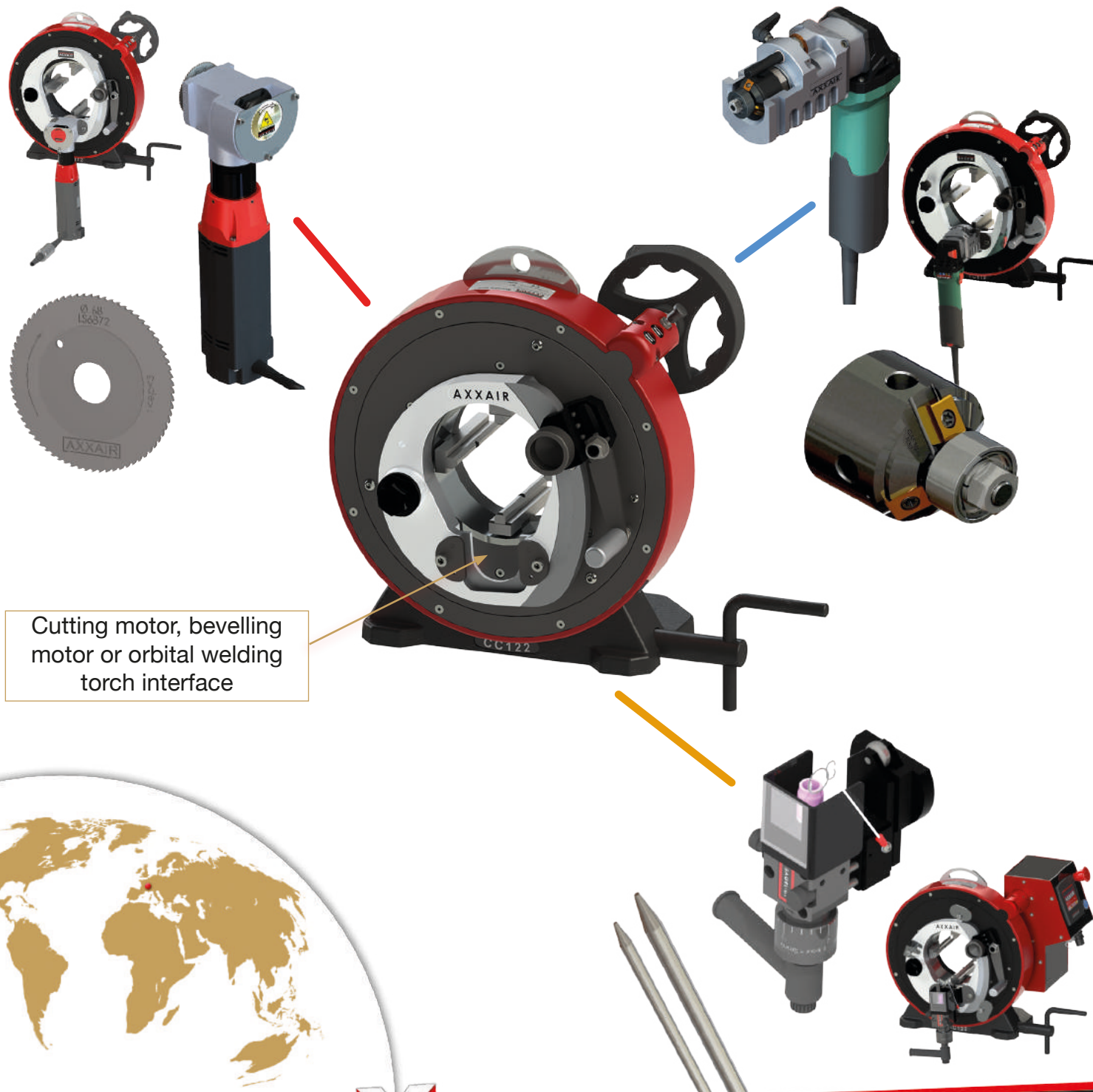
INNOVATIVE ORBITAL SOLUTIONS

The AXXAIR Group was the first to offer a triple and exclusive solution, from preparation to orbital welding:

**the global process**

For more than 20 years, a single machine frame (122, 172, 222 and 322) has enabled three operations to be carried out:

Cutting, bevelling and orbital welding



Cutting motor, bevelling motor or orbital welding torch interface

# A machine - 3 applications

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product Code	Description	Net weight
FS xx / MOPD	Cutting motor	5 kg
Low-speed / high-speed / pneumatic motor with dual output (uptake):		
120V	Product Code	Frame
	Low-speed motor: FS15	122
	High-speed motor: FS19	172
230V	Low-speed motor: FS25	222
	High-speed motor: FS29	222
Pneumatic	MOPD	322

To use this motor you will need to order: suitable cutting blades for the tube thickness you want to cut and, if necessary, lubricant.

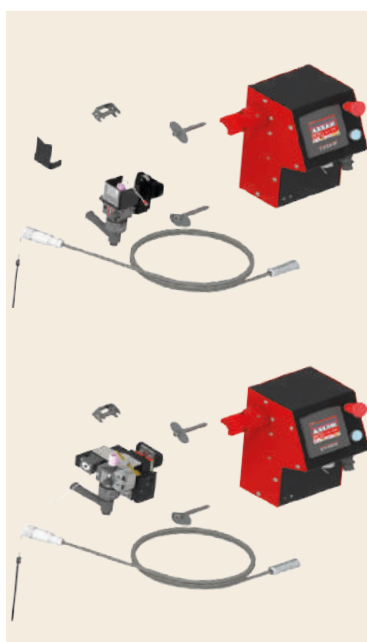
All information and relevant product codes appear in the orbital cutting accessories and consumables section of this catalogue.



Product Code	Description	Net Weight
GA10 - x - xx	Beveling motor kit	5 kg
120V / 230V beveling motor supplied with a chip shield and a workpiece guide tailored to the frame of your cutting / prefab welding machine:		
120V	Product Code	Frame
	GA10-M1-122	122
	GA10-M1-172	172
	GA10-M1-222	222
	GA10-M1-322	322
230V	Product Code	Frame
	GA10-M2-122	122
	GA10-M2-172	172
	GA10-M2-222	222
	GA10-M2-322	322

To use this motor and bevel your tubes you will need to order: one or more milling heads and carbide inserts.

All information and relevant product codes appear in the orbital beveling accessories and consumables section of this catalogue.



Product Code	Description	Net Weight
SX - KIT x	Torch kit	depending on the chosen product
KIT for upgrading a CC/GA to an SX Air / Water / AVC+OSC torch		
Cooling	Product Code	Frame
AIR	SX-2KITA	122
EAU	SX-2KITE	172
	SX-2KITNAOF (AVC/OSC)	222
	SX-2KITNAOF (AVC/OSC)	322
If you have acquired the electrical clamping (xx2-AU), please order the references below, they are delivered without automatic rotation:		
AIR	SX-3KITA	122
EAU	SX-3KITE	172
	SX-3KITNAOF (AVC/OSC)	222
	SX-3KITNAOF (AVC/OSC)	322

To use this KIT and to prefab weld, you will need to order: a suitable AXXAIR welding power supply for the tubes you want to weld.

All information and relevant product codes appear in the orbital welding section of this catalogue.

## AXXAIR Orbital facing

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Tube facing is used on thin tubes with a thickness of less than 3 mm. It consists in bringing into conformity the end of a tube or an accessory.

This conformity acts on three aspects:

- the perpendicularity of the face of the tube
- the surface state of the face - potentially a length adjustment.

After the facing process, the face will be perpendicular to the axis of the tube, without burrs, with a low RA and the desired length.

Facing machines are used when the cutting process is not sufficiently precise for the application or when the cutting process generates burrs.

To give an exemple: abrasive cutting disc, band saw or tube cutter.



Tube with small diameters <25.4 mm are particularly concerned by the facing process. They are often cut with tube cutters or abrasive cutting machines. Generally speaking, tube must be faced before welding in order to obtain quality welds.

One category of tube is particularly concerned: electropolished tube used in semiconductor or pharmaceutical industries.

It is forbidden to scratch the polished surface inside the tubes: the cuts are therefore only done with a cutting wheel. This process does not generate chips but only dust. The result of this cut is not exploitable without a facing operation which unrolls the chip towards the outside of the tube.

### FLEXIBILITY, PRODUCTIVITY

Our facing machines operate on battery or corded for more flexibility. HSS TIALN blades, reversible with two cutting edges guarantee optimal lifetime of consumables.

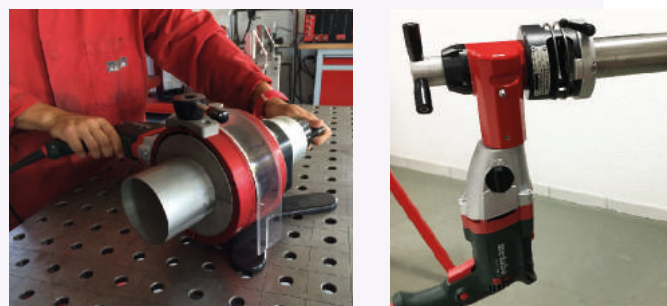
### QUALITY

Facing creates a clean and burr-free surface without tube deformation: sharpness and accuracy guaranteed.

Thin tube are therefore ready for welding.

### PORTABILITY

Our facing machines are lightweight and designed to be used on site as well as in the workshop.



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

We will be glad to share our know-how with you and find an adapted solution to your needs!





**DC25 MA - DC65 MA****High quality blades**

HSS TIALN blade  
Reversible,  
two cutting edges

**Clamping shells**

Stainless steel molded  
jaws

**Easy adjustment**

Indexable wrist and  
wide opening with  
spring

**Brushless motor 18V**

- 2 mechanical speeds + electric speed variator
- Special handy design
- Work without return shock
- Integrated work lamp
- Comes with two 5.2 AH battery, LiHD technology, maximum autonomy

**AXXAIR**

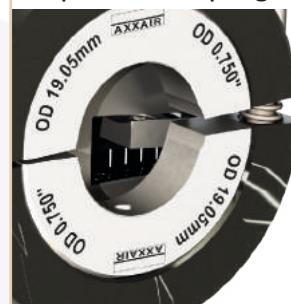
INNOVATIVE ORBITAL SOLUTIONS

**Accurate manual advance**

Graduated vernier  
scale

**Easy set up of the tube**

Large opening and  
pivot clamping

**Delivered in an anti-shock case**

Water- and dustproof

**Facing range**

DC25-MA	ø3 - ø25.4 mm 0.1 - 1"
DC65-MA	ø3 - ø63.5 mm 0.1 - 2.5"



## DC25 MA - DC65 MA

### Technical characteristics:

**Thickness < 3 mm (0,12") according to material**

Burr-free tube squaring and edge breaking machine used after a band saw cut or on electropolished tubes. Ideal tool to face a band saw cut before automatic welding

#### 18 V Drill / Driver motor:

- 220-240 V ~ 50 / 60Hz or 100-120V ~ 60Hz
- High rotation torque
- Rugged reduction housing which allows heat dissipation and optimal durability
- Come with two 18V Li-Power, 5.2 Ah batteries and a fast battery charger
- 2 mechanical speeds + electric speed variator :

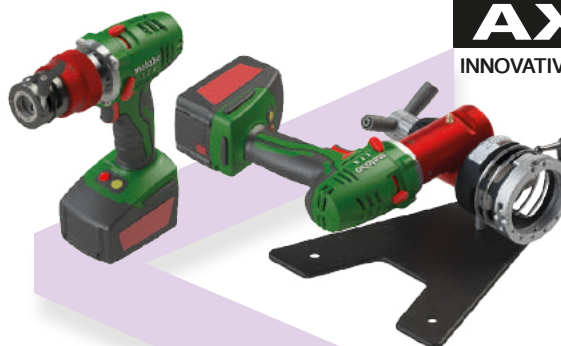
Speed 1 : 0-500 tr/min (rpm)

Speed 2 : 0-1700 tr/min (rpm)

All motors are supplied in their own individual cases, including the necessary tools

#### DC25

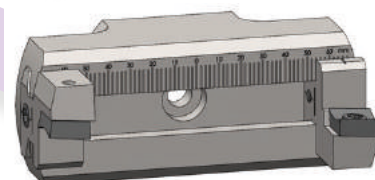
There are two mounting positions for the blade to cover the range of diameter.



#### DC65

Adjustment of the tool support by sliding: allows easy adjustment according to diameter and optimization of tool wear.

- 30° and 45° outside bevel possible with optional tool holder
- Facing and bevelling in one operation
- Possibility to use two tools simultaneously



#### DC65 : Flexible use



	Product Code	Facing machine for the following diameters (mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
120 V Drill / Driver	DC25-MA1	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	285 x 220 x 75
	DC65-MA1	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	140 x 325 x 250
230 V Drill / Driver	DC25-MA2	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	285 x 220 x 75
	DC65-MA2	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	140 x 325 x 250



# DC25 MS - DC65 MS

## High quality blades

HSS TIALN blade  
Reversible,  
two cutting edges



## Clamping shells

Stainless steel molded  
jaws



## Easy adjustment

Indexable wrist and  
wide opening with  
spring



## Mains motor, 1100 W

- 2 mechanical speeds + electric speed variator
- Special handy design
- Work without return shock
- Rugged reduction housing which allows heat dissipation and optimal durability

# AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

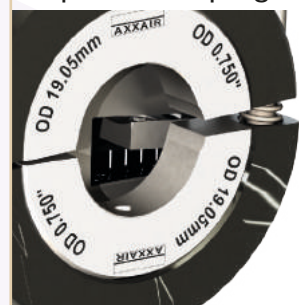
## Accurate manual advance

Graduated vernier  
scale



## Easy set up of the tube

Large opening and  
pivot clamping



## Delivered in an anti-shock case

Water- and dustproof



## Facing range

DC25-MS	ø3 - ø25.4 mm 0.1 - 1"
DC65-MS	ø3 - ø63.5 mm 0.1 - 2.5"





## DC25 MS - DC65 MS

### Technical characteristics:

**Thickness < 3 mm (0,12") according to material**

Burr-free tube squaring and edge breaking machine used after a band saw cut or on electropolished tubes. Ideal tool to face a band saw cut before automatic welding

#### Mains motor 1100 W:

- 220-240 V ~ 50 / 60Hz **or**
- 100-120V ~ 60Hz
- High rotation torque
- Two speed gearbox with variable speed drive
- High quality speed controller
- Immobilizer protection
- Housing reducer in cast aluminum

- 2 mechanical speeds + electric speed variator :
- Speed 1 : 0-1000 tr/min (rpm)
- Speed 2 : 0-3100 tr/min (rpm)

All motors are supplied in their own individual cases, including the necessary tools

#### DC25

There are two mounting positions for the blade to cover the range of diameter.



#### DC65

Adjustment of the tool support by sliding: allows easy adjustment according to diameter and optimization of tool wear.

- 30° and 45° outside bevel possible with optional tool holder
- Facing and bevelling in one operation
- Possibility to use two tools simultaneously

#### DC65 : Flexible use



	Product Code	Facing machine for the following diameters (in mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
1100W 120 V	DC25-MS1	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	300x 370 x 76
Mains motor	DC65-MS1	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	132 x 345 x 340
1100W 230 V	DC25-MS2	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	300x 370 x 76
Mains motor	DC65-MS2	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	132 x 345 x 340



Join **experience**



**DC115-AM - 221-AM****AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

**Clamping shells**

DC115 : Stainless steel clamping jaws

DC221 : Aluminium clamping jaws

**Accurate manual advance**

0.1 mm steps  
(0,0393")

**30° and 45° outside bevel**

possible with  
optional tool holder

**Easy set up of of tube**

1 set of jaws for each  
diameter

**Multi-tools**

Possibility to use  
two (DC115)  
or three (DC221)  
tools simultaneously

Sliding adjustment of  
tool holder offers easy  
diameter change and  
optimal tip wearing

**Delivered in a wooden box****1100 W motor**

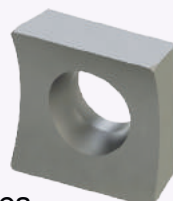
Motor mains 1100W with large  
speed range (2 gears)

Screw and wheel drive to  
optimize the speed range and  
eliminate vibrations

**High quality blades**

HSS TIALN  
blade.

