

# MASTERTIG

Far from the ordinary





# MASTERTIG

## Far from the ordinary

The new master of AC and DC TIG welding, MasterTig sets new standards for weld quality, usability and power efficiency.

Designed for professional user groups, MasterTig product family offers a choice of power variants in 230A, 300A, 400A and 500A models, featuring impressive size and weight specifications.

The 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.

MasterTig family is stylish, practical and robust, capable to absorb the knocks of everyday welding life. Whether your welding challenge is workshop or work site based, MasterTig has it covered.

## KEY BENEFITS



### 60% FASTER SETUP

Weld Assist guides you towards the optimal setup.

Tell the machine what you intend to weld and Weld Assist selects parameters for easy and productive welding.



### 30% INCREASED WELDING SPEED

Double Pulse function accelerates travel speed in DC applications and lowers heat input by 20%. Faster welding and lower materials distortion.



### 20% LOWER NOISE LEVELS

MasterTig reduces noise levels compared to leading competitors in AC and DC welding applications, allowing you to quietly concentrate on quality.



# Excellent ergonomomy and

## PERSONALIZE

Upload your company logo or favorite image to personalize your MasterTig screen saver.



## MODULAR DESIGN

Choose from a range of MasterTig power models, alternative user interface, remote control options, transport carts and torches, to ensure your machine exactly meets your needs.



## 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.



# superb user experience



### TORCH PARTS STORAGE

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



### UI CONTROL PANELS

Choose either traditional touch button control panels or the full color 7" TFT control system allowing easy, fast and accurate parameter setting. Protected by a 3mm armor shield plate, the 7" TFT display panel is both impact and scratch resistant.



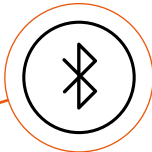
### WELD ASSIST

Setting your machine first time, every time with Weld Assist. Follow simple on-screen steps, selecting material, thickness, joint type and position, and Weld Assist sets the best parameters, guiding every welder towards accurate, productive welding. Weld Assist also gives recommendations for electrode size, filler wire, gas flow, groove type, pass profile and travel speed. Perfect for pWPS creation.



### AUTOCOOL

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



### BLUETOOTH

The magic of cordless remote control. Cancel remote cable repairs and improve work site safety by using Bluetooth 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 work site. Simply make life easy.



up to 15 to 100 m

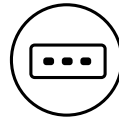


# Enhanced welding



## 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 appearance.



## MICROTACK

MicroTack is the fast and accurate tacking feature in both DC and AC TIG welding. Ideal for multiple, repetitive tacking on thin sheet applications, where consistent and controlled appearance are 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. Precise tacking with minimum heat input. Perfect.



## 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.



## 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.



## MEMORY CHANNELS

The full color TFT control panel MTP35X offers 99 memory channels per process to save the best parameter or WPS values. Copy or delete and update as needed. It's fast and simple.



## AUTO PULSE

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



## WELD TIME CLOCK

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

# WELD ASSIST

Follow simple on-screen steps, selecting material, thickness, joint type and position, and Weld Assist sets the best parameters, guiding every welder towards accurate, productive welding.

For MMA select electrode type, electrode size and joint type.





## CLEAR, ACCURATE AND EASY

For fast and accurate parameter setting, choose traditional touch button control panels or the full color 7 TFT control system, including Weld Assist for both TIG and MMA welding. MasterTig 535 ACDC includes the MTP35X panel as standard.



MTP23X



MTP33X



MTP35X (Std fit on MT535)

## PERSONALIZE

Upload your company logo or favorite image to the MTP35X screen saver. It's simple and fast.



## PIVOTSAFE

Four wheel transport units integrate an innovative pivoting cylinder plate, for safe cylinder loading.



## FLEXLITE TIG TORCHES

Flexlite TX torches feature high-strength flexible molded handles for increased comfort and lower welder fatigue. Silicone rubber material gives a firm grip and the innovative design reduces wrist loading, allowing you to concentrate on the perfect weld.

Ready equipped to fit MasterTig in either gas or water cooled models, Flexlite TX TIG torches are available in alternative power classes and lengths.



Compact welding head designs include rigid, flexible and S-shaped rotating neck models, offering superb cooling performance and good access to challenging joint designs.

		MASTERTIG 235 ACDC GM	MASTERTIG 235 ACDC GM (VRD locked on)
Mains connection voltage	1~ 50/60 Hz	110 / 220...240 V ±10 %	110 / 240 V ±10 %
Fuse		16 A	15 A
Open circuit voltage (average)	MMA	50 V	23 V (locked to VRD)
Rated maximum output at 40 °C (240 V)	40 % TIG	230 A / 19.2 V	230 A / 19.2 V
Rated maximum output at 40 °C (110 V)	40 % TIG	130 A / 15.2 V	130 A / 15.2 V
Range of output (240 V)	TIG	3 A / 1 V...230 A / 31 V	3 A / 1 V...230 A / 31 V
Range of output (110 V)	TIG	3 A / 1 V...130 A / 24 V	3 A / 1 V...130 A / 24 V
Operating temperature range		-20...+40 °C	-20...+40 °C
EMC class		A	A
Degree of protection		IP23S	IP23S
External dimensions	LxWxH	544 x 205 x 443 mm	544 x 205 x 443 mm
Weight without accessories		19.1 kg	19.1 kg
Recommended generator power (min)	Sgen	8 kVA	8 kVA
Stick electrode diameters	ø mm	1.6...5.0 mm	1.6...5.0 mm
Standards		IEC60974-1,-3,-10, AS60974.1, GB/T15579.1 IEC 61000-3-12	IEC60974-1,-3,-10, AS60974.1, GB/T15579.1 IEC 61000-3-12

		MASTERTIG 325 DC MASTERTIG 335 ACDC	MASTERTIG 325 DC G MASTERTIG 335 ACDC G	MASTERTIG 325 DC GM MASTERTIG 335 ACDC GM
Mains 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
Open circuit voltage (average)	MMA	50 V 23 V*	50 V 23 V*	50 V
Rated maximum output at 40 °C	40 % TIG	300 A / 22 V	300 A / 22 V	300 A / 22 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)
Operating temperature range		-20...+40 °C	-20...+40 °C	-20...+40 °C
EMC class		A	A	A
Degree of protection		IP23S	IP23S	IP23S
External dimensions	LxWxH	544 x 205 x 443 mm	544 x 205 x 443 mm	544 x 205 x 443 mm
Weight without accessories		21.0 kg 22.0 kg	21.5 kg 22.5 kg	21.5 kg 22.5 kg
Recommended generator power (min)	Sgen	20 kVA	20 kVA	20 kVA
Stick electrode diameters	ø mm	1.6...6.0 mm	1.6...6.0 mm	1.6...6.0 mm
Standards		IEC60974-1,-3,-10, AS60974.1, GB/T15579.1	IEC60974-1,-3,-10, AS60974.1, GB/ T15579.1	IEC60974-1,-3,-10, AS60974.1, GB/T15579.1

\* Applies only to the power source model versions where the Voltage Reduction Device (VRD) function is locked on.

		MASTERTIG 425 DC G	