

Master S 400/500

Portable power for heavy-duty performance



Portable power for professional MMA welding

Master S series MMA power sources are designed for high-performance professional welding

- Powerful and portable MMA power source for professional workshop and site use
- Suits all electrode types (separate models including cellulose welding characteristic are also available)
- Efficient output at 400/500 A 60% ED
- Robust structure for heavy-duty site use
- Now true welding quality and efficiency for budget price!
- Welding Procedure Specifications available (WPS)



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Special technology features

- **Hot start** and **arc force** adjustment for optimised starts and arc control with alternative electrode types, guaranteeing flawless and stable weld pool control every time
- **Antifreeze** cuts off the power and protects the electrode if sticking occurs during welding



Versatile power for professional MMA welding

- **HF or contact ignition (Lift TIG) in DC TIG**
- **Arc gouging**
- **Parent power supply CC/CV** for Kemppi voltage-sensing wire feed systems and in-line TIG solutions
 - Parent power source for MIG together with ArcFeed voltage sensing feeder
 - Two MasterTig LT 250s can be powered by one Master S400/S500





Master S series are all about ease of use and performance

KEMPPPI
Master S 500

Portable power for professional MMA welding

Master S series are all about ease of use and performance

- The powerful 400 or 500 amp power source provides great welding results with pleasurable welding experience
- Mains and generator powered with wide voltage network tolerance
- Integrated Voltage Reduction Device (VRD)
- Compact and lightweight design to make transportation and site management easy
- Cables can be wrapped around the handle to ease transportation



Control panel

Master S control panel is designed for clear visibility

- Protective cover shields against scratching, dust, moisture, sand and spatters
- Clear and large display panel with anti-glare features
- Positioned on an optimal angle for best visibility. Green colour stands out in workshop conditions and when viewed through an automatic welding lens
- Big knobs are easy to adjust with gloves on



Portable power for professional MMA welding

1. Sturdy easy-grip handle
2. Tough plexiglass cover
3. Simple and clear control panel
4. Easy-to-use DIX connectors for earth return cable and MMA welding cable
5. Shockproof casing



Remote convenience

The two remote control options add convenience and cost-efficiency to your welding operations

- Using R10 enables welding parameters to be set conveniently at welding site
- Wireless R11-T adds even more freedom and easier mobility



TIG convenience

Manufactured using the best materials. You can trust Kemppei TIG torches to perform, allowing you to concentrate on completing beautiful looking TIG welds.

The **TTM 15V BC** is equipped with manual gas valves to regulate the shielding gas flow, ensuring that basic TIG welding tasks are easily completed. Use with MMA power sources for scratch or lift TIG ignition.

	TTM 15V BC
Load capacity, DC-TIG	150 A (35%)
Machine connector	R3/8
Order code	627143201



