

MasterTig

FAR FROM THE ORDINARY



26.04.2024



Designed for welders



MasterTig



reddot winner 2020
industrial design



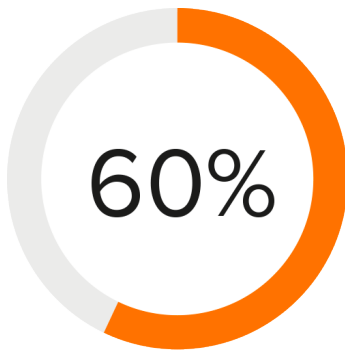
FAR FROM THE ORDINARY

MasterTig sets new standards for weld quality, usability, and power efficiency in AC and DC TIG welding. Designed for professional welders, the MasterTig product family offers a choice of power variants up to 500 A. Its modular design philosophy allows you to build the specification that best meets your needs, including alternative control panels, wireless remote controls, and transport cart options.

Stylish, practical, and robust, the MasterTig absorbs the knocks of everyday welding life. The compact-sized welding equipment is constructed from tough yet lightweight injection-molded plastic, featuring impact bridge protection structures. Flexible and durable **Flexlite TX** TIG torches are readily equipped to fit MasterTig to maximize welding comfort.

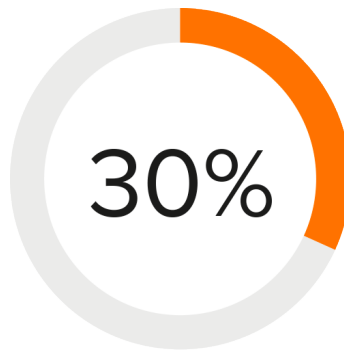


KEY BENEFITS



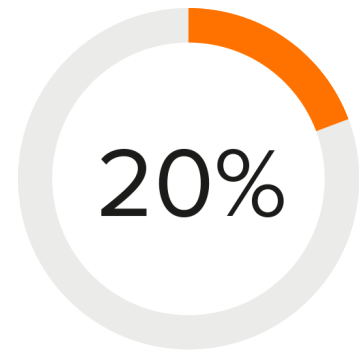
FASTER SETUP

Weld Assist guides you towards the optimal setup for easy and productive welding



INCREASED WELDING SPEED

Double Pulse function accelerates welding speed and lowers heat input by 20%



LOWER NOISE LEVELS

MasterTig reduces noise levels compared to leading competitors in AC welding applications

BENEFITS

- Choose from traditional touch button control panels or the full color 7" TFT control panel, including Weld Assist and 99 memory channels per process
- Weld Assist guides every welder towards accurate, productive welding by recommending the best parameters for different welding applications
- Several useful features available for enhanced TIG welding
- Easy, fast and convenient coolant filling and cleaning
- MasterTig transport units feature floor level cylinder loading, removing the need for heavy lifting
- Compatible with [Flexlite TX TIG torches](#)
- Foot pedal, on-torch and hand remote controls available
- Option for connecting the equipment to [WeldEye](#) cloud service



