

AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

ORBITAL WELDING POWER SOURCE SAXX-201



NEW !

SAXX-201

Main features

Latest generation, easy-to-use power supply with simple, intuitive programming and full data acquisition including welding head and internal interting gas flows.

Handle and strap for easy transport

Screen protection

Intuitive and simple programming

Automatic parameters calculation and programming assistance

7" color touch screen
Multilingual menu
3 login levels (operator, welder and administrator)

Two independent gas lines with flow management (optional)

Welding torch gas control, and optional internal interting gas flow control

Wire feeder connector (optional)

to synchronize the wire feed with the current pulse

Compatible with all AXXAIR closed heads and most closed heads on the market (AMI, Polysoude, ESAB, Orbitec, Orbitalum, and MK product)

Wifi (optional)

Remote control via smartphone or tablet
-
Send and retrieve data

Integrated printer

Printing programs and actual parameters

Data acquisition on USB key

Saves up welding programs and users profiles

The system monitors and saves welding parameters each second

Data can be viewed directly on the screen or via the supplied "WeldData" software, which can be converted to DMOS/QMOS format.

Removable water cooling system

Cooling capacity 700W,
flow mini alarm

Can be separated **without tools** and makes the power supply extremely portable



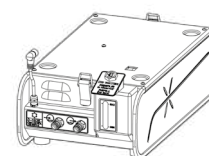
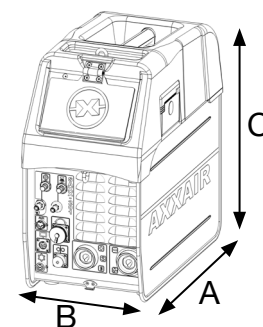
Technical characteristics

Description	Orbital TIG welding power supply, 200A, autoline
Welding current type	DC
Supply voltage	Single phase main with earth 110 to 230 V+/- 15% 50/60Hz
Duty cycle	200A / 25% at 230V 140A / 35% at 110 V 115A / 100% at 230V 100A / 100% at 110V
IP standard	IP21
Data acquisition	USB key
Alarms	Arc voltage sensors, gas flow sensors, cooling liquid sensors, inverter operation alarm, motorizations alarm (machine and wire feeder)
Screen size	7"
Languages	French, English, German, Spanish, Italian, Russian, Chinese, Korean, Japanese, Turkish, Dutch, Polish, Portuguese, Slovak and Hungarian
Industry 4.0 connections	Ethernet port / Wifi (optional)



You can configure your SAXX-201 power supply with **the options you need:**

Product code	Cooled	Gas line	Options			Net weight	Dimensions AxBxC
			Second gas line	Wire feed	Wifi		
SAXX-201	AIR	•				21 kg	468 mm x 249 mm x 482 mm
SAXX-2011	AIR	•			•	21 kg	
SAXX-201W	AIR	•		•		21 kg	
SAXX-201DG	AIR	•	•			21 kg	
SAXX-201IW	AIR	•		•	•	21 kg	
SAXX-201DGI	AIR	•	•		•	21 kg	
SAXX-201DGW	AIR	•	•	•		21 kg	
SAXX-201DGIW	AIR	•	•	•	•	21 kg	
SCOOOL-700	Water cooler (700W)	Essential to the use of all water cooled machines. Compatible with all SAXX models listed above				8 kg	



SCOOOL-700

Accessories available (see complete catalog)

- Wired remote control*
- Trolley
- Gas splitter pipe
- Switchbox
- TIG manual torch
- Wire feeder
- Adapter kit for connecting competitors heads

* Remote control available as an accessory, only compatible with the SAXX-201 with Wifi option

Orbital welding (welding power sources)

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Our AXXAIR orbital 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 you 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.



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!



Join **experience**



Orbital welding (welding power sources)

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Since the launch of our orbital welding power sources SAXX in 2017, **WiFi has been offered as an option** to our customers in order to use the «Remote HMI» application (third party application).

Thanks to this application, combined with the WiFi, remote control of the SAXX with a smartphone, computer or tablet becomes possible.

The wifi option also allows **sending and retrieving data from the SAXX** thanks to a remote access to the power source's USB key.

Access to the USB key's content allows:

- **to monitor alarms.**
- **to retrieve data from the acquisition files.**
- **to exchange configuration and programs** from one power source to another power source from the SAXX range.

AXXAIR is **constantly striving to improve the operator's experience** of our customers. This is why we improved our SAXX power sources.

The new generation of SAXX-200, SAXX-210 and SAXX-300 completely moves into the **Industry 4.0 era** with a new WiFi module and an Ethernet interface to make the operator's work even more efficient.

NEW

New WiFi module

An improved WiFi module with an external antenna will be offered on the new SAXX versions : SAXX-200, 210 and 300.



On the SAXX-200, the antenna is hidden under the power source's cover. It will be visible on the SAXX-210 and 300.

These improvements allow:

- an increased WiFi operating distance: **up to 100 m** depending on the working environment.*
- a better WiFi communication: quality and stability of the data transfer.

*It is important to ensure that there is no obstacle between the SAXX power source and the remote control tool.



NEW

Network interface

From now on, access to the USB key and remote control of the SAXX power sources will also be possible with an **Ethernet network cable**.



All SAXX welding power sources are now equipped as standard with an **Ethernet socket** at the rear of the power sources. It allows **fast connection to an existing computer network** by using a RJ45 of category at least 5 S/STP cable.

In order to operate the SAXX remotely, the «Remote HMI» application is still required. The application is available on App Store, Google Play and Windows.



SAXX-200



Fully-assured gas management

2 separate gas lines, free choice of in-erting gas flow management

- Gas flow control and flow alarms
- Display of the actual flow rate right on the screen



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

Interface 5.7 colour touch screen + WiFi

13 languages, possibility of remote control by smartphone or tablet



PPM sensor

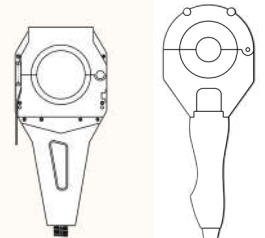
Capable of managing thresholds and sending an electrical pulse to the power source in order to start the welding. This ensures a consistently and properly purged welding area

Records PPM variation during the weld



Compatible with most closed head on the market

AMI, Polysoude, ESAB, Orbitec and Orbitalum



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



Data acquisition

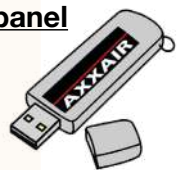
Records the last 999 welds on the USB key

Integrated WeldReport, data's formatting and presenting of the instructions in the form of DMOS.

USB port on front panel

200 programs per USB key, several keys can be used

- Software: Remote update possible
- Sending and retrieving data through remote access to the SAXX's USB key



SAXX-200

Technical characteristics

Duty cycle:

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

Power supply:

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

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



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Intelligence:

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

Auxiliary connector:

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

Wi-fi: (Option)

Remote control of the screen on smartphone or tablet via 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



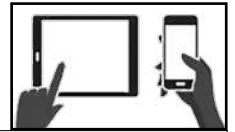
Join **experience**



SAXX-200



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



Second gas line: This second gas line allows control from the power source of your internal inerting and / or dual gas management of the welding torch.

- Gas saving
- Welding process safety

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

There is the possibility 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 power source.

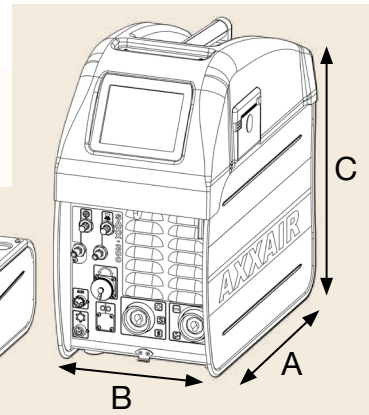
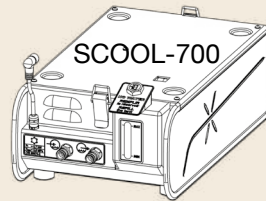
Remote control by a smartphone, computer or tablet to use it as a remote control is possible.

In fact, through an application, you have access to all functions including programming. The option also allows **sending and retrieving data** from the SAXX through access to the power source's USB key. Range: **up to 100m**



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



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

All options must be mounted at AXXAIR.



Join experience



Orbital welding (Welding power sources)

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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 futur 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

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PORTABILITY

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



Join **experience**



SAXX-210



Fully-assured gas management

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



Gas flow control and flow alarms

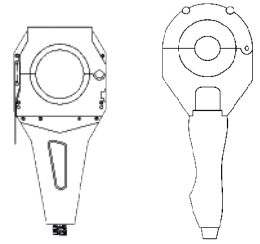
Display of the actual flow rate right on the screen

Water cooled



Compatible with most closed heads 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



Integral printer:

Printing program and actual parameters

Compatible with AVC/OSC system

PPM sensor

Capable of managing thresholds and sending an electrical pulse to the power source in order to start the welding. This ensures a consistently 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 instructions 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



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 mm² black length 3m

Gas supply:

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

Technology:

- Colour touch screen 5"
- 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).

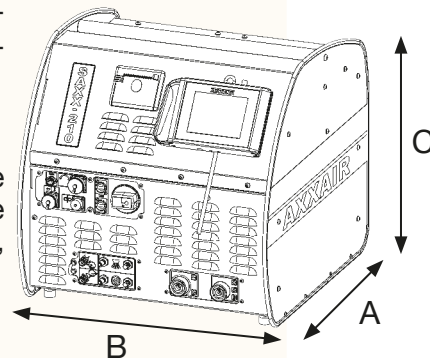
Cooling connector:

- 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 application, range: 20 to 30 m



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

All options must be mounted at AXXAIR.



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SAXX-300



Fully-assured gas management

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



Gas flow control and flow alarms

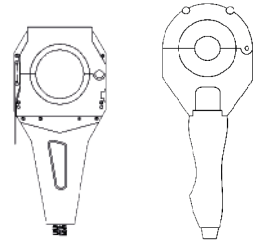
Display of the actual flow rate right on the screen

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 actual parameters

Compatible with AVC/OSC system

PPM sensor

Capable of managing thresholds and sending an electrical pulse to the power source in order to start the welding. This ensures a consistently 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 instructions 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-300



Technical characteristics:

Duty cycle:

400 V	
30 %	300 A
60 %	240 A
100 %	210 A

Power supply:

- Three phase main with earth
- Supply voltage : 400 V +/-15%
- Maximum current on main : 24A
- Frequency : 50/60Hz
- Cable : HO7RN-F 4x2.5 mm² black length 3m

Gas supply:

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

Technology:

- Colour touch screen 5"
- 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

Wi-fi: (Option)

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



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

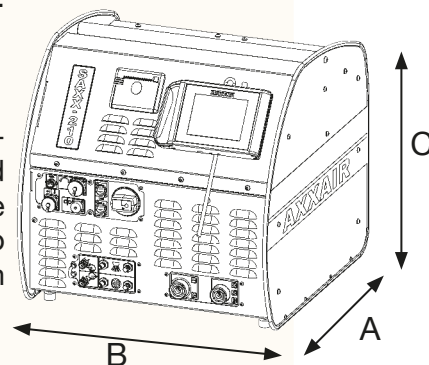
Auxiliary connector:

- 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).



