

TOA series

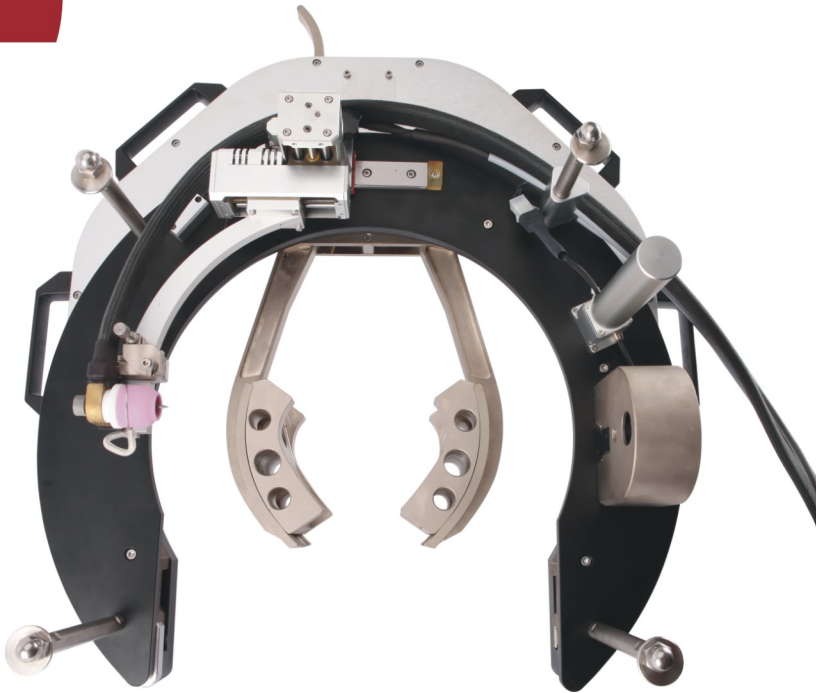
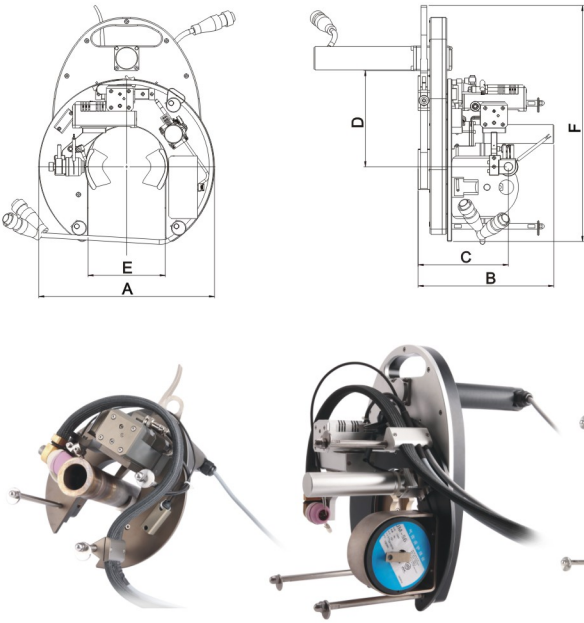
Open Tube to Tube Welding Head

Brief Introduction

This welding head is special designed for tube to tube TIG welding, suitable for carbon steel, stainless steel tube to tube connection, mainly for wire feeding or self-fusion, option of TB150 integrated wire feeder and HWT10 external wire feeder with AVC & OSC function.

Support equipment: i-Arc400 Programmable Orbital Welding Power Source.

Application: chemical, food, medicine, engineering installation, boiler, military, nuclear and so on.



Technical Specification

	TOA77	TOA130	TOA180	TOA230	TOA320
Material	Carbon steel, stainless steel				
Tube OD (mm)	Inner clamp: Φ19.05 ~ Φ45 (3/4" ~ 1 3/4")	Inner clamp: Φ38.1 ~ Φ76 (1 1/2" ~ 3")	Inner clamp: Φ50.8 ~ Φ114.3 (2" ~ 4 1/2")	Inner clamp: Φ120 ~ Φ178 (4 1/2" ~ 7")	Inner clamp: Φ150 ~ Φ230 (6" ~ 9")
	Outer clamp: Φ45 ~ Φ77 (1 3/4" ~ 3")	Outer clamp: Φ76 ~ Φ130 (3" ~ 5")	Outer clamp: Φ114.3 ~ Φ180 (4 1/2" ~ 7")	Outer clamp: Φ178 ~ Φ230 (7" ~ 9")	Outer clamp: Φ230 ~ Φ324 (9" ~ 12 3/4")
Tungsten diameter (mm)	Φ2.4, Φ3.2	Φ2.4, Φ3.2	Φ2.4, Φ3.2	Φ2.4, Φ3.2	Φ2.4, Φ3.2
Rotation speed (rpm)	0.19 ~ 3.8	0.11 ~ 2.2	0.09 ~ 1.8	0.05 ~ 1.0	0.026 ~ 0.52
Protective gas	Ar	Ar	Ar	Ar	Ar
Cooling	Water	Water	Water	Water	Water
Cooling flow (ml/min)	≥600	≥600	≥600	≥600	≥600
OSC width (mm)	20	40	40	40	40
AVC height (mm)	40	40	40	40	40
Wire diameter (mm)	Φ1.0 (standard)	Φ1.0 (standard)	Φ1.0 (standard)	Φ1.0 (standard)	Φ1.0 (standard)
Max wire feeding speed (mm/min)	1800	1800	1800	1800	1800
Dimension (mm)					
A	220	300	375	425	550
B	180	235	285	300	315
C	112 ~ 132	132 ~ 172	184 ~ 224	195 ~ 235	230 ~ 270
D	92	165	225	250	297
E	82	132	182	232	328
F	320	400	525	570	680
Weight (kg)	5.5 (no cable)	10.8 (no cable)	19.5 (no cable)	21.5 (no cable)	36 (no cable)
Dimension (mm)	370 × 220 × 320	435 × 300 × 400	445 × 375 × 525	465 × 425 × 570	430 × 610 × 680

Features

- Suitable for medium wall thickness carbon steel, stainless steel material;
- Suitable for connection of tube to tube, tube to flange, tube to elbow, tube to valve and so on;
- Automatic all position TIG tube to tube welding with/without wire feeding;
- Compact structure design, stable rotation with small rotating inertia;
- Water circuit cooling, achieving long time working;
- Oscillation, multi-passes welding process;
- Optional of external/integrated wire feeder.