PRODUCT OPTIONS



MasterTig 235ACDC GM

230 A AC/DC, 1-phase generator and multi-voltage use



MasterTig 235ACDC GM AU

230 A AC/DC, 1-phase generator and multi-voltage use, VRD locked on



MasterTig 325DC

300 A DC, 3-phase



MasterTig 325DC G

300 A DC, 3-phase generator use



MasterTig 325DC G AU

300 A DC, 3-phase generator use, VRD locked on



MasterTig 325DC GM

300 A DC, 3-phase generator and multi-voltage use



MasterTig 335ACDC

300 A AC/DC, 3-phase



MasterTig 335ACDC G

300 A AC/DC, 3-phase generator use



MasterTig 335ACDC G AU

300 A AC/DC, 3-phase generator use, VRD locked on



MasterTig 335ACDC GM

300 A AC/DC, 3-phase generator and multi-voltage use



MasterTig 425DC G

400 A DC, 3-phase generator use



MasterTig 425DC G AU

400 A DC, 3-phase generator use, VRD locked on



MasterTig 535ACDC GM

500 A AC/DC, 3-phase generator and multi-voltage use



MasterTig 535ACDC GM AU

500 A AC/DC, 3-phase generator and multi-voltage use, VRD locked on



FEATURES



reddot winner 2020
industrial design



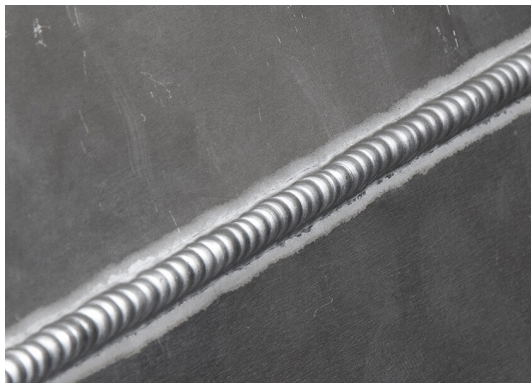
Red Dot Design Award: Product Design 2020

MasterTig TIG welding machine has been awarded with the Red Dot Award: Product Design 2020. MasterTig is a TIG welding machine that is very intuitive, user-centered, serves the needs of welders, and sets up a new benchmark for any upcoming products. Red Dot Award is one of the most prestigious design awards in the world, and the most sought-after marks of quality for good design internationally.



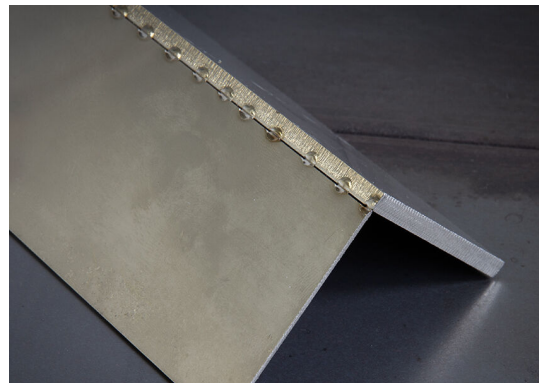
Double Pulse

Double Pulse combines alternative pulse cycles for 30% faster welding speed and 20% reduced heat input. Lowering distortion levels and weld costs, Double Pulse is ideal for DC hand welding and mechanized applications and offers superb weld seam appearance.



Optima AC

Optima AC is a customized AC TIG waveform that combines the best of the traditional sine and square waveforms – and adds a touch of magic for the optimal AC welding experience. Depending on the application, you're free to choose either sine, square, or the quiet one: Optima AC.



MicroTack

MicroTack offers fast and accurate tacking with minimum heat input in both DC and AC TIG welding. Ideal for multiple, repetitive tacking on thin sheet applications, where a consistent and controlled appearance is paramount. MicroTack can be set between 1 to 5 repeat pulse cycles or continuous cycle mode. The welding current level is set independently and the arc cycle time selected between 1 to 200 ms.



iTec

iTEC is engineered ignition technology for reliable arc starts. Particularly useful with long torch extensions for site welding or precise thin materials and low current applications, you can set the variable spark force energy.



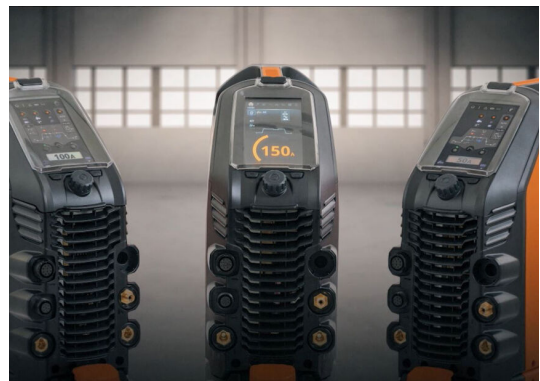
Auto Pulse

Easy and convenient, the only value to adjust is the welding current itself. Auto Pulse is ideal for applications in DC current.