Reversible,  
two cutting edges

**Facing range**

DC115 AM	ø12 - ø115 mm 0.5" - 4.5"
DC221 AM	ø50 - ø220 mm 2" - 8.5"

# DC115-AM - 221-AM

## Technical characteristics:

**Thickness < 3 mm (0,12") according to material**

Burr-free tube squaring and edge breaking machine used after a band saw cut or on electropolished tubes. Ideal tool to face a band saw cut before automatic welding

- Accurate manual advance: 4/1000" (0,1 mm) step graduation
- Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing
- 30° and 45° outside edge breaking possible with optional tool holder
- Squaring and edge breaking in one operation

All motors are supplied in their own individual cases, including the necessary tools



**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

- **Motor 1100W**, large speed range (2 gears): Screw and wheel drive to optimize the speed range and eliminate vibrations



	Product Code	Facing machine for the following diameters (in mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
120V Moteur 1100W	DC115-AM1	Ø12 - Ø115 0.5" - 4.5"	11 kg	28 mm 1.102"	219x314x462
	DC221-AM1	Ø50 - Ø220 2" - 8.5 "	21 kg	39 mm 1.535"	327x425x540
230 V Moteur 1100W	DC 115-AM2	Ø12 - Ø115 0.5" - 4.5"	11 kg	28 mm 1.102"	219x314x462
	DC221- AM2	Ø50 - Ø220 2" - 8.5 "	21 kg	39 mm 1.535"	327x425x540





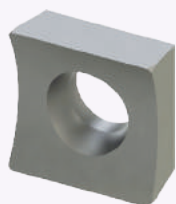
**DC115-BM - 221-BM****AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

**Stainless steel concentric jaws**

DC115 : 4 Stainless steel concentric jaws

DC221 : 6 Stainless steel concentric jaws

**High quality blades**HSS TIALN blade  
Reversible,  
two cutting edges**Accurate manual advance**

0.1 mm steps

**Bench mounting option****1100 W motor**Mains motor 1100W with large speed range (2 gears)  
Screw and wheel drive to optimize the speed range and eliminate vibrations**Multi-tools**

Possibility to use two (DC115) or three (DC221) tools simultaneously

Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing

**30° and 45° outside bevel**

possible with optional tool holder

**Delivered in a wooden box****Facing range**

DC115 BM	ø12 - ø115 mm 0.5" - 4.5"
DC221 BM	ø50 - ø220 mm 2 - 8.5 "



# DC115-BM - 221-BM

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## Technical characteristics:

**Thickness < 3 mm (0,12") according to material**

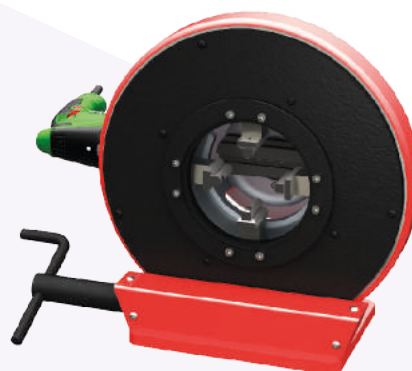
Burr-free tube squaring and edge breaking machine used after a band saw cut or on electropolished tubes. Ideal tool to face a band saw cut before automatic welding

- Accurate manual advance: 4/1000" (0,1 mm) step graduation
- Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing
- 30° and 45° outside bevel possible with optional tool holder
- Squaring and beveling in one operation
- Possibility to use two (DC115) or three (DC221) tools simultaneously
- Delivered in high quality protection case

All motors are supplied in their own individual cases, including the necessary tools



Wide range of use with stainless steel concentric clamping for all diameters



	Product Code	Facing machine for the following diameters (in mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
120V Moteur 1100 W	DC115-BM1	Ø12 - Ø115 0.5" - 4.5"	37 kg	58 mm 2.283"	219x314x462
	DC221-BM1	Ø50 - Ø220 2" - 8.5 "	55 kg	62 mm 2.440"	327x425x540
230 V Moteur 1100 W	DC 115-BM2	Ø12 - Ø115 0.5" - 4.5"	37 kg	58 mm 2.283"	219x314x462
	DC221- BM2	Ø50 - Ø220 2" - 8.5 "	55 kg	62 mm 2.440"	327x425x540



# Orbital Facing - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our support benches help you to position and feed your tubes without the aid of stands.

The height-adjustable table helps you easily and precisely set the height of your machine, for facing the tubes placed on the support bench.

The additional tube support bench allows you to position your longest tubes in a stable manner on all benches.



Product Code	Description	Net Weight	Dimensions (in cm)
CCBSB-X1	Height-adjustable tube support bench	57 kg	184 x 95 x 51
Height-adjustable support bench, 1.5 m : - stainless steel rollers - height adjustment handle - maximum load 350 kg uniformly distributed - min tube ø: 5 mm - max tube ø: 321 mm			

DC25-MA

DC65-MA

DC25-MS

DC65-MS

DC115-AM

DC221-AM

✓DC115-BM

✓DC221-BM



Product Code	Description	Net weight	Dimensions (in cm)
CCBSB-X2	Additional support bench	38 kg	150 x 95 x 51
Additional tube support bench, 1.5 m : - stainless steel rollers - maximum load 350 kg uniformly distributed - min tube ø: 5 mm - max tube ø: 321 mm			

DC25-MA

DC65-MA

DC25-MS

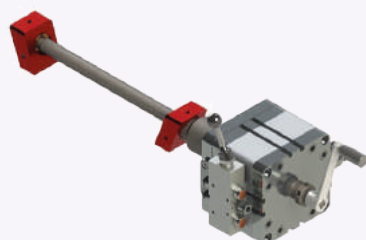
DC65-MS

DC115-AM

DC221-AM

✓DC115-BM

✓DC221-BM



Product Code	Description	Net weight	Dimensions (in cm)
CCSA21	Pneumatic clamping	8.2 kg	560 x 200 x 190
Pneumatic clamping for DC115-BM / DC221-BM			

DC25-MA

DC65-MA

DC25-MS

DC65-MS

DC115AM

DC221AM

✓DC115BM

✓DC221BM







# Orbital Facing - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



## Clamping jaws

Clamping jaws for orbital facing machines:

A set of jaws is necessary for each outside diameter of tube to be machined

For machine	Product Code	Diameter of the tube	
DC25	DCM25-XX	3 mm à 25.4 mm	1/8" - 1"
DC65	DCM65-XX	3 mm à 63.5 mm	1/8" - 2.5"
DC115	DCM115-XXX	12 mm à 115 mm	1/2" - 4.5"
DC221	DCM221-XXX	50 mm à 220 mm	2" - 8.5"

✓ DC25-MA

✓ DC65-MA

✓ DC25-MS

✓ DC65-MS

✓ DC115-AM

✓ DC221-AM

DC115-BM

DC221-BM



## Jaws for micro-fitting

Stainless steel micro-fitting jaws for DC25 ONLY

- Straight length : 4,3 mm mini

Product Code	Diameter of the tube	
DCM25-MF03.18	3,18 mm	1/8 "
DCM25-MF06.00	6 mm	0.236"
DCM25-MF06.35	6.35mm	1/4 "
DCM25-MF08.00	8.00 mm	0.315 "
DCM25-MF10.00	10.00 mm	0.394 "
DCM25-MF12.00	12.00 mm	0.472 "
DCM25-MF12.70	12.7 mm	1/2 "

✓ DC25-MA

DC65-MS

✓ DC25-MA

DC65-MS

DC115-AM

DC221-AM

DC115-BM

DC221-BM





# Orbital Facing - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product Code	Description	Net weight	Dimensions (in mm)
DCM6525	Spacer	0.022 kg	Ø 76

Spacer for fitting DC25 jaws on a DC65

DC25-MA	✓ DC65-MA	DC25-MS	✓ DC65-MS	DC115-AM	DC221-AM	DC115-BM	DC221-BM
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Product Code	Description	Net weight	Dimensions (in mm)
DC65-P300	Tool holder for bevelling	0.028 kg	22 x 13 x 28.5

Tool holder for breaking the corner at 30° :

- Tool holders are supplied without blades
- Corner breaking is possible on the whole machine's range
- Possibility to face the tube and break the corner at the same time on the whole machines' ranges\*

**\*exemption for the DC65:**

- If facing and breaking corners at the same time: reduced range : 20 - 53 mm

DC25-MA	✓ DC65-MA	DC25-MS	✓ DC65-MS	✓ DC115-AM	✓ DC221-AM	✓ DC115-BM	✓ DC221-BM
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Product Code	Description	Net weight	Dimensions (in mm)
DC65-P450	Tool holder for bevelling	0.026 kg	22 x 12.5 x 28.5

Tool holder for breaking the corner at 45° :

- Tool holders are supplied without blades
- Corner breaking is possible on the whole machine's range
- Possibility to face the tube and break the corner at the same time on the whole machines' ranges\*

**\*exemption for the DC65:**

- If facing and breaking corners at the same time: reduced range : 20 - 53 mm

DC25-MA	✓ DC65-MA	DC25-MS	✓ DC65-MS	✓ DC115-AM	✓ DC221-AM	✓ DC115-BM	✓ DC221-BM
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# Orbital Facing - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our HSS TIALN blades assure a high quality burr-free tube squaring.

They are reversible and have two cutting edges.

It does not alter the nature of the material. There is less wear on the insert, thanks to the cleanness of the process.



Product Code	Description	Net weight	Dimensions (in mm)
DC-OUT1	Box of 10 blades	0.028 kg	12.5 x 40 x 100

HSS TIALN blade (box of 10 blades) :

- HSS TIALN (High Speed Steel) for working steel with a high speed

✓ DC25-MA

✓ DC65-MA

✓ DC25-MS

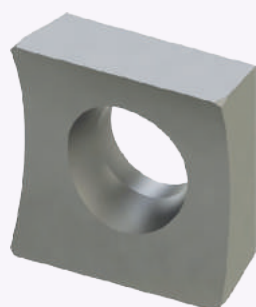
✓ DC65-MS

✓ DC115-AM

✓ DC221-AM

✓ DC115-BM

✓ DC221-BM



Product Code	Description	Net weight	Dimensions (in mm)
DC-UOUT1	Blade (single unit)	0.022 kg	4 x 9.5 x 9.5

HSS TIALN blade (single unit) :

- HSS TIALN (High Speed Steel) for working steel with a high speed

✓ DC25-MA

✓ DC65-MA

✓ DC25-MS

✓ DC65-MS

✓ DC115-AM

✓ DC221-AM

✓ DC115-BM

✓ DC221-BM





## Orbital welding (Prefabrication)

**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

Orbital welding involves rotating a Tungsten electrode around a tube to weld it to other tubes or accessories.

Our welding range incorporates a unique and atypical orbital welding machine for so-called "prefab" because it cannot be brought to the tube, it is the tube that is brought to the machine.

It is an axial loading machine which involves being able to pull out the tube as well as the welded accessory.



These machines that use standard cutting and bevelling frames have the advantage of being very robust and easy to use.

In fact, the SX range is mainly intended for workshop or building site prefabrication use. These machines are also used to carry out repeatable production welding on suitable elements.

Our machines can all be equipped with either an air-cooled torch or a water-cooled torch, with or without filler metal.

### FLEXIBILITY, PRODUCTIVITY

Welding with a water or air cooled torch with or without filler metal. It allows production of medium to large series of welding sub-assemblies. The diameter range of each machine is very wide and does not require specific jaws.

### QUALITY AND REPEATABILITY

TIG welding without tube distortion (multi-contact concentric clamping) ideal for thin walled stainless steel tubes. Mechanical tracking and axial adjustment optimize the quality of your welds.

### EASY TO USE

Robust and intuitive, it is adapted to any operator profile.



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!



**SX122 - 172 - 222 - 322****AXXAIR**

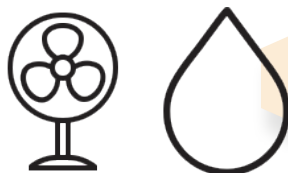
INNOVATIVE ORBITAL SOLUTIONS

**No tube deformation**

Concentric clamping



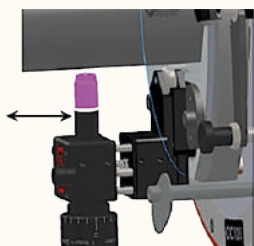
Basic and extra stainless steel jaws: no pollution of stainless steel tubes

**Air Cooled or Water Cooled****Rotating**

Connect to the SAXX range welding power sources

**Accurate positioning****Axial adjustment of**

the electrode position: facilitates location of the parts to be welded  
Adjustment of the tube's axial position +/- 5 mm

**Constant distance: electrode-tube**

Mechanical tracking of tube ovalization from the outside.

**Micrometric adjustment of the height of the arc**

Accuracy of adjustment without specific tooling

**Easy handling and transportation****Compatible with the SAXX power sources****Opening capacity**

122	ø12 - ø119 mm 0.25" - 4.5"
172	ø16 - ø173 mm 0.625" - 6.625"
222	55 - ø228 mm 2.375" - 8.625"
322	ø141 mm - ø328 mm 5.563" - 12.750"



# SX122 - 172 - 222 - 322

**AXXAIR**  
 INNOVATIVE ORBITAL SOLUTIONS

## Technical characteristics:

Machines for TIG orbital prefab welding.

Choice of: AIR cooling or WATER cooling

For optimum use, the ambient temperature must be between 0 °C and + 40 °C.

Compatible with AXXAIR's SAXX orbital power sources that have an automatic parameter calculation mode.

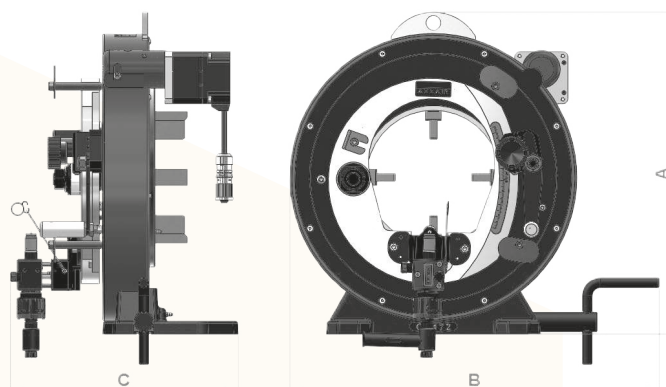
The power source will offer you parameters adapted to the characteristics of the tubes / accessories to be welded.

The machine can be supplemented by a wire feed system. For details, please refer to accessories.

*For welding with an AVC / OSC system please refer to the catalogue for thick walled tubes.*



Model	100% Duty cycle
SX-xx2-E (WATER)	200 A
SX-xx2-A (AIR)	100 A



	Product Code	Machine's jaw opening capacity in mm		Net weight	Dimensions (AxBxC in mm)
		With basic jaws	With extra jaws (included)		
Cooling AIR	SX122-A	Ø29 - Ø119	Ø12 - Ø99	45 kg	446 x 541 x 350
	SX172-A	Ø74 - Ø173	Ø16 - Ø116	52 kg	493 x 566 x 350
	SX222-A	Ø128 - Ø228	Ø55 - Ø155	60 kg	548 x 594 x 350
	SX322-A	Ø230 - Ø328	Ø141 - Ø239	73 kg	649 x 644 x 350
Cooling WATER	SX122-E	Ø29 - Ø119	Ø12 - Ø99	45 kg	446 x 541 x 350
	SX172-E	Ø74 - Ø173	Ø16 - Ø116	52 kg	493 x 566 x 350
	SX222-E	Ø128 - Ø228	Ø55 - Ø155	60 kg	548 x 594 x 350
	SX322-E	Ø230 - Ø328	Ø141 - Ø239	73 kg	649 x 644 x 350





# Orbital welding (Prefab) - Accessories

Our support legs and stands have been designed to further facilitate welding by ensuring that the machine is stable in varied conditions: in the workshop or on site.

The great advantages of these products are:

- lightness
- flexible handling
- ease of use



Product Code	Description	Net weight	Dimensions (in cm)
CCPS21	Support legs	10 kg	103 x 32 x 11

Support legs for orbital welding machine:

- quick assembly and dismantling
- height adjustment with screws

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E



Product Code	Description	Net weight	Dimensions (in cm)
CCSER1	Stand	10 kg	60 x 26 x 10

Simple stand for supporting tubes with height adjustment:

- quick assembly and dismantling
- height adjustment

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E



Product Code	Description	Net weight	Dimensions (in cm)
CCSER2	Stand (with chrome steel bearings)	11 kg	60 x 26 x 10

Stand with chrome steel bearings for supporting tubes with height adjustment:

- quick assembly and dismantling
- height adjustment

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E

# Orbital welding (Prefab) - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our support benches help you to position and feed your tubes without the aid of stands. The height-adjustable table helps you easily and precisely set the height of your machine, for welding tubes placed on the support bench.

The additional tube support bench allows you to position your longest tubes in a stable manner on all benches. We also recommend that you support the cut section in front of your machine using one or more additional benches, depending on the length of the tube.



Product Code	Description	Net weight	Dimensions (in cm)
CCBSB-X1	Heightadjustable tube support bench	57 kg	184 x 95 x 51
Height-adjustable support bench, 1.5m: - stainless steel rollers - height adjustment handle - maximum load 350 kg - min tube ø: 5 mm - max tube ø: 321 mm			

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E



Product Code	Description	Net weight	Dimensions (in cm)
CCBSB-X2	Additional support bench	38 kg	150 x 95 x 51
Additional tube support bench: - stainless steel rollers - 1.5 m long - maximum load 350 kg - min tube ø: 5 mm - max tube ø: 321 mm			

✓ SX122-A

✓ SX172-A

✓ SX222-A

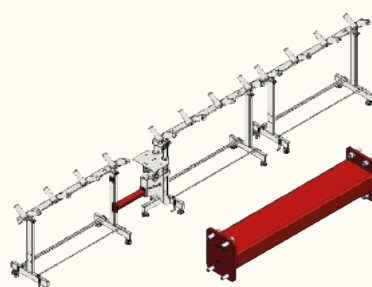
✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E



Product Code	Description	Net weight	Dimensions (in mm)
CCBSB-B005	Connecting bar	3 kg	100 x 80 x 402
Connecting bar for CCBSB-X1 and CCBSB-X2: - Allows the height-adjustable table to be connected to a bench placed in front of the machine			

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

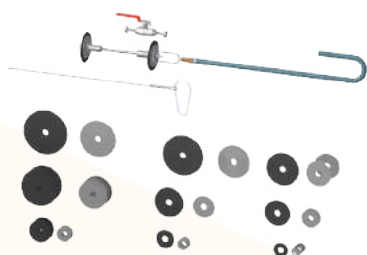
✓ SX322-E



## Orbital welding (Prefab) - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product Code	Description	Net weight	Packaging (in cm)
SKIF-01	Gas protection KIT	4.5 kg	35 x 30 x 9.5

Gas membrane protection KIT for tubes Ø 40 to 120 mm

- consists of: 9 sets of membranes with washers, 1 gas pipe 6 m, 1 metal cable, 1 ¼ turn gas valve, 1 carabiner

*Inerting the tubes during welding allows more gas savings as we only inert the area to be welded.*

✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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Product Code	Description	Net weight	Packaging (in cm)
SKIB-01	Gas protection KIT	1.7 kg	35 x 30 x 9.5

Gas plug protection KIT for tubes Ø 6 to 41 mm

- Consists of: 10 sets of perforated plugs, 1 gas inlet connector, 1 hose Ø 4/6 length 5 metres

*Facilitates and accelerates inerting. Avoids the use of adhesive paper.*

✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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Product Code	Description	Net weight	Dimensions (in mm)
SADFP-02	Wire guide	0.05 kg	51 x 90 x 65

Wire guide for SX

✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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Product Code	Description	Net weight	Dimensions (in cm)
SADFP2X	Wire dispenser	12 kg	59.7 x 38.4 x 24

Wire Dispenser for SAXX, cable sheath 5 m max:

- Supplied with SAXX power supply-connection cable and teflon sheath to guide the wire  
- Drive pressure adjusted by adjustable spring, with handle.

✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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# Orbital welding (Prefab) - Accessories

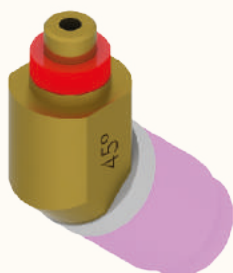
**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product Code	Description	Net weight	Plastic box (in cm)
SKTDI-30	Inclined torch	0.3 kg	12 x 17.5 x 4
<u>30° inclined torch kit</u>			

✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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Product Code	Description	Net weight	Plastic box (in cm)
SKTDI-45	Inclined torch	0.3 kg	12 x 17.5 x 4
<u>45° inclined torch kit</u>			

✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## Accessories (electric clamping)



You realize **important series** in your company and want to be more effective during your projects? Our electric clamping is the ideal answer for the preparation and / or welding of your tubes.

The electric clamping makes it possible to carry out a **repetitive and constant force tightening** on tubes with identical diameters and thicknesses. The **clamping force is adjustable**, it prevents the tubes from being deformed or marked.

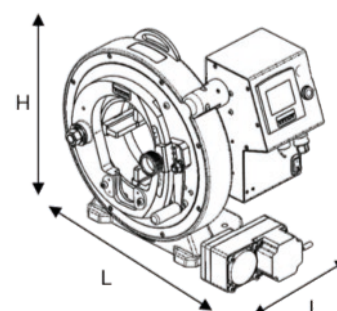
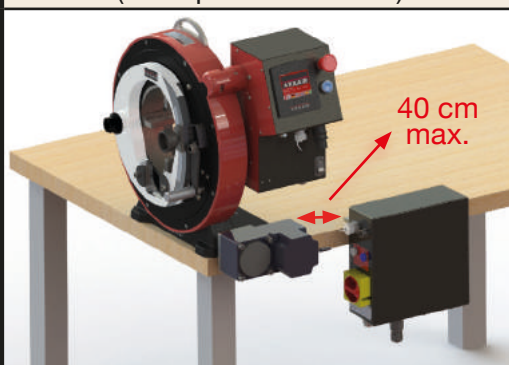
### Technical specifications:

- 24Vdc brushless motor, motor torque: 34N.m
- Tightening force on the tube: 850 kg maximum, adjustable from 15 to 100%
- Clamping speed: 86 mm / min (diameter)
- The electric clamping is sold with the body frame and the automatic rotation

Fixation on an AXXAIR support bench



Fixation on an other support (example: workbench)



Product code	Body frame, automatic rotation and electric clamping Machine's jaw opening capacity in mm		Net weight	Dimensions (HxLxI in mm)
	With basic jaws	With extra jaws (included)		
122-AU	Ø29 - Ø119	Ø5 - Ø99	51 kg	470 x 498 x 359
172-AU	Ø74 - Ø173	Ø16 - Ø116	58 kg	520 x 530 x 359
222-AU	Ø128 - Ø228	Ø55 - Ø155	66 kg	575 x 575 x 359
322-AU	Ø230 - Ø328	Ø141 - Ø239	80 kg	675 x 662 x 359

**Caution:** Remember to order one or more motors (cutting, beveling or welding torch) and the consumables needed with the sets listed above.

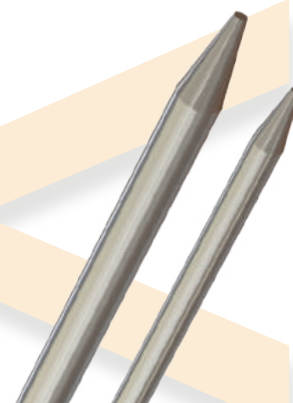
**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

**Orbital welding (Prefab) - Consumables**

Our electrodes are specifically sharpened at 20° with a flat.

This increases the life of the electrodes.



Product Code	Description	Net weight	Plastic box (cm)
SCE16-50	Electrodes	0.02 kg	5.5 x 4.5 x 1

Electrode diameter **1.6 mm**, length 50mm

- Box of 10 electrodes

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E



Product Code	Description	Net weight	Plastic box (cm)
SCE24-50	Electrodes	0.05 kg	5.5 x 4.5 x 1

Electrode diameter **2.4 mm**, length 50mm

- Box of 10 electrodes

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E



Product Code	Description	Net weight	Plastic box (cm)
SKTD-xx	Replacement torch	0.3 kg	12 x 17.5 x 4

Replacement kit for straight torch **Ø 1.6 mm or Ø 2.4**

- consists of: 5 nozzles, 2 plugs 9/20, 2 long electrode clamps, 10 electrodes (Ø 1.6 mm **or** Ø 2.4) and 2 mesh diffusers

Ø electrode	Kit Product Code
1.6 mm	SKTD-01
2.4 mm	SKTD-02

✓ SX122-A

✓ SX172-A

✓ SX222-A

✓ SX322-A

✓ SX122-E

✓ SX172-E

✓ SX222-E

✓ SX322-E





# 1 machine - 3 applications

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

The AXXAIR Group was the first to offer a triple and exclusive solution, from preparation to orbital welding:

## global process

For more than 20 years, a single machine frame (122, 172, 222 and 322) has enabled three operations to be carried out:

cutting, bevelling and orbital welding

## BUT CAUTION,

The SX-xx2 machine is dedicated to prefab welding. Its automatic rotation allows only orbital welding work.

To use the machine frame for several operations (prefab welding, cutting and / or bevelling), **a cutting or bevelling machine must be ordered with the welding KIT adapted to your needs.**

You will find all the information in the relevant catalogues.



Join **experience**

## Orbital Welding (Microfit closed heads)

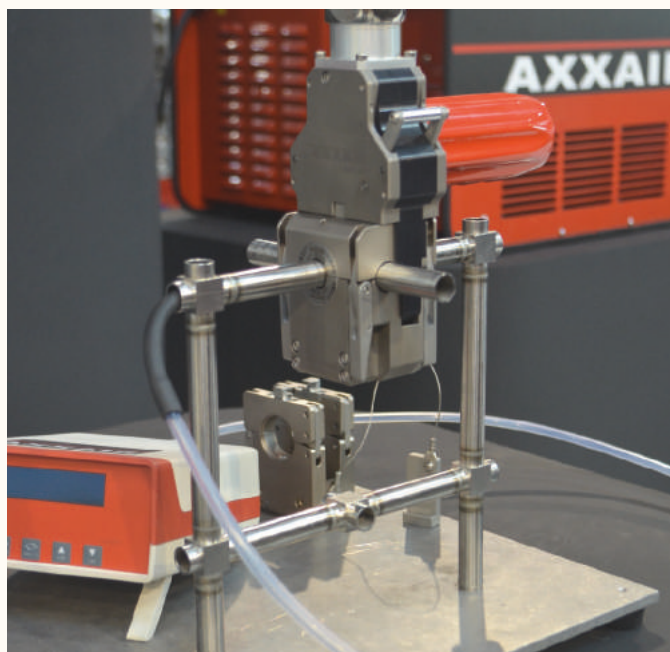
**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

The Microfitting Series has been designed to weld small diameters tubing and fittings mainly in the semiconductor industry.

This head is a cassette system which allows first to position the parts to be welded in the cassette that is a clamping feature. Once centered and positioned correctly, the welding head is slid in the cassette to correctly position the electrode to the surface to be welded.

The cassette combinations are multiple depending on the type of parts to be welded, tube-tube, tube-union elbow, union elbow-union elbow for example.



The automatic welding cycle can then be started directly through the start button on the motor handle of the head.

The SAXX-200 air cooled is the perfect combination with the SXMF heads to control all steps of the welding cycle. You can refer on all SAXX power sources advantages in the section SAXX power sources.

The SAXX offers functions such as dual digital gas control, auto-calculation of the parameters, compatible competitor head control, USB memory stick, welding data acquisition.

### FLEXIBILITY, PRODUCTIVITY

Productivity remains our primary concern. AXXAIR's cassettes have been designed to fit various configurations of different parts to be welded and the weld heads provides high duty cycles.

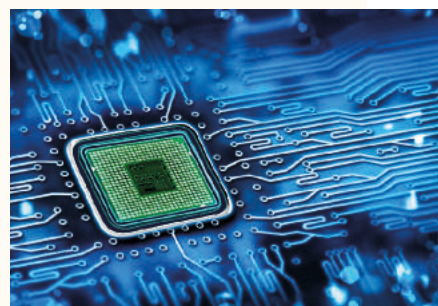
### QUALITY AND REPEATABILITY

The SMMF range allows optimum tube positioning 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 significantly reduced.

Our welding cable, housed in an ultra flexible and very resistant protective sheath, also facilitates manipulation of the welding head.



Do not hesitate to contact us for your demands as the applications can be various and the welding configurations multiple.

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



## SXMF-17

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

### AIR cooled

The aluminium hosing on each side of the head protect but also help to evacuate more heat

### Compact and light

Weight: 4.5 kg with cable

### Thermal shield

We shield the electrode surrounding on the rotor as it is very exposed

### Compatible with SAXX power sources



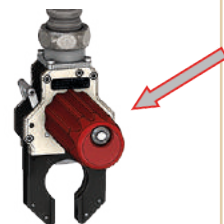
### Transport

These heads are delivered in their work site case



### Cycle start button

Starting the welding cycle or TEST mode



### Cassette locking lever

Allows a stable hold of the cassette when it is placed on the head. Compatible Swagelock cassettes, please contact us

### Body with inclined contact surfaces

Allows easy removal of the cassette even when it is hot

### Welding range

SXMF-17	$\varnothing 3 \text{ mm} - \varnothing 17.2 \text{ mm}$ $1/8'' - 5/8''$
---------	---





## SXMF-17

### Technical characteristics:

Maximum welding current for a duty cycle of 35%	70 A
Maximum welding current for a duty cycle of 50%	55 A
Maximum welding current	80 A

- Cable length: 16 feet / 5 meters
- Operating temperature: 32°F to 104°F (0°C to 40 °C)

The SXMF-17 is a cassette type orbital welding head. It is controlled by AXXAIR's power sources. The air cooled SAXX-200 orbital power supply is recommended.

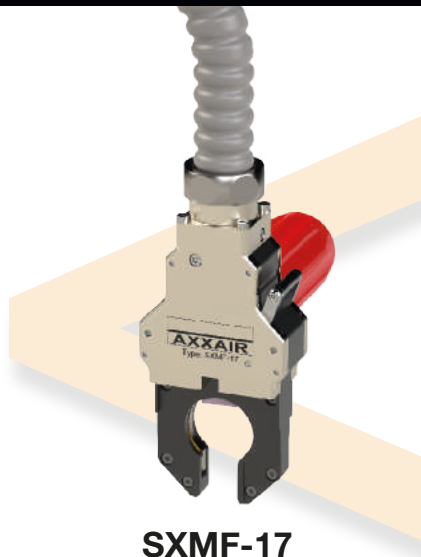


The SXMF-17 machine can weld different tube configurations (Tube/Tube – Tube/elbow union– Fitting/Fitting - ...), 3 cassettes and various accessories are available.

Please refer to the following pages in order to find the products' codes and sideplates' configurations.

The head SXMF-17 is delivered with:

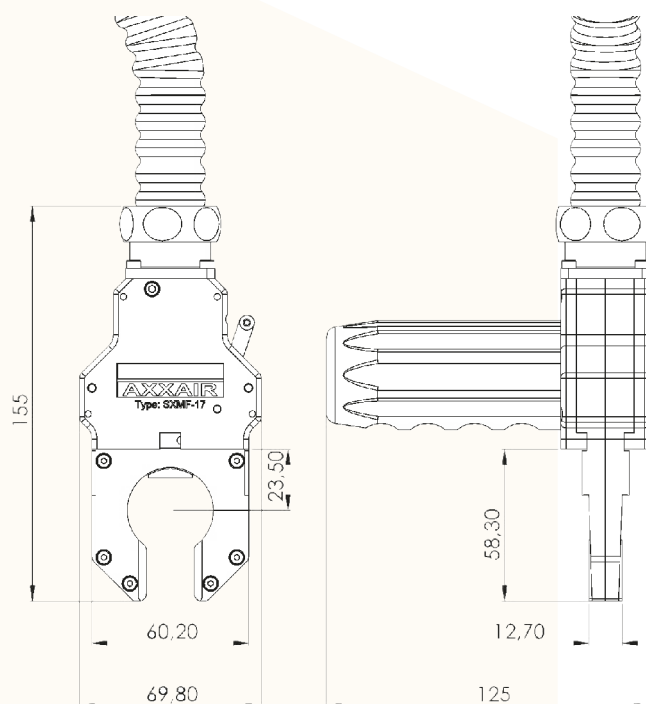
- A transport case
- Tool to set up the tungsten
- Tool to adjust the tungsten
- Tool to set up the collets
- User manual



**SXMF-17**



**SXMF-17  
with mounted cassette**



Length of the cable	Product code	Description	Tube welding machine for:	Diameter electrode	Weight without cable	Dimensions
5 m	SXMF-17-05	Microfit closed welding head	1/8" to 5/8" mm ø 3 - ø17.2 mm	0.040» Ø1.0 mm	1.4 lbs. (0.6 kg)	See above
<b>NEW</b> 10 m	SXMF-17-10					
<b>NEW</b> 15 m	SXMF-17-15					



Join **experience**



## AXXAIR Sideplates for SXMF-17

**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

The cassettes offer multiple weld configurations and can be combined accordingly. Thus you will have complete cassettes such as our tube-tube cassettes but for the other configurations of the cassettes will have to choose as a kit of left Side plate and right side plate to the central body.

They have a special treatment that offer a very good conductivity and hard surface finish for durability.

AXXAIR has 3 types of sideplates :

- Model «Standard» is used for tube clamping
- Model called «Large» for Fitting clamping
- Model called «Thin» to clamp tubes below 12.7 mm straight length .

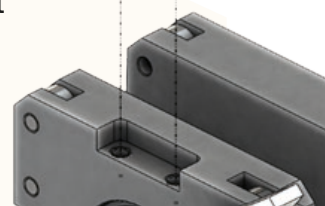
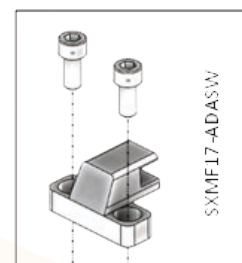
You always need the central body in combination of one of the side plates depending on what you are clamping. The combinations are multiple and the central body is mandatory in all combinations. You have to pay attention to have the clamping levers on the same side (always use one left and one right except for fitting where it does not matter).

Attention: sideplates will have different collets.

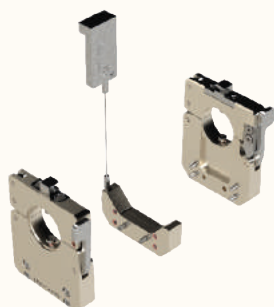


### Adaptable

In order to make your Swagelokcassettes compatible with the SXMF-17, AXXAIR has designed an adapter kit for the Swagelok cassettes.



### Flexible

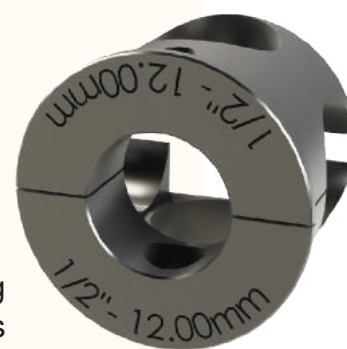


Combine the sideplates with the central body depending on your applications.

### Precise

Each cassette model of AXXAIR has its own references of jaws corresponding to the specific characteristics of the parts to be clamped.

All of AXXAIR's clamping collets made of stainless steel.



# Standard Cassettes & Sideplates

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

SXMf17-CA01



SXMf17-CAG01



SXMf17-CAD01

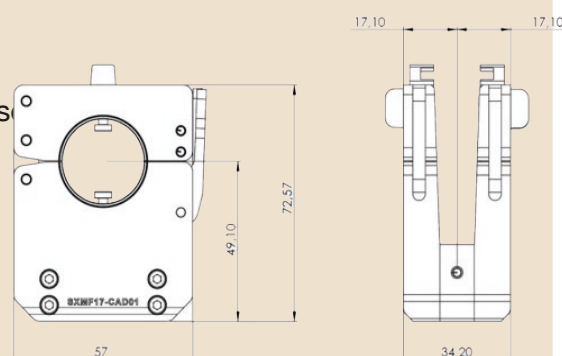


SXMf17-CAM01

## Standard cassette SXMf

Description	Product code
Standard Cassette SXMf Tube-Tube (complet kit)	SXMf17-CA01
Standard right sideplate	SXMf17-CAD01
Standard left sideplate	SXMf17-CAG01
Standard central body SXMf ( <b>common</b> to all siteplates)	SXMf17-CAM01

Recommended standard cassette SXMf for your microfit welds. Subsequently, the thin or wide sideplates can be ordered for specific welds.



Minimal straight length of the tube: 0.689» (17.50 mm)

## Collets for standard siteplates

Product code	Ø in inches		Product code	Ø in mm
SMX17-03.175	1/8		SMX17-03	3.00
SMX17-04.763	3/16		SMX17-04	4.00
SMX17-06.35	1/4		SMX17-05	5.00
SMX17-07.938	5/16		SMX17-06	6.00
SMX17-09.525	3/8		SMX17-08	8.00
SMX17-12.70	1/2		SMX17-09	9.00
SMX17-14.287	9/16		SMX17-10	10.00
SMX17-15.875	5/8		SMX17-11	11.00
These jaws (sold by 2) are compatible only with the standard siteplates			SMX17-12	12.00
			SMX17-14	14.00
			SMX17-15	15.00
			SMX17-16	16.00
			SMX17-17.2	17.20





# Wide Sideplate (right/left)

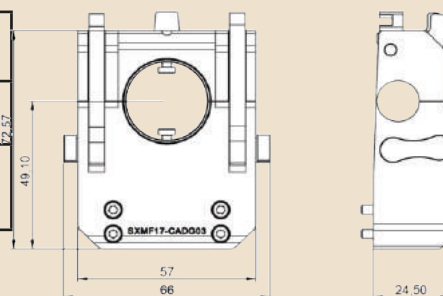
**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

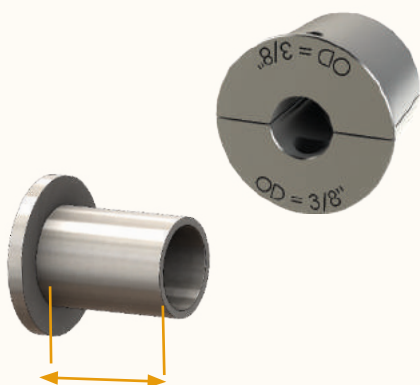


Wide siteplate (right and left) for SXMF

Description	Product code
Wide sideplate	SXMF17-CADG03
Standard central body SXMF (common to all siteplates)	SXMF17-CAM01



Wide to order to clamp the following fittings.



