



MobiMIG series

Our multi-talents!



FASCINATION WELDING.

www.merkle.de

MobiMIG series

THE PORTABLE MULTI-TALENTS

The **MobiMIG series** from MERKLE offers the best performance available, whether on site, at your customers or in the workshop.

Thanks to the compact dimensions and light weight, the MobiMIG is the perfect partner for flexible, transportable welding on the go or in the workshop.

MERKLE MobiMIG

Welding for the present and the future!

The multi-talents in detail:

- MIG/MAG welding
- TIG welding (DC)*
- MMA/stick electrode welding
- Flux core welding with self protecting inner shield wires*
- MIG brazing
- ColdMIG process (option)

*MobiMIG 180/280 K



MobiMIG 180 K

MobiMIG 280 K

2



1. MIG/MAG welding



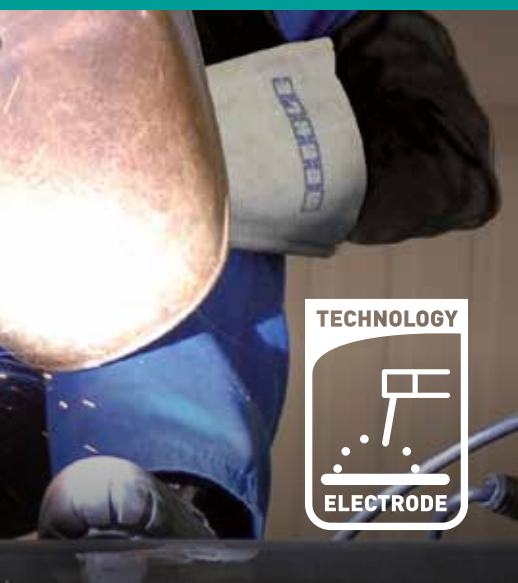
2. MMA/electrode welding



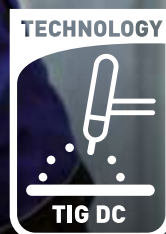
MobiMIG 321 K with WK 300



MobiMIG 322 K/KW



3. TIG welding (DC)*
*MobiMIG 180/280 K



TOP-TECHNOLOGY FOR ULTIMATE FLEXIBILITY

CLEAR TEXT DISPLAY

The **MobiMIG series** machines are all equipped with a synergic function and 1-button-control (synergic mode). The clear text display gives information about current, voltage, wire feed speed and the intended material and throat thickness. Jobs containing a wide range of materials and wire thicknesses are pre-programmed into the machines.



WATER COOLING AND TROLLEY

The **MobiMIG 321 K** can also be equipped with our **WK 300 water cooling unit**. The installation is very simple with only a couple of connections needing to be made. Power supply to the cooling unit is from the rear of the power source.

The **trolley TW 120** is designed for easy transportation of welding unit in the workshop. Extra large wheels, a gas bottle holder for a 10 or 20 l cylinder and an optional drawer for the tools, accessories, spare parts and consumables are important features.



5 KG OR 15 KG WIRE SPOOLS

The **MobiMIG 180** and **280 K** are designed for use with the smaller D 200 (5 kg) wire spools. This keeps the construction dimensions to a minimum and is a major contributing factor to the light weight of these machines.

The **MobiMIG 321 K** has more internal space available and is designed to use standard D 300 (15 kg) as well as D 200 (5 kg) wire spools.





Direct control on the torch!

TEDAC[®] sytem

The MERKLE **TEDAC[®]** system offers continuous energy control where it counts – directly on the torch itself. Using the slide switch mounted on the top of the **TEDAC[®]** torch handle the energy can be adjusted during the welding process.

Using a visible, multicolour LED indicator any energy modifications will be shown directly on the **TEDAC[®]** torch. The **TEDAC[®]** torches are perfect for any work in difficult to reach positions due to the fact that the operator can control the welding process from the

Continuous setting of the energy



TEDAC[®] system and does not need to return to the power source to change settings. Thanks to the standard Euro connector no additional control wires are required.



Ergonomically formed handle, torch trigger with a micro switch for guaranteed more than 10 mio. operations.



Standard Euro connector, no further control cables are necessary.



The multi-coloured LED shows the selected energy.

BiPowerPLUS optional for MobiMIG 280 K and MobiMIG 321 K



MERKLE BiPOWER Plus is the system for that extra boost of power in MIG/MAG welding. Thanks to clever technology, we now offer the possibility to operate using both a 230 V standard household outlet and a 400 V three-phase power supply.

■ **Welding up to 180 A:** Perform MIG/MAG welding up to 180 A through a standard household power supply with a 16 A fuse, using the convenient adapter.

■ **Welding up to 280/320 A:** Increase performance seamlessly up to 280/320 A when operating with a 400 V / 16 A three-phase power connection.

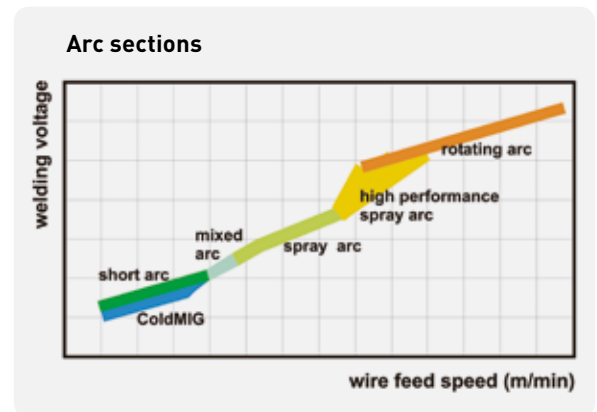


UP TO 30 % REDUCED HEAT INPUT!

