# Orbital welding (Open heads)



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 heads provided with or without an AVC/OSC system.

#### FLEXIBILITY, PRODUCTIVITY

AXXAIR open heads are available or without filler metal. They have an optimized rotation sweep positions of feed motor to choose from. High duty cycle (water cooled torch).

#### QUALITY AND REPEATABILITY

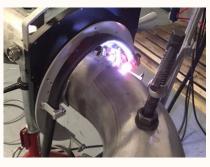
The SATO range is connected to our orbital generators, which permanently control all the welding parameters, guaranteeing repeatable and quality welds.

#### **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 generator.









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!



# SATO-40 - 80 -115 - 1

INNOVATIVE ORBITAL SOLUTIONS





### Roller mechanical profile tracking

Constant arc voltage without marking the tube



# Compatible With the **SAXX** generators

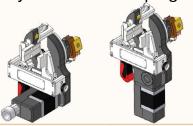


#### **Transport**

These heads are delivered in their individual transport case



# Straight or **Angled motor** Symmetrical clamping



# Axial **Adjustment**

Wheel for axial adjustment of the position of the electrode

## **Protection**

High protection against arcing outside the electrode

# Torch angle adjustment

Welding flanges and short T angle



## Locked open position

## **Motorization** with encoder

Allows STARTING IN ALL **ANGULAR** electrode positions

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



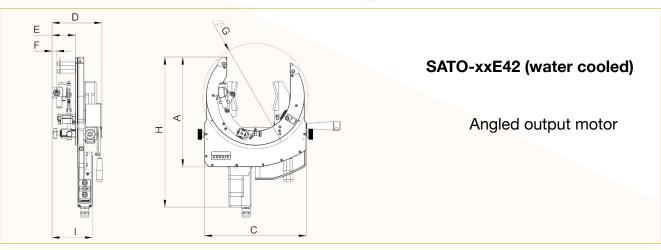
# SATO-40 - 80 -115 - 170 -220

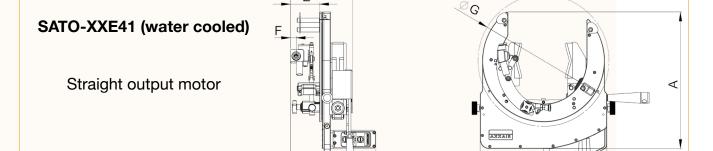


### **Technical characteristics:**

- WATER 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)





	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	l mm
SATO-40	169	183 to 191	142	116 to 126		13	Ø140	270	113 to 121
SATO- 80	181	186 to 196	160	116 to 126				279	
SATO-115	265	186 to 196	230	133 to 143	57 to 67		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	



С



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





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Moteur	Cooling	Product Code	Welding machine for tubes of the following diameters (in mm)	Net weight	Customs code	Dimensions (AxBxC in mm)
Angled motor	WATER	SATO-40E42	ø 10 - ø 40 mm	3.8 kg		169 x 183 x 142
		SATO-80E42	ø 19 - ø 80 mm	4.2 kg		181 x 186 x 160
		SATO-115E42	ø 19 - ø 115 mm	6.7 kg	85153 10000	265 x 186 x 230
		SATO-170E42	ø 25 - ø 170 mm	8 kg		312 x 186 x 290
		SATO-220E42	ø 38 - ø 220 mm	9.4 kg		353 x 186 x 350
Straight motor	WATER	SATO-40E41	ø 10 - ø 40 mm	3.8 kg		169 x 191 x 142
		SATO-80E41	ø 19 - ø 80 mm	4.2 kg		181 x 196 x 160
		SATO-115E41	ø 19 - ø 115 mm	6.7 kg	85153 10000	265 x 196 x 230
		SATO-170E41	ø 25 - ø 170 mm	8 kg		312 x 196 x 290
		SATO-220E41	ø 38 - ø 220 mm	9.4 kg		353 x 196 x 350



