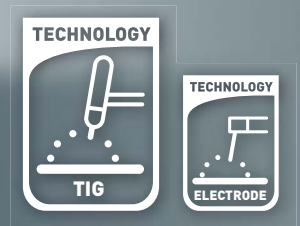




Portable TIG Welding Machines.

Portable, compact, efficient!





AC/DC Welding Units Series LogiTIG

Functionality and easy operation

- Continuous setting of the welding current.
- State-of-the-art Inverter technology.
- Operation at 230 V single phase (LogiTIG 220/240 AC/DC).
- High frequency (HF)-ignition and LiftTIG ignition.
- 3 different AC curves selectable, square, sinusoidal and noise reduced.
- Jobs: Saving and loading of complete parameter settings.
- 2 welding currents that can be activated through the welding torch.
- Digital display for welding current, time and frequency with pre-display and hold function.
- TIG pulse mode as a standard.
- AC balance control for the modification of the arc curve and penetration.
- Adjustable AC frequency 50 – 200 Hz.
- Adjustable parameters: start/end current, upslope/downslope, gas pre/post flow.
- Temperature activated cooling fan.
- Approved for welding in confined areas, S-symbol approved.
- MMA/stick electrode welding.
- Torch with potentiometer as an option.
- Optional: Water cooling unit (see page 7).
- High frequency TIG-DC-pulse up to 12 kHz for a defined narrow arc plasma alike.

Portable TIG Welding Machines.

Welding units for AC/DC!



Technical data:	LogiTIG 220 AC/DC	LogiTIG 240 AC/DC	LogiTIG 300 AC/DC
Power supply	1 x 230 V	1 x 230 V	3 x 400 V
Frequency	50 - 60 Hz	50 - 60 Hz	50 - 60 Hz
Continuous current	3.2 kVA	3.7 kVA	10.4 kVA
Continuous power	14 A	16 A	15 A
TIG operation mode:			
No load voltage	75 V	95 V	70 V
Working voltage	10 - 18.8 V	10 - 17.2 V / 19.6 V***	10 - 22 V
Welding current [DC]	3 - 220 A	3 - 180 A / 240 A***	5 - 300 A
Welding current [AC]	5 - 220 A	5 - 180 A / 240 A***	5 - 300 A
Duty cycle 25 % (10 min.)	220 A* (40 °C)		
Duty cycle 35 % (10 min.)		240 A (20 °C)	
Duty cycle 40 % (10 min.)	220 A** (20 °C)		
Duty cycle 50 % (10 min.)			300 A (40 °C)
Duty cycle 60 % (10 min.)	180 A** (20 °C) 140 A (40 °C)	160 A (40 °C)	280 A (40 °C)
Duty cycle 100 %	160 A (20 °C) 120 A (40 °C)	130 A (40 °C)	250 A (40 °C)
MMA/stick electrode mode:			
Electrode diameter	1.5 - 3.25 mm	1.5 - 4 mm	1.5 - 5 mm
No load voltage	75 V	100 V	70 V
Working voltage	20 - 27 V	20 - 26,4 V / 28 V***	20 - 32 V
Protection class	IP 23		
Generator	Inverter		
Ignition	HF-/LiftTIG		
AC-balance	+/- 91 %		
AC-frequency	50 - 200 Hz		
Adjustments	current 1, current 2, time 1, time 2, gas pre/post flow time, upslope/downslope, AC-curve shape, time ignition pulse, hot start time/current, [Arc Force]		
LED display	current, voltage, time, frequency with pre-display and hold function		
Job programs	yes		
Operation modes	2-stroke / 4-stroke / 4-stroke with 2 currents		
TIG pulsation [DC]	0.2 Hz - 12 kHz		
MMA/stick electrode welding	hot start, anti stick, arc force		
Remote control	socket		
Torch connection	TCG connector		
Sockets	50 mm		
Norm	EN 60974-1 „S„ /CE		
Weight	17 kg	24.5 kg	39.2 kg
Dimensions l x w x h	480 x 200 x 465 mm	535 x 230 x 465	600 x 300 x 575

*: Slow-blow fuse 16 A

** : Slow-blow fuse min 20 A

*** BiPower operation

Technical details are subject to change.