AutoCool

Dynamic gas and water cooling ensure optimal temperature control and power efficiency. Depending on the welding power level and duration, the power source cooling fans moderate airflow and cooler motor run times between 15 seconds and 4 minutes, reducing electrical power consumption and localized noise levels. MasterTig 535 ACDC also includes an LED water level indicator.



UI control panels

Choose either traditional touch button control panels or the full color 7" TFT control panel. Protected by a 3mm armor shield plate, the 7" TFT control panel is both impact and scratch-resistant, allows fast and accurate parameter setting with WeldAssist, and offers 99 memory channels per process to save the best parameter or WPS values. MasterTig 535 ACDC includes the MTP35X panel as standard.



Weld Assist

Follow simple on-screen steps, selecting material, thickness, joint type, and position, and Weld Assist sets the right parameters for easy and productive welding. It also gives recommendations for electrode size, filler wire, gas flow, groove type, pass profile, and travel speed. Perfect for pWPS creation.



Personalize

Upload your company logo or favorite image as a screensaver to personalize your MasterTig.



Impact bridge

MasterTig is designed and constructed from strong, energy-absorbing, recyclable plastics, incorporating impact bridge structures that better protect the power source from the everyday knocks of welding life. MasterTig 535 ACDC is fitted with metal side plates.



PivotSafe

MasterTig transport units feature floor-level cylinder loading, removing the need for heavy lifting. The larger 4 wheel transport units integrate an innovative pivoting cylinder plate, for easier and safe cylinder loading.



Wireless remotes

Improve worksite safety by using wireless remotes. Select either hand or foot pedal modules and enjoy wireless power control from a distance of up to 15 or even 100 meters, depending on the worksite.



Torch parts storage

Quickly access frequently used TIG torch parts from the convenient, handle mounted-storage tray. Feature not included to MasterTig 535 ACDC.



Weld time clock

Ideal for total weld cycle measurement and job data records, MasterTig's weld clock is simple and fast to reset, allowing you to record and compare welding times between jobs.



Quick access to product information

MasterTig is equipped with a unique and scannable QR code. It enables easy access to all the relevant information such as product number, serial number, technical specifications, ordering codes, consumables, user manuals, websites, and local dealers or workshops' contact information. All the information can be found with a single mobile scan.



ACCESSORIES



MasterTig Cooler M

Cooling unit, supports multi-voltage use.
Easy, fast and convenient coolant filling.



MasterTig Cooler MXL

Cooling unit, supports multi-voltage use.
Easy, fast and convenient coolant filling.



Flexlite TX

The Flexlite TX torches are designed for use with Kempfi's TIG welding machines. The torch range includes several neck models, offering superb cooling performance and good access to challenging joint designs.



MTP23X

Membrane panel, supports DC power sources.



MTP33X

Membrane panel, supports AC/DC power sources.



MTP35X

7" TFT panel, supports DC and AC/DC power sources.



HR43

Wired hand remote control.



HR45

Wireless hand remote control. Range up to 100 meters.



FR43

Wired foot pedal remote control.



FR45

Wireless foot pedal remote control. Range up to 100 meters.



P43MT

4-wheel undercarriage.



T25MT

2-wheel cart with floor level cylinder loading.



P45MT

4-wheel cart with an innovative pivoting cylinder plate.



X5 Gas Cylinder Cart

4-wheel transport unit with convenient cable hooks and innovative PivotSafe mechanism for safe gas cylinder loading. Suitable for use with X5 FastMig, and MasterTig 535.



Digital Connectivity Module

An accessory device that enables integration with WeldEye cloud service. Collects welding data from the power source and transfers it wirelessly to the WeldEye mobile app. The connection might require an adapter depending on the welding machine model.