Product code	Description	Two gas lines	Wire feed	Wifi Antenna	AVC/OSC axis	Net weight	Dimensions AxBxC (in mm)
SAXX-300	Orbital TIG power source 300A, 380V, water cooled	x	x			44 kg	562 x 620 x 545
SAXX-300I		x	x	x		44 kg	
SAXX-300OSC		x	x		x	44 kg	
SAXX-300IOSC		x	x	x	x	44 kg	

All options must be mounted at AXXAIR.



Orbital welding (SAXX) - Accessories

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

Trolley for SAXX-210 and SAXX-300 power sources:

- Module for transporting the SAXX-210 and gas cylinders up to 10.5 m³

✓ SAXX-210

✓ SAXX-300

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-210

✓ SAXX-300

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-210

✓ SAXX-300



NEW

Accessories SAXX Switchbox



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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!

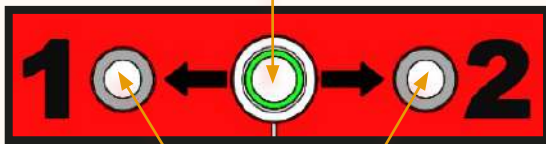
The Switchbox allows it to use two welding machines with one only orbital welding power source of the SAXX series and to use the two machines alternatively.

The parts that need to be welded can be positioned 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

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)

Compatibility

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

Possibility of using 2 different machines with 2 different programs

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



NEW

Accessories SAXX Switchbox



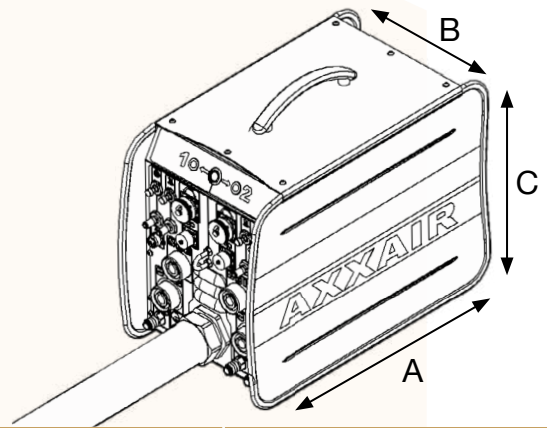
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Technical characteristics:

- 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 between the switchbox and the SAXX
- Version of the SAXX software: V2.40 or higher

- The use of two gas lines is integrated in the SAWS-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
- AML 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



Join experience



Orbital welding (Closed heads)

AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

Our new range of closed SATFX welding heads enables you to achieve high quality welds in a minimal space.

Orbital welding with a closed head is done by a **simple fusion without additional wire feeding**. Consequently, these heads are recommended for welding **thin tubes of many types of stainless steel** with thicknesses of less than 3 mm.

SATFX heads are also indispensable for welding other nickel or titanium based alloys which are very sensitive to oxidation and are used when an installation with an impeccable resistance to chemicals or heat is required.



The new SATFX heads have been designed to meet the needs of our customers who are often confronted with the most demanding welding specifications.

The protective atmosphere provided by the closed heads permits welding in an inerting chamber. This results in **welds with very minimal discoloration and perfectly clean weld beads**.

This type of equipment is used in **industrial sectors sensitive to hygienic conditions** such as aeronautics, semi-conductors, pharmaceuticals as well as food and beverage processing.

The narrow width of the head makes it ideal for construction sites where only a small amount of straight sections are in demand. However, these welding heads are also used in workshops and clean rooms.

The SATFX range, coupled with our SAXX welding power supplies and their continuous monitoring of welding parameters, guarantee **repeatable welds of high quality**. This type of weld passes the most strenuous tests, such as X-ray inspection.

*contact us for more information

FLEXIBILITY, PRODUCTIVITY



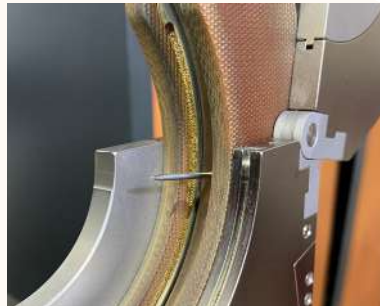
Productivity remains our top priority. The liquid cooling circuit has been optimized to allow for **greater heat evacuation** and thus:

- increases the service life of the SATFX
- guarantees a substantial welding output. The operating current at 100% is **100 A**.



QUALITY AND REPEATABILITY

Direct wire feeding and a homogeneous diffusion of the inert gas, high quality materials and special component processing, a grease-free operation, easy maintenance and cleaning plus numerous configurations make the SATFX range the ideal response to the requirements of high-tech industries.



They allow for intense, versatile and long-lasting usage on your construction sites and in your workshops.

INNOVATION : GLOBAL PROCESS 2 in 1

The SATFX closed welding heads can easily be transformed into a cassette machine. The cassette allows for easy placement on the parts to be welded in confined areas. Welding without tacking is possible under certain conditions.*



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

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



Join **experience**



NEW

SATFX-52 - 76 - 115



High protection against arcing outside the electrode

Power drive system with encoder: allows starting in all angular positions of the electrode

Water cooling of the electrode holder and aluminium flanges.

Standard stainless steel jaws for quick assembly without tools.



Wide aluminium jaws for optimal machine stability when welding accessories.

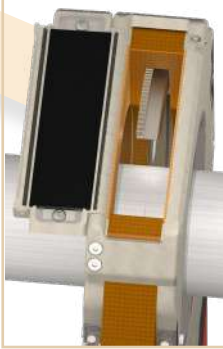
Illuminated logo on each side

Operating **without grease:** compatible with clean room standards.

Length of the cable: **8 meters**



Large pivoting window with welding glass to check the electrode alignment after tightening the two frames.



The welding glass (shade10) allows to observe the weld and protect the operator's eyes.

Closing system with adjustable force without tools. Allows precise adjustment of the force of the jaws on the tube to be welded and helps opening after welding.

Perfect gas protection in the welding head.

Optimized handling: **Ergonomic design with soft touch compound areas** and overall **weight greatly reduced.**

4 stainless steel remote control buttons.

Global Process : 2 in 1

Cassettes for welding in confined areas.

Easy positioning of the cassette on the parts to be welded before fixing the central body of the head.



These heads are delivered in a water- and dustproof **suitcase** and with a **suspension assembly.**



Welding range	
SATFX-52	∅ 6 - ∅ 52 mm 0.25 - 2 "
SATFX-76	∅ 6- ∅ 77 mm 0.25 - 3 "
SATFX-115	∅ 12 - ∅ 115 mm 0.5 - 4.5 "



Join **experience**



NEW

SATFX-52 - 76 - 115



Technical characteristics:

Maximum welding current	150 A
100% duty cycle	100 A

These closed heads are designed for orbital butt TIG welding of tubes, tubes-elbows, tube-ferrules, tubes-T, tubes-fittings and others in a fully inerted closed chamber.

The SATFX heads are driven by the AXXAIR orbital welding power sources of the SAXX range.

Integral water cooling of the heads and new treatment of the aluminium parts offering a better electrical and thermal conductivity. The double cooling of the rotor and the head body is essential to guarantee a **good lifespan of the parts** by minimizing the effects of expansion deformation.

Illuminated logo on each side of the head : it allows to visualize if the power source is turned on or off and if the machine is in a welding cycle or not.



When the power source is powered on and the head connected, the light is on steady. When the machine is welding, the indicator light flashes.



4 stainless steel remote control buttons: Start/stop, gas purging, rotation of the rotor in one direction and rotation in the other direction. Regardless of the starting position during welding, the rotor automatically returns to the open position of the rotor so that the welded parts can be removed easily.

Ergonomic design:

Ergonomic handle with soft touch overmolding that brings the hand closer to the center of gravity of the head, providing unparalleled handling comfort.

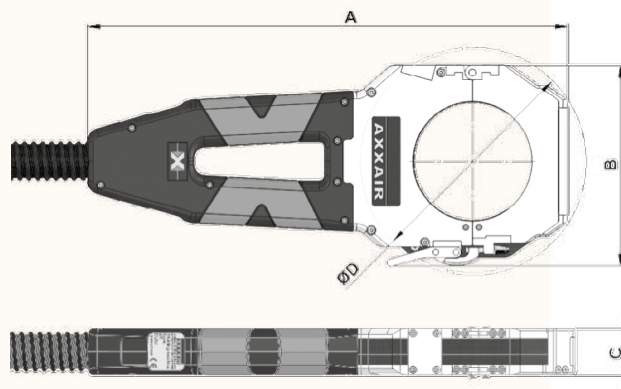
Maintenance :

All rotation axes and toggle clamps can easily be changed.



Cleaning: A single hexagonal wrench allows the machine to be disassembled in a few minutes to clean the interior, without having to empty the head's coolant circuit.

Gas diffusion: more direct gas supply through two sintered bronze semi-circular bunds. This allows a trouble-free distribution and flow, even with a high gas flow rate and without blowing out the arc. Max flow rate: 60l/min



Thickness of 37.6 mm: possibility to weld with the stainless steel jaws standard microfitting fittings or other accessories with a straight part of 19.1 mm.

Product Code	Description	Tube welding machine for the following diameters	Net weight with cable	Dimensions A x B x C in mm	Dimensions D
SATFX-52	Water-cooled closed head with 8m cable for SAXX welding power sources	ø 6 - ø 52 mm	8.6 kg	375 x 142 x 37,6	ø 160 mm
SATFX-76		ø 6 - ø 77 mm	8.9 kg	399 x 166 x 37,6	ø 187 mm
SATFX-115		ø 12 - ø 115 mm	9.4 kg	439 x 206 x 37,6	ø 242 mm



Join experience



NEW **Orbital welding (Closed heads) - Accessories Cassettes**



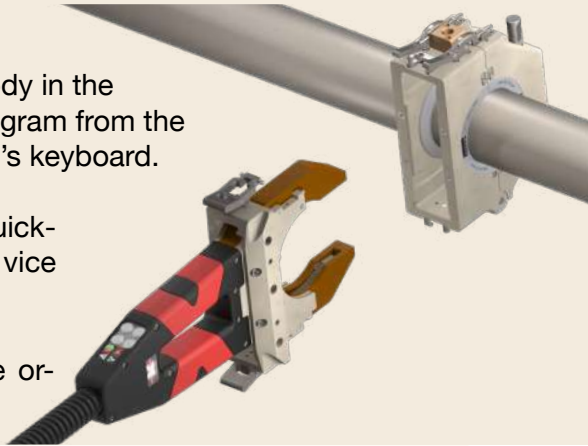
Global Process 2 in 1

These cassettes are intended to be mounted on the closed welding heads of the SATFX range. They allow the operator to perform welds in a cramped and restrictive environment, where it is difficult to operate these welding machines.

When the cassette is in place on the tubes or accessories to be welded, the operator only has to fix the machine body in the cassette and then start the welding program from the power supply or from the welding head's keyboard.

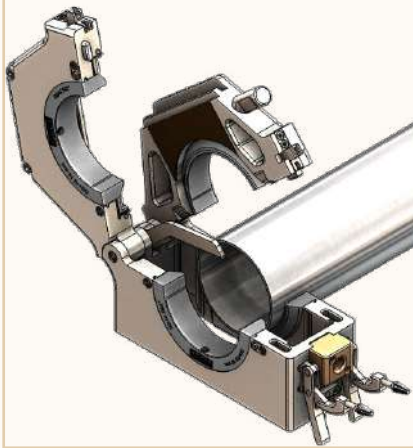
Flexibility: The SATFX heads can be quickly converted to cassette machines and vice versa.

