



# 2022

## NEW RELEASE

### WZM-400

#### ORBITAL TUBE-TUBE WELDING SYSTEM



**Tube diameter 30-219mm**

Power stations ■ Chemical industry ■ oil&gas pipeline

# ORBITAL WELDING SYSTEM

## AUTOMATIC OPEN HEAD TIG ORBITAL PIPELINE WELDING SYSTEM

The automatic open head all-position TIG orbital welding system for small-diameter pipeline, which is mainly applied in girth seam automatic welding of water, petroleum, natural gas and other pipelines. It is one of the advanced equipment to realize all-position automatic welding.

### Brings consistent excellent quality and increases productivity

- Adopting highly precise embedded control system to control the operation procedure of the whole inverter directly. So as to ensure the effective coordination of current control and welding operation time sequence, and then obtain highly qualified welding seam.
- Highly integrated design provides compact structure and convenient movement.
- The professional design of welding head makes it be adapted to several pipe diameter and narrow space operation on site.

### Recommended Areas of Use

- Power stations
- Chemical industry
- oil&gas pipeline



PUBLICATION 01 | ISSUE DATE 2/22  
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# POWER SOURCE AND ACCESSORIES

## POWER SOURCE WZM-400

### Features and Benefits

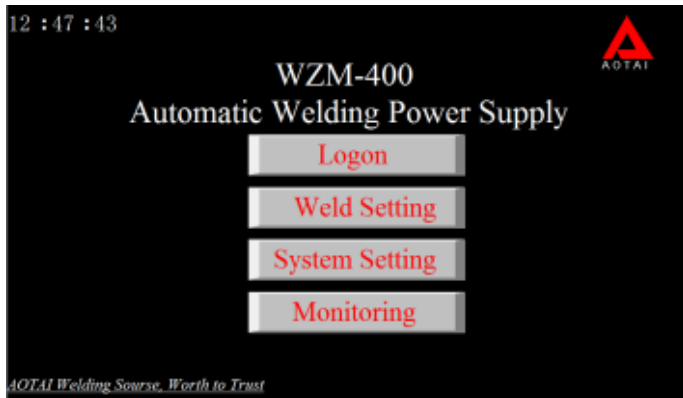
- Programmable automatic digital system, fine control of welding process.
- Real-time fine tuning welding parameters on remote control box, perfect control of welding process.
- Highly integrated design, compact structure, easy to move.
- Functions:CC or pulse current output/Rotation control/ Wire feeding control/ Protection gas control/ Arc length control/ Horizontal swing control, etc.
- Water shortage, overheating, emergency stop and other protection functions, safe and reliable.



### PRODUCT SPECIFICATIONS

Item	Parameter
Rated input voltage/frequency	380V±10% 50/60 Hz
Rated input Power	13.5KVA
Welding current	5~400A
Duty cycle (20°C)	400A 60%/315A 100%
Savable programs	60
Sections	16
Display	10 inch touch screen digital display
Main function	CC or pulse current output/Rotation control/ Wire feeding control/Protection gas control/ Auto control of arc length/ Horizontal swing control, etc.
Protection/insulation class	IP21S/H
Weight (no coolant)	99Kg
Dimension (mm /inch)	1100*600*1250 /43*23*49

