



# MobiMIG series

The portable multi-talents!



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 280 K



1. MIG/MAG welding





MobiMIG 321 K with WK 300



MobiMIG 180 K



2. MMA/electrode welding



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, 20 or 50 l cylinder and a drawer for the tools, accessories, spare parts and consumables are important features.

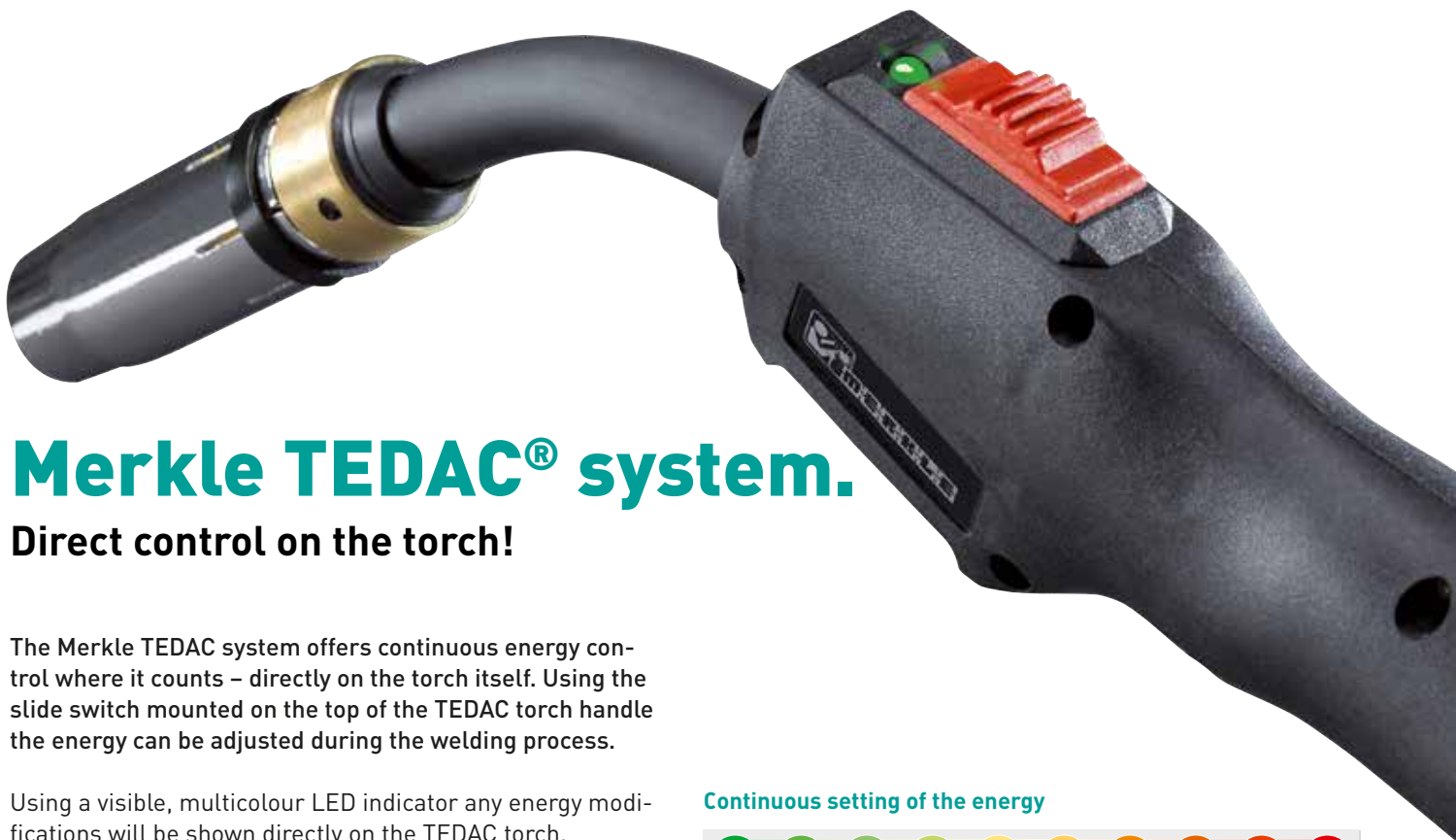


## 5 KG OR 15 KG WIRE SPOOLS

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.





# Merkle TEDAC® system.

## Direct control on the torch!

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 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.

### Continuous setting of the energy



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



The times of having to consider which machine to connect to which plug socket are now over!

The new BiPowerPLUS option available for our MobiMIG 280 and 321 K (option) opens new areas of flexibility for welding. In the workshop with 400 V three phase, or on the construction site with 230 V single phase AC, with the automatic voltage recognition you are prepared wherever you happen to find yourself.

