

MASTER MLS™



Master MLS™ – perfect on-site welding

The Master MLS™ family is a range of efficient MMA welding machines. Lightweight and portable, MLS™ machines are constructed for use on work sites and in extreme conditions. Their small size makes it possible to access even very narrow places.

The Master MLS™ range covers the 160 A (one-phase), 250 A, and 350 A. The Master MLS™ 250 A and 350 A welding machines are available also as 230-volt three-phase models. The basic MLS™ machine can be equipped with an operation panel (MEL or MEX), allowing the operator to adjust the welding characteristics for each type of work.

The ICS™ (Isolated Cooling System) feature prevents dust and small metal particles from penetrating the machine's interior. Cooling air flows from the back of the machine forward – toward the point being welded – and thus minimises the intake of particle content. The shielded knobs and durable casing make these machines excellent for on-site work. 'Master' machines are flexible and meet the demands of on-site jobs requiring TIG welding with contact ignition (lift arc method). Full adjustability makes it possible to fine-tune the arc characteristics for each electrode type, with arc force adjustment and hot start providing greater flexibility. The correct welding values can be selected with ease, thanks to digital displays, user-friendly panels, and advanced electrode type selection. Master MLS™ machines are also generator-compatible.

Benefits

- **Reliability**
 - Durable and reliable machine for outdoor conditions – shielded knobs, durable casing, ICS™
- **Energy saving**
 - High efficiency and fan on demand
- **Flexibility**
 - Panel options
- **Quality welds**
 - Excellent Arc Characteristics with all types of MMA electrodes even with long cables
 - Remote control

Main applications

- Installation and Outfitting
- Repair and Maintenance
- Shipbuilding and Offshore
- Chemical and Process industry

Operation panels

The MEL panel includes the most common features used in MMA welding. MEX operation panel offers possibility for controlling the welding values based on electrode type selection rather than conventional welding current, arc force and hot start individual settings for each weld case.



MEL operation panel

- Three warning lights (power on, overheating, under or over voltage of supply)
- The remote control or the panel control
- The welding current or alternatively the arc voltage is shown in a clear digital display, which shows both the set values and the values used
- Hot Start and the Arc Force controls
- Welding method MMA / contact TIG



MEX operation panel

- Three warning lights (power on, overheating, under or over voltage of supply)
- Electrode selection
- Digital display
- Memory channels
- Panel control or remote control or TIG torch (RTC 10) control
- Hot Start and the Arc Force controls
- Welding method MMA / Contact TIG / Arc gouging / Broken Arc

Technical Data

Master MLS™		1600	2500	3500
Mains voltage	3~50/60 Hz	1~230V-10%...+10%	400V-15%...+20%	400V-15%...+20%
Connection cable, fuse delayed		3 x 2.5 S - 3.3m / 16 A	4 x 1.5 S - 5m / 10 A	4 x 2.5 S - 5m / 16 A
Load capacity 40 °C	40% ED MMA	160 A (35%)	250 A	350 A
	100% ED MMA	120 A	160 A	220 A
Welding range	MMA	10...160 A	10...250 A	10...350 A
Open circuit voltage		80 V	80 V	80 V
Stick electrodes		ø 1.5...4.0 mm	ø 1.5...5.0 mm	ø 1.5...6.0 mm
External dimensions	L x W x H	410 x 180 x 390 mm	500 x 180 x 390 mm	500 x 180 x 390 mm
Weight		14 kg	20 kg	21 kg

Master MLS™		2503	3503
Mains voltage	3~50/60 Hz	230V-15%...+15%	230V-15%...+15%
Connection cable fuse delayed		4 x 2.5 S - 5m / 20 A	4 x 6 S - 5m / 32 A
Load capacity 40 °C	40% ED MMA	250 A	350 A
	100% ED MMA	160 A	220 A
Welding range	MMA	10...250 A	10...350 A
Open circuit voltage		80 V	80 V
Stick electrodes		ø 1.5...5.0 mm	ø 1.5...6.0 mm
External dimensions	L x W x H	500 x 180 x 390 mm	500 x 180 x 390 mm
Weight		20 kg	21 kg

Order Information

Power sources	Master 1600 MLS™	6102160
	Master 2500 MLS™	6104250
	Master 3500 MLS™	6104350
	Master 2503 MLS™	6102250
	Master 3503 MLS™	6102350
Operation panels	MEL	6106000
	MEX	6106010
Scratch-start TIG torches on page 47		

Remote control units	R10, 5m	6185409
	R10, 10m	618540901
	R11T wireless	6185442
	R11F foot pedal	6185407
Remote control cables	10 m for R 10	6185481
	R10, 10m	618540901
Transport units	T100	6185250
	T110	6185251
	T130	6185222