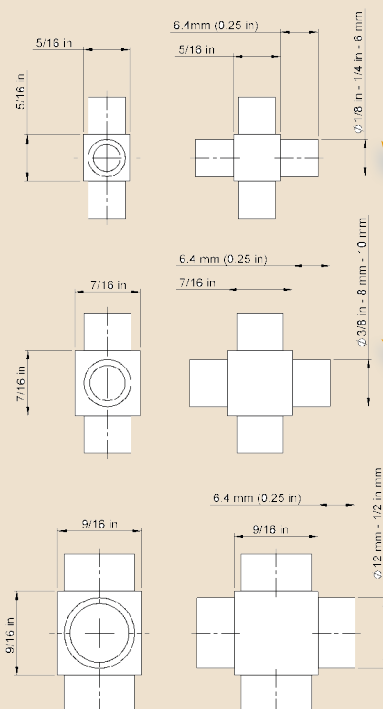
Minimal straight length of the welding piece: 1.189" (30.20 mm)

Tube collets for wide siteplate

Product code	Ø in inches	Product code	Ø in mm
SMX17-LT03.175	1/8	SMX17-LT03	3.00
SMX17-LT06.35	1/4	SMX17-LT06	6.00
SMX17-LT09.525	3/8	SMX17-LT08	8.00
SMX17-LT12.70	1/2	SMX17-LT10	10.00
SMX17-LT15.875	5/8	SMX17-LT12	12.00

These jaws (sold by 2) are compatible only with the wide siteplates

Fitting collets for wide siteplate

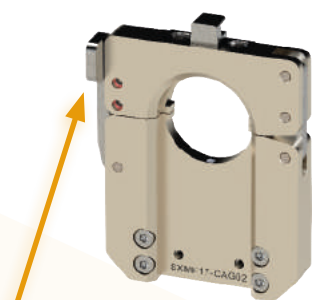


Product code	Fitting body size	Fitting type
SMX17-LRA	1/8 in, 1/4 in 6 mm	Body Union Elbow or
SMX17-LRB	3/8 in 8 mm 10 mm	Body Union Tee or
SMX17-LRC	1/2 in 12 mm	Body Union Cross

## Thin sideplates

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Left thin sideplate

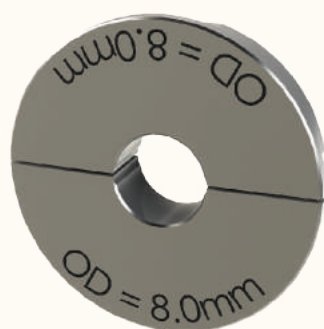
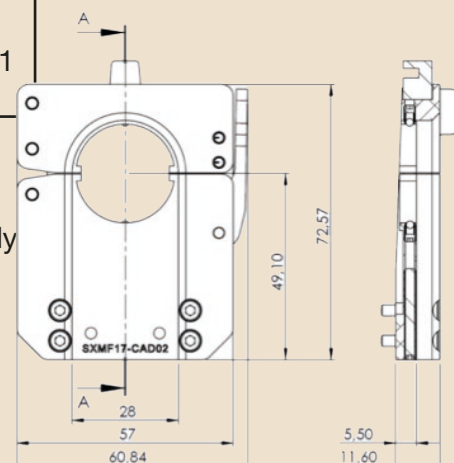


Right thin sideplate

### Thin siteplates

Description	Product code
Right thin sideplate	SXMF17-CAD02
Left thin sideplate	SXMF17-CAG02
Standard central body SXMF (common to all sideplates)	SXMF17-CAM01

It is possible to order the entire cassette assembly or only the right or left sideplates with the center body for a customized configuration.



Minimal straight length of the tube: 0.5» (12.70 mm)

### Collets for thin sideplates

Product code	Ø in inches		Product code	Ø in mm
SMX17-F03.175	1/8		SMX17-F03	3.00
SMX17-F06.35	1/4		SMX17-F06	6.00
SMX17-F09.525	3/8		SMX17-F08	8.00
SMX17-F12.70	1/2		SMX17-F12	12.00

These jaws (sold by 2) are only compatible with the thin sideplates



# Orbital welding (Microfit head) - Accessories

**AXXAIR**  
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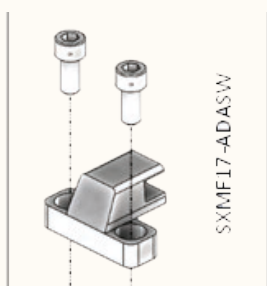

## Cable extension

Product code	Lenght	Net weight
SAFS-05MAX	5m	7 kg
SAFS-10MAX	10m	14 kg

The SXMF-17 machines is delivered with a cable of 5 metres

To increase the operating distance between the welding head and the SAXX power source, we offer cable extensions.

We strongly advise to be limited to one extension per head.

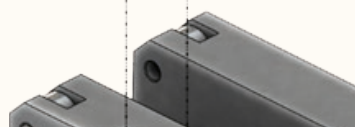


## Screw kit for Swagelok

Description	Product code
Adaption kit for Swagelok cassettes	SXMF17-ADASW

This kit also includes the screw tightening key (BTR 3/32 ").

Tightening torque of fixing screws: 0.5 Nm max.



# Orbital welding (Microfit head) - Consumables

## Electrodes for SXMF17

Product code	Outside diameter of the tube to be welded		Electrode lenght
	inches	mm	
SCE10-20.0	1/8, 3/16, 1/4	3, 6	20.0mm
SCE10-17.5	5/16, 3/8, 1/2	8, 10, 12	17.5 mm
SCE10-15.0	5/8, 9/16	14, 15, 16, 17.2	15.0mm

-A range of electrodes is available to meet the constraints of the SXMF-17 head:  
 - diameter of 0.040» (1,02mm) with the length adapted to the tube diameter.  
 - sold per pack of 10





## Orbital welding (Closed head)

**AXXAIR**

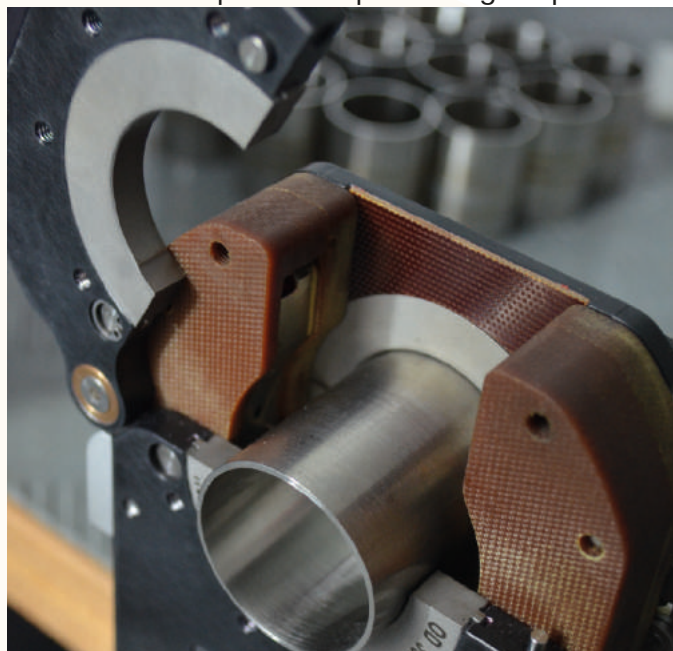
INNOVATIVE ORBITAL SOLUTIONS

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

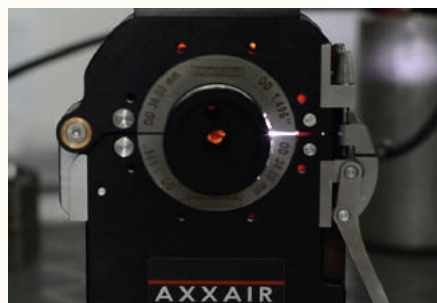
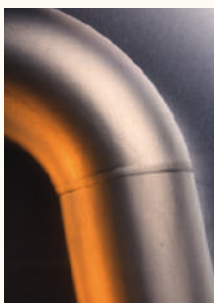
Productivity remains our primary concern. A liquid cooling circuit has been developed to increase the machine life cycle and also to allow a high welding rate.

### 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!



# SATF-40NDHX - 65NDHX - 115NDHX

**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

## Protection

High protection against arcing outside the electrode

## Thin walled tube welding

Up to 2.5 mm (3 mm in some cases)

## 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 power source



These heads can also be used on the former AXXAIR power sources with adapter cables

## Transport + suspension

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



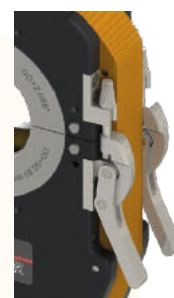
## Viewing window

Fixed and transparent as an 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



## Remote control keypad

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

## Welding range

SATF-40	ø 6 - ø 40 mm 0.25 - 1.5 "
SATF-65	ø 6 - ø 65 mm 0.25 - 2.5 "
SATF-115	ø 12 - ø 115 mm 0.5 - 4.5 "



Join **experience**



## SATF 40NDHX - 65NDHX - 115NDHX

**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS**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.

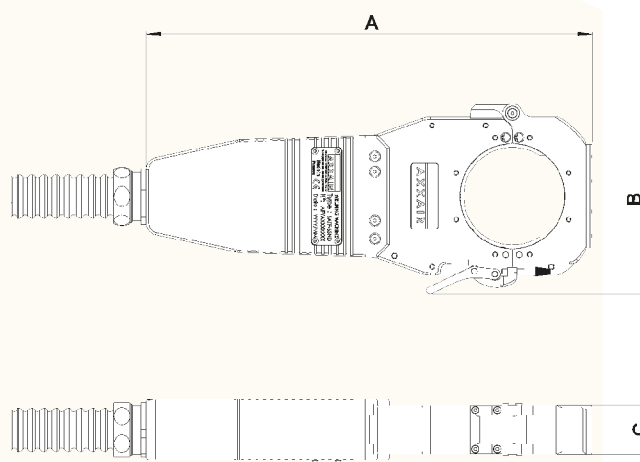
This cooling is essential to guarantee a long service life of the parts because it minimizes distortion effects due to expansion.

- 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	Dimensions (AxBxC in mm)
SATF-40NDHX	Water-cooled closed head for SAXX power sources	ø 6 to ø 40 mm	8.8 kg	336 x 122 x 40
SATF-65NDHX		ø 6 to ø 65 mm	9.2 kg	366 x 152 x 40
SATF-115NDHX		<b>NEW</b> ø 12 à ø 115 mm	9.9 kg	421 x 222 x 40





# SATF 40MIH - 65MIH - 115MIH

Machines for AMI stations  
with original connectors

## Protection

High protection against  
arcing outside the  
electrode

## Thin walled tube welding

Up to 2.5 mm (3 mm in  
some cases)

## Power drive system with encoder

Allows STARTING IN ALL  
ANGULAR POSITIONS  
positions of the electrode

## Water cooled



Length of the cable:  
5 metres

## Compatible with AMI stations

AMI stations with  
auto-calibration of  
welding heads  
Generator type  
205, 207, and 217.

(Not compatible with  
227 and 415)

## Transport + suspension

These heads are delivered in their  
work site case and with a suspen-  
sion assembly



# AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

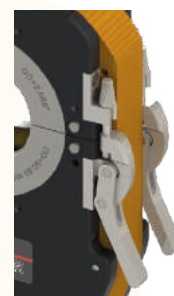
## Viewing window

Fixed and  
transparent  
as an 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



## Compatible with SAXX

Can also be used on  
SAXX power sources with  
an adapter cable (Ref  
SAFS-ADMI1)

## Welding range

SATF-40	ø 6 - ø 40 mm 0.25 - 1.5 "
SATF-65	ø 6- ø 65 mm 0.25 - 2.5 "
SATF-115	ø 12 - ø 115 mm 0.5 - 4.5 "



# SATF 40MIH - 65MIH - 115MIH

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## Technical characteristics:

Maximum welding current	120 A
100% Duty cycle	60 A

These heads are compatible with AMI (Arc Machines) stations that have the auto-calibration option. The connectors are an integral part of the cable.

If you want to use these heads later with the new AXXAIR SAXX-200, you only need to get an adapter cable. You will find all the information on the adapter cables in the welding generator accessories.

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. Closing is more precise and the parts to be welded are better positioned.

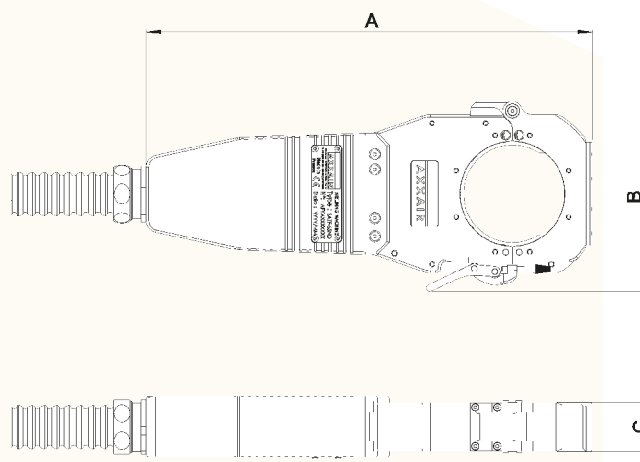
The heads are cooled in two ways: on the electrode holder by contact and on the outer aluminium plates in the lower part. This cooling is essential to guarantee a long life of the parts as it minimises the effects of distortion by expansion.



## Specificities

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	Dimensions (AxBxC in mm)
SATF-40MIH	Water cooled closed head compatible with AMI orbital power sources 205, 207 et 217	ø 6 to ø 40 mm	8.8 kg	336 x 122 x 40
SATF-65MIH		ø 6 to ø 65 mm	9.2 kg	366 x 152 x 40
SATF-115MIH		<b>NEW</b> ø 12 à ø 115 mm	9.9 kg	421 x 222 x 40



## Orbital welding (Closed head) - Accessories

**AXXAIR**

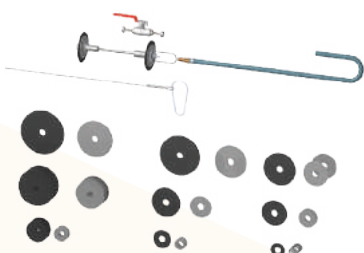
INNOVATIVE ORBITAL SOLUTIONS

Product Code	Description	Net weight	Packaging (in cm)
SKIF-01	Gas protection KIT	4.5 kg	35 x 30 x 9.5

Gas membrane protection KIT for tubes Ø 40 to 120 mm

- consists of: 9 sets of membranes with washers, 1 gas pipe 6 m,  
1 metal cable, 1 ¼ turn gas valve, 1 carabiner

*Inerting the tubes during welding allows more gas savings  
as we only inert the area to be welded.*



✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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Product Code	Description	Net weight	Packaging (in cm)
SKIB-01	Gas protection KIT	1.7 kg	35 x 30 x 9.5

Gas plug protection KIT for tubes Ø 6 to 41 mm

- Consists of: 10 sets of perforated plugs, 1 gas inlet connector,  
1 hose Ø 4/6 length 5 metres

*Facilitates and accelerates inerting. Avoids the use of adhesive paper.*



✓ SX122-A	✓ SX172-A	✓ SX222-A	✓ SX322-A	✓ SX122-E	✓ SX172-E	✓ SX222-E	✓ SX322-E
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Product Code	Description	Net weight	Dimensions (in cm)
<b>SSED-16 for ø1.6</b> <b>SSED-24 for ø 2.4</b>	Electrode holder	0.05 kg	3.5 x 3.5 x 1

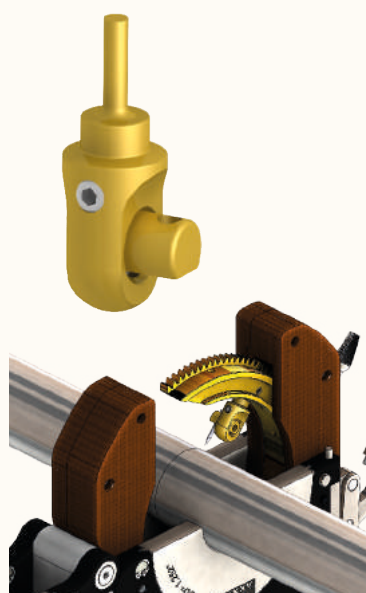
Remote electrode holder for ø1.6 mm or ø2.4mm electrodes:

- The lateral adjustment range is between 4 and 7.5 mm
- Allows the welding electrode to be moved with respect to the welding plane (Positioning of off-centre welding plane)
- Example of use: short elbow welding

If you use this system, the usable diameter range of the tube is reduced:

Machine	ømin	ømax
SATF-65xxx	6 mm	36 mm
SATF-115xxx	12 mm	89 mm

See consumables to find the electrodes required for its use



SATF-40NDHX	✓ SATF-65NDHX	✓ SATF-115NDHX	SATF-40MIH	✓ SATF-65MIH	✓ SATF-115MIH
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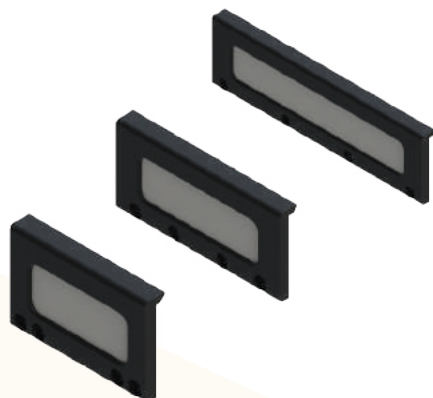




## Orbital welding (Closed head) - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



## SATF Viewing windows

## Fixed and transparent viewing windows

For Machine	Product Code	Net weight	Packaging (plastic)
SATF40-XXX	SATF40-HW10	0.04 kg	6.5 x 4.5 x 1 cm
SATF65-XXX	SATF65-HW10	0.05 kg	9 x 4.5 x 1 cm
SATF115-XXX	SATF115-HW10	0.08 kg	14 x 4.5 x 1 cm

✓ SATF-40NDHX

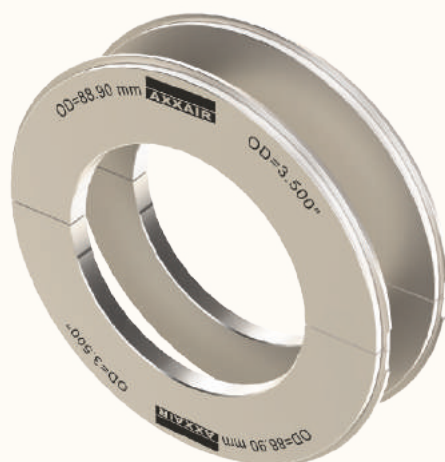
✓ SATF-65NDHX

✓ SATF-115NDHX

✓ SATF-40MIH

✓ SATF-65MIH

✓ SATF-115MIH



## Set of jaws for SATF

## Stainless steel clamping jaws set for SATF:

For Machine	Product Code	Net weight	Packaging (plastic)
SATF40-xxx	SMN40-xx	Depending on the tube ø	7.5 x 8 x 3 cm
SATF65-xxx	SMN65-xx	Depending on the tube ø	11 x 11.5 x 3 cm
SATF115-xxx	SMN115-xx	Depending on the tube ø	17 x 18 x 3 cm

To order the jaws, replace xx with the outside diameter of the tube you want to weld. Example: SMN40-38.1 = Set of jaws for SATF 40, external tube diameter: 38.1 mm

✓ SATF-40NDHX

✓ SATF-65NDHX

✓ SATF-115NDHX

✓ SATF-40MIH

✓ SATF-65MIH

✓ SATF-115MIH



## Spacer jaws for SATF

## Stainless steel spacer jaws

Allows you to use the jaws of a machine of lower capacity

For Machine	Jaws that you can use	Product code	Net weight	Packaging (plastic)
SATF65	SATF-40's jaws	SMN65-ET40	0.410 kg	11 x 11.5 x 3 cm
SATF115	SATF-40's jaws	SMN115-ET40	1.670 kg	17 x 18 x 3 cm
	SATF-65's jaws	SMN115-ET65	1.290 kg	17 x 18 x 3 cm

Example: With the spacer SMN65-ET40, you can use the jaws of the head SATF-40 (SMN40-xx) with a closed head type SATF-65

SATF-40NDHX

✓ SATF-65NDHX

✓ SATF-115NDHX

SATF-40MIH

✓ SATF-65MIH

✓ SATF-115MIH



# Orbital welding (Closed head) - Accessories

**AXXAIR**

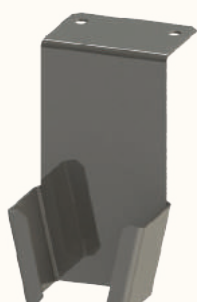
INNOVATIVE ORBITAL SOLUTIONS



To increase the operating distance between the welding head and the SAXX power source, we offer cable extensions.

The choice of the cable is made according to the cooling of the torch (water or air) and with or without filler metal.

Cooling		Length	Product Code	Net weight	Dimensions (AxBxC in mm)
WATER	WITHOUT WIRE	5 metres	<b>SAFS-05MX</b>	7 kg	40 x 59 x 25
		10 metres	<b>SAFS-10MX</b>	14 kg	40 x 59 x 25
✓ SATF-40NDHX	✓ SATF-65NDHX	✓ SATF-115NDHX	SATF-40MIH	SATF-65MIH	SATF-115MIH

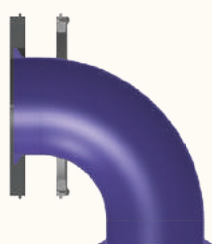
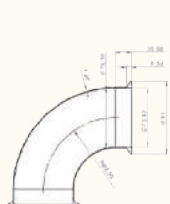


Product Code	Description	Net weight	Dimensions (in cm)
SAGC-121	Closed head support	0.42 kg	17 x 12 x 9

Screw-on support for closed heads

✓ SATF-40NDHX	✓ SATF-65NDHX	✓ SATF-115NDHX	✓ SATF-40MIH	✓ SATF-65MIH	✓ SATF-115MIH
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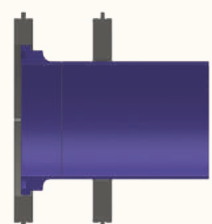
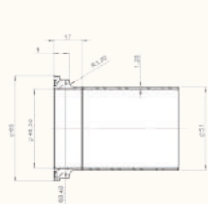
## Orbital welding (Closed head) - Accessories on request



### Ferrule – elbow – ferrule configuration (large diameter)

- Elbow end: adaptor jaws + gas protection side plates in stainless steel
- Ferrule end: special jaws

✓ SATF-40NDHX	✓ SATF-65NDHX	✓ SATF-115NDHX	✓ SATF-40MIH	✓ SATF-65MIH	✓ SATF-115MIH
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### Tube – connector configuration

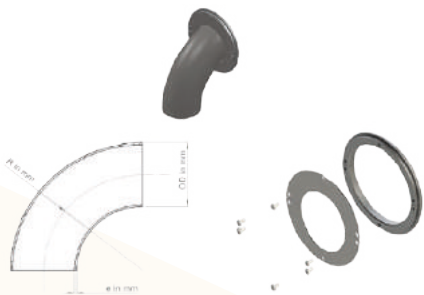
- Tube end: standard jaws
- Connector end: special jaws

✓ SATF-40NDHX	✓ SATF-65NDHX	✓ SATF-115NDHX	✓ SATF-40MIH	✓ SATF-65MIH	✓ SATF-115MIH
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## Tube – elbow configuration

- Tube end: standard jaws
- Elbow end: adaptor jaws + gas protection side plates in stainless steel

✓ **SATF-40NDHX**

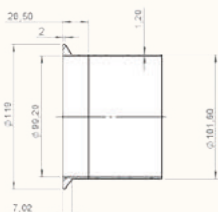
✓ SATF-65NDHX

✓ SATF-115NDHX

✓ SATF-40MIH

✓ SATF-65MIH

✓ SATF-115MIH



## Tube – ferrule configuration

- Tube end: standard jaws
- Ferrule end: special jaws

✓ SATF-40NDHX

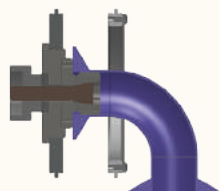
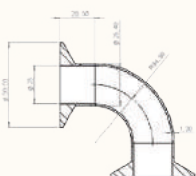
✓ SATF-65NDHX

✓ SATF-115NDHX

✓ SATF-40MIH

✓ SATF-65MIH

✓ SATF-115MIH



### Ferrule – elbow – ferrule configuration (small diameter)

- Elbow end: adaptor jaws + gas protection side plates in stainless steel
- Ferrule end: special jaws

✓ SATF-40NDHX

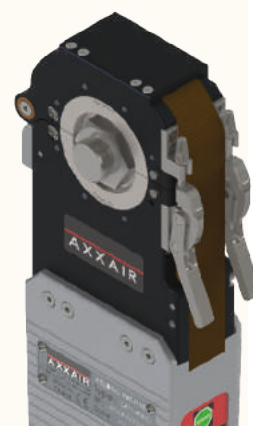
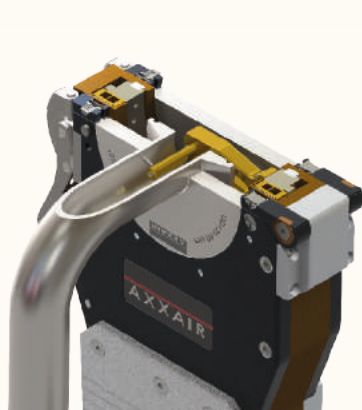
✓ SATF-65NDHX

✓ SATF-115NDHX

✓ SATF-40MIH

✓ SATF-65MIH

✓ SATF-115MIH



**For any other specific requirements, please do not hesitate to contact us to examine the solutions that we can provide!**



## Join experience

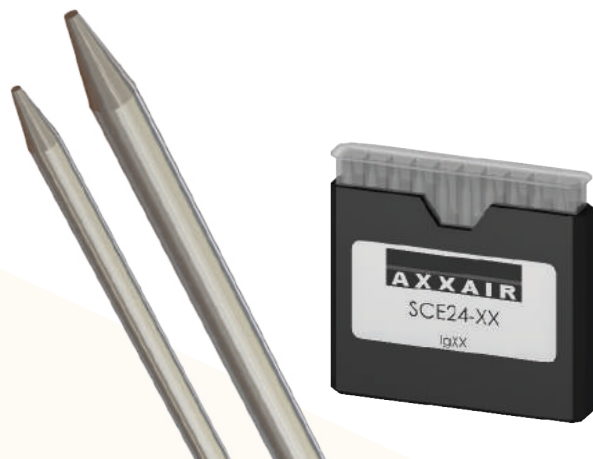




## Orbital welding (Closed head) - Consumables

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Our electrodes are specifically sharpened to 20° with a flat.

This increases the life of the electrodes.

Depending on the tube used, we offer cut electrodes.

Reference change

## Electrodes for SATF-40xxx

ø of the Tube	Electrode Product Code ø1.6	Electrode Product Code ø2.4	Electrode length in mm
6 - 11 mm	SCE16-30	SCE24-30	30.0
11 - 16 mm	SCE16-28	SCE24-28	28.0
16 - 21 mm	SCE16-25.5	SCE24-25.5	25.5
21 - 26 mm	SCE16-22	SCE24-22	22.0
26 - 31 mm	SCE16-20	SCE24-20	20.0
31 - 36 mm	SCE16-17.5	SCE24-17.5	17.5
36 - 40 mm	SCE16-15	SCE24-15	15.0

✓ SATF-40NDHX

SATF-65NDHX

SATF-115NDHX

✓ SATF-40MIH

SATF-65MIH

SATF-115MIH

## Electrodes for SATF-65xx

ø of the Tube	Electrode Product Code ø1.6	Electrode Product Code ø2.4	Electrode length in mm
6 - 12 mm	SCE16-43	SCE24-43	43.0
12 - 19 mm	SCE16-39.5	SCE24-39.5	39.5
19 - 26 mm	SCE16-36	SCE24-36	36.0
26 - 33 mm	SCE16-32.5	SCE24-32.5	32.5
33 - 40 mm	SCE16-29	SCE24-29	29.0
40 - 47 mm	SCE16-25.5	SCE24-25.5	25.5
47 - 54 mm	SCE16-22	SCE24-22	22.0
54 - 61 mm	SCE16-18.5	SCE24-18.5	18.5
61 - 65 mm	SCE16-15	SCE24-15	15.0

SATF-40NDHX

✓ SATF-65NDHX

SATF-115NDHX

SATF-40MIH

✓ SATF-65MIH

SATF-115MIH

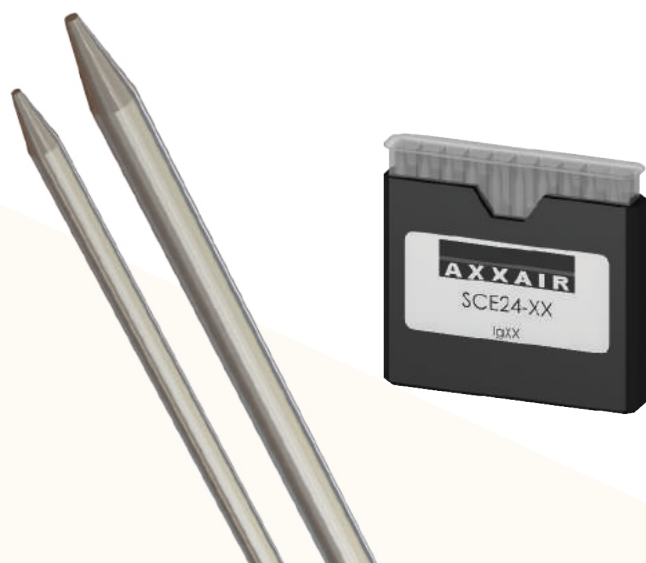
Join experience



## Orbital welding (Closed head) - Consumables





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Reference change

Electrodes for SATF-115xxx

ø of the Tube	Electrode Product Code ø1.6	Electrode Product Code ø2.4	Electrode length in mm
12 - 16 mm	 SCE16-66.5	 SCE24-66.5	66.5
16 - 23 mm	 SCE16-63	 SCE24-63	63.0
23 - 30 mm	SCE16-59.5	SCE24-59.5	59.5
30 - 37 mm	SCE16-56	SCE24-56	56.0
37 - 44 mm	SCE16-52.5	SCE24-52.5	52.5
44 - 51 mm	SCE16-49.5	SCE24-49.5	49.5
51 - 58 mm	SCE16-45.5	SCE24-45.5	45.5
58 - 65 mm	SCE16-42	SCE24-42	42.0
65 - 72 mm	SCE16-38.5	SCE24-38.5	38.5
72 - 79 mm	SCE16-35	SCE24-35	35.0
79 - 86 mm	SCE16-31.5	SCE24-31.5	31.5
86 - 93 mm	SCE16-28	SCE24-28	28.0
93 - 100 mm	SCE16-24.5	SCE24-24.5	24.5
100 - 107 mm	SCE16-21	SCE24-21	21.0
107 - 115 mm	SCE16-17.5	SCE24-17.5	17.5


SATF-40NDHX

SATF-65NDHX

 SATF-115NDHX

SATF-40MIH

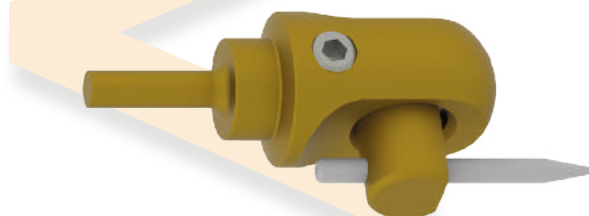
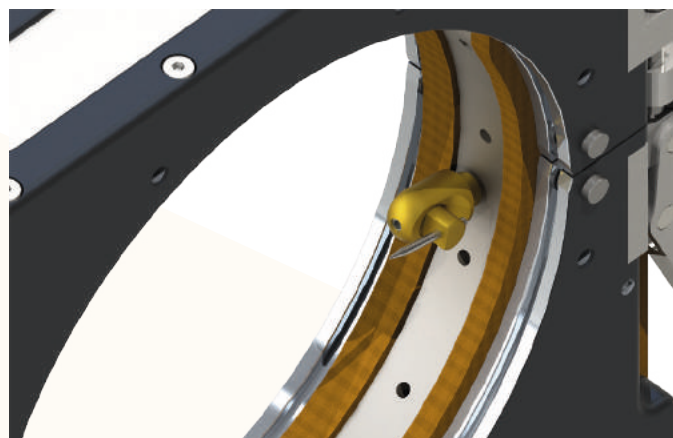
SATF-65MIH

 SATF-115MIH

## Orbital welding (Closed head) - Consumables

(Electrodes when using the SSED accessory)**AXXAIR**

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Reference change

ø of the Tube	Electrode Product Code ø1.6 for SSED-16		Electrode Product Code ø2.4 for SSED-24		Electrode length in mm	
6 - 12 mm	SCE16-25.5		SCE24-25.5		25.5	
12 - 18 mm	SCE16-22		SCE24-22		22	
18 - 24 mm	SCE16-18.5		SCE24-18.5		18.5	
24 - 30 mm	SCE16-15		SCE24-15		15	
30 - 36 mm	SCE16-12		SCE24-12		12	
SATF-40NDHX	✓SATF-65NDHX	SATF-115NDHX	SATF-40MIH	✓SATF-65MIH	SATF-115MIH	

ø of the Tube	Electrode Product Code ø1.6 for SSED-16		Electrode Product Code ø2.4 for SSED-24		Electrode length in mm
12 - 19 mm	NEW	SCE16-45.5	NEW	SCE24-45.5	45.5
19 - 26 mm	NEW	SCE16-43	NEW	SCE24-43	43
26 - 33 mm		SCE16-39.5		SCE24-39.5	39.5
33 - 40 mm		SCE16-36		SCE24-36	36
40 - 47 mm		SCE16-32.5		SCE24-32.5	32.5
47 - 54 mm		SCE16-29		SCE24-29	29
54 - 61 mm		SCE16-25.5		SCE24-25.5	25.5
61 - 68 mm		SCE16-22		SCE24-22	22
68 - 75 mm		SCE16-18.5		SCE24-18.5	18.5
75 - 82 mm		SCE16-15		SCE24-15	15
82 - 89 mm		SCE16-12		SCE24-12	12
SATF-40NDHX	SATF-65NDHX	✓ SATF-115NDHX	SATF-40MIH	SATF-65MIH	✓ SATF-115MIH





## Orbital welding (Open head)

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Our range of open welding heads (SATO series) allows you to make very high quality welds in a minimal space.

On these heads you will find a mechanical tracking system to keep a constant arc height. The torch can tilt to weld at an angle.

Open heads are mainly recommended for the agro-food, pharmaceutical, chemical sectors, for wall thicknesses less than but also greater than 3 mm.



This type of machine can be used to weld carbon steel tubes.

