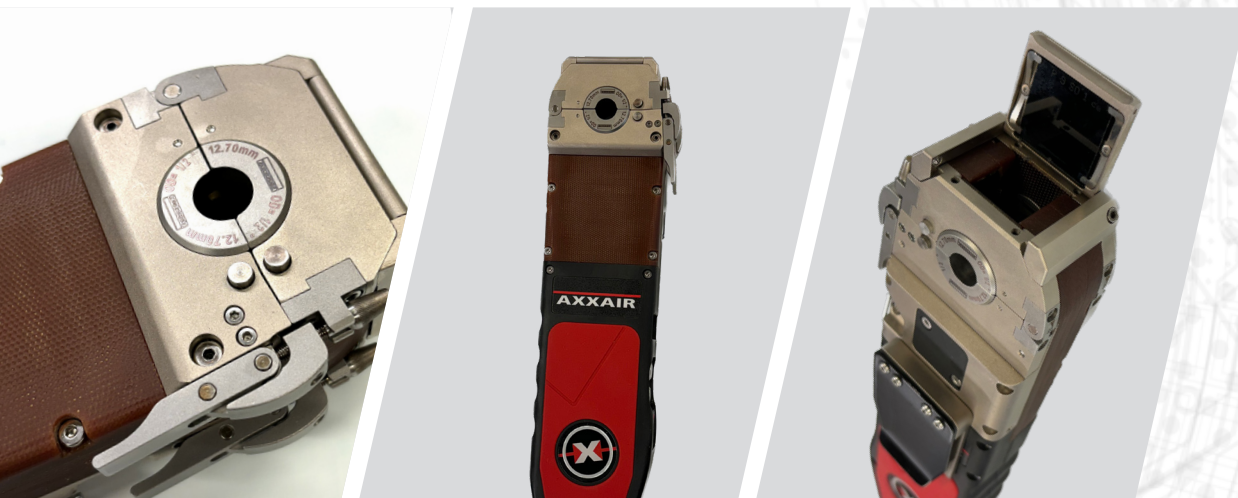


ORBITAL WELDING SOLUTIONS

MICROFIT CLOSED WELD HEAD X-750

0.118 - 0.75" o/d / 3 - 19.05 mm o/d



SCAN QR CODE
TO WATCH VIDEO



AN  GROUP BRAND

PRODUCT BROCHURE

www.AXXAIR.COM



The **Specialized Fabrication Equipment Group** (in short: **S.F.E. Group**) was founded in 2019 after the merger of three world leading OEM's in the field of pipe fabrication tooling and machinery: B&B Pipe and Industrial Tools LLC (USA), Mathey Dearman Inc. (USA) and TAG Pipe Equipment Specialists (UK). In a time span of 5 years, another 4 renowned and market leading companies were acquired and added to the **S.F.E. Group** portfolio: Axxair (France, 2022), Magnatech (USA, 2023), Climax (USA, 2023) and Sumner (USA, 2025).

The vision and philosophy of the **S.F.E. Group** is to offer globally a comprehensive innovative and cost-effective range of specialized fabrication, welding and machining equipment and derived rental solutions, for a wide range of applications within all critical industries, while optimizing performance, efficiency and safety.

