

TIG welding machine

CRAFT-TIG PRO 503 AC/DC PULSE

Robust Industrial Welder with SiC Inverter Technology



Article number
1364504

Brand
Craftweld

☒ Ordering: from 1 units



Description

- PFC Technology (Power Factor Correction): High power factor of over 0.99 for energy-efficient operation and reduced mains load
- Dual-Voltage Operation: Flexible use with single-phase power at 110 V and 230 V
- SiC Inverter Technology: Advanced silicon carbide modules for a stable arc, high reliability, and low switching losses
- Comprehensive Welding Modes: Supports Lift-TIG, HF-TIG, TIG MIX, Lift-TIG SYN, HF-TIG SYN, MMA, and MMA SYN
- SYN Welding Programs: Predefined parameters for TIG and Stick (MMA) simplify operation and reduce setup effort and preparation time
- TIG AC+DC (TIG MIX): Alternating between AC and DC increases heat input, improves penetration depth, and reduces electrode wear
- AC Waveforms: 9 selectable waveforms (Square, Sine, Triangle) for optimal adaptation to various welding tasks
- Dynamic Arc Control: A focused, stable arc for better root pass penetration and greater weld depth

- **Color Touch Display:** High-resolution, eye-friendly display with clear menu navigation, fast response times, and precise adjustment capabilities
- **Job Memory:** 100 memory slots for welding parameters with quick save and recall functions
- **RGB Status Indicator:** Dynamic light signal featuring a flashing red light in the event of malfunctions for rapid fault detection
- **Multilingual User Interface:** Support for multiple languages to ensure ease of use
- **Integrated Protection Functions:** Sensors for temperature, voltage, and current ensure high operational safety
- **Torch Control:** Up/Down buttons for current adjustment directly on the torch
- **Torch Control Dial:** Fine-tuning of welding amperage directly at the handle

Delivery content

- Earth cable 70 mm² 4 m with 500 A earth clamp
- TIG torch SR 18 4 m
- Gas hose 4 m
- Pressure reducer
- Trolley
- Cooling unit

Technical data

Dimensions and weights

Length (product) approx.	670 mm
Width/depth (product) approx.	290 mm
Height (product) approx.	490 mm
Net weight approx.	29.5 kg

Duty cycle

Duty cycle at I _{max} . 40°C TIG DC	60 %
Duty cycle at max. current 40°C Electrode	60 %
Current at 100% DC 40°C TIG DC	390 A
Current at ED 100% 40°C Electrode	390 A

Setting range

Setting range TIG	5-500 A
Setting range electrode	10 – 500 A

Electrical Data

Supply voltage	400 V
Phase(s)	3 Ph
Current type	AC
Mains frequency	50 Hz
Power factor	0.766 cos phi
Total output	20 kVA
Input current TIG AC	32.2 A
Input current TIG DC	33.8 A
Input current electrode AC	40.5 A
Input current electrode DC	42.5 A

Electrode

Weldable electrodes	1.6-5.0 mm
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Standards and certifications

Standard	EN 60974-1:2012, EN 60974-10:2014
Degree of protection	IP 23S
Insulation class	H
EMC class	A
Explanation EMC class	This Class A welding equipment is not intended for use in residential areas where power is supplied by a public low-voltage power supply system.
Marking	CE

Electrical connections

Fuse (slow blowing)	16 A
Required generator output	>17 kVA
Positive mains voltage tolerance	10 %
Negative mains voltage tolerance	10 %
Open circuit voltage	MMA AC/DC 14, TIG AC/DC 14 V
Connection cable length	2.2 m
Power consumption in idle mode	< 50 W

Device data

Operating temperature	-10 – 40 °C
Pulse rate	0.5-999 Hz
Ignition	high frequency
Torch cooling	gas / water

Input

Power consumption TIG AC	22.3 kVA
Power consumption TIG DC	23.4 kVA
Power consumption electrode AC	28 kVA
Power consumption electrode DC	29.4 kVA
Efficiency	89.14 %

Manufacturer infos

Manufacturer	Stürmer Maschinen GmbH
Address	Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt, Germany
E-Mail	info@stuermer-maschinen.de

Media informations



- Menu Button
- Selection Button
- Push-to-Turn Selection Knob
- Selection Button
- Job Memory Button
- Dynamic RGB Lighting
- 5" Touchscreen
- USB Interface

Equipment

Equipment

Process MMA	✓
Process TIG pulsing	✓
Water cooling device	7 l / 400 V with 1 m connection cable
Programs storable	✓

Shipping informations

Packaging Metrics		Weights		Delivery		Other	
Length	n/a	Net	74,7 kg	Delivery	Carrier	DualUse	Nein
Width	n/a	Gross	n/a kg	Content	1 undefined	SCIP	
Height	n/a					SVHC	Nein

Manufacturer

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