Please note that the cassettes can be ordered later on.



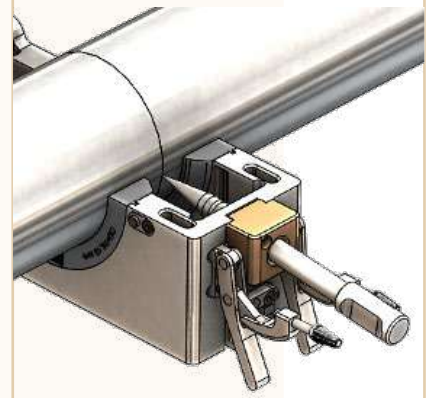
Thin and wide clamping jaws can be used.

Stop blade for placing the cassette on a single tube or accessory and tacking with the SATFX head.



Positioning pen for placing the cassette on two tubes or accessories in line, already tacked.

The tip of the pen represents the tip of the electrode.



Interface to be fixed on the welding head.



Cassette clamping lever on machine.

The cassettes benefit from the same **closing system with adjustable force without tools** that allows precise adjustment of the jaw force on the tube to be welded and assists opening after welding.



NEW **Orbital welding (Closed heads) - Accessories**
Cassettes



Product Code	Description	Net weight	Packaging (in cm)
SATFX52-CA01	Cassette for SATFX-52	2,3 kg	30 x 30 x 15
Cassette to be mounted on the SATFX-52 closed welding head for welding in confined spaces . Easy positioning of the cassette on the parts to be welded before fixing the central body of the head.			
✓ SATFX-52	SATFX-76		SATFX-115

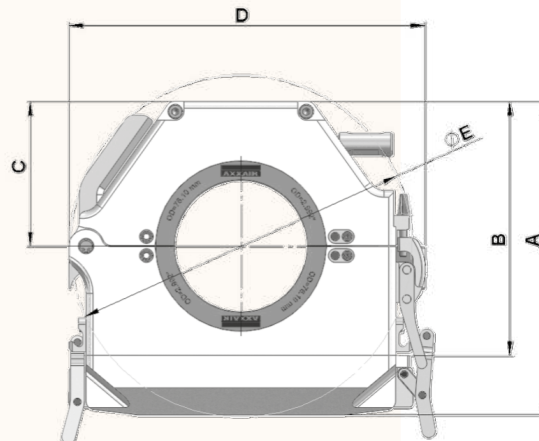
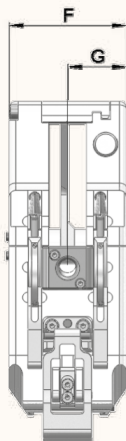


Product Code	Description	Net weight	Packaging (in cm)
SATFX76-CA01	Cassette for SATFX-76	2,7 kg	30 x 30 x 15
Cassette to be mounted on the SATFX-76 closed welding head for welding in confined spaces . Easy positioning of the cassette on the parts to be welded before fixing the central body of the head.			
SATFX-52	✓ SATFX-76		SATFX-115



Product Code	Description	Net weight	Packaging (in cm)
SATFX115-CA01	Cassette for SATFX-115	3,5kg	30 x 30 x 15
Cassette to be mounted on the SATFX-115 closed welding head for welding in confined spaces . Easy positioning of the cassette on the parts to be welded before fixing the central body of the head.			
SATFX-52	SATFX-76		✓ SATFX-115

	SATFX52-CA01	SATFX76-CA01	SATFX115-CA01
A	158	182	222,5
B	123,5	147,5	188
C	72	84	104
D	182,5	206,5	246,5
ØE	175	199	238
F	68,1	68,1	68,1
G	34,05	34,05	34,05



Orbital welding (Closed heads) - Accessories

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NEW



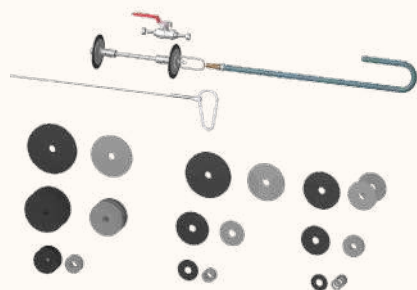
Product Code	Description	Net weight	Packaging (in cm)
SATFX-SUP	Machine support	1.39 kg	20 x 20 x 20

This modular support allows the installation of the machine on all possible types of support (workbench, barrier, etc...).

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115



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.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115



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.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115



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

In order to guarantee the proper functioning of the machine, a **maximum length of 20m of extension or a maximum quantity of 2 extension cables** is recommended. For a higher need, please consult us.

Cooling and use	Length	Product Code	Net weight	Dimensions (AxBxC in mm)
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

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115



Orbital welding (Closed heads) - Accessories

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Thin clamping jaws, thickness 8 mm, stainless steel

A set of thin clamping jaws consists of **four half-shells** machined to the outside diameter of the tube.

For Machine	Product Code	Net weight	Packaging (plastic)
SATFX-52	SMN052-xx	Depending on the tube \varnothing	7.5 x 8 x 3 cm
SATFX-76	SMN076-xx	Depending on the tube \varnothing	11 x 11.5 x 3 cm
SATFX-115	SMN115-xx	Depending on the tube \varnothing	17 x 18 x 3 cm

To order the jaws, replace xx with the outside diameter of the tube you want to weld.

Example: A set of jaws for clamping a tube with an outside diameter of \varnothing 38.10 mm = SMN052-38.1

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115



Wide clamping jaws, thickness 22 mm, aluminium

One set of wide jaws consists of **two half shells** machined to the external diameter of the tube.

For Machine	Product Code	Net weight	Packaging (plastic)
SATFX-52	SML052-xx	Depending on the tube \varnothing	7.5 x 8 x 3 cm
SATFX-76	SML076-xx	Depending on the tube \varnothing	11 x 11.5 x 3 cm
SATFX-115	SML115-xx	Depending on the tube \varnothing	17 x 18 x 3 cm

To order the jaws, replace xx with the outside diameter of the tube you want to weld.

Example: A set of jaws for clamping a tube with an outside diameter of \varnothing 38.10 mm = SML052-38.1

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115



Clamping jaws adaptation spacers, thickness 8 mm, stainless steel

A set of spacers consists of **four half-shells** machined to the outside shape of the jaws concerned. It 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)
SATFX-76	SATF-40NDHX	SMN076-ET40	0.5 kg	7.5 x 8 x 3 cm
	SATFX-52	SMN076-ET52	0.4 kg	7.5 x 8 x 3 cm
SATFX-115	SATF-40NDHX	SMN115-ET40	1.7 kg	7.5 x 8 x 3 cm
	SATFX-52	SMN115-ET52	1.2 kg	7.5 x 8 x 3 cm
	SATF-65NDHX	SMN115-ET65	1.0 kg	11 x 11.5 x 3 cm
	SATFX-76	SMN115-ET76	0.9 kg	11 x 11.5 x 3 cm

Example: With the spacer SMN115-ET76, you can use the jaws of the head SATFX-76 with the SATFX-115.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

AXXAIR also offers adaptation spacers for jaws from other manufacturers. For further information, please contact us.



Join experience



Orbital welding (Closed heads) - Accessories



NEW

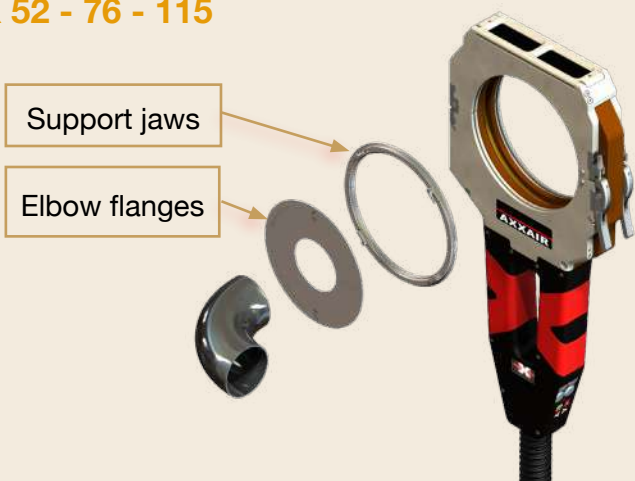
In order to fit various configurations of parts to be welded, AXXAIR offers flanges with a perfect shape for your elbows.

The use of these elbow flanges allows an optimized gas protection while avoiding the use of tape and the cleaning of the elbow after welding.

Use with SATFX 52 - 76 - 115

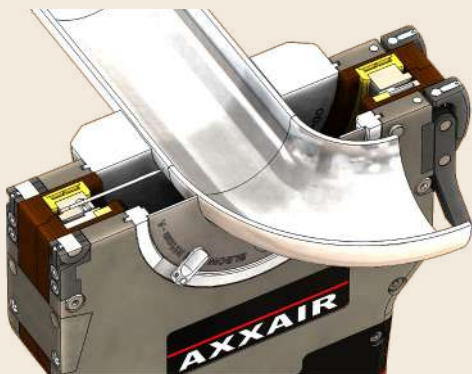
For welding your elbow-tube with a closed head, you will need:

- the specific elbow flange support jaws (2 half-shells) for your machine
- Elbow flanges (2 half-shells) for each outer diameter and radius of your elbow to be welded



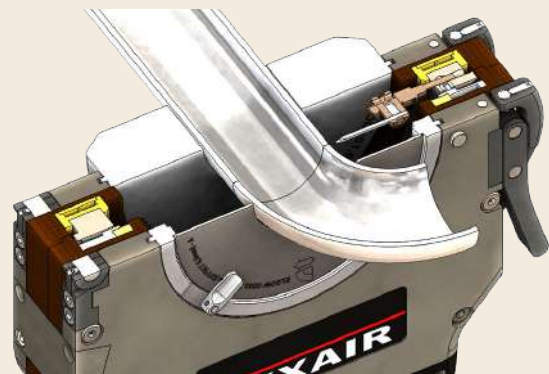
The use of the SSEDX offset electrode support may be required depending on the configuration of the elbow to be welded (in the following product code table, the SSEDX column shows whether the accessories is needed or not).

Standard configuration



Welding axis aligned with the machine

Configuration with offset electrode holder required



Offset welding axis with regards to the machine/head

See the following «accessories» part for more details on the SSEDX offset electrode holder.



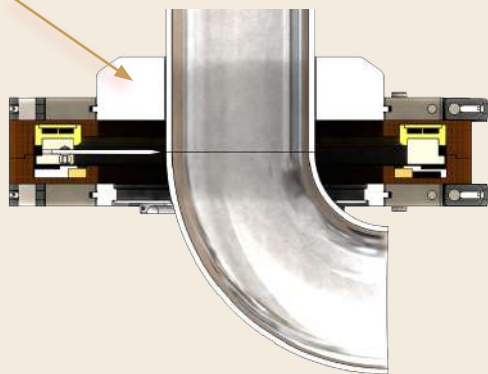
Orbital welding (Closed heads) - Accessories



Tube end

It is recommended to use wide clamping jaws (2 half-shells) to ensure a better hold of the closed head on the tube-elbow to be welded and already tacked.