TECHNICAL SPECIFICATIONS

POWER SOURCES 235

MasterTig 235ACDC GM

Connection voltage 1~ 50/60 Hz	110 / 220...240 V ±10 %
Fuse	16 A
Stick electrode sizes	1.6...5.0 mm
Recommended generator power (min)	8 kVA
Open circuit voltage (average)	50 V
Operating temperature range	-20...+40 °C
External dimensions LxWxH	544 x 205 x 443 mm
Weight (no accessories)	19.1 kg
Degree of protection	IP23S
Standards	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1
EMC class	A
Rated maximum output at 40 °C (240 V) 40 % TIG	230 A / 19.2 V
Rated maximum output at 40 °C (240 V) 60 % TIG	200 A / 18 V
Rated maximum output at 40 °C (240 V) 100 % TIG	170 A / 16.8 V
Rated maximum output at 40 °C (240 V) 37 % MMA	180 A / 27.2 V
Rated maximum output at 40 °C (240 V) 60 % MMA	150 A / 26 V
Rated maximum output at 40 °C (240 V) 100 % MMA	120 A / 24.8 V
Rated maximum output at 40 °C (110 V) 40 % TIG	130 A / 15.2 V
Rated maximum output at 40 °C (110 V) 60 % TIG	120 A / 14.8 V
Rated maximum output at 40 °C (110 V) 100 % TIG	90 A / 13.6 V
Rated maximum output at 40 °C (110 V) 40 % MMA	85 A / 23.4 V
Rated maximum output at 40 °C (110 V) 60 % MMA	75 A / 23 V
Rated maximum output at 40 °C (110 V) 100 % MMA	55 A / 22.2 V
Range of output (110 V) TIG	3 A / 1 V ... 130 A / 24 V
Range of output (240 V) TIG	3 A / 1 V ... 230 A / 31 V
Range of output (110 V) MMA	10 A / 1 V ... 85 A / 35 V
Range of output (240 V) MMA	10 A / 10 V ... 180 A / 40 V



POWER SOURCES

MasterTig 325DC

MasterTig 325DC G

MasterTig 325DC GM

Connection voltage 3~ 50/60 Hz	380 ... 460 V ±10 %	380 ... 460 V ±10 %	220 ... 230 V; 380 ... 460 V ±10 %
Fuse	16 A	16 A	20 A
Stick electrode sizes	1.6 ... 6.0 mm	1.6 ... 6.0 mm	1.6 ... 6.0 mm
Recommended generator power (min)	20 kVA	20 kVA	20 kVA
Open circuit voltage (average)	50 V	50 V	50 V
Operating temperature range	-20 ... +40 °C	-20 ... +40 °C	-20 ... +40 °C
External dimensions LxWxH	544 x 205 x 443 mm	544 x 205 x 443 mm	544 x 205 x 443 mm
Weight (no accessories)	21 kg	21.5 kg	21.5 kg
Degree of protection	IP23S	IP23S	IP23S
Standards	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1
EMC class	A	A	A
Rated maximum output at 40 °C (40 % TIG)	300 A / 22 V	300 A / 22 V	300 A / 22 V
Rated maximum output at 40 °C (60 % TIG)	230 A / 19.2 V	230 A / 19.2 V	230 A / 19.2 V
Rated maximum output at 40 °C (100 % TIG)	190 A / 17.6 V	190 A / 17.6 V	190 A / 17.6 V
Rated maximum output at 40 °C (40 % MMA)	250 A / 30 V	250 A / 30 V	250 A / 30 V
Rated maximum output at 40 °C (60 % MMA)	230 A / 29.2 V	230 A / 29.2 V	230 A / 29.2 V
Rated maximum output at 40 °C (100 % MMA)	190 A / 27.6 V	190 A / 27.6 V	190 A / 27.6 V
Range of output TIG	3 A / 1 V ... 300 A / 38 V	3 A / 1 V ... 300 A / 38 V	3 A / 1 V ... 300 A / 27 V (@ 220 V)
Range of output MMA	10 A / 10 V ... 250 A / 39 V	10 A / 10 V ... 250 A / 39 V	10 A / 10 V ... 250 A / 32 V (@ 220 V)