Open heads offer very wide welding possibilities thanks to the inclination of the torch and the addition of filler metal. The clamping range is achieved without the addition of jaws.

The tracking system is by roller so as not to scratch the tube. All the parts in contact with the tube are made of stainless steel so as not to contaminate it.

With its unique symmetrical clamping system, its stepping motor control, this range offers a very wide range of use.

You can choose between a water or air cooled torch.

### FLEXIBILITY, PRODUCTIVITY

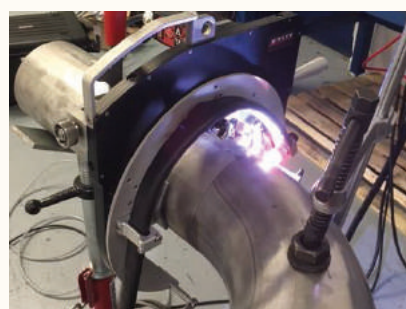
AXXAIR open heads are available with or without filler metal. They have an optimized rotation sweep and 2 positions of feed motor to choose from. High duty cycle (water cooled torch), transport of welding equipment by air (air cooled torch).

### QUALITY AND REPEATABILITY

The SATO range is connected to our orbital generators, which permanently control all the welding parameters, guaranteeing repeatable and quality welds.

### PORTABILITY

In order to allow you to weld in restrictive conditions and locations, the size of rotating elements and the weight of the machines have been optimized. Our machines are supplied with integrated remote control and 5 m welding cable allowing the operator to work remotely from the power source.



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!



## Orbital welding

### AIR cooling or WATER cooling?

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#### Why choose an AIR cooled machine?

Strong demand from construction sites requiring the shipment of the machines as air freight has led us to propose a solution without liquid coolant. The latter may also be suitable for frequent and rough/harsh transport, in order to eliminate any risk of liquid flowing onto the electronic boards.

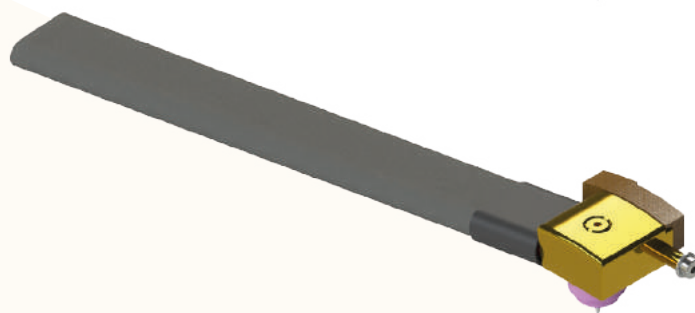
Since the AIR duty cycle is smaller than that for WATER, it is essential not to exceed the recommendations listed below.

#### Why choose a WATER cooled machine?

WATER cooling is the most used for all types of applications.

It is distinguished especially by the fact of being able to realize several consecutive welds.

It significantly improves the duty cycle especially for demanding applications.



Model	100% Duty cycle
SATO-XXE41/42 (WATER)	200 A
SATO-XXE43/44 (AIR)	100 A

Welding machine duty cycle defines the time of use in arc welding and the cooling time required between two welding operations at 40 °C.

*Example: A 70% duty cycle at 150 amps = 7 min max use at 150 amperes + 3 minutes waiting time to restart a welding cycle.*

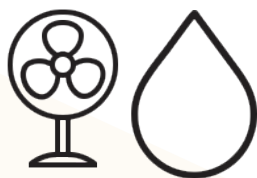
The duty cycle therefore has a significant impact on the machine use cycle. For applications requiring a high duty cycle, the welding machine must be able to meet these requirements.

Since AXXAIR hardware is designed to be scalable, it is simple to switch from a water version to an air version.

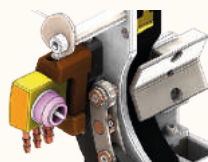


**SATO-40 - 80 -115 - 170 -220****AXXAIR**

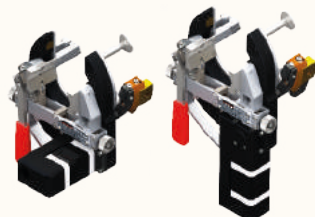
INNOVATIVE ORBITAL SOLUTIONS

**Air Cooled or  
Water Cooled****Roller mechanical  
profile tracking**

Constant arc  
voltage without  
marking the tube

**Compatible with  
the SAXX power  
sources****Transport**

These heads are  
delivered in their  
individual transport  
case

**Straight or  
Angled motor  
Symmetrical clamping****Axial  
Adjustment**

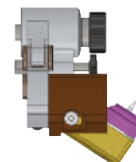
Wheel  
for axial  
adjustment  
of the  
position of  
the electrode

**Protection**

High protection  
against arcing  
outside the  
electrode

**Torch angle  
adjustment**

Welding flanges  
and short T angle

**Locked  
open position****Motorization  
with encoder**

Allows  
STARTING IN ALL  
ANGULAR  
electrode  
positions

**Welding range**

SATO 40	ø 10 - ø 40 mm 0.4- 1.5 "
SATO 80	ø 19 - ø 80 mm 0.75 - 3 "
SATO 115	ø 19 - ø 115 mm 0.75 - 4.5 "
SATO 170	ø 25 - ø 170 mm 1 - 6.625 "
SATO 220	ø 38 - ø 220 mm 1.5 - 8.265 "





# SATO-40 - 80 -115 - 170 -220

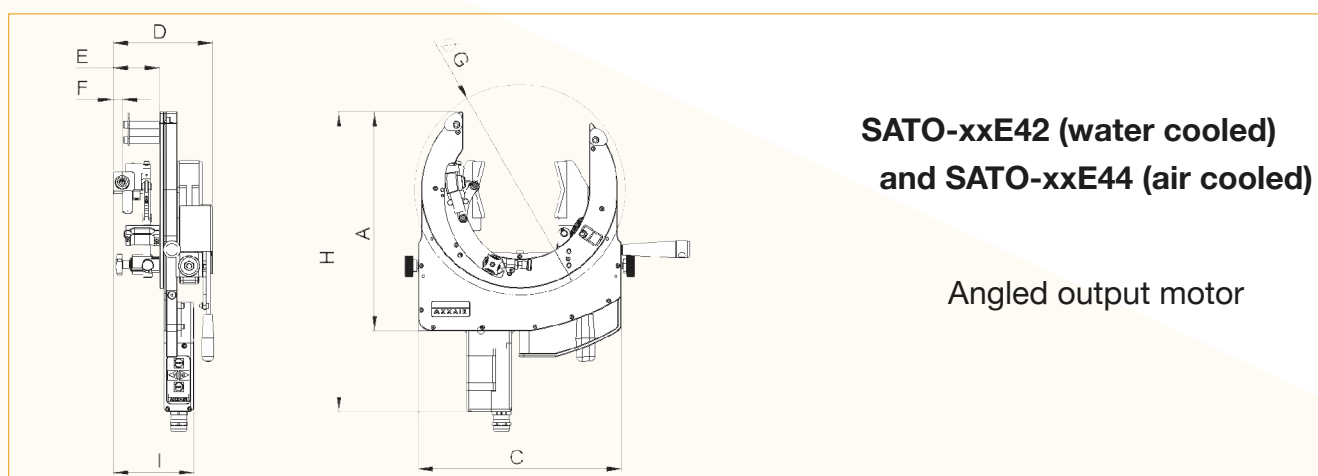
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## Technical characteristics:

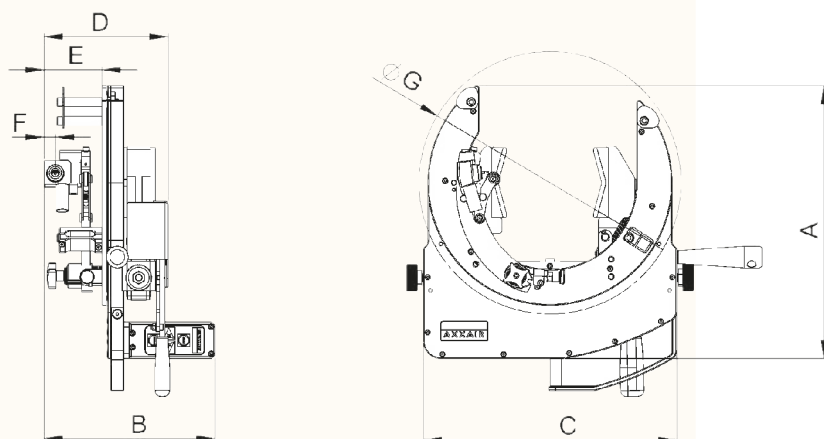
- WATER or AIR cooled head
- Mechanical profile tracking: constant arc height without marking the tube
- Quick symmetrical tightening by lever
- Motorization with encoder: allows starting from any angular position of the electrode
- Wide diameter range
- Inclination and axial adjustment of the electrode
- Small rotation sweep from the centre of the tube
- Compact design

## Choice of two different models (to choose according to your applications)



## SATO-XXE41 (water cooled) and SATO-xxE43 (air cooled)

Straight output motor



	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm
<b>SATO-40</b>	169	183 to 191	142	116 to 126	57 to 67	13	Ø140	270	113 to 121
<b>SATO- 80</b>	181	186 to 196	160	116 to 126			Ø180	279	
<b>SATO-115</b>	265	186 to 196	230	133 to 143			Ø224	363	
<b>SATO-170</b>	312	186 to 196	290	133 to 143			Ø294	410	
<b>SATO-220</b>	353	186 to 196	350	133 to 143			Ø350	451	



Join experience



## SATO-40 - 80 - 115 - 170 - 220

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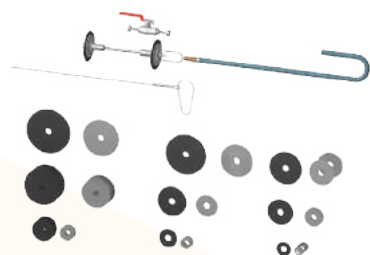
Motor	Cooling	Product Code	Welding machine for tubes of the following diameters (in mm)	Net weight	Dimensions (AxBxC in mm)
Angled motor	WATER	SATO-40E42	ø 10 - ø 40 mm	3.8 kg	169 x 183 x 142
		SATO-80E42	ø 19 - ø 80 mm	4.2 kg	181 x 186 x 160
		SATO-115E42	ø 19 - ø 115 mm	6.7 kg	265 x 186 x 230
		SATO-170E42	ø 25 - ø 170 mm	8 kg	312 x 186 x 290
		SATO-220E42	ø 38 - ø 220 mm	9.4 kg	353 x 186 x 350
	AIR	SATO-40E44	ø 10 - ø 40 mm	3.8 kg	169 x 183 x 142
		SATO-80E44	ø 19 - ø 80 mm	4.2 kg	181 x 186 x 160
		SATO-115E44	ø 19 - ø 115 mm	6.7 kg	265 x 186 x 230
		SATO-170E44	ø 25 - ø 170 mm	8 kg	312 x 186 x 290
		SATO-220E44	ø 38 - ø 220 mm	9.4 kg	353 x 186 x 350
Straight Motor	WATER	SATO-40E41	ø 10 - ø 40 mm	3.8 kg	169 x 191 x 142
		SATO-80E41	ø 19 - ø 80 mm	4.2 kg	181 x 196 x 160
		SATO-115E41	ø 19 - ø 115 mm	6.7 kg	265 x 196 x 230
		SATO-170E41	ø 25 - ø 170 mm	8 kg	312 x 196 x 290
		SATO-220E41	ø 38 - ø 220 mm	9.4 kg	353 x 196 x 350
	AIR	SATO-40E43	ø 10 - ø 40 mm	3.8 kg	169 x 191 x 142
		SATO-80E43	ø 19 - ø 80 mm	4.2 kg	181 x 196 x 160
		SATO-115E43	ø 19 - ø 115 mm	6.7 kg	265 x 196 x 230
		SATO-170E43	ø 25 - ø 170 mm	8 kg	312 x 196 x 290
		SATO-220E43	ø 38 - ø 220 mm	9.4 kg	353 x 196 x 350



## Orbital welding (Open heads) - Accessories

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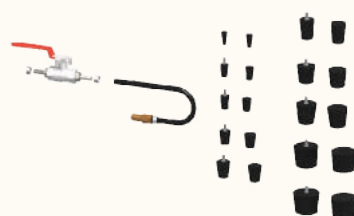
Product Code	Description	Net weight	Packaging (in cm)
SKIF-01	Gas protection KIT	4.5 kg	35 x 30 x 9.5

Gas membrane protection KIT for tubes Ø 40 to 120 mm

- consists of: 9 sets of membranes with washers, 1 gas pipe 6 m, 1 metal cable, 1 ¼ turn gas valve, 1 carabiner

*Inerting the tubes during welding allows more gas savings as we only inert the area to be welded.*

✓ SATO-40E4x	✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x
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Product Code	Description	Net weight	Packaging (in cm)
SKIB-01	Gas protection KIT	1.7 kg	35 x 30 x 9.5

Gas plug protection KIT for tubes Ø 6 to 41 mm

- Consists of: 10 sets of perforated plugs, 1 gas inlet connector, 1 hose Ø 4/6 length 5 metres

*Facilitates and accelerates inerting. Avoids the use of adhesive paper.*

✓ SATO-40E4x	✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x
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Product Code	Description	Net weight	Dimensions (in mm)
SATOB-02B	Two axis wire guide	0.05 kg	51 x 90 x 65

SATO Two axis wire guide:

- For use with the SAXX power sources

✓ SATO-40E4x	✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x
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Product Code	Description	Net weight	Dimensions (in cm)
SADF2X	Wire dispenser	12 kg	59.7 x 38.4 x 24

Wire Dispenser for SAXX-200, duct 5 m max:

- Supplied with the SAXX power supply-connection cable and Teflon duct to guide the wire  
- Drive pressure adjusted by adjustable spring, with handle.

✓ SATO-40E4x	✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x
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# Orbital welding (Open heads) - Accessories

## 5 or 10 metres welding cable extensions



To increase the operating distance between the welding head and the SAXX generator, we offer cable extensions.

The choice of the cable is made according to the cooling of the torch (water or air) and with or without filler metal.

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Cooling		Length	Product Code	Net weight	Dimensions (AxBxC in mm)
AIR	WITHOUT WIRE	5 metres	SAFS-05MAX	7 kg	40 x 59 x 25
		10 metres	SAFS-10MAX	14 kg	40 x 59 x 25
	WIRE	5 metres	SAFS-05MAXF	7 kg	40 x 59 x 25
		10 metres	SAFS-10MAXF	14 kg	40 x 59 x 25
WATER	WITHOUT WIRE	5 metres	SAFS-05MX	7 kg	40 x 59 x 25
		10 metres	SAFS-10MX	14 kg	40 x 59 x 25
	WIRE	5 metres	SAFS-05MXF	7 kg	40 x 59 x 25
		10 metres	SAFS-10MXF	14 kg	40 x 59 x 25
✓ SATO-40E4x		✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x



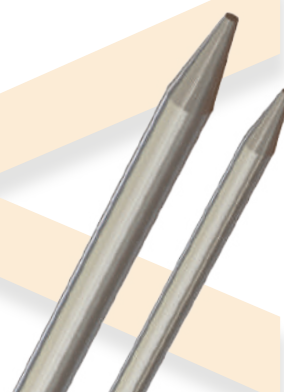
## Orbital welding (Open head) - Consumables

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our electrodes are specifically sharpened to 20° with a flat.

This increases the life of the electrodes.



Product Code	Description	Net weight	Plastic box (cm)
SCE16-50	Electrodes	0.02 kg	5.5 x 4.5 x 1
Electrode diameter <b>1.6 mm</b> , length 50mm			
- Box of 10 electrodes			

✓ SATO-40E4x

✓ SATO-80E4x

✓ SATO-115E4x

✓ SATO-170E4x

✓ SATO-220E4x



Product Code	Description	Net weight	Plastic box (cm)
SCE24-50	Electrodes	0.05 kg	5.5 x 4.5 x 1
Electrode diameter <b>2.4 mm</b> , length 50mm			
- Box of 10 electrodes			

✓ SATO-40E4x

✓ SATO-80E4x

✓ SATO-115E4x

✓ SATO-170E4x

✓ SATO-220E4x



Product Code	Description	Net weight	Plastic box (cm)
SKTO-01	Replacement torch	0.3 kg	12 x 17.5 x 4
Replacement kit for open head torch <b>Ø 1.6 mm or Ø 2.4</b>			
- Consists of: 4 long nozzles and 2 short nozzles, 4 electrode clamps, 20 electrodes Ø 1.6 and 20 Ø 2.4 electrodes, 2 Teflon rings, 1 short cap type 9/20 and 1 screw-driver FACOM			

✓ SATO-40E4x

✓ SATO-80E4x

✓ SATO-115E4x

✓ SATO-170E4x

✓ SATO-220E4x

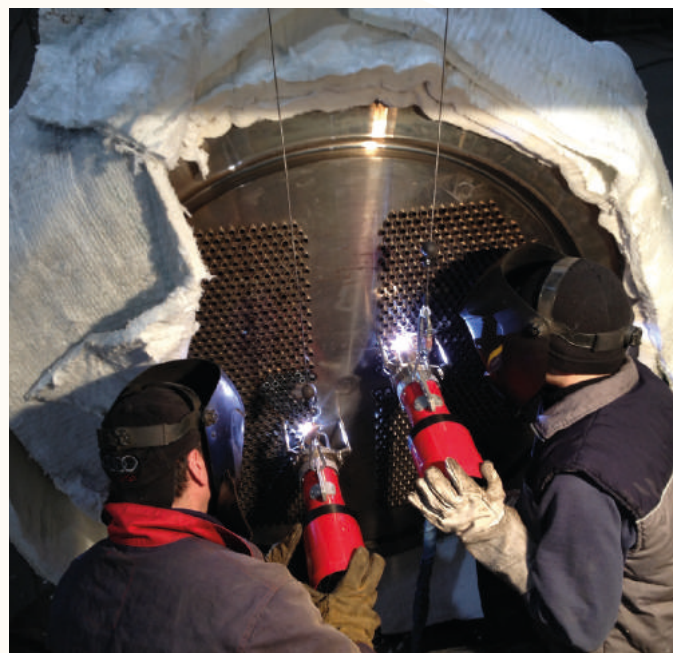


## Orbital welding (Tube-to-tube sheet)

Our tube-to-tube sheet welding heads, fully water-cooled, are designed for heat exchanger production applications in various industries such as aeronautics, agri-food or energy production.