Wide clamping jaws



Elbow end

The elbow flanges rotate in order to give flexibility and to fit perfectly your different configurations and welding postures.

Elbow flange rotation on their support



Elbow flange support, thickness 10.6 mm, stainless steel

A set of elbow flange support jaws is made of 2 thin half-shells.



For Machine	Product Code	Net Weight	Packaging (plastic)
SATFX-52	SMN052-SFLAX	0.088 kg	10 x 10 x 2.5 cm
SATFX-76	SMN076-SFLAX	0.118 kg	12.5 x 12.5 x 2.5 cm
SATFX-115	SMN115-SFLAX	0.168 kg	16 x 16 x 2.5 cm

These jaws have to be used with elbow flanges depending on elbow to be welded dimensions (OD and radius)

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

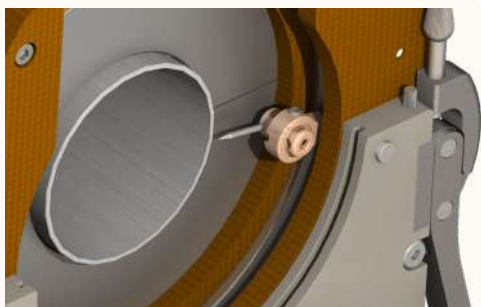


Orbital welding (Closed heads) - Accessories

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✓ SATFX-52

Product Code	Description	Net weight	Dimensions
SSEDX	Offset electrode support	0.008 kg	150 x 210 mm

Remote electrode holder for $\varnothing 1.6$ mm and $\varnothing 2.4$ mm electrodes:

The SSEDX accessory allows a lateral displacement of 2 to 6.5mm from the original position which allows for the welding of short elbows for example.

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

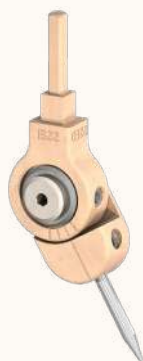
Machine	\varnothing min	\varnothing max
SATFX-52	6 mm	43 mm
SATFX-76	6 mm	67 mm
SATFX-115	12 mm	107 mm

See consumables to find the electrodes required for its use.

✓ SATFX-76

✓ SATFX-115

NEW



✓ SATFX-52

Product Code	Description	Net weight	Dimensions
SSEIX	Inclined electrode holder	0.015 kg	150 x 210 mm

Inclined electrode holder for $\varnothing 1.6$ mm and $\varnothing 2.4$ mm electrodes:

The SSEIX accessory allows the electrode to be tilted from 0° to 45° , which makes it possible to produce angle welds (flange welds or other accessories).

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

Machine	\varnothing min	\varnothing max
SATFX-52	6 mm	28 mm
SATFX-76	6 mm	52 mm
SATFX-115	12 mm	92 mm

See consumables to find the electrodes required for its use.

✓ SATFX-76

✓ SATFX-115



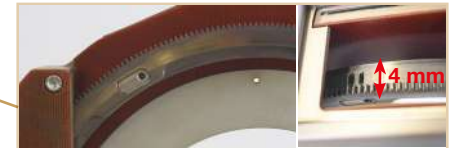
General characteristics

- **Liquid cooling** of the machine
- Operating **without grease**: compatible with clean room standards
- **Direct gas supply** with an optimized gas diffusion system
Max flow rate: 60l/min



2 ergonomic handles which facilitate the handling and the positioning of the machine on the assembly to be welded

Delivered in a shockproof case
Waterproof and dustproof, with a cable support and a shutter handling tool.



Adjustable force clamping system to ensure a consistent clamping of the machine on the the assembly to be welded

Stainless steel remote control:
Start/stop, gas and electrode rotation

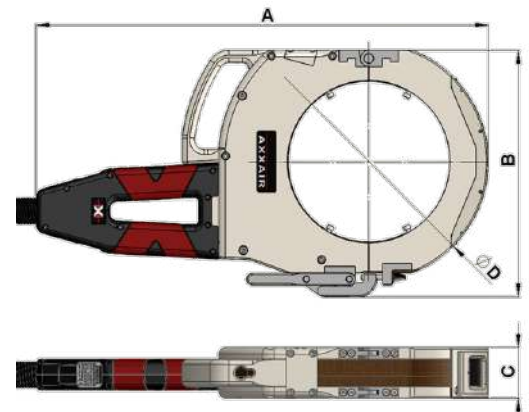


8 meters cable

Maintenance and cleaning : 3 Allen keys allow the machine to be disassembled to clean the interior, without having to empty the head's coolant circuit. An easy and direct access to the gear system allows a simplified cleaning.

Technical characteristics

Product code	SATFX-170
Description	Closed head with liquid cooling and 8 m cable for SAXX welding power sources
Tube diameter (min - max)	ø 38 - ø 170 mm (1.5" - 6")
Weight with cable	14.5 kg
Dimensions (AxBxC)	548 x 299 x 61.3 mm
Dimensions D	ø 290 mm
100% duty cycle	120 A
Maximum welding current	150 A



Accessories

SATFX closed heads

Support for SATFX 52-76-115



Support for SATFX-170



Product Code	Description	Net weight	Packaging (in cm)
SATFX-SUP	Machine support for SATFX 52-76 115	1.39 kg	20 x 14 x 14
SATFX-170- SUP	Machine support for SATFX 170	2,75 kg	30 x 20 x 17

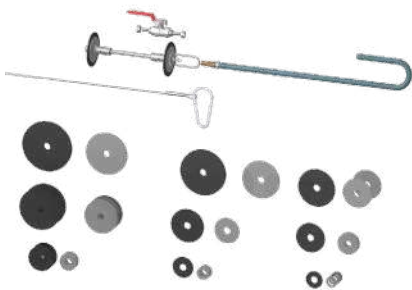
This modular support allows the installation of the machine on all possible types of support (workbench, barrier, etc...).

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

✓ SATFX-170



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.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

SATFX-170*

* For SATFX-170, please contact us.



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.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

SATFX-170

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

In order to guarantee the proper functioning of the machine, a **maximum length of 20m of extension** or a **maximum quantity of 2 extension cables** is recommended. For a higher need, please consult us.



Cooling and use	Length	Product Code	Net weight	Dimensions (AxBxC in mm)
WATER - WITHOUT WIRE	5 meters	SAFS-05MX	7 kg	40 x 59 x 25
	10 meters	SAFS-10MX	14 kg	40 x 59 x 25

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

✓ SATFX-170

Accessories

for SATFX closed heads

Clamping jaws

SATFX-52-76-115



Thin stainless steel jaws
(thick.8mm), 4 half shells



Wide aluminium jaws
(thick. 22mm), 2 half shells

SATFX-170



Standards jaws aluminium
(thick.14mm), 4 half shells

Clamping jaws are machined to the outside diameter of the tube.

To order the jaws, replace xx with the outside diameter of the tube you want to weld.
Example: A set of jaws for clamping a tube with an outside diameter of \varnothing 38.10 mm = SMN052-38.1

For machine	Type of jaws	Product code	Net weight	Packaging (plastic)
SATFX-52	Stainless steel thin jaws	SMN052-xx	Depending on the tube \varnothing	7.5 x 8 x 3 cm
	Wide aluminium jaws	SML052-xx		
SATFX-76	Stainless steel thin jaws	SMN076-xx	Depending on the tube \varnothing	11 x 11.5 x 3 cm
	Wide aluminium jaws	SML076-xx		
SATFX-115	Stainless steel thin jaws	SMN115-xx	Depending on the tube \varnothing	17 x 18 x 3 cm
	Wide aluminium jaws	SMN115-xx		
NEW SATFX-170	Standard aluminium jaws	SMN170-xx	Depending on the tube \varnothing	20 x 20 x 4 cm

Clamping jaws adaptation spacers

A set of spacers consists of **four half-shells** machined to the outside shape of the jaws concerned. It 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)
SATFX-76	SATF-40NDHX	SMN076-ET40	0.5 kg	7.5 x 8 x 3 cm
	SATFX-52	SMN076-ET52	0.4 kg	7.5 x 8 x 3 cm
SATFX-115	SATF-40NDHX	SMN115-ET40	1.7 kg	7.5 x 8 x 3 cm
	SATFX-52	SMN115-ET52	1.2 kg	7.5 x 8 x 3 cm
	SATF-65NDHX	SMN115-ET65	1.0 kg	11 x 11.5 x 3 cm
	SATFX-76	SMN115-ET76	0.9 kg	11 x 11.5 x 3 cm
NEW SATFX-170	SATFX-115	SMN170-ET115	1.130 kg	20 x 20 x 4 cm

Example: With the spacer SMN115-ET76, you can use the jaws of the head SATFX-76 with the SATFX-115.

AXXAIR also offers adaptation spacers for jaws from other manufacturers.

For further information, please contact us.

Accessories

SATFX closed heads - Elbow Flanges

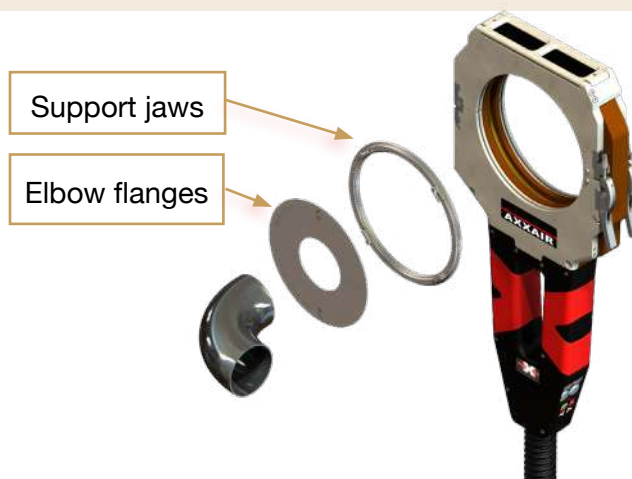
In order to fit various configurations of parts to be welded, AXXAIR offers flanges with a perfect shape for your elbows.

The use of these elbow flanges allows an optimized gas protection while avoiding the use of tape and the cleaning of the elbow after welding.

Use with SATFX 52 - 76 - 115 - 170

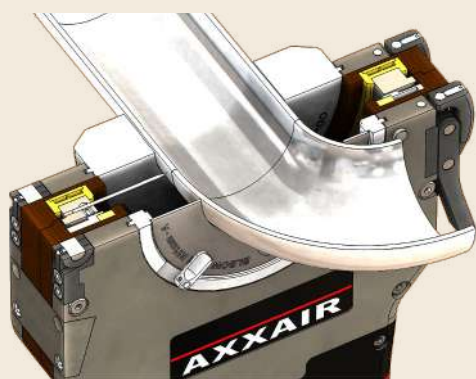
For welding your elbow-tube with a closed head, you will need:

- the specific elbow flange support jaws (2 half-shells) for your machine
- Elbow flanges (2 half-shells) for each outer diameter and radius of your elbow to be welded



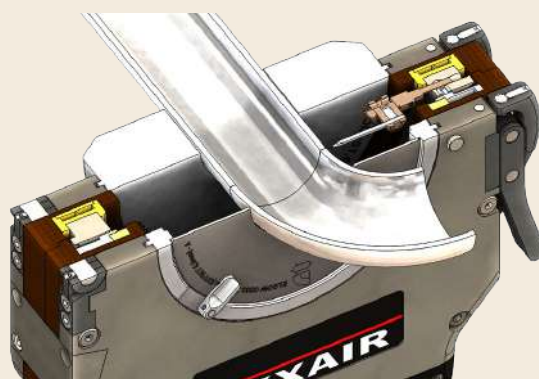
The use of the SSEDX offset electrode support may be required depending on the configuration of the elbow to be welded (in the following product code table, the SSEDX column shows whether the accessories is needed or not).