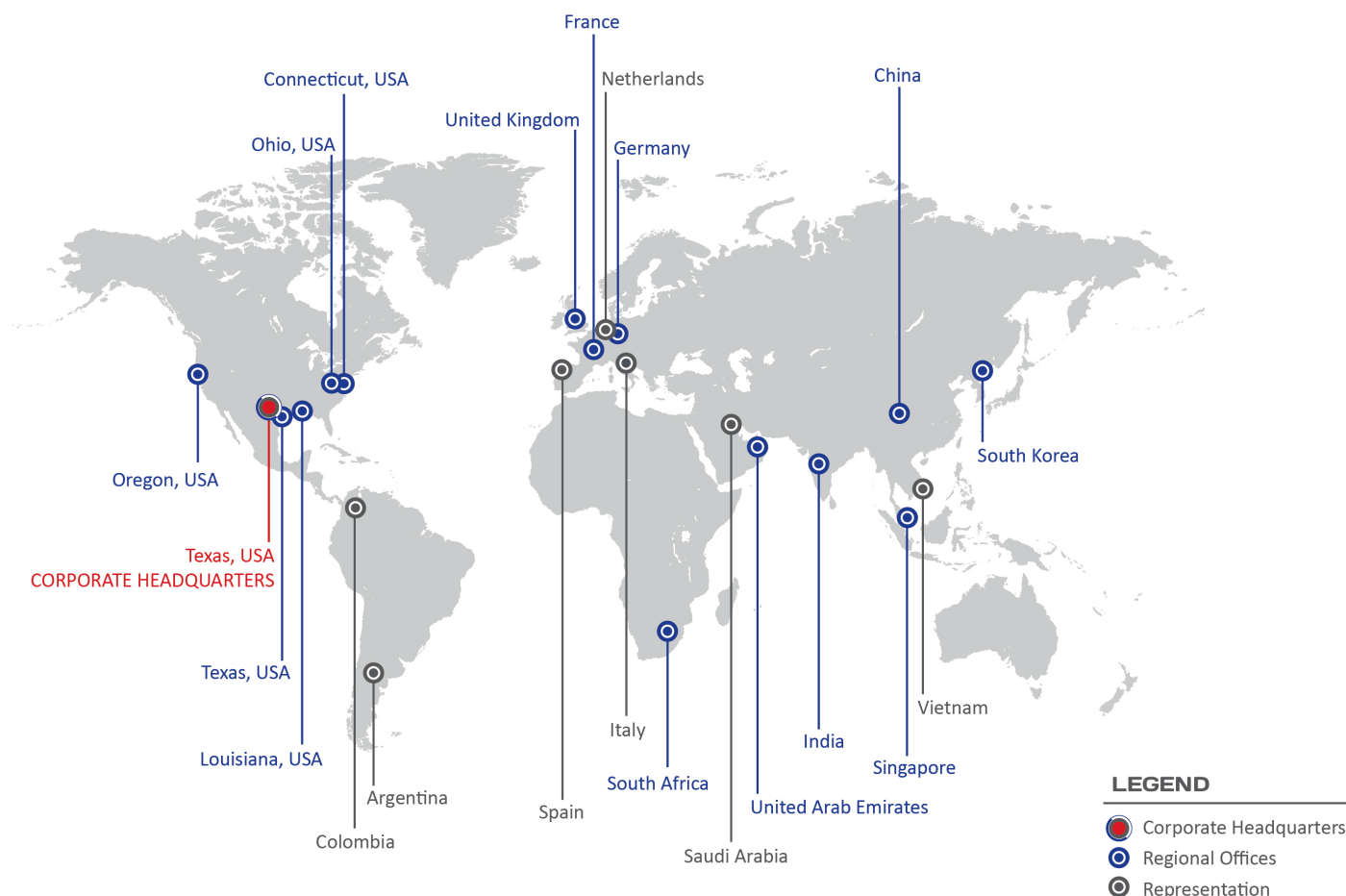
Leveraging over 200 years of combined experience in engineering, manufacturing, and field applications, the **S.F.E. Group** is committed to driving innovation. Through continuous product development and strategic acquisitions, the **S.F.E. Group** is actively growing its portfolio and expanding its global presence to meet the demands of industries around the world. Currently, the **S.F.E. Group** consists of 12 complimentary brands, each supporting the others in delivering cutting-edge solutions.

With offices and warehousing on 5 continents, 400+ employees and more than 500 partnerships and distributors worldwide, **S.F.E. Group** prides itself on consistently offering the highest standards of both product quality and service locally to all its customers.

S.F.E. Group looks forward to welcoming you into its global network as a partner, distributor or end user customer and remains at your disposal at any time.

Contact Americas: sales@sfe-brands.com
Contact International: sales-int@sfe-brands.com

S.F.E. GROUP GLOBAL PRESENCE





INTRODUCING AXXAIR



Originally founded in 1997, the brand **AXXAIR** encompasses within S.F.E. Group the overall tube working processes: orbital cutting, tube bevelling, squaring and orbital GTAW welding.