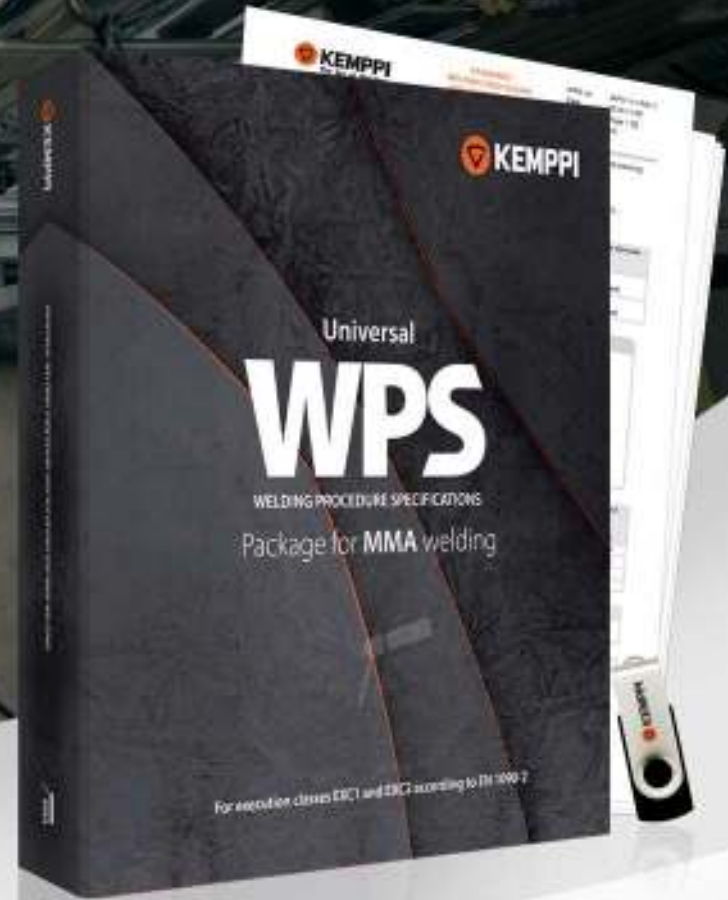
TWQM™

Total Welding Quality Management



Standard WPS packages

For MMA welding



WPS for consistent quality

Welding procedure specifications (WPS) provide practical specs for repeatable and uniform quality welds in accordance with the European Committee for Standardization. They are mandatory from 07/2014. Following WPS is prerequisite for CE marking.

Read more from our website
www.kemppi.com/wps



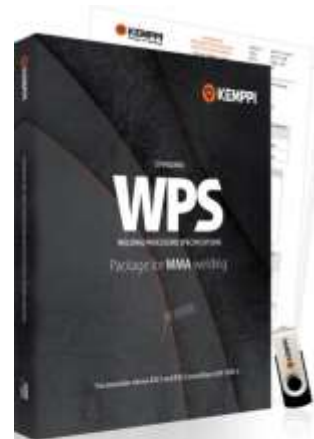
Technical specification

Master		S 400	S 500
Connection voltage	3~50/60 Hz	380 – 440 V (-10 %...+10 %)	380 – 440 V (-10 %...+10 %)
Rated power at max. current	60 % ED	20kVA	26 kVA
Fuse (delayed)		25 A	35 A
Output at 40 °C MMA	60 % ED	400 A / 36 V	500 A / 40 V
	100 % ED	310 A / 32.4 V	390 A / 35.6 V
Output at 40 °C TIG	60 % ED	400 A / 26 V	500 A / 30 V
	100 % ED	310 A / 22.4 V	390 A / 25.6 V
Max. welding voltage		400 A / 48 V	500 A / 46V
Open circuit voltage		55 – 65 V	55 – 65 V
Stick electrodes		ø 1.6...6.0 mm	ø 1.6...7.0 mm
Welding current control		stepless	stepless
Power factor at 100 %		0.90	0.90
Efficiency at 100 %		0.89	0.89
Degree of protection		IP23S	IP23S
Operating temperature range		-20...+50 °C	-20...+50 °C
EMC class		A	A
External dimensions	L x W x H	570 x 270 x 370 mm	570 x 270 x 370 mm
Weight (without cables)		20,5 kg	23,5 kg

Benefits, saving time and money

A cost calculation example, MMA WPS package

Task	Consists of	Number	Price per item	Total
Welding procedure tests	Materials, welding, NDT, supervision, WPQRs	24 tests	€2 000	€48 000
Project management and WPS development	Welding coordination work	120 man-hours	€32	€3 840
Doing it yourself, total price				€51 840
Using Kemppi MMA WPSs				€800
Money saved				€51 040



Energy cost savings (appr. 1-2 % of total welding costs) per year per machine

	Master S	Thyristor
Idle power consumption	0.05	1.00
Arc burn time ratio	0.15	0.15
Energy price	0.10	0.10
Arc voltage	40.00	40.00
Welding current	400.00	400.00
Efficiency	0.90	0.65
Working days	220.00	220.00
Working hours	8.00	8.00
Welding energy costs	469.33	649.85
Idling energy costs	7.48	149.60
Energy costs	476.81	799.45
Money saved	€ 322.63	