Standard configuration



Welding axis aligned with the machine

Configuration with offset electrode holder required



Offset welding axis with regards to the machine/head

See the following «accessories» part for more details on the SSEDX offset electrode holder.

Accessories

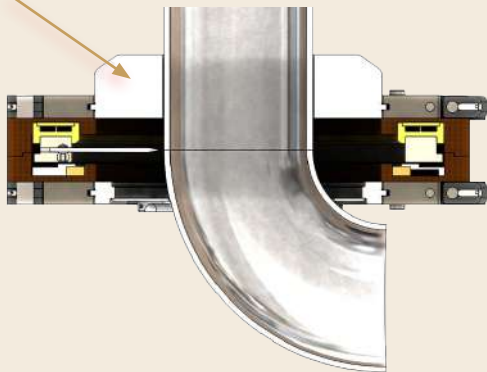
SATFX closed heads - Elbow Flanges



Tube end

It is recommended to use wide clamping jaws (2 half-shells) to ensure a better hold of the closed head on the tube-elbow to be welded and already tacked.

Wide clamping jaws



Elbow end

The elbow flanges rotate in order to give flexibility and to fit perfectly your different configurations and welding postures.

Elbow flange rotation on their support



Elbow flange support, thickness 10.6 mm, stainless steel

A set of elbow flange support jaws is made of 2 thin half-shells.



For Machine	Product Code	Net Weight	Packaging (plastic)
SATFX-52	SMN052-SFLAX	0.088 kg	10 x 10 x 2.5 cm
SATFX-76	SMN076-SFLAX	0.118 kg	12.5 x 12.5 x 2.5 cm
SATFX-115	SMN115-SFLAX	0.168 kg	16 x 16 x 2.5 cm
SATFX-170	SMN170-SFLAX	0.495 kg	20 x 20 x 4 cm

These jaws have to be used with elbow flanges depending on elbow to be welded dimensions (OD and radius)

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

✓ SATFX-170

Accessories

For SATFX closed heads



Product Code	Description	Net weight	Dimensions
SSEDX	Offset electrode support	0.008 kg	150 x 210 mm

Offset electrode holder for $\varnothing 1.6$ mm and $\varnothing 2.4$ mm electrodes:

The SSEDX accessory allows a lateral displacement of 2 to 6.5 mm from the original position which allows for the welding of short elbows for example.

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

Machine	\varnothing min	\varnothing max
SATFX-52	6 mm	43 mm
SATFX-76	6 mm	67 mm
SATFX-115	12 mm	107 mm
SATFX-170	38 mm	161,3 mm

See consumables to find the electrodes required for its use.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

✓ SATFX-170



Product Code	Description	Net weight	Dimensions
SSEIX	Inclined electrode holder	0.015 kg	150 x 210 mm

Inclined electrode holder for $\varnothing 1.6$ mm and $\varnothing 2.4$ mm electrodes:

The SSEIX accessory allows the electrode to be tilted from 0° to 45° , which makes it possible to produce angle welds (flange welds or other accessories).

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

Machine	\varnothing min	\varnothing max
SATFX-52	6 mm	28 mm
SATFX-76	6 mm	52 mm
SATFX-115	12 mm	92 mm
SATFX-170	38 mm	152 mm

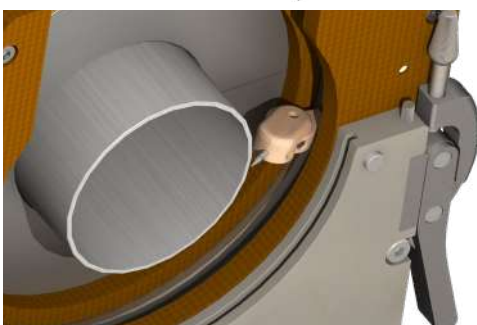
See consumables to find the electrodes required for its use.

✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

✓ SATFX-170



Orbital Welding: Microfit closed heads

The new SAMX-17 microfit head is ideal for welding tubes and fittings 3 mm and up in diameter, mainly used in the semiconductor industry.

Controlled by the SAXX power source, the SAMX-17 can be used with different types of cassettes, depending on the configuration of the parts to be welded: tube/tube, tube/fitting, fitting/fitting, etc.

The steps for welding with the SAMX-17 closed head are as follows:

1 - **The cassette**, composed of 2 sideplates equipped with jaws, is brought onto the assembly to be welded. There are **several types of sideplates** depending on the parts to be welded.

2- The machine is then slid into this cassette, which allows the **electrode** to be easily placed on the section to be welded.

FLEXIBILITY, PRODUCTIVITY

The duty cycle of 70A at 50% and 80A at 40% provides a high level of performance.

The cassettes have been designed to fit various configurations of parts to be welded.

QUALITY AND REPEATABILITY

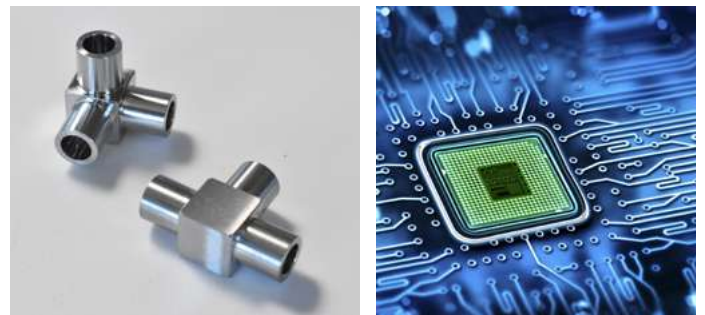
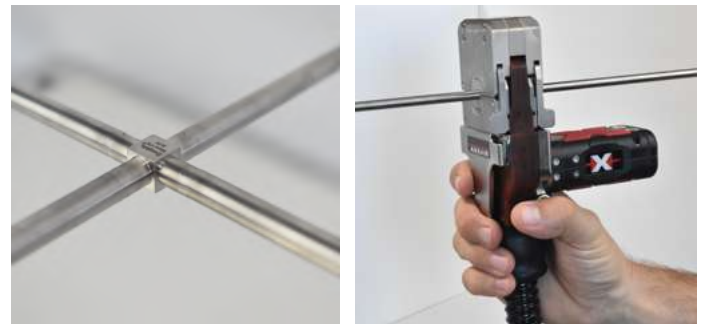
High quality materials, greaseless operation, easy maintenance and cleaning thanks to an Allen key integrated in the body of the machine: the SAMX-17 machine meets the requirements of high-tech industries and allows intensive use while producing a quality weld seam.

PORTABILITY

In order to allow you to weld in restrictive conditions and locations, the size and weight of the machines have been optimized.



3- **The automatic welding cycle** is started directly through the integrated remote control. This head is used in combination with our SAXX power source and is compatible with all the features: dual digital gas control, welding monitoring by alarm, auto-calculation of welding parameters, remote control.



Contact us for all your inquiries as the applications can be various and the welding configurations multiple.

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

NEW !**SAMX-17****AXXAIR**
INNOVATIVE ORBITAL SOLUTIONS

General characteristics

- **Microfit closed head with cassettes for orbital TIG welding**, powered by SAXX power source
- High level of performance with a **duty cycle of 70A at 50% and 80A at 40%**.
- **Grease-free operation:** compatible with clean room standards
- Optimal positioning of tubes and fittings in the cassettes with an optimized clamping system, without risk of deforming the part to be welded
- **Optimized inert gas diffusion:** welds with very limited coloration
- **Easy maintenance and cleaning :** thanks to a tool integrated in the machine body

AIR cooling

Aluminum side plates contribute to heat dissipation

Heat shield

Allows to protect the area near the the electrode

Belt hook

Compact and light
Weight : 5.5 kg with
8 meters cable

Compatible with SAXX power sources



Integrated remote control

Start/stop, gas and electrode rotation



Illuminated logo
while welding

Constant effort cassette locking lever

Stable holding of the cassette, without the risk of over tightening.

Compatible with Swagelok cassettes, please contact us

Delivered in a shockproof case

Waterproof and dustproof

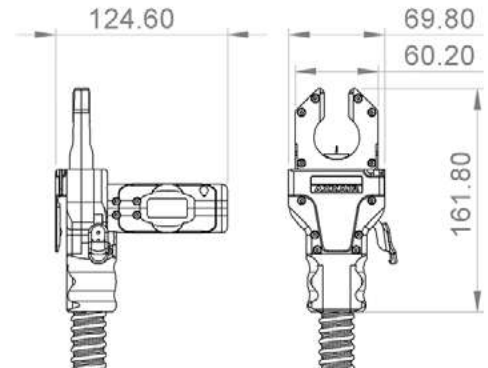


Tool for disassembling the machine, adjust/change the electrode and position the jaws

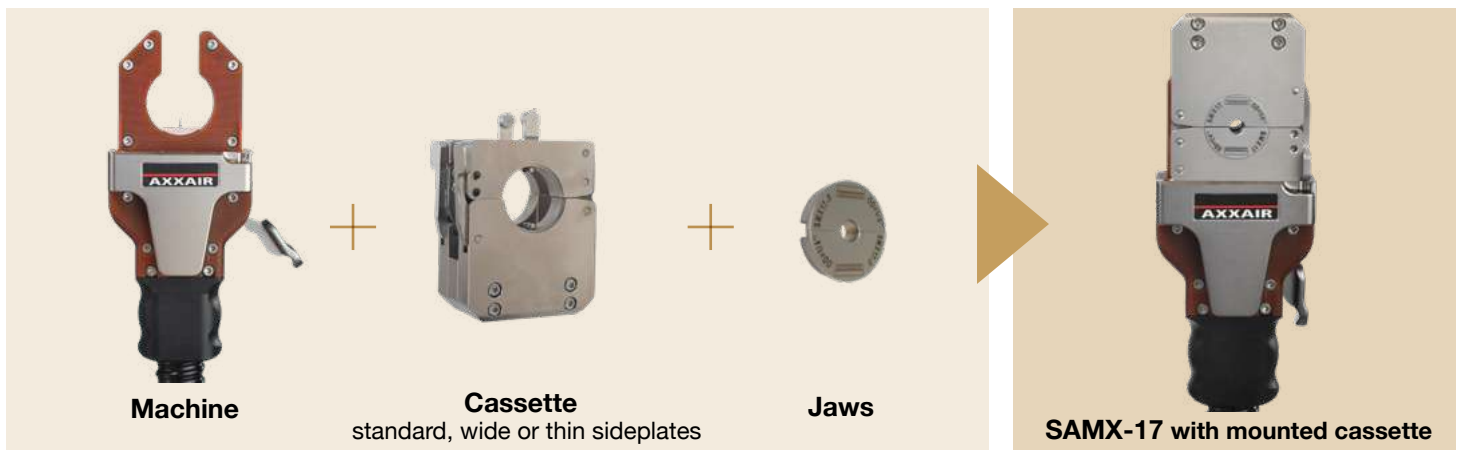


Technical characteristics

Product code	SAMX-17
Description	Microfit closed welding head with 8m cable
Tube diameter (min - max)	ø 3 - ø 17,2 mm (1/8" to 5/8")
Electrode diameter	Ø1.0 mm (0,04")
Weight with cable	5,5 kg
Duty cycle at 50%	70A
Duty cycle at 40%	80A
Maximum welding current	100 A
Dimensions	see on the right
Operating temperature	0C° to +40C° (32°F to 104°F)



Complete composition of a microfit closed head SAMX17



MODULAR CASSETTES

Designed to adapt to various configurations of parts to be welded, they are made of nickel-treated aluminum, which ensures lightness and high electrical conductivity.