The **AXXAIR** brand has been in the global market for nearly 30 years and has established itself as a leading and international reference on the field of tube processing applications. **AXXAIR** offers innovative solutions to improve processes, productivity, efficiency and quality in the field of orbital cutting, bevelling and welding on a wide variety of different materials such as stainless steel, titanium, carbon steel, duplex and super duplex stainless steel, nickel alloys and even plastic.

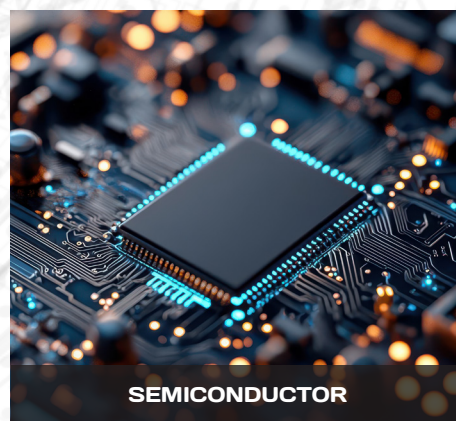
Within the **AXXAIR** range S.F.E. Group not only offers a standard range of products, but also customized solutions for specific target markets: the food and beverage industry, aerospace, pharmaceuticals, the manufacturing of semi-conductors, aeronautics, chemical and petrochemical industry as well as the nuclear industry and many other possible areas of application.

The S.F.E. Group **AXXAIR** brand portfolio consists of a **complete range of orbital cutting machines** (0.25 - 40" / 5 - 1,016 mm o/d), **orbital bevelling machines** (0.6 - 12.75" / 15 - 328 mm o/d), **squaring machines** (0.1 - 8.5" / 3 - 220 mm o/d), as well as **welding machines: prefabrication welding solutions** (0.5 - 12.75" / 12 - 328 mm o/d), **SATO open heads** (0.4 - 8.625" / 10 - 220 mm o/d), **SATFX closed heads** (0.25 - 6.625" / 6 - 170 mm o/d), the **Microfit welding X- and SAMX-ranges** (0.118 - 1" / 3 - 25.4 mm o/d), and finally the **SATP tube to tube sheet** (0.47 - 3.23" / 12 - 82 mm o/d) application.

Being a patented manufacturer of orbital tube and pipe processing machines, **AXXAIR** is constantly exploring new concepts in the field of orbital tube cutting, pipe bevelling, and GTAW orbital welding.

AXXAIR products are always nearby available within the S.F.E. Group global network and can be consulted on the dedicated website: www.AXXAIR.com.

INDUSTRIES SERVED



OUR BRANDS



Our group policy is one of continuous improvements and acquisitions. Products and data tables are subject to change and may vary from those illustrated. Copyright © 2025 Specialized Fabrication Equipment Group, All rights reserved.



0.118 - 0.75" o/d / 3 - 19.05 mm o/d

NEW !

- **Functions:** Orbital TIG
- **Materials:** Any kind of stainless steel and exotic alloys
- **Powered by the SAXX power source range**
(available in AMI compatible version with automatic calibration)

The microfit closed head X-750 is ideal for welding tubes and micro-fittings in tight spaces, such as in the semiconductor, aerospace, or pharmaceutical industry, while ensuring precision and reliability in every weld.

This weld head is water-cooled and is made for **high duty cycle orbital welding**. It covers the size range of 0.118 - 0.75" / 3 - 19.05 mm o/d using quick connect stainless steel collets without set screws.