# TOUCH SCREEN CONTROL INTERFACE



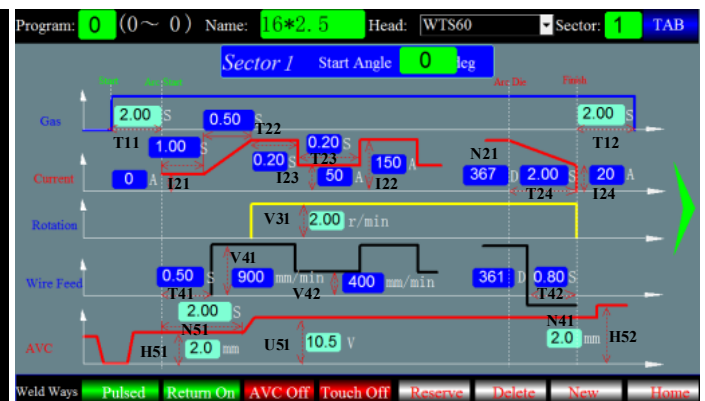
Main interface

## Features and Benefits

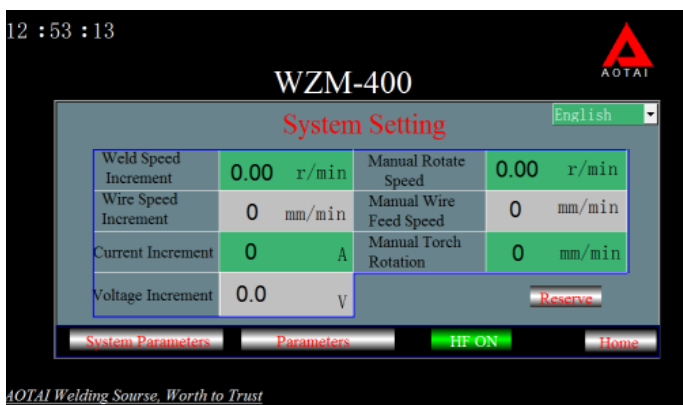
- Soft switch inverter technology, high reliability, energy saving.
- 10-inch touch screen control interface, intuitive image, easy to operate.
- 60 sets of welding specs can be stored and recalled, saving operating time.



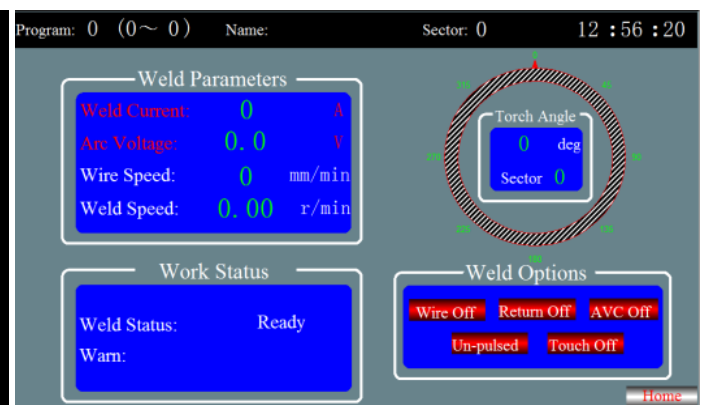
Login interface



Intuitive programming interface



System setting interface



Real-time welding monitoring interface





# ADVANCED ALL-POSITION WELDING HEAD

## Features and Benefits

- The welding head travelling and wire feeding are drove by comstant torque motor. Meanwhile, in the condition of ensuring wire feeding stability, the encoder is equipped to keep welding stable for both downward welding and upward welding.
- The welding head can calculate the travelling position according to the rotation angle, and can provide accurate position signal in the process of all-position welding, which greatly improves the quality of all-position welding.
- Wire feeding angle setting device can be applied to adjust wire feeding tip flexibly in all directions.
- The welding head can be customized according to pipe diameter, which is suitable for several kinds of pipe diameter, 30mm - 219mm



## PRODUCT SPECIFICATIONS

Item	Description		
Model	K114	K168	K219
Application range	Φ30-114mm	Φ60-168mm	Φ89-219mm
Welding thickness	2 - 8 mm		
Output current	5 - 400 A		
Torch rotating speed	0.01 -0.5/5 rpm		
Applicable pipe forms	Pipes butt welding		
Applicable materials	Carbon steel, stainless steel		
Welding processes	CC TIG, pulse TIG		
Automatic wire feeding function	Yes		
Arc tracking	Track in vertical		
Horizontal oscillating travel	42 mm		
Arc length travel	42 mm		
Adaptability for generator powering	Adaptable		

## MULTIFUNCTIONAL INTELLIGENT REMOTE CONTROL BOX



- Remote control box provides easy operation and fast mastering because of its humanized layout and big-small keys design.
- Every parameter can be adjusted according to groove details during welding.



# INDUSTRY APPLICATION

## A project in Tibet

The welding of petroleum feeding pipeline; "one side welding with back formation" should be realized for root welding; beautiful formation of appearance; no flaw should be detected;

Base material: carbon steel

Pipe diameter: 76mm

Wall thickness: 6mm

Shielding gas: Argon

Tungsten electrode diameter: 3.2mm

Wire diameter: 1.0mm

Wire spool weight: 1KG

Groove: 45°V-type groove

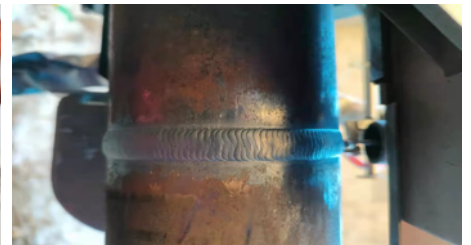
After simple training, customer mastered how to weld with K114 automatic welding system. It enjoys 100% qualified rate for more than 100 seams welded by customer. The efficiency has been greatly improved.



The formation of root welding



Filler welding



Cover welding

## Target Customers



Chemical plant



Shipyard



Gas pipeline station



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