POWER SOURCES

MasterTig 335ACDC

MasterTig 335ACDC G

MasterTig 335ACDC GM

Connection voltage 3~ 50/60 Hz	380 ... 460 V ± 10 %	380 ... 460 V ± 10 %	220 ... 230 V; 380 ... 460 V ± 10 %
Fuse	16 A	16 A	20 A
Stick electrode sizes	1.6 ... 6.0 mm	1.6 ... 6.0 mm	1.6 ... 6.0 mm
Recommended generator power (min)	20 kVA	20 kVA	20 kVA
Open circuit voltage (average)	50 V	50 V	50 V
Operating temperature range	-20 ... +40 °C	-20 ... +40 °C	-20 ... +40 °C
External dimensions LxWxH	544 x 205 x 443 mm	544 x 205 x 443 mm	544 x 205 x 443 mm
Weight (no accessories)	22 kg	22.5 kg	22.5 kg
Degree of protection	IP23S	IP23S	IP23S
Standards	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1	IEC 60974-1,-3,-10 IEC 61000-3-12 GB 15579.1
EMC class	A	A	A
Rated maximum output at 40 °C (40 % TIG)	300 A / 22 V	300 A / 22 V	300 A / 22 V
Rated maximum output at 40 °C (60 % TIG)	230 A / 19.2 V	230 A / 19.2 V	230 A / 19.2 V
Rated maximum output at 40 °C (100 % TIG)	190 A / 17.6 V	190 A / 17.6 V	190 A / 17.6 V
Rated maximum output at 40 °C (40 % MMA)	250 A / 30 V	250 A / 30 V	250 A / 30 V
Rated maximum output at 40 °C (60 % MMA)	230 A / 29.2 V	230 A / 29.2 V	230 A / 29.2 V
Rated maximum output at 40 °C (100 % MMA)	190 A / 27.6 V	190 A / 27.6 V	190 A / 27.6 V
Range of output TIG	3 A / 1 V ... 300 A / 38 V	3 A / 1 V ... 300 A / 38 V	3 A / 1 V ... 300 A / 27 V (@ 220 V)
Range of output MMA	10 A / 10 V ... 250 A / 39 V	10 A / 10 V ... 250 A / 39 V	10 A / 10 V ... 250 A / 32 V (@ 220 V)



POWER SOURCES VRD LOCKED ON 235

MasterTig 235ACDC GM AU

Connection voltage 1~ 50/60 Hz	110 / 240 V ± 10 %
Fuse	15 A
Stick electrode sizes	1.6...5.0 mm
Recommended generator power (min)	8 kVA
Open circuit voltage (average)	23 V (locked to VRD)
Operating temperature range	-20...+40 °C
External dimensions LxWxH	544 x 205 x 443 mm
Weight (no accessories)	19.1 kg
Degree of protection	IP23S
Standards	IEC 60974-1,-3,-10 IEC 61000-3-12 AS 60974.1-2006 GB 15579.1
EMC class	A
Rated maximum output at 40 °C (240 V) 40 % TIG	230 A / 19.2 V
Rated maximum output at 40 °C (240 V) 60 % TIG	200 A / 18 V
Rated maximum output at 40 °C (240 V) 100 % TIG	170 A / 16.8 V
Rated maximum output at 40 °C (240 V) 37 % MMA	180 A / 27.2 V
Rated maximum output at 40 °C (240 V) 60 % MMA	150 A / 26 V
Rated maximum output at 40 °C (240 V) 100 % MMA	120 A / 24.8 V
Rated maximum output at 40 °C (110 V) 40 % TIG	130 A / 15.2 V
Rated maximum output at 40 °C (110 V) 60 % TIG	110 A / 14.4 V
Rated maximum output at 40 °C (110 V) 100 % TIG	90 A / 13.6 V
Rated maximum output at 40 °C (110 V) 40 % MMA	85 A / 23.4 V
Rated maximum output at 40 °C (110 V) 60 % MMA	75 A / 23 V
Rated maximum output at 40 °C (110 V) 100 % MMA	55 A / 22.2 V
Range of output (110 V) TIG	3 A / 1 V ... 130 A / 24 V
Range of output (240 V) TIG	3 A / 1 V ... 230 A / 31 V
Range of output (110 V) MMA	10 A / 1 V ... 85 A / 35 V
Range of output (240 V) MMA	10 A / 10 V ... 180 A / 40 V