The MERKLE ColdMIG process sets new standards in welding. With as much as 30 % less heat input thin metal sheet welding (0.6–3.0 mm) is achieved to perfection. Its high gap bridging capability and optimum welding facility of mixed materials and coated sheet metals are other world class features.

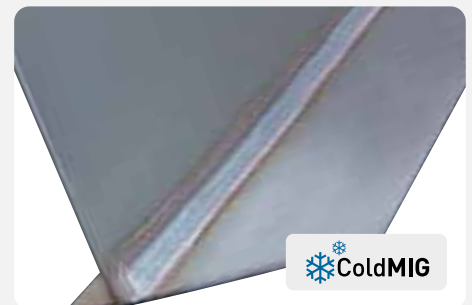
The characteristic curve is controlled in the up- and downslope cycle by an ultrafast digital signal processor. The ColdMIG process is available for all series HighPULSE, SpeedMIG and MobiMIG.

MERKLE ColdMIG.
Welding in perfection.



1 30 % LESS HEAT INPUT

- Perfect results for welding of thin metal sheets (0.6–3.0 mm)
- Steep controlled upslope in the short-circuit cycle
- Steep (almost vertical) downslope of the current after drop transfer



2 100 % GAP BRIDGING CAPABILITY

- High gap bridging capability for excellent results
- New standards even with complex requirements and applications



3 100 % PERFECT FOR MIG BRAZING

- MIG brazing of galvanised sheet metals thanks to less heat input
- Joining of mixed materials



TECHNICAL DATA

MobiMIG series

THE PORTABLE GENIUS!



	MobiMIG 180 K		MobiMIG 280 K		MobiMIG 321 K		MobiMIG 322 K	MobiMIG 322 KW
Power supply	1 x 230 V	3 x 400 V	1 x 230 V*	3 x 400 V	1 x 230 V*	3 x 400 V		
Frequency	50/60 Hz	50/60 Hz	50/60 Hz*	50/60 Hz	50/60 Hz*	50 Hz		
Prim. continuous power	3.7 kVA	9 kVA	3.7 kVA*	11.1 kVA	3.7 kVA*	11.1 kVA		
Prim. continuous current	16 A	13 A	16 A*	16 A	16 A*	16 A		
Welding current MIG/MAG	25–180 A	25–280 A	25–180 A*	25–320 A	25–180 A*	25–320 A		
Welding current Electrode	10–180 A	10–280 A	10–180 A*	20–300 A	20–160 A*	20–300 A		
Welding current TIG	25–160 A	20–280 A	25–160 A*	–	–	-		
Open circuit Voltage	64 V	90 V	103 V*	90 V	103 V*	90 V		
Duty cycle 20 % (10 min)	180 A (40 °C)	–	180 A (40 °C)*	–	180 A (40 °C)*	-		
Duty cycle 30 % (10 min)	–	-	–	-	–	320 A (40 °C)		
Duty cycle 35 % (10 min)	–	280 A (40 °C)	–	300 A (40 °C)	–	300 A (40 °C)		
Duty cycle 50 % (10 min)	–	280 A (20 °C)	–	–	–	-		
Duty cycle 60 % (10 min)	110 A (40 °C)	240 A (40 °C)	110 A (40 °C)*	260 A (40 °C)	110 A (40 °C)*	270 A (40 °C)		
Duty cycle 100 %	90 A (40 °C)	210 A (40 °C)	90 A (40 °C)*	240 A (40 °C)	90 A (40 °C)*	250 A (40 °C)		
Insulation class	IP 23							
Welding processes	MIG/MAG, TIG (DC) LiftTIG, Electrode, ColdMIG				MIG/MAG, Electrode, ColdMIG			
Energy adjustment	stepless on the machine or on the TEDAC torch							
Arc length correction	synergic mode, one-button control, automatische control							
Functions	2-/4-stroke, interval, spot							
Adjustable parameters	arc dynamics (choke), wire burn back, soft start							
Display	clear text display for all parameters							
Power Source	inverter							
Cooling	-			option: WK 300		-	integrated	
Wire feeder	2-roller-drive	4-roller-drive						
Wire spool type	D200/5 (5 kg)			D300/15 (15 kg)				
Norm	EN 60974-1 "S" / CE							
Weight	17 kg	27 kg		32 kg		52 kg	63 kg	
Dimensions L x W x H	450 x 210 x 480	470 x 255 x 545		600 x 300 x 565		760 x 420 x 920		

Technical details subject to change / *Option BiPower Plus



CREATE YOUR FUTURE SUCCESSFULLY.

With MERKLE. Your specialist for welding units, welding machines, torches and intelligent automation systems.

With own subsidiaries and MERKLE dealers in Germany, Europe and many other countries throughout the world.

Welcome to MERKLE.

01/2025

PRODUCT RANGE

- MIG/MAG Welding Units
- Synergic Pulse Welding Units
- TIG Welding Units
- MMA / Stick Electrode Welding Units
- Plasma Welding Units
- Welding and Cutting Torches
- Turntables and Roller Drive Units
- Automation Components and Solutions
- Complete Solutions and Robotics
- Specialized Machinery Construction
- MERKLE WeldFACTORY - Industry 4.0



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