A cassette consists of **2 sideplates and a central body** (common to all sideplates).

3 types of sideplates are available (**standard, wide and thin**) and can be combined according to the configuration of the parts to be welded.



SPECIFIC JAWS

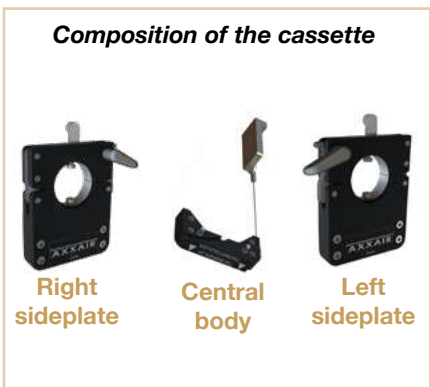
Each model of sideplates has its own references of jaws corresponding to the specificities of the parts to be welded.

All AXXAIR clamping jaws are made of stainless steel.

The tubes are thus neither polluted nor deformed.



Standard Cassette & Sideplates



Standard cassette SAMX

Description	Product code
Standard Cassette SAMX Tube-Tube (complet kit)	SAMX17-CAB01
Standard right sideplate	SAMX17-CADB01
Standard left sideplate	SAMX17-CAGB01
Standard central body SAMX (common to all siteplates)	SAMX17-CAMB01

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

à modifier

Jaws 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



Cassettes - Wide Sideplate



Wide sideplate (right and left)

Wide sideplate for SAMX

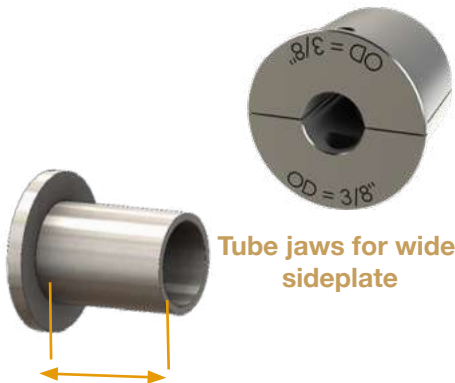
Description	Product code
Wide sideplate (right and left)	SAMX17-CADGB03
Standard central body SAMX (common to all sideplates)	SAMX17-CAMB01

* An adaptation kit for old cassettes is available (contact us).

Tube jaws for wide sideplate

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 sideplates

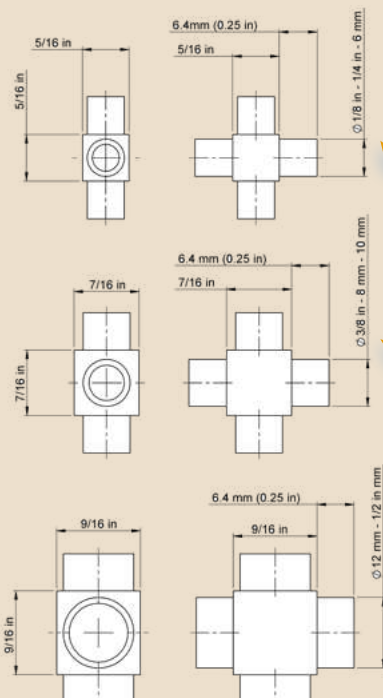


Tube jaws for wide sideplate

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

Fitting jaws for wide sideplate





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

Fitting jaws for wide sideplate

Cassettes - Thin sideplates



Left thin sideplate



Right thin sideplate

Thin sideplates

Description	Product code
Right thin sideplate	SAMX17-CADB02
Left thin sideplate	SAMX17-CAGB02
Standard central body SAMX (common to all sideplates)	SAMX17-CAMB01

* An adaptation kit for old cassettes is available (contact us).

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



Jaws for thin sideplate



Jaws 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



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

Accessories - SAMX 17



Cable extension

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

The SAMX-17 machines is delivered with a cable of 8 meters

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

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

Consumables - SAMX 17

Electrodes for SAMX-17



Product code	Outside diameter of the tube to be welded		Electrode length
	min (mm)	max (mm)	
SCE10-14.0	13,4	17,3	14.0 mm
SCE10-16.0	9,4	13,8	16.0 mm
SCE10-18.0	5,4	9,8	18.0 mm
SCE10-20.0	2,0	5,8	20.0 mm

- Electrode diameter of 0.040" (1,02mm) with the length adapted to the tube diameter.

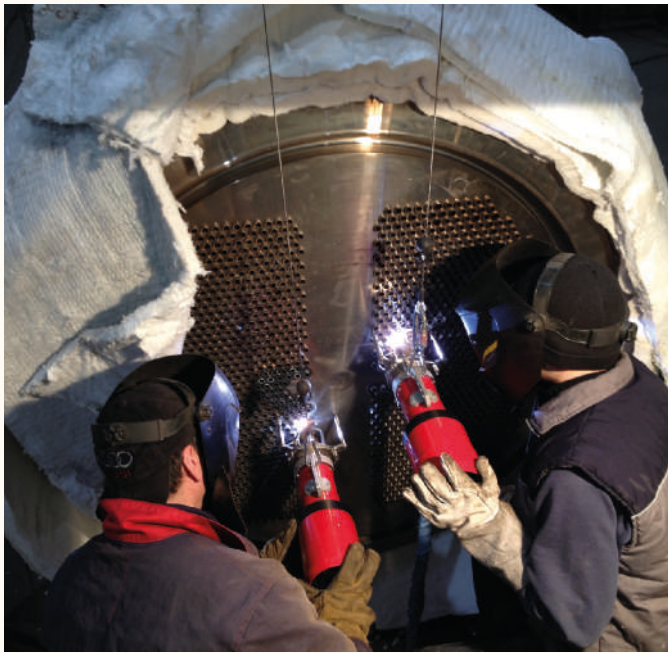
- Sold per pack of 10

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

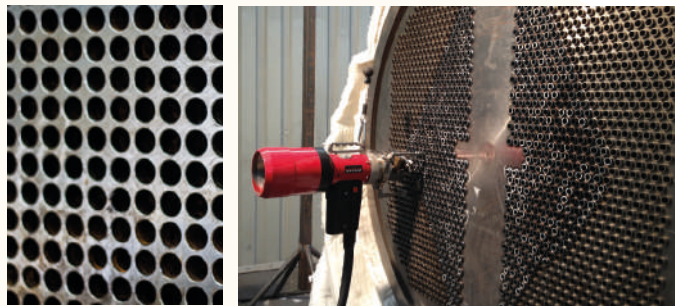
This head can weld in simple fusion or with the supply of wire. The wire feed is mounted on the head (1 kg reel) and rotates with the torch to ensure controlled wire output.

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.



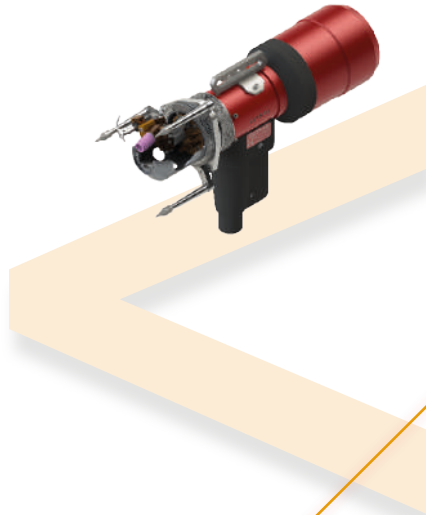
Please do not hesitate to contact us for all enquiries relating to tube sheet welding technology.

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



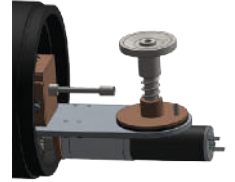
SATP-80X



Water Cooled

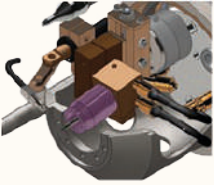


Wire holder 1 kg



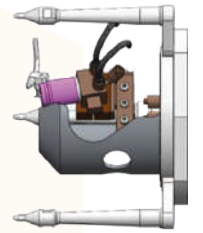
Tilting head

Water cooled with tilting wire



Positioning stops

Adjustable stops for better tube sheet stability



Mandrel system

Concentric tightening from the inside of the tube

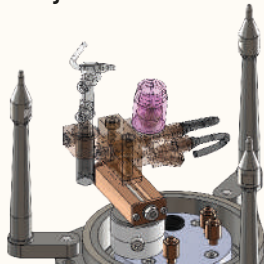


Compatible with the SAXX power sources



Flexibility

Head and wire adjustment trolley



Electric motor with wire feed



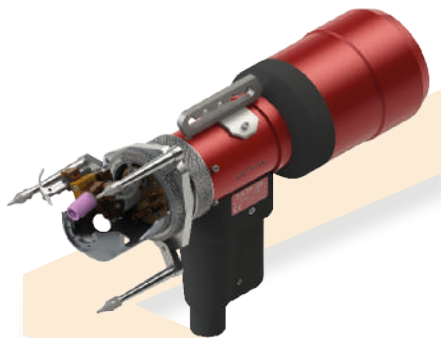
Welding range

SATP-80X	ø 10 - ø 80 mm 0.4 - 3 "
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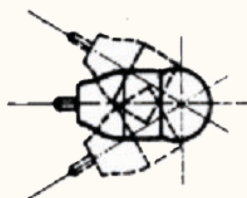
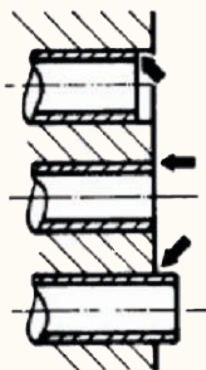
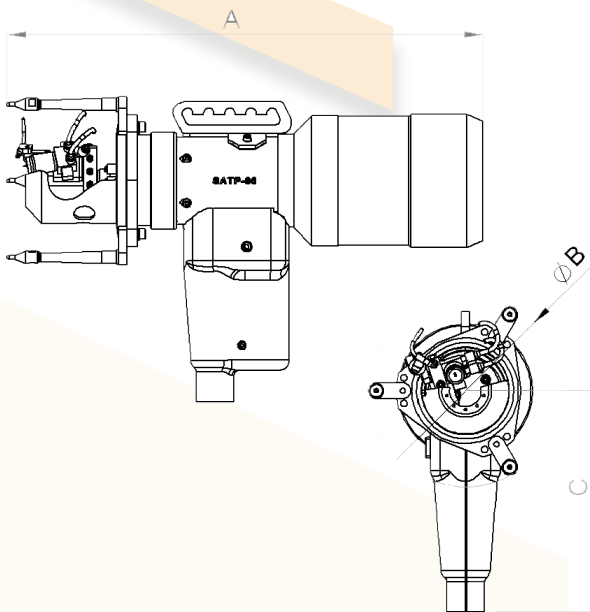
SATP-80X