Indeed, heat exchangers play an increasingly important role in industry and this welding head allows the economical, reliable and very high quality assembly of the tubes on the plates.

The SATP-80X covers virtually all common tube to tube sheet configurations in both stainless steel, titanium and black steel.



In tube to tube sheet applications, preparation is a very important aspect to guarantee repeatable and quality welding results. The following steps are discussed at each project and are essential to ensure the success of your process:

- Length of the tube in relation to the tube sheet (dressing operation)

- Centring of the tubes on the tube sheet:

This operation consists in bringing the tube into contact with the end of the hole in the tube sheet in order to avoid collapsing associated with the clearance between the tube and tube sheet if this operation is neglected.

Centring machines allow this essential operation. This centring also allows the weld gases to be evacuated through the back of the plate. Centring is often neglected but avoids much inconvenience during production.

### FLEXIBILITY, PRODUCTIVITY

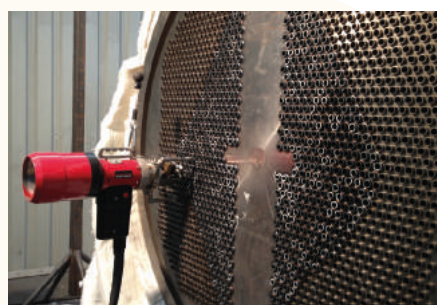
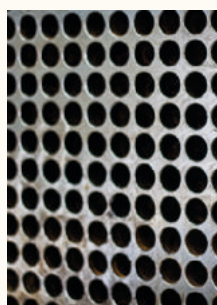
This head can weld in simple fusion or with the supply of wire. The wire feed is mounted on the head (1 kg reel) and rotates with the torch to ensure controlled wire output.

### QUALITY AND REPEATABILITY

The specific mandrel of our SATP with centring by balls pushed by springs allows positioning while allowing fast installation and especially ensuring that the head can easily be brought out of the tube in the case of excess internal weld thickness.

### PORTABILITY

Portable machines, which are easy to move and usable directly on site.



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

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





# SATP-80X

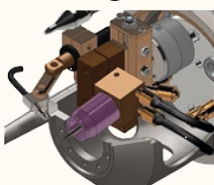
**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

## Water Cooled



## Tilting head

Water cooled with tilting wire



## Mandrel system

Concentric tightening from the inside of the tube

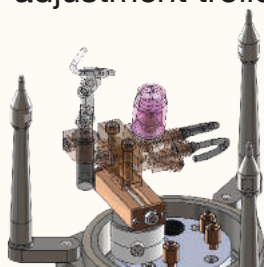


## Compatible with the SAXX power sources

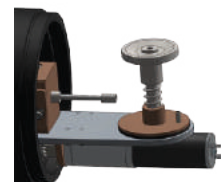


## Flexibility

Head and wire adjustment trolley

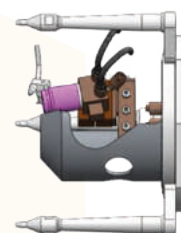


## Wire holder 1 kg

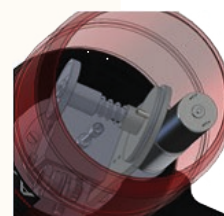


## Positioning stops

Adjustable stops for better tube sheet stability



## Electric motor with wire feed



## Welding range

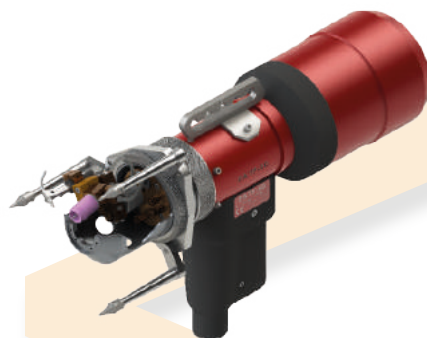
SATP-80X	$\varnothing$ 10 - $\varnothing$ 80 mm 0.4 - 3 "
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## SATP-80X

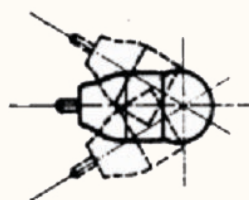
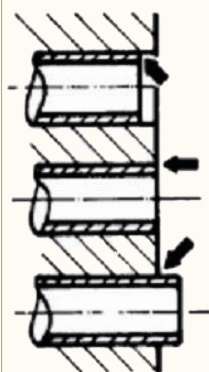
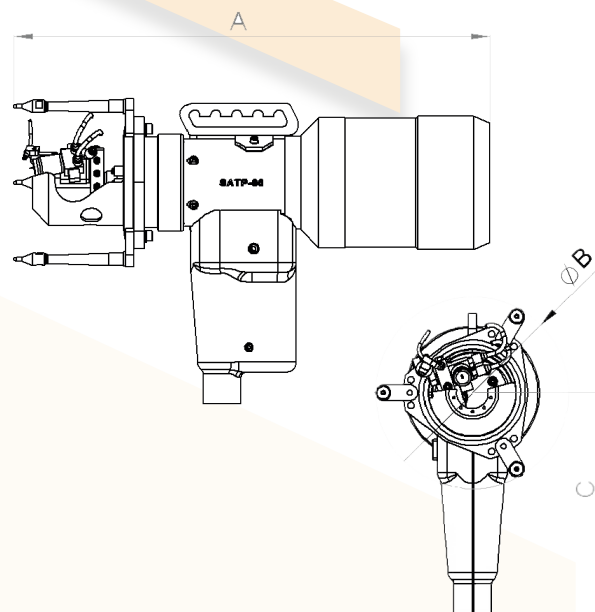
The SATP-80X covers virtually all common tube to tube sheet configurations in stainless steel as well as in titanium or black steel.



**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

### Technical characteristics:

- Rotating gas, current and cooling seal
- Tilting water cooled head
- Head and wire adjustment trolley
- Built-in rotating wire dispenser (Ø 0.8 mm)
- Cycle startup integrated in the handle for better ergonomics
- The head is fully cooled allowing a maximum welding current of 200A
- Specific mandrel with ball centring pushed by springs: precise positioning and quick installation.



- 3 tube-to-tube sheet welding configurations
- Outside diameter of the straight torch tube: 12 - 82 mm
- External diameter of the tube **if torch tilted at 30 °** : 12 - 40 mm

Product Code	Description	Net weight (Without reel)	ø wire	Max Wire Speed	Dimensions (AxBxC mm)
SATP-80X	Welding head SATP-80X ø10 to ø78 mm Supplied with wire dispenser	7.5 kg	0.8 mm	200 cm/min	451 x 182 x 210



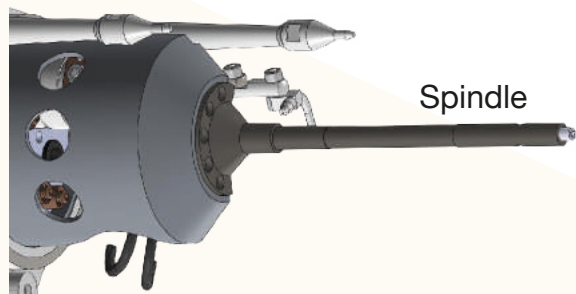
# Orbital welding (Tube to tube sheet) - Accessories

**AXXAIR**

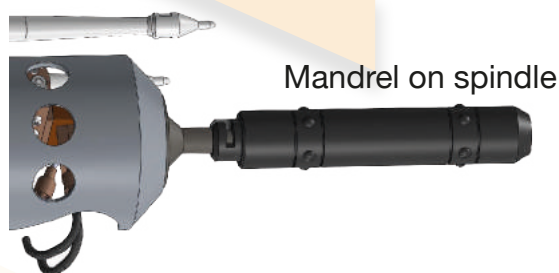
INNOVATIVE ORBITAL SOLUTIONS

The mandrel used must be chosen according to the inner diameter of the tube to be welded to the tube sheet.

Depending on the mandrel used, it will be necessary to choose the compatible spindle.



Spindle



Mandrel on spindle



## SATP mandrels

### SATP Centring mandrels:

Tube inner ø (mm)	Mandrel Product Code	On spindle
9.8 to 10.3 mm	SATP-M11	SATP-B01
10.3 to 10.8 mm	SATP-M12	
10.8 to 11.3 mm	SATP-M13	
11.3 to 11.8 mm	SATP-M14	
11.8 to 12.3 mm	SATP-M15	
12.3 to 13.0 mm	SATP-M16	SATP-B02
12.8 to 14.0 mm	SATP-M21	
13.8 to 15.0 mm	SATP-M22	
14.8 to 16.0 mm	SATP-M23	
15.8 to 17.0 mm	SATP-M24	
16.8 to 18.0 mm	SATP-M25	
17.8 to 19.0 mm	SATP-M26	
18.8 to 20.5 mm	SATP-M27	
19.8 to 22.5 mm	SATP-M28	

✓ SATP-80X



## Orbital welding (Tube to tube sheet) - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## SATP mandrels (continued)

SATP Centring mandrels:

Tube inner ø in mm	Mandrel Product Code	On spindle
22.3 to 24.8 mm	SATP-M29	SATP-B03
24.5 to 27.0 mm	SATP-M30	
26.5 to 29.0 mm	SATP-M31	
28.5 to 31.0 mm	SATP-M32	
30.5 to 33.0 mm	SATP-M33	
32.5 to 36.0 mm	SATP-M34	
35.5 to 39.0 mm	SATP-M35	
38.5 to 42.0 mm	SATP-M36	
41.5 to 45.0 mm	SATP-M37	
44.5 to 48.0 mm	SATP-M38	
47.5 to 51.0 mm	SATP-M39	SATP-B04
50.5 to 54.0 mm	SATP-M40	
53.5 to 58.0 mm	SATP-M41	
57.5 to 62.0 mm	SATP-M42	
61.5 to 66.0 mm	SATP-M43	
65.5 to 70.0 mm	SATP-M44	
69.5 to 74.0 mm	SATP-M45	
73.5 to 78.0 mm	SATP-M46	

✓ SATP-80X

## SATP Spindles

Spindles for SATP mandrel:

Product Code	For Mandrel
SATP-B01	M11 to M16
SATP-B02	M21 to M28
SATP-B03	M29 to M39
SATP-B04	M40 to M46

✓ SATP-80X





# Orbital welding (Tube to tube sheet) - Consumables

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our electrodes are specifically sharpened to 20° with a flat.

This increases the life of the electrodes.

Reference change



Product Code	Description	Net weight	Plastic box (cm)
SCE24-39.5	Electrodes	0.05 kg	5.5 x 4.5 x 1

Electrodes ø 2.4 mm, length 39.5mm for SATP:

- Box of 10 electrodes

✓ SATP-80X



## Orbital welding (welding power sources)

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

Our range of AXXAIR power supplies has been designed to be user friendly and intuitive. Our step by step design allows, even beginner, to easily generate programs after only a short learning period, while very advanced functions are available to advance users looking to customize their programs.

A particular attention has been paid to using as much as possible standard industrial components for their reliability and availability. The facilitated access to parts makes our power sources robust and easy for maintenance.

The combination of an easy to use and sturdy package allows you to be competitive and makes this range the best choice for all your current or future projects.



The electronics in charge of piloting the rotors of the welding heads is specifically designed to support various motor type, CD, brushless, stepping motors but also encoders or tachometers, making these power supply one of the most versatile on the market today.

Because our power supply can control most type of motors, we are able to control not only our products but also many of the other products available. Using a 32-pin « quick fit » connector we are able to design several cable adaptor to connect most products available today on our power supply. This great feature allows our customers to use our power supply as a one fits all, reducing the cost of ownership.

### FLEXIBILITY, PRODUCTIVITY

Our latest touch screen interface allows us to make available even the most advanced features in a user friendly and intuitive way.

### QUALITY AND REPEATABILITY

Part of the conviviality of our power supply comes from the innovative way we register a program. First you will create a configuration that includes the model and type of welding head, the tube diameter, the tube wall thickness and the tube material. Then within this configuration you will add your programs, up to 10 per configuration. This makes it really easy to retrieve and select a program even if it was created months ago.

### PORTABILITY

Our power supply are among the easiest to carry on site or move around the workshop, however if you want to be able to move effortlessly the gas cylinder together with the power supply we designed a very convenient trolley.



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

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



## SAXX-200

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

### Fully-assured gas management

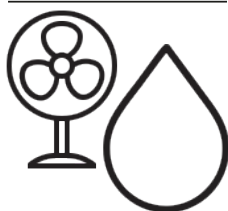
2 separate gas lines,  
free choice of inerting  
gas flow management



Gas flow control and  
flow alarms

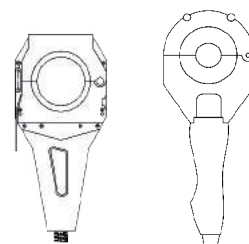
Display of the actual  
flow rate right on the  
screen

### Air Cooled or Water cooled



### Compatible with most closed head on the market:

AMI, Polysoude, ESAB,  
Orbitec and Orbitalum



### Interface 5.7 colour touch screen + WiFi

13 languages,  
possibility of remote  
control by smartphone  
or tablet



### Integrated printer:

Printing program and  
actual parameters

### USB port on front panel

200 programs per USB  
stick (possible  
to use several sticks)

Remote update  
possible



### Data acquisition

Records the last 999  
welds on the USB stick

Integrated WeldReport  
(formatting of the data  
and presenting of the  
instructions in the form  
of DMOS)

### PPM sensor

Capable of managing  
thresholds and sending  
an electrical pulse to  
the power source in order  
to start the welding.

This ensures a con-  
sistently and properly  
purged welding area

Records PPM variation  
during the weld



### Axis for added metal

Possibility  
of using  
Step  
mode

### Removable water colling

Can be separated without  
tools and makes the power  
source extremely portable

Cooling  
capacity  
700W,  
flow mini  
alarm





# SAXX-200

## AXXAIR welding power source

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

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

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

### Second line of gas

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



### 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



### 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.



### 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 mm<sup>2</sup> black, length 3m

**NEW** This equipment comes with a 16A plug of type CEE7 / 7 to be connected to a socket protected by a 16A fuse or circuit breaker.

To allow use at maximum conditions or according to the country, it will be necessary to change the setting.

The nameplate of the equipment will allow you to choose the socket and the protection (fuse and / or circuit breaker) adapted to the conditions of use (voltage and current).

### 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



**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

The ergonomic shape of the power source, the water cooler and the carrying handle make transport easy

### 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 an application  
Range: 20 to 30 m

### Cooling connector:

For SCOOOL-700 cooler only: It must be connected to the SAXX-200 to operate (No standalone operation)

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

**CAUTION:** The power source is delivered without coolant. See "Consumables" to order the 3 liter can (SACW-C006).

### Integral printer:

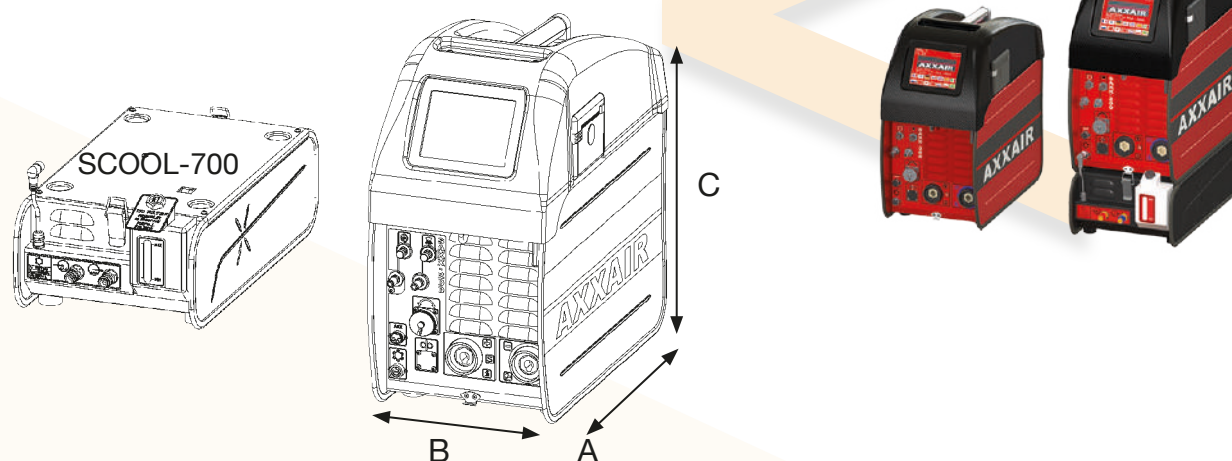
- 32 characters / line
- Print program and actual parameters



## SAXX-200

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product code	Description	Cooled	Gas line	Second gas line	Wire feed	Wifi Antenna	Net weight	Dimensions AxBxC (in mm)
SAXX-200	Orbital TIG welding power source, 200A, autoline	AIR	x				21 kg	468 x 249 x 482
SAXX-200I		AIR	x			x	21 kg	
SAXX-200W		AIR	x		x		21 kg	
SAXX-200DG		AIR	x	x			21 kg	
SAXX-200IW		AIR	x		x	x	21 kg	
SAXX-200DGI		AIR	x	x		x	21 kg	
SAXX-200DGW		AIR	x	x	x		21 kg	
SAXX-200DGIW		AIR	x	x	x	x	21 kg	
SCOOOL-700	Water cooler (700W)	Water	Essential to the use of all water cooled machines Compatible with all SAXX models listed above				8 kg	468 x 249 x 146

All options must be mounted at AXXAIR.