Merkle High Frequency DC Pulse.

Concentrated, narrow welding arc!

High frequency DC pulse

The machines of the series MobiTIG and LogiTIG come as a standard with the high frequency DC pulse. The arc can be pulsed with a frequency up to 12 kHz. The arc characteristics provide outstanding opportunities in TIG DC welding that are not available in the normal TIG arc:

Characteristics:

- Extreme arc constriction.
- Arc similar to plasma welding.
- Less heat input.
- Higher welding speed.
- Extremely stable arc.
- Perfectly for corner welds.
- Low noise emission.



Standard
TIG weld



High frequency
DC pulse weld



High frequency pulse for
perfect corner welds

Merkle MobiTIG 280 DC with BiPower PLUS!

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

The new BiPowerPLUS option available for our MobiTIG 280 DC opens new areas of flexibility for welding. In the workshop with 400 V three phase, or on the job site with 230 V single phase, you are prepared wherever you find yourself.

The new BiPowerPLUS makes it possible!



The benefits:

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

Portable TIG Welding Machines.

Welding units for DC!

The welding units MobiTIG 190 DC, MobiTIG 280 DC and TIG 300 DC are suitable for TIG welding in DC of stainless steel, mild steel and copper. All units can operate in MMA/stick electrode mode. The units can be characterized by numerous features.

Characteristics:

- Continuous setting of the welding current.
- Low weight, portable.
- 2-stroke/4-stroke operation.
- High frequency (HF) and LiftTIG ignition.
- Socket for remote control.
- Digital display for all parameters, with pre-display and hold function for welding current.
- Job programs (MobiTIG).
- 2 welding currents with activation at the welding torch.
- TIG pulsation as a standard.
- Adjustable start/final current and downslope time.



Technical data:	MobiTIG 190 DC	MobiTIG 190 DC mobil	MobiTIG 280 DC		TIG 300 DC
Power supply	1 x 230 V [50 - 60 Hz]	1 x 230 V [50 - 60 Hz]	3 x 400 V [50/60 Hz]	1 x 230 V [50/60 Hz]	3 x 400 V [50 - 60 Hz]
Continuous power	2.8 kVA	2.8 kVA	9.7 kVA	3.7 kVA	7.6 kVA
Continuous current	12 A	12 A	14 A	16 A	11 A
TIG operation mode:					
No load voltage	64 V	64 V	90 V	103 V	89 V
Working voltage	10 - 17.6 V	10 - 17.6 V	10 - 21.2 V	10 - 17.6 V	10 - 22 V
Welding current	5 - 190 A	5 - 190 A	3 - 280 A	3 - 190 A	5 - 300 A
Duty cycle 20% ED [10 min.]	180 A [40 °C]	180 A [40 °C]			
Duty cycle 35% ED [10 min.]	180 A [20 °C]	180 A [20 °C]	280 A [40 °C]	180 A [20 °C]	
Duty cycle 40% ED [10 min.]					
Duty cycle 50% ED [10 min.]			250 A [40 °C]		300 A [40 °C]
Duty cycle 60% ED [10 min.]	150 A [20 °C] 110 A [40 °C]	150 A [20 °C] 110 A [40 °C]	240 A [40 °C]	110 A [40 °C]	280 A [40 °C]
Duty cycle 100% ED	130 A [20 °C] 90 A [40 °C]	130 A [20 °C] 90 A [40 °C]	210 A [40 °C]	90 A [40 °C]	220 A [40 °C]
MMA/stick electrode mode:					
Electrode diameter	1.5 - 3.25 mm	1.5 - 3.25 mm	1.5 - 5 mm	1.5 - 3.25 mm	1.5 - 5 mm
No load voltage	64 V	64 V	90 V	103 V	99 V
Welding current	5 - 160 A	5 - 160 A	5 - 280 A	5 - 160 A	5 - 300 A
Protection class	IP 23				
Ignition	HF-/LiftTIG				
Adjustments	current 1, current 2; time 1 and 2; gas post flow; start / final current				
LED display	current, voltage, time, frequency with pre-display and hold function				
Job programs	yes	yes	yes		-
Operation modes	2-stroke, 4-stroke, 4 stroke with current 2				
TIG-Pulse	0.2 Hz - 12 kHz	0.2 Hz - 12 kHz	0.2 Hz - 12 kHz		0.2 Hz - 800 Hz
MMA/stick electrode welding	Hotstart, anti stick, arc force				
BiPower Technologie	Merkle TCG with 5 pol. plug				
Torch connection	50 mm				
Norm	EN 60974-1 „S“ /CE				
Weight	8.9 kg	12.8 kg	19 kg		26 kg
Dimensions l x w x h	355 x 160 x 275 mm	475 x 222 x 484 mm	485 x 200 x 435 mm		530 x 230 x 465 mm