The benefits:

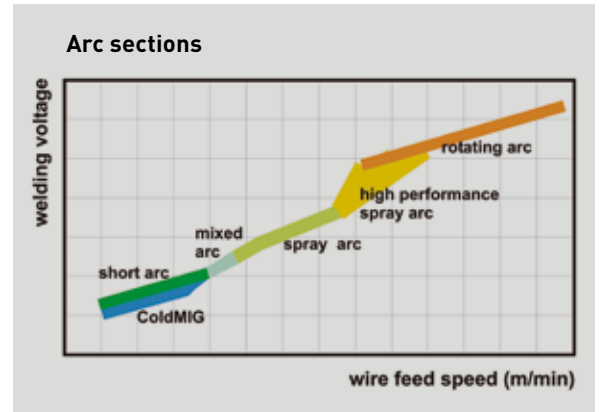
- Practical adapter offers the best flexibility
- Connection with 230 V single phase or 400 V three phase

# 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.

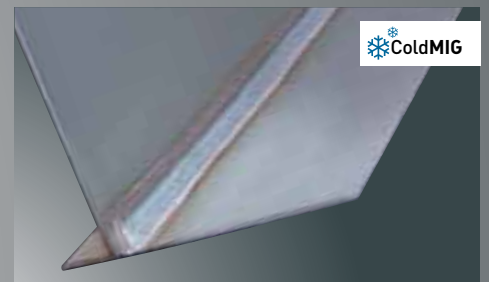
The characteristic curve is controlled in the up- and downslope cycle by an ultrafast digital signal processor. The ColdMIG process is available for all series HighPULSE, SpeedMIG and MobiMIG.

**Merkle ColdMIG.**  
Welding in perfection.



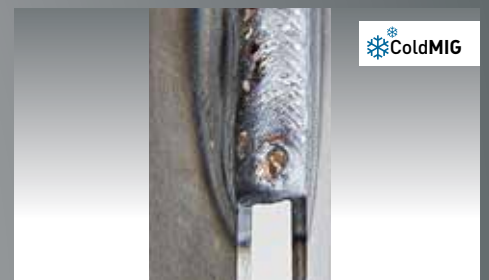
## 1 30 % LESS HEAT INPUT

- 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



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# THE PORTABLE GENIUS!



Technical details	MobiMIG 180 K	MobiMIG 280 K	MobiMIG 321 K
<b>Power supply</b>	1 x 230 V	3 x 400 V	1 x 230 V*
<b>Frequency</b>	50/60 Hz	50/60 Hz	50/60 Hz*
<b>Prim. continuous power</b>	3.7 kVA	9 kVA	3.7 kVA*
<b>Prim. continuous current</b>	16 A	13 A	16 A*
<b>Welding current MIG/MAG</b>	25–180 A	25–280 A	25–180 A*
<b>Welding current Electrode</b>	10–180 A	10–280 A	10–180 A*
<b>Welding current TIG</b>	25–160 A	20–280 A	25–160 A*
<b>Open circuit Voltage</b>	64 V	90 V	103 V*
<b>Duty cycle 20 % (10 min)</b>	180 A (40 °C)	–	180 A (40 °C)*
<b>Duty cycle 35 % (10 min)</b>	–	280 A (40 °C)	–
<b>Duty cycle 50 % (10 min)</b>	–	280 A (20 °C)	–
<b>Duty cycle 60 % (10 min)</b>	110 A (40 °C)	240 A (40 °C)	110 A (40 °C)*
<b>Duty cycle 100 %</b>	90 A (40 °C)	210 A (40 °C)	90 A (40 °C)*
<b>Insulation class</b>	IP 23		
<b>Welding processes</b>	MIG/MAG, TIG (DC) LiftTIG, Electrode, ColdMIG (option)		MIG/MAG, Electrode, ColdMIG (option)
<b>Energy adjustment</b>	Stepless on the machine or on the TEDAC torch		
<b>Arc length correction</b>	Synergic mode		
<b>Functions</b>	2-/4-stroke, interval, spot		
<b>Adjustable parameters</b>	Arc dynamics (choke), wire burn back, soft start		
<b>Display</b>	Clear text display for all parameters		
<b>Power Source</b>	Inverter		
<b>Water cooling</b>	–		Option: WK 300
<b>Wire feeder</b>	2-roller-drive	4-roller-drive	
<b>Wire spool type</b>	D200/5 (5 kg)		D300/15 (15 kg)
<b>Norm</b>	EN 60974-1 "S" / CE		
<b>Weight</b>	17 kg	27 kg	32 kg
<b>Dimensions</b>	450 x 210 x 480 mm	470 x 255 x 545 mm	600 x 300 x 565 mm

Technical details subject to change / \*Option BiPower Plus



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## 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.

### PRODUCT RANGE

- MIG/MAG Welding Units
- Synergic Pulse Welding Units
- TIG Welding Units
- MMA / Stick Electrode Welding Units
- Plasma Welding and Cutting Units
- Turntables and Roller Drive Units
- Welding and Cutting Torches
- Automation Components and Solutions
- Merkle Robotics



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