

Submerged Arc Welding (SAW)

Subtec 1250



MEGMEET | Stock Code
WELDING TECHNOLOGY | 002851

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MEGMEET
Welding Technology



MEGMEET's strong technical strength, extensive industry application experience, relentless attention to customer needs, and the spirit of continuous innovation enable us to bring tailor-made products and solutions to help customers achieve greater success.
*MEGMEET Welding Technology Co., Ltd is continuously striving to develop and innovate for new product. We reserves the right of changing the technical specifications and designs without notices in advance.

Applications

Widely used in welding of medium and thick plates in industries such as boilers, pressure vessels, ships, steel structures, and wind power.



Product Advantages

- Supports constant current (CC) and constant voltage (CV) modes.
- Wire diameter: 1.6、2.0、2.4、3.0
- Welding material types: Carbon steel, stainless steel.
- Real-time calculation and display of weld energy.
- Precise control during arc ignition, achieving a near-100% arc ignition success rate.
- The welding process is divided into three independent stages: arc starting, welding, and arc ending, allowing for the use of different welding parameters.
- Precise waveform control during welding ensures excellent welding performance.
- Supports weld pool stirring for enhanced penetration and improved weld formation.
- Supports arc dynamics adjustment for improved arc stability and a wider current and voltage welding range.
- Micro-control technology during arc ending and ball chipping adjusts the arc crater fullness and eliminates wire end balls.
- Intelligent wire feed control achieves constant penetration and adapts to changes in wire feed resistance.



Submerged arc function

- With Touch-mode arc starting and scrape arc starting functions, effectively ensure arc starting success rates under various operating conditions.
- Both arc starting and arc ending parameters are adjustable.
- Intelligent closed-loop wire feed control ensures more consistent penetration depth.



Carbon arc gouging function

- Multi-purpose machine for quick root cleaning and weld repair.
- High duty cycle, ideal for high-current, long-term root cleaning of medium and thick plate welds.
- Supports adjustable arc starting current and thrust current curves.
- Features short-circuit protection to prevent wire sticking.
- Features VRD protection to prevent electric shock.



MMA Function

- Suitable for long cable operations, with arc starting current and thrust current adjustment functions.
- Arc force control prevents electrode sticking.
- With automatic short-circuit protection function.



Product Specification

Model	Subtec 1250/Subtec 1250R
Control Method	Fully digital
Wire Feed Drive Control Method	High-Frequency Back-EMF Control
Input Voltage	3-phase AC 400V (-15%~+19%)
Input Frequency	50/60Hz
Input Capacity	65.3kVA/60.36kw
Rated No-load Voltage	84V
Rated Output Current	50 ~ 1250A
Rated Output Voltage	20 ~ 44V
Manual Welding Current	50 ~ 1250A
Carbon Arc Gouging Current	50 ~ 1250A
Rated Duty Cycle	1250A@100%
Electromagnetic Compatibility	Class A
Lightning Protection Rating	D
Welding Parameter Channel Storage	9
Insulation Rating	Transformer F, Reactor H
Protection Level	IP23
Environmental Requirements	- 10℃ ~ +40℃
Dimensions (L x W x H)	676×395×888mm
Welding Machine Weight	90kg

Tractor Control Box Technical Specifications



Model	WF5-CU10
LED Display	Subtec 1250
Output Control	Default and actual voltage and current values, fault code display
Compatible Models	Local (gouging), Remote (submerged arc)
Wire Diameter Setting	φ1.6、2.0、2.4、3.0、4.0、5.0、6.0mm
Welding Controls	Fixed point arc striking , Scrape Arc Ignition, Arc Starting, Welding, Arc Ending,
Connector	5 pins
Welding Modes	CC、CV
Wire Feeding	Touch-mode arc striking, Variable Speed Feeding, Constant Speed Feeding
Communication with Power Source	High-Voltage CAN
Motor Control	High-Frequency Back-EMF Control



Submerged Arc Welding Travel Tractor Technical Specifications

Model	WF5-63Z36T	WF5-125Z36T
Compatible Machine Models	Subtec 1250/Subtec 1250R	
Welding Current	100%@630A	100%@1250A
Wire Feed Motor Model	90ZYT46/A3	90ZYT31/A3
Bracket Type	Dual-drive	Dual-drive
Wire Feed Motor Rated Voltage	DC 36V	DC 36V
Wire Feed Motor Rated Current	5.5A	6A
Travel Motor Rated Voltage	DC 36V	DC 36V
Travel Motor Rated Current	2.5A	2.5A
Welding Current	630A@100%	1250A@100%
Wire Feed Speed Range	0.2~5m/min	0.2~2.5m/min
Travel Speed Range	0.2~1.6m/min	0.2~1.6m/min
Crossbeam Lifiable Height	70mm	70mm
Head Adjustable Distance	100×100×70mm (up and down, left and right, front and back)	
Crossbeam Rotation Angle Around Column	±90°	±90°
Torch Deflection Angle	±45°	±45°
Head Rotation Angle	±45°	±45°
Flux Capacity	6L	6L
Wire Spool Liner Diameter	φ300	φ300
Applicable Wire Specifications	φ1.6、2.0、2.4、3.0mm	φ3.0、4.0、5.0、6.0mm
Applicable Wire Spool Weight	25kg	25kg
Dimensions (L x W x H)	1080×480×740mm	1080×480×740mm
Carriage Weight	60kg	60kg



Supports multiple communication protocols

Compatible with robotic welding, automation welding machines, offering a wide range of applications.



SMARC IoT Welding management cloud platform system, supports 4G, WiFi and digital Ethernet ports



Manual version



Automation version

Communication protocols for submerged arc welding machines and robots

Functions	Arc tracking	Contact positioning			Interface between welding machines and robots					
		15-20V	Simulation	Devicenet	Modbus TCP	MEGMEET CAN	EtherNet/IP	EtherCAT	PROFINET	Modbus RTU
	●	●	○	○	○	○	○	○	○	○

● Standard configuration ○ Select one of several options



Robot version