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



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



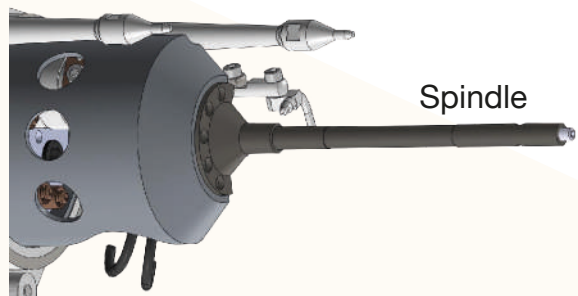
Orbital welding (Tube to tube sheet) - Accessories

AXXAIR

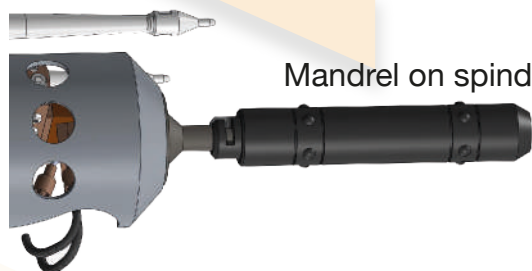
INNOVATIVE ORBITAL SOLUTIONS

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 \varnothing (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	
12.8 to 14.0 mm	SATP-M21	SATP-B02
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



SATP mandrels (continued)

SATP Centring mandrels:

Tube inner ϕ 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 (Open head)

AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

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

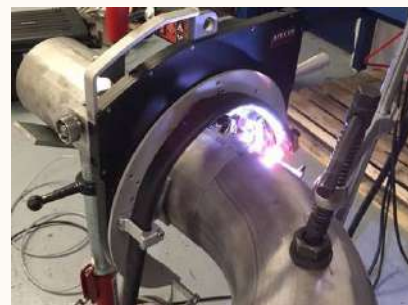
AXXAIR open heads are available with or without filler metal. They have an optimized rotation sweep and 2 positions of feed motor to choose from. High duty cycle (water cooled torch), transport of welding equipment by air (air cooled torch).

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!



Join **experience**



Orbital welding

AIR cooling or WATER cooling?

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.

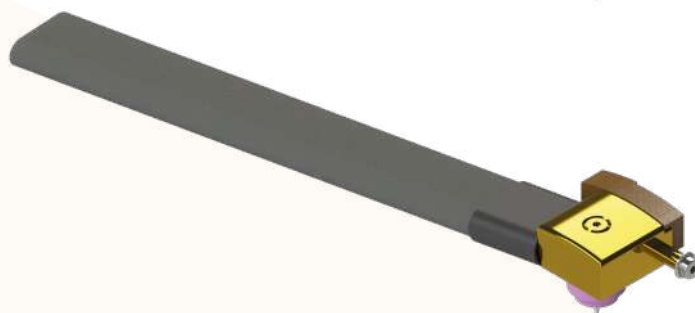
Since the AIR duty cycle is smaller than that for WATER, it is essential not to exceed the recommendations listed below.



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.

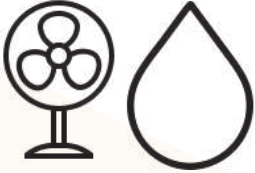
Since AXXAIR hardware is designed to be scalable, it is simple to switch from a water version to an air version.



SATO-40 - 80 - 115 - 170 - 220

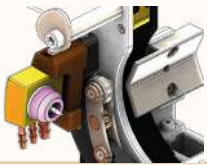
AXXAIR
INNOVATIVE ORBITAL SOLUTIONS

Air Cooled or Water Cooled



Roller mechanical profile tracking

Constant arc voltage without marking the tube

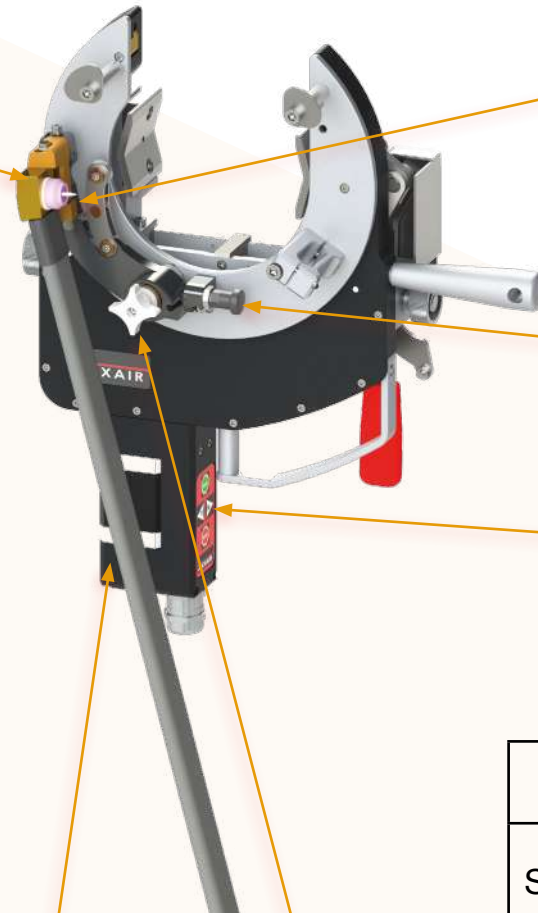
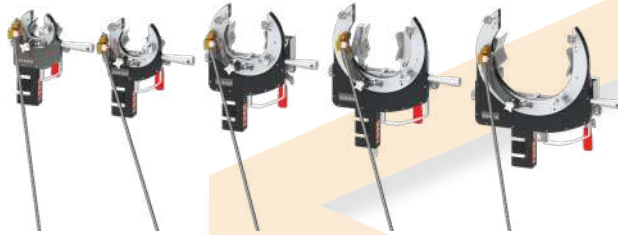


Compatible with the SAXX power sources



Transport

These heads are delivered in their individual transport case



Protection

High protection against arcing outside the electrode

Torch angle adjustment

Welding flanges and short T angle

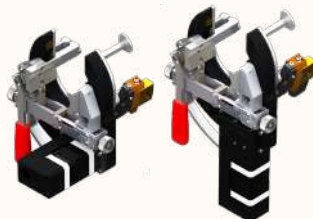


Locked open position

Motorization with encoder

Allows STARTING IN ALL ANGULAR electrode positions

Straight or Angled motor
Symmetrical clamping



Axial Adjustment

Wheel for axial adjustment of the position of the electrode

Welding range

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



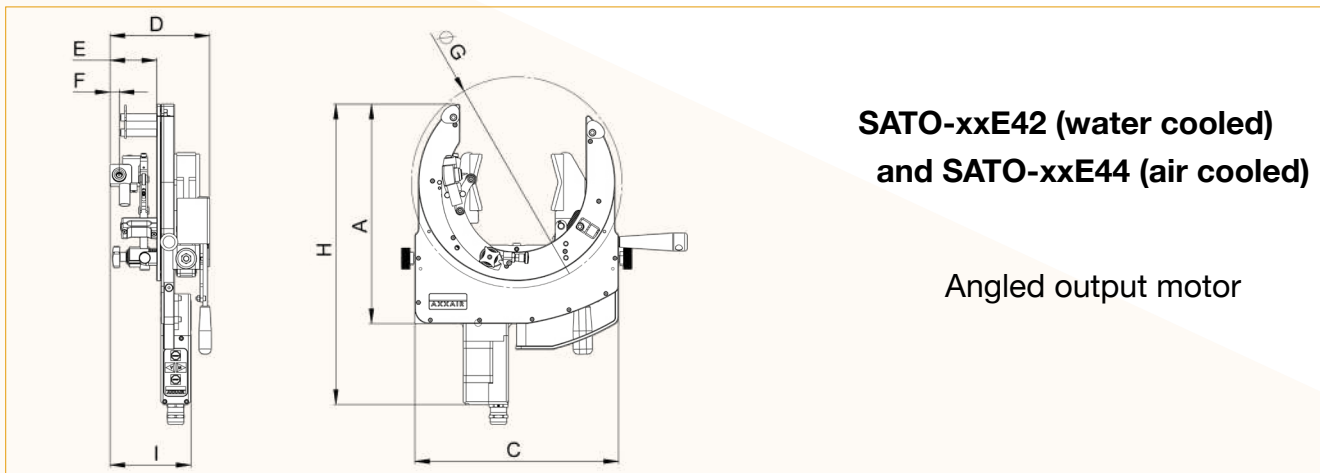
SATO-40 - 80 -115 - 170 -220



Technical characteristics:

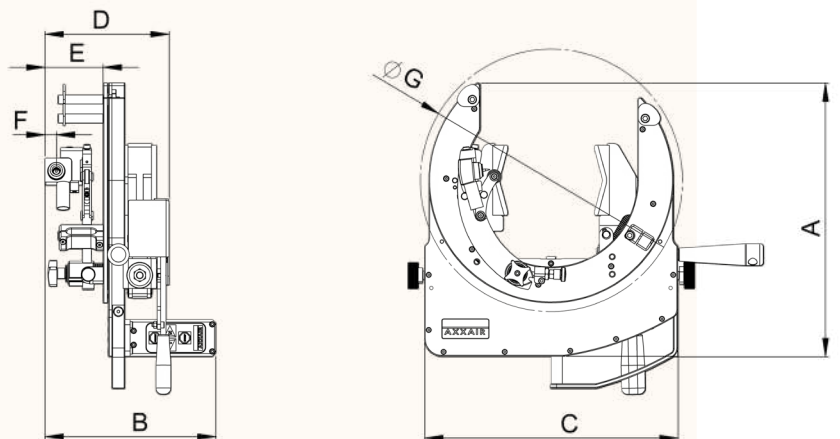
- WATER or AIR cooled head
- Mechanical profile tracking: constant arc height without marking the tube
- Quick symmetrical tightening by lever
- Motorization with encoder: allows starting from any angular position of the electrode
- Wide diameter range
- Inclination and axial adjustment of the electrode
- 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
SATO-40	169	183 to 191	142	116 to 126	57 to 67	13	Ø140	270	113 to 121
SATO- 80	181	186 to 196	160	116 to 126			Ø180	279	
SATO-115	265	186 to 196	230	133 to 143			Ø224	363	
SATO-170	312	186 to 196	290	133 to 143			Ø294	410	
SATO-220	353	186 to 196	350	133 to 143			Ø350	451	



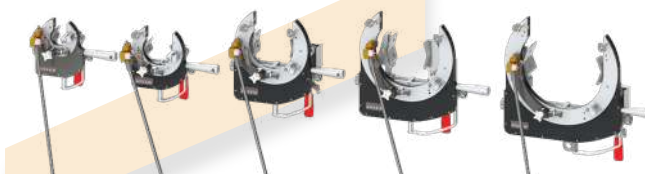
Join experience



SATO-40 - 80 - 115 - 170 - 220

AXXAIR

INNOVATIVE ORBITAL SOLUTIONS



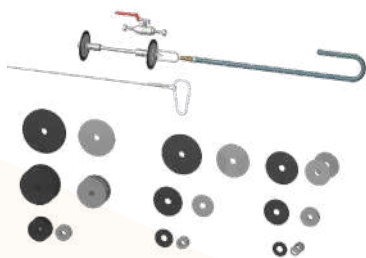
Motor	Cooling	Product Code	Welding machine for tubes of the following diameters (in mm)	Net weight	Dimensions (AxBxC in mm)
Angled motor	WATER	SATO-40E42	∅ 10 - ∅ 40 mm	3.8 kg	169 x 183 x 142
		SATO-80E42	∅ 19 - ∅ 80 mm	4.2 kg	181 x 186 x 160
		SATO-115E42	∅ 19 - ∅ 115 mm	6.7 kg	265 x 186 x 230
		SATO-170E42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



Orbital welding (Open heads) - 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.