POWER SOURCES VRD LOCKED ON

MasterTig 325DC G AU

MasterTig 335ACDC G AU

Connection voltage 3~ 50/60 Hz	380 ... 460 V ± 10 %	380 ... 460 V ± 10 %
Fuse	16 A	16 A
Stick electrode sizes	1.6 ... 6.0 mm	1.6 ... 6.0 mm
Recommended generator power (min)	20 kVA	20 kVA
Open circuit voltage (average)	23 V (locked to VRD)	50 V
Operating temperature range	-20 ... +40 °C	-20 ... +40 °C
External dimensions LxWxH	544 x 205 x 443 mm	544 x 205 x 443 mm
Weight (no accessories)	21.5 kg	22.5 kg
Degree of protection	IP23S	IP23S
Standards	IEC 60974-1,-3,-10 IEC 61000-3-12 AS 60974.1-2006 GB 15579.1	IEC 60974-1,-3,-10 IEC 61000-3-12 AS 60974.1-2006 GB 15579.1
EMC class	A	A
Rated maximum output at 40 °C (40 % TIG)	300 A / 22 V	300 A / 22 V
Rated maximum output at 40 °C (60 % TIG)	230 A / 19.2 V	230 A / 19.2 V
Rated maximum output at 40 °C (100 % TIG)	190 A / 17.6 V	190 A / 17.6 V
Rated maximum output at 40 °C (40 % MMA)	250 A / 30 V	250 A / 30 V
Rated maximum output at 40 °C (60 % MMA)	230 A / 29.2 V	230 A / 29.2 V
Rated maximum output at 40 °C (100 % MMA)	190 A / 27.6 V	190 A / 27.6 V
Range of output TIG	3 A / 1 V ... 300 A / 38 V	3 A / 1 V ... 300 A / 38 V
Range of output MMA	10 A / 10 V ... 250 A / 39 V	10 A / 10 V ... 250 A / 39 V

ACCESSORIES

MasterTig Cooler M

Product code	MTC1KWM
Recommended coolant	MPG 4456 (Kemppi mixture)
Operating temperature range	-20 ... +40 °C with recommended coolant
Weight (no accessories)	12.5 kg
Tank volume	3.0 l

MasterTig Cooler MXL

Product code	MTC17KWMXL
Recommended coolant	MPG 4456 (Kemppi mixture)
Operating temperature range	-20 ... +40 °C with recommended coolant
Weight (no accessories)	25 kg
Tank volume	3.0 l
Cooling power	1,7 kW

MTP23X

Product code	MTP23X
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MTP33X

Product code	MTP33X
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MTP35X

Product code	MTP35X
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HR43

Product code	HR43
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HR45

Description	Wireless remote
Product code	HR45

FR43

Product code	FR43
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FR45

Product code	FR45
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P43MT

Description	Trolley
Product code	P43MT

T25MT

Description	Cart
Product code	T25MT

P45MT

Description	Transport unit
Product code	P45MT

X5 Gas Cylinder Cart

Product code	X5701020000
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Digital Connectivity Module

Product code	6265051
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Kemppi is the design leader in the arc welding industry. We are committed to boosting the quality and productivity of welding by continuous development of the welding arc and by working for a greener and more equal world. Kemppi supplies sustainable products, digital solutions, and services for professionals from industrial welding companies to single contractors. The usability and reliability of our products is our guiding principle. We operate with a highly skilled partner network covering over 70 countries to make its expertise locally available. Headquartered in Lahti, Finland, Kemppi employs close to 800 professionals in 16 countries and has a revenue of 195 MEUR in 2022.