# SAXX-210

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS

## Fully-assured gas management

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



Gas flow control and  
flow alarms

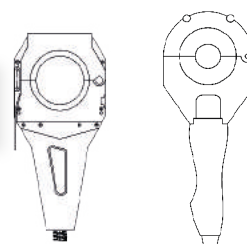
Display of the actual  
flow rate right on the  
screen

## Water cooled



## Compatible with most closed head on the market:

AMI, Polysoude, ESAB,  
Orbitec and Orbitalum



## Interface 5.7 colour touch screen + WiFi (optional)

13 languages,  
possibility of remote  
control by smartphone  
or tablet



## Integral printer:

Printing program and  
real parameters

## PPM sensor

Capable of managing  
thresholds and sending  
an electrical pulse to  
the power source in order  
to start the welding.

This ensures a con-  
sistently and properly  
purged welding area

Records PPM variation  
during the weld



## Axis for added metal

Possibility  
of using  
Step mode

## Data acquisition

Records the last 999 welds  
on the USB stick

Integrated WeldReport  
(formatting of the data and  
presenting of the instruc-  
tions in the form of DMOS)

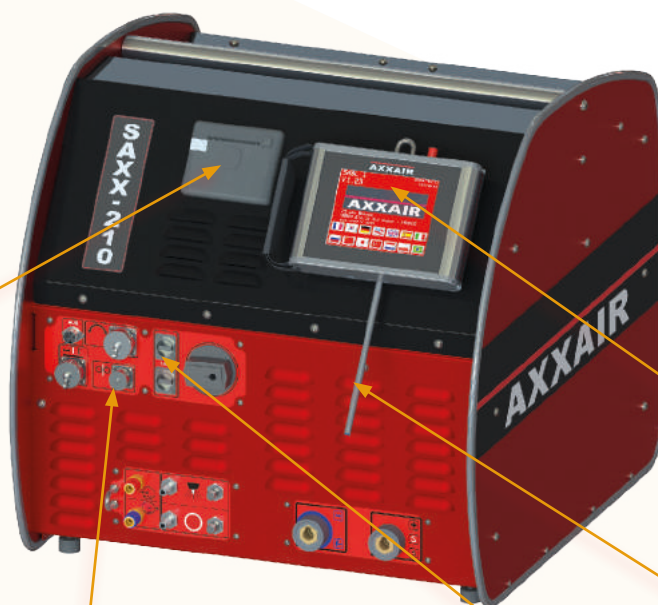
## Remove control display

4 m long cable

## USB port on front panel

200 programs per USB  
stick (possible  
to use several sticks)

Remote update  
possible





# SAXX-210



**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

## Technical characteristics:

### Duty cycle:

230 V		110 V	
50 %	210 A		
60 %	180 A	60 %	127 A.
100 %	160 A	100 %	110 A.

### Power supply:

- Single phase network **with earth**
- Supply voltage: 110 to 230 V +/-15%
- Input current consumed 25A at 230V and 32A at 110V
- Frequency: 50 / 60Hz
- Cable supplied: HO7RN-F 3x2.5 mm<sup>2</sup> 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"
- 13 languages
- Up to 16 users with passwords and custom permissions
- Simple and intuitive programming with automatic parameter calculation and programming assistance
- 200 programs in 20 sectors maximum / key

### 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 (modifiable via "operator dynamics")

### Integrated printer:

- 32 characters / line
- Print program and actual parameters

### Auxiliary connector:

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

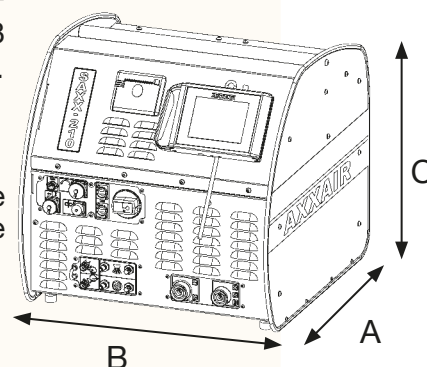
### Cooling connector:

- Max pressure: 5 bars
- Cooling power according to standard CEI60974-2: 1.4 kW
- Liquid connectors: female blanking union Series 21

**CAUTION:** The power source is delivered without coolant. See "Consumables" to order the 3 liter can (SACW-C006).

### Wi-fi: (Option)

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



Product code	Description	Two gas lines	Wire feed	Wifi Antenna	Net weight	Dimensions AxBxC (in mm)
SAXX-210	Orbital TIG welding power source,	x	x		44 kg	562 x
SAXX-210I	210A, autoline, Water cooled	x	x	x	44 kg	620 x
						545

All options must be mounted at AXXAIR.



## Orbital welding (SAXX) - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product Code	Description	Net weight	Dimensions (in cm)
SACG-X200	Trolley	22 kg	117 x 51 x 57

Trolley for SAXX-200 power source:

- Module for transporting the SAXX-200 and gas cylinders up to 10.5 m<sup>3</sup>

✓ SAXX-200

SAXX-210



Product Code	Description	Net weight	Dimensions (in cm)
SAGC-300	Trolley	55 kg	83 x 56 x 118

Trolley for SAXX-210 power source:

- Module for transporting the SAXX-210 and gas cylinders up to 10.5 m<sup>3</sup>

SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions (in cm)
SPPM-10	PPM reader	2 kg	12 x 6 x 15

PPM reader compatible with SAXX power sources:

- Integrated pump
- Trigger threshold adjustment
- Upper and lower tolerance adjustment
- Connected to the SAXX, it only allows welding to be triggered when the threshold is reached. The SPPM-10 guarantees the interior inerting of the tubing and the desired good colouration

Product Code	Description	Net weight	Dimensions (in cm)
SPPM-C10	Extension cable for SPPM-10	0.5 kg	40 x 59 x 25 cm

10 meter-extension cable for SPPM-10 (PPM reader)

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions (in cm)
SAFS-G01	Gas splitter pipe	0.2 kg	22 x 22 x 22

Gas splitter pipe:

- For connecting the back and front purge gas to the same cylinder. To be used in combination with a pressure regulator for an industrial gas cylinder.

✓ SAXX-200

✓ SAXX-210



# Accessoires SAXX

## Commutateur



**AXXAIR**  
INNOVATIVE ORBITAL SOLUTIONS

You have repeatable welds to perform and you want to **optimize the cycle time** of your welding operations to be **more efficient** and **increase productivity**?

The new AXXAIR Switch Box is the ideal response!

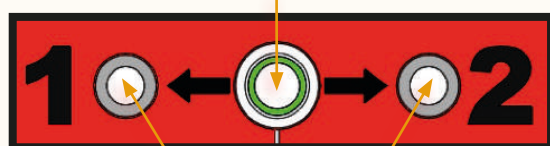
The Switchbox allows it to use two welding machines with one only orbital welding power source of the SAXX series and to use the two machines alternatively.

The parts that need to be welded can be positionned in one of the two machines while the other one is making a weld. The preparation and setting up time of the parts is thus optimized.

Once the weld is finished, the weld on the other machine can directly be started. The welded parts can be removed from the first machine and new parts can be placed in this machine.

### Switch button

The green LED indicates if switching is possible. Switching is done either by this button, or by the start button of the inactive machine



### Led lights

Indicate which machine is selected

**Significant time saving**, avoiding the simultaneous purchase of two welding power sources

**Cost reduction**

**Intuitive and efficient use thanks to the SAXX interface**

### Compatibility

Use of **all welding machines** compatible with the SAXX power sources \*

**Possibility of using 2 different machines with 2 different programs**

### Flexibility

- Use of manual torches and ppm reader (SPPM-10)
- Use of two gas lines (depending on options chosen in the SAXX)
- Use of two wire dispensers with 2 machines (depending on options chosen in the SAXX)

### Two gas lines for each machine

(depending on options chosen in the SAXX)

Gas flow adjustment wheels for each connected machine

SAXX connection

Connection for a welding machine

Connection for a second welding machine

**U bolt common for both machines**

\* excluding AVC/OSC systems



**Join experience**



# Accessoires SAXX

## Commutateur



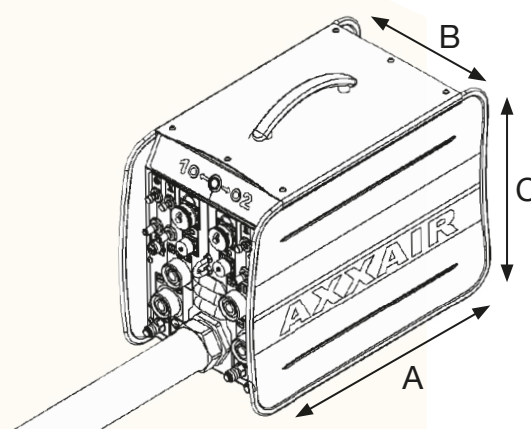
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### Technical characteristics:

- Power supply 110-230V
- 50-60 Hz (3m cable), 1,9 A max
- Max. welding current: 300A
- Length of the cables between the SASW-DGW and the SAXX: 1,5m
- Cooling circuit common to both machines
- Integrated carry handle
- Possible use of cable extensions (see accessories of welding machines) between the machines and the switchbox
- Version of the SAXX software: V2.40 or higher

- The use of two gas lines is integrated in the SASW-DGW, to be able to use it:  
The option «**Second gas line**» must be chosen in the SAXX power source
- The use of wire for one or two machines (two wire feeders can be used):  
The option «**Wire feed**» must be chosen in the SAXX power source



Product Code	Description	Net weight	Dimensions (AxBxC)
SASW-DGW	Switchbox	13 kg (with cables)	467 x 247 x 385 mm

### Compatible with:

- SATF (SATF-M, SATF-ND and SATF-MI), SATO (SATO-M, SATO-ND and SATO-E), SX, SATP, SXMF
- AMI models 8, 9 and 95, Polysoude : UHP, MW and MU IV, Orbitalum : Orbiweld and Orbiweld S, ESAB : PRB, Orbitec : OSW

Product Code	Description
SASW-CCO	Coupling pipe cooling circuit for Switchbox

Allows to control 2 machines with different cooling circuits

✓ SAXX-200

✓ SAXX-210





## Orbital welding (SAXX) - Accessories

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If you have an AMI orbital welding head, model 8 or 9, you can use them with our SAXX power sources.

To connect the heads to our SAXX power sources, you need an adapter kit. Please choose the kit according to the AMI power source that you have acquired with this head.



Product Code	Description	Net weight	Dimensions
SAFS-ADAMI1	Adapter kit	1.2 kg	l : < 40 cm

Adapter kit for connecting the following heads to SAXX power sources:

- AMI Models 8 and 9, initially connected to the AMI power sources 205, 207, 217 and 217P
- AXXAIR's closed heads SATF-xxMI and SATF-xxMIH

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions
SAFS-ADAMI2	Adapter kit	1.3 kg	l : < 40 cm

Adapter kit for connecting the following heads to SAXX power sources:

- AMI Models 8 and 9, initially connected to the AMI power source 307

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions
SAFS-ADAMI3	Adapter kit	1.3 kg	l : < 40 cm

Adapter kit for connecting the following heads to SAXX power sources:

- AMI Models 8 and 9, initially connected to the AMI power sources 227, 327 and 415

✓ SAXX-200

✓ SAXX-210



## Orbital welding (SAXX) - Accessories

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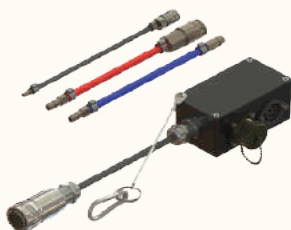
If you have an orbital welding head from another brand and you want to use it with our SAXX power sources, please refer to the adaptation kits below.



Product Code	Description	Net weight	Dimensions
SAFS-ADORBI1	Adapter kit	1.2 kg	L < 50 cm
Adapter kit for connecting the following heads to SAXX power sources: - Orbitalum ORBITALWELD models : ORBIWELD38S, ORBIWELD76S and ORBIWELD115S			

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions
SAFS-ADPOLY1	Adapter kit	0.9 kg	L < 50 cm
Adapter kit for connecting the following heads to SAXX power sources: - MW Polysoude models (MW40, MW 65, MW115, MW170, MU IV 38, MU IV 115, UHP250, UHP500 and UHP1500)			

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions
SAFS-ADORBITEC	Adapter kit	0.3 kg	L < 50 cm
Adapter kit for connecting the following heads to SAXX power sources: - Orbitec models: OSW40, OSW80 and OSW170			

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions
SAFS-ADESAB	Adapter kit	0.5 kg	L < 50 cm
Adapter kit for connecting the following heads to SAXX power sources: - ESAB models: PRB17-49, PRB33-90 and PRB60-170			

✓ SAXX-200

✓ SAXX-210



## Orbital welding (SAXX) - Accessories

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Product Code	Description	Net weight	Dimensions (in cm)
SAFS-AD01	Adaptor	0.411 kg	l : < 35 cm

Adaptors for connecting the following AXXAIR welding heads to our former **SASL** power sources:

- SATF-xxNDX
- SATF-xxNDHX
- SATO-xxE41 - SATO-xxE42 - SATO-xxE43 - SATO-xxE44

✓ SASL-xxx



Product Code	Description	Net weight	Dimensions (in cm)
SAFS-AD02	Adaptateur	0.48 kg	l : 35 cm

Adaptors for connecting the former generation of AXXAIR welding heads to **SAXX** power sources:

- SATF-xxND
- SATO-xxE01 et SATO-xxE02

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Packaging (in cm)
SAMD-NL	Pressure regulator	1.1kg	16 x 14.5 x 17

Pressure regulator 30 l / min compatible with:

- Finland, Netherlands, Sweden, Denmark

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Packaging (in cm)
SAMD-FR	Pressure regulator	1.1kg	16 x 14.5 x 17

Pressure regulator 30 l / min compatible with:

- Algeria, Angola, France, Greece, Syria, Tunisia, Sudan, Lebanon, Morocco, Portugal, Gabon, Ivory Coast, Senegal, Chad, Mauritania, Congo, Guinea, Mali, Belgium

✓ SAXX-200

✓ SAXX-210



## Orbital welding (SAXX) - Accessories

**AXXAIR**

INNOVATIVE ORBITAL SOLUTIONS



Product Code	Description	Net weight	Packaging (in cm)
SAMD-AL	Pressure regulator	1.1kg	16 x 14.5 x 17

Pressure regulator 30 l / min compatible with:

- Germany, Austria, Bosnia Herzegovina, Croatia, Hungary, Israel, Switzerland, Macedonia, Montenegro, Poland, Serbia, Slovenia, Korea, Czech Republic

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Packaging(in cm)
SAMD-UK	Pressure regulator	1.1kg	16 x 14.5 x 17

Pressure regulator 30 l/min compatible with:

- South Africa, Saudi Arabia, Brunei, Egypt, United Arab Emirates, Hong Kong, India, Singapore, Yemen, Indonesia, Iraq, Ireland, Jordan, Kuwait, Liberia, Libya. Sri Lanka, Malaysia, Malta, New Zealand, Nigeria, Pakistan, Peru, United Kingdom, Vietnam

✓ SAXX-200

✓ SAXX-210

Product Code	Description	Net weight	Dimensions (in cm)
SATDMX-A	TIG Manual torch	2.1kg	22 x 22 x 22

TIG Manual torch **AIR cooled:**

- Allows manual tacking and welding with the SAXX power sources

Product Code	Description	Net weight	Dimensions (in cm)
SATMX-E	TIG Manual torch	2.1kg	22 x 22 x 22

TIG Manual torch **WATER cooled:**

- Allows manual tacking and welding with the SAXX power sources

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions (in cm)
SADF2X	Wire dispenser	12 kg	59.7 x 38.4 x 24

Wire feeder for SAXX, cable sheath 5 m max:

- Supplied with SAXX power supply-connection cable and teflon sheath to guide the wire  
- Drive pressure adjusted by adjustable spring, with handle.

✓ SAXX-200

✓ SAXX-210





## Orbital welding (SAXX) - Consumables

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Product Code	Description	Net weight	Packaging (in cm)
SACW-CO06	Cooling liquid	3.3kg	15 x 15 x 27
<u>Cooling liquid (3l container).</u> The cooling is not directly delivered with the power source.			

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Packaging (in cm)
SIMP-02	Printer rolls	0.7kg	29 x 9.5 x 5
<u>Rolls for integrated printer (set of 10)</u>			

✓ SAXX-200

✓ SAXX-210



Product Code	Description	Net weight	Dimensions (in cm)
SUSBX200	USB stick	0.02kg	6 x 2 x 1
<u>USB stick for <b>SAXX-200</b>:</u> USB stick with software for recording welding programmes and the WeldReport			

✓ SAXX-200

SAXX-210



Product Code	Description	Net weight	Dimensions(in cm)
SUSBX210	USB stick	0.02kg	6 x 2 x 1
<u>USB stick for <b>SAXX-210</b>:</u> USB stick with software for recording welding programmes and the WeldReport			

SAXX-200

✓ SAXX-210



Knowing our customers and their needs, anticipating and meeting their expectations by always proposing the best solution: this is AXXAIR's objective. Please do not hesitate to contact us for all enquiries relating to our products and services.

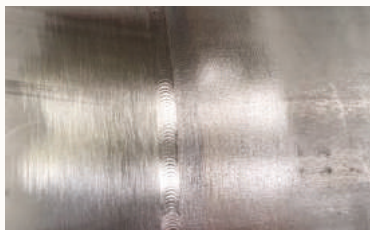
### ✓ Advice and estimates

Advise and support you and offer the best overall system for your requirements and applications.



### ✓ Samples

Create your samples as required from your tubes and requirements.



### ✓ Rental

Rental of our orbital machines from our rental equipment.



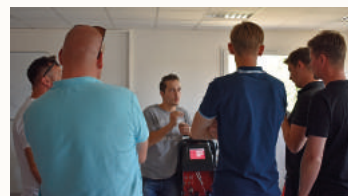
### ✓ Demonstrations

Organize demonstrations on your sites or via video conference from our showroom.



### ✓ Training

Orbital technology training on your sites or on our own. Leave with your training certificate.



### ✓ Repairs and maintenance

Find a solution to your problems and repair your machines as soon as possible.

Count on our after-sales service, always listening to you!



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