✓ 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

AXXAIR

INNOVATIVE ORBITAL SOLUTIONS

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.

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

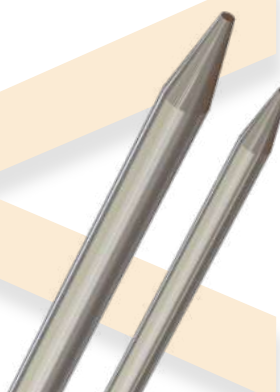


Orbital welding (Open head) - Consumables



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 1.6 mm , length 50mm			
- Box of 10 electrodes			

✓ SATO-40E4x	✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x
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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			

✓ SATO-40E4x	✓ SATO-80E4x	✓ SATO-115E4x	✓ SATO-170E4x	✓ SATO-220E4x
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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 Ø 1.6 mm or Ø 2.4			
- 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
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AXXAIR's orbital welding

Sweep Multi-pass TIG welding

- AVC/OSC system -

AXXAIR
INNOVATIVE ORBITAL SOLUTIONS

Motorised voltage control: AVC

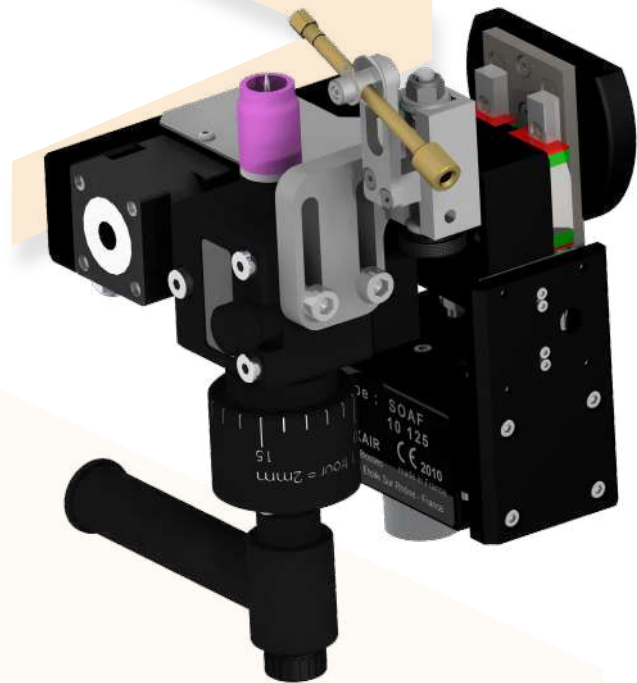
Motorised Arc Voltage Control is often abbreviated to AVC. Arc voltage is directly linked to the distance between the tube to be welded and the electrode. In other words, this option ensures the correct tube-electrode distance is maintained electronically during welding.

AVC can indeed be of huge benefit, especially in mechanised welding, and the more sensors there are to guide the machine, the less user intervention is required.

The two most frequent applications:

- When you do not wish to measure the external diameter physically using a feeler probe; AVC requires no contact with the tube and the sensor is more accurate and responsive than with physical tracking.

- When wire welding and the deposition rate beneath the electrode is not fully controlled, this can obviously affect the arc length. In this case, AVC means you never go near the soldering bath.



Fusion+OSC+wire:

This welding method combines AVC movement with oscillation of the torch and wire. This method is used for multi-pass welding of high thickness materials.

Torch oscillation is where the electrode is swung left and right in a linear motion so that each side of the joint can be kept liquid as welding progresses.

Oscillation brings an improvement in the number of passes, and therefore significantly improves productivity.

This system, when combined with AVC, is the only effective way of filling a tulip joint in multi-pass TIG welding.

These systems are available on prefabrication machines and open heads.



SX122 - 172 - 222 - 322 (AVC/OSC)




No tube deformation
Concentric clamping



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

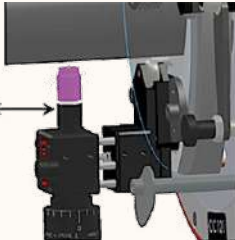
Water Cooled




Automatic rotation
Connected to the SAXX welding power sources

Control of the wire
regulation of the wire by the SAXX power source

Multi-pass welding
Mortorised axial sweep (OSC)
Movement of the electrode's axial position: +/- 10 mm



Constant distance: electrode-tube
Motorised setting and control of the distance tube-electrode (AVC)
regulates the arc voltage, the distance between the electrode and the tube

Easy handling and transportation



AVC/OSC system
Allows to weld tubes with up to 12.7 mm wall thickness

Compatible with the 210 and 300 SAXX power sources



Opening capacity	
122	ø12 - 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 "



SX122 - 172 - 222 - 322 (AVC/OSC)



Technical characteristics:

Orbital TIG welding machine for prefabrication with AVC/OSC system, water cooled.

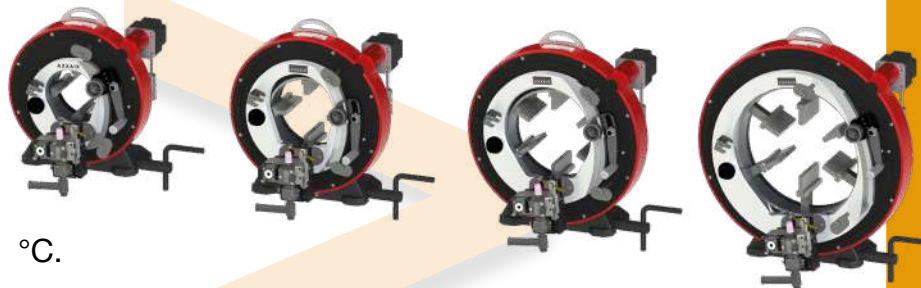
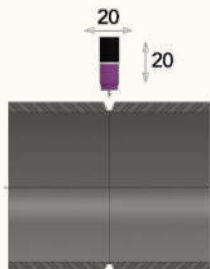
For optimum use, the ambient temperature must be between 0 °C and + 40 °C.

These machines are intended for orbital TIG welding. This range of products may be used for tube-to-tube, tube-to-elbow, tube-to-ferrule and T-joint welding, as well as SMS connectors and other work pieces.

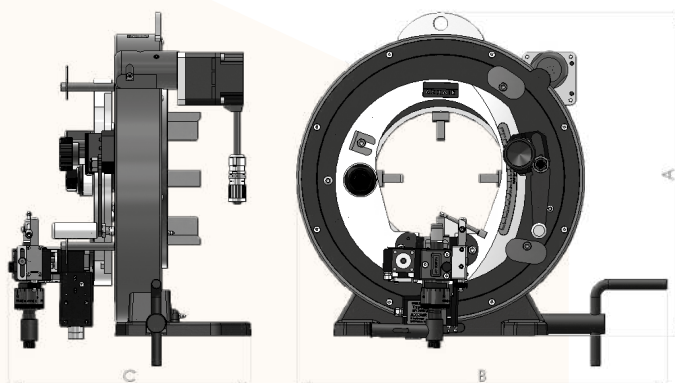
Compatible with AXXAIR type SAXX-210 and SAXX-300 welding generators, we have an automatic parameter calculation mode.

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

- Oscillation range: 20 mm,
- AVC range: 20 mm
- Max speed: 15 mm/s



Model	Operating factor of 100%
SX-xx2-NAOF (WATER)	200 A



	Product Code	Machine's jaw opening capacity in mm		Net weight	Dimensions (AxBxC in mm)
		With basic jaws	With extra jaws (included)		
Water Cooled	SX122-NAOF	Ø29 - Ø119	Ø12 - Ø99	46 kg	446 x 541 x 346-371
	SX172-NAOF	Ø74 - Ø173	Ø16 - Ø116	53 kg	493 x 566 x 346-371
	SX222-NAOF	Ø128 - Ø228	Ø55 - Ø155	61 kg	548 x 594 x 346-371
	SX322-NAOF	Ø230 - Ø328	Ø141 - Ø239	74 kg	649 x 644 x 346-371

Orbital welding (Closed heads) - Accessories



NEW



Product Code	Description	Net weight	Dimensions
SSEDX	Offset electrode support	0.008 kg	150 x 210 mm

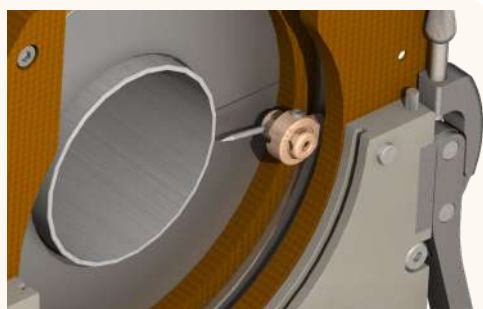
Remote electrode holder for $\varnothing 1.6$ mm and $\varnothing 2.4$ mm electrodes:

The SSEDX accessory allows a lateral displacement of 2 to 6.5mm from the original position which allows for the welding of short elbows for example.

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

Machine	\varnothing min	\varnothing max
SATFX-52	6 mm	43 mm
SATFX-76	6 mm	67 mm
SATFX-115	12 mm	107 mm

See consumables to find the electrodes required for its use.



✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

NEW



Product Code	Description	Net weight	Dimensions
SSEIX	Inclined electrode holder	0.015 kg	150 x 210 mm

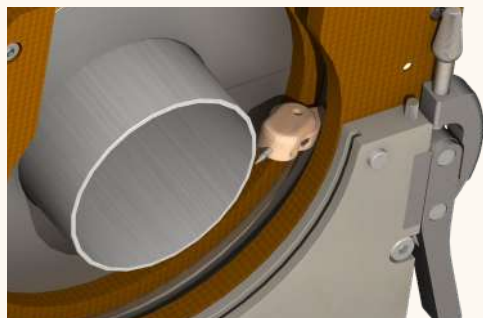
Inclined electrode holder for $\varnothing 1.6$ mm and $\varnothing 2.4$ mm electrodes:

The SSEIX accessory allows the electrode to be tilted from 0° to 45° , which makes it possible to produce angle welds (flange welds or other accessories).

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

Machine	\varnothing min	\varnothing max
SATFX-52	6 mm	28 mm
SATFX-76	6 mm	52 mm
SATFX-115	12 mm	92 mm

See consumables to find the electrodes required for its use.



✓ SATFX-52

✓ SATFX-76

✓ SATFX-115