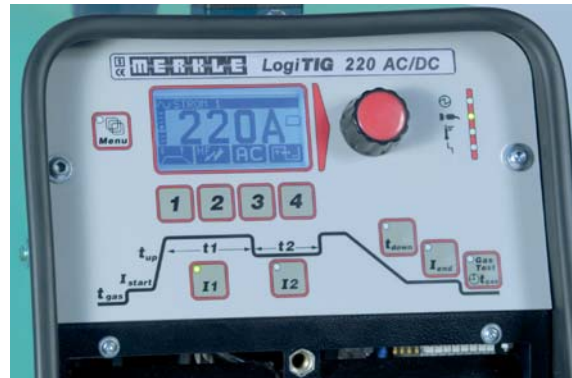
Technical details are subject to change.

Portable TIG Welding Units.

Perfect in handling and functionality!

Display (series LogiTIG):

- Digital display as a standard.
- Expert mode or standard mode programmable.
- Different languages selectable.
- Lock through PIN security number.
- Easy operation through rotary switch.



TCG torch connector:

The main advantages of the Merkle TCG (TIG Center Gas) connector:

- Small size
- Low weight
- Exchange of the torch without tools
- Negative socket for connection of TIG torch and electrode cable
- 2 rubber rings assure gas seal achieved



MMA/stick electrode welding:

1. Arc force: Increasing of the welding current in order to avoid adherence of the electrode.
2. Hotstart function:
Increasing of the start current to assure a safe ignition. The hotstart current and time are adjustable.
3. Anti Stick function:
In case of adherence of the electrode, the current is switched off immediately. Re-ignition after separation is only possible with a short delay.



TIG Welding Units.

Trolleys and water cooling units!

Trolley TW 120:

The trolley TW 120 is designed for easy transportation of the welding unit in the workshop or on site.

- Extra large wheels (200 mm).
- Gas bottle holder for a 10, 20 or 50 l cylinder (if machine is fixed to the trolley).
- Drawer for tools, accessories, spare parts and consumables.
- Suspension possibilities for cables and torch heads.
- Torch holders for various welding torch types on left and right side.



Dust protection filter:

Specially for workstations and workshops with higher dust pollution i.e. grinding dust, recommends the use of dust filters. The filter is attached easily.



Water cooling units WK 200/230/300:

The water cooling units can be mounted as an option to the welding units MobiTIG 280 DC, LogiTIG and TIG 300 DC. Welding machine and water cooling unit then form one compact unit, easy to transport.

Different applications are possible: welding with a water cooled torch in the workshop or using a gas cooled torch on site. Easy mounting and dismounting in a few seconds, via one pluggable electrical connection (option) placed on the rear panel of the unit.



Technical data

Power supply:	pluggable cables to the power source
Water pump:	rotatory pump
Pressure switch:	integrated
Water connection:	2 quick disconnect couplings
Weight:	12 kg (WK 200) 18 kg (WK 230) 20 kg (WK 300)
Dimensions l x w x h:	590 x 200 x 200 (WK 200) 610 x 230 x 215 (WK 230) 600 x 300 x 260 (WK 300)





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- 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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