X-750 with collets

MAIN FEATURES

- **High level of performance:** water-cooled machine
- **Greaseless operation:** compatible with international cleanroom application and operational standards
- **Optimized gas diffusion:** welds with very limited coloration
- **Integrated remote control:** start/stop, gas and electrode rotation
- **Easy maintenance and cleaning of the rotor:** with an integrated tool in the machine body
- **Compact and light:** 12.8 lbs / 5.8 kg with 8 meters cable (26 ft)



QUICK CONNECT STAINLESS STEEL COLLETS

machined to the diameter of the tube



HOOK

allows to hang the machine on different supports

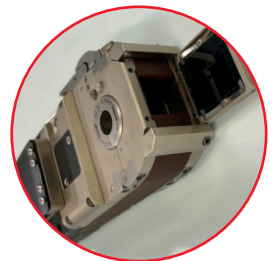


SINGLE INTEGRATED TOOL

For disassembling the machine to clean the rotor, adjust/change the electrode

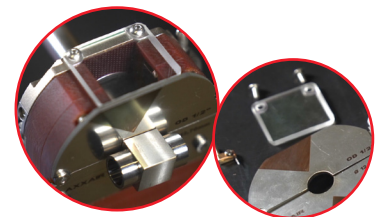


PIVOTING WINDOW
with shade 9 welding glass



ADJUSTABLE FORCE CLAMPING SYSTEM

Allows precise adjustment of the force of the collets on the tube to be welded and helps opening after welding.



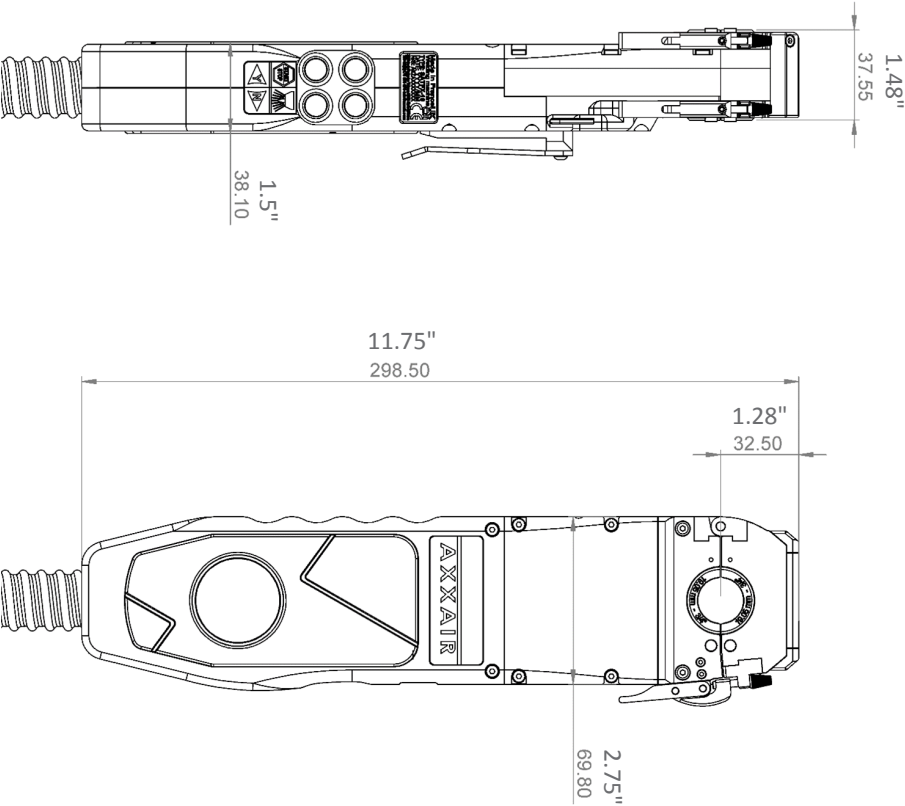
ACCESSORY: OFFSET ELECTRODE KIT
Made to weld tube-to-microfit

POWER SOURCE

SAXX-201	SAXX-200	SAXX-210	SAXX-300
			
Orbital TIG welding power source 200A, 110 - 220v with cooling system	Orbital TIG welding power source 200A, 110 - 220v with cooling system	Orbital TIG welding power source 210A, 110 - 220v	Orbital TIG welding power source 300A, 400v

*The X-750MIE machines are compatible with the AMI power supplies with auto-calibration
Directly compatible with AMI 205, 207 and 217, and compatible with an adaptator (SAFS-ADAMI4) with AMI 307
The machines are not compatible with AMI 227, 327, 415*

DIMENSIONS (MM/INCH)



DELIVERY AND STORAGE



Delivered in a shockproof case with a hook lead

TECHNICAL FEATURES

PART NO.	X-750E	X-750MIE
DESCRIPTION	Microfit closed weld head with 8 m / 26 ft cable Water cooled	Microfit closed weld head with 8 m / 26 ft cable Water cooled Compatible with AMI power source
TUBE DIAMETER (O/D)	3 - 19.05 mm	3 - 19.05 mm
	0.118 - 0.75"	0.118 - 0.75"
ELECTRODE DIAMETER	1.0 mm or 1.6 mm	1.0 mm or 1.6 mm
	0.040" or 1/16"	0.040" or 1/16"
WEIGHT WITH CABLE	12.8 lbs / 5.8 kg	12.8 lbs / 5.8 kg
MAXIMUM WEDLING CURRENT	120 A	120 A
DUTY CYCLE	80 A at 60%	80 A at 60%
OPERATING TEMPERATURE	+0°C / + 40 °C (32°F / 104°F)	+0°C / + 40 °C (32°F / 104°F)

ACCESSORIES

CLAMPING COLLETS

This weld head uses stainless steel collets, machined to the diameter of the tubes to be welded. A set of clamping collets consists of four half-shells matching the external diameter of the tube. The standard collets are installed and removed by a toll free quick-release mechanism.

To order the collets, replace the **XX** with the outside diameter of the tube in millimeters (within the limits of machine capacity).
Example: A set of collets for a tube of 19.05 mm o/d = X-750-C19.05

PART NO.	DESCRIPTION	OUTSIDE DIAMETER OF THE TUBE TO BE WELDED (INCH / MM)		PICTURE
X-750-CXX	Stainless steel clamping collets (four half shells)	3 - 19.05 mm	0.118 - 3/4"	

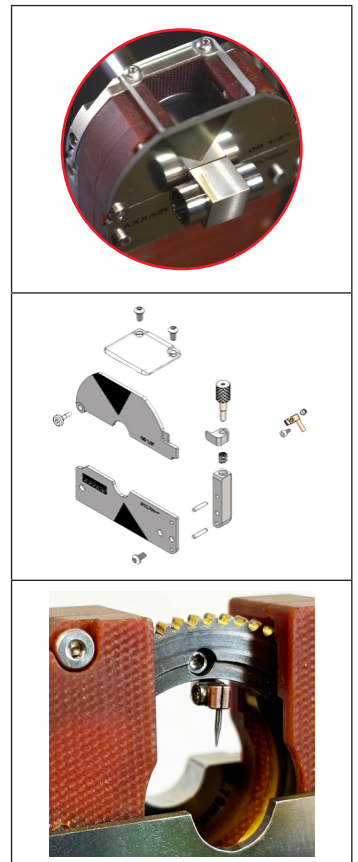
OFFSET ELECTRODE KIT

This kit is designed to weld fittings with a minimum 6.35 mm / 0.25" straight section.

Per diameter of tube to be welded an offset electrode kit is required, that is mounted on one side of the head to hold the fittings. On the other side, standard collets are required to clamp the tube to be welded.

This kit includes: thin collets (2 half-shells), offset electrode holder, plastic window and mounting system.

PART NO.	DESCRIPTION	OUTSIDE DIAMETER OF THE TUBE TO BE WELDED	
X-750-T03.00	Offset electrode kit for tube o/d = 3.00 mm	3.0 mm	0.118"
X-750-T03.18	Offset electrode kit for tube o/d = 3.18 mm	3.18 mm	1/8"
X-750-T04.76	Offset electrode kit for tube o/d = 4.76 mm	4.76 mm	3/16"
X-750-T06.00	Offset electrode kit for tube o/d = 6.00 mm	6.00 mm	0.236"
X-750-T06.35	Offset electrode kit for tube o/d = 6.35 mm	6.35 mm	1/4"
X-750-T08.00	Offset electrode kit for tube o/d = 8.00 mm	8.00 mm	0.315"
X-750-T09.53	Offset electrode kit for tube o/d = 09.53 mm	9.53 mm	3/8"
X-750-T10.00	Offset electrode kit for tube o/d = 10.00 mm	10.00 mm	0.394"
X-750-T12.00	Offset electrode kit for tube o/d = 12.00 mm	12.00 mm	0.472"
X-750-T12.70	Offset electrode kit for tube o/d = 12.70 mm	12.70 mm	1/2"
See section on consumables to find the electrodes required.			



These collets can be used to weld fittings or tubes with a minimum 6.35 mm / 0.25" straight length

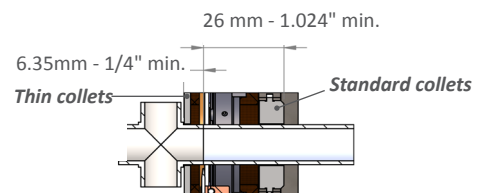


TABLE MOUNT

The weld head is equipped with a hook that allows to hang the machine on this table mount, as well as on different other supports up to 5 mm thickness.

PART NO.	DESCRIPTION		
SATFX-PSUP	Table mount for the X-500 and X-750 weld heads		

LEAD EXTENSION

The X-750 weld head is delivered with a 8 m / 26 ft lead. To increase the operating distance between the weld head and the SAXX power source, cable extensions are available. It is strongly advised to use maximum one extension lead per weld head. Please contact us if your required length exceeds this maximum.

FOR X-750E ONLY - WATER COOLING

PART NO.	DESCRIPTION	WEIGHT		PACKAGING DIMENSIONS	
SAFS-05MX	5 m /16.4 ft extension cable Water cooling - without wire	18 lbs	8.2 kg	16 x 23 x 10"	40 x 59 x 25 cm
SAFS-10MX	10 m /32.8 ft extension cable Water cooling - without wire	35 lbs	15.9 kg	16 x 23 x 10"	40 x 59 x 25 cm



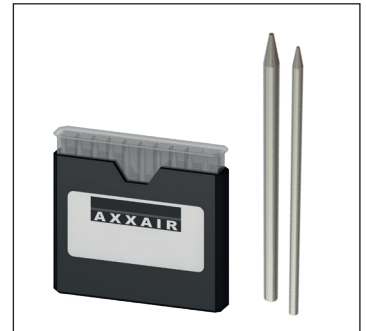
CONSUMABLES

ELECTRODES

AXXAIR electrodes (sold in boxes of 10 units) are precisely sharpened to 20° angle with a flat tip, increasing the life of the electrodes.

Electrodes are pre-cut to cover the entire clamping range of the head without damaging the rotation system. The electrode must be selected according to the outside diameter of the tube to be welded.

TUBE O/D (MM/INCH)		ELECTRODE DIAMETER 1.0 MM / 0.039" PART NO.	ELECTRODE DIAMETER 1.6 MM / 1/16" PART NO.	ELECTRODE LENGTH (MM/INCH)	
2.6 - 9.0	0.102 - 0.354"	SCE10-18.0	SCE16-18	18 mm	0.71"
8.6 - 15.0	0.338 - 0.590"	SCE10-15.0	SCE16-15	15 mm	0.59"
14.6 - 19.05	0.574 - 0.750"	SCE10-12.0	SCE16-12	12 mm	0.47"



ELECTRODES FOR OFFSET HOLDER

TUBE O/D (MM/INCH)		ELECTRODE DIAMETER 1.0 MM / 0.039" PART NO.	ELECTRODE LENGTH (MM/INCH)	
2.4 - 4.4	0.094 - 0.173"	SCE10-13.0	13 mm	0.512"
4.4 - 6.4	0.173 - 0.252"	SCE10-12.0	12 mm	0.472"
6.4 - 8.4	0.252 - 0.315"	SCE10-11.0	11 mm	0.433"
8.4 - 10.4	0.315 - 0.409"	SCE10-10.0	10 mm	0.394"
10.4 - 12.4	0.409 - 0.488"	SCE10-09.0	9 mm	0.354"
12.4 - 12.7	0.488 - 0.500"	SCE10-08.0	8 mm	0.315"



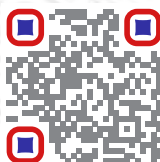


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SUMNER
MATERIAL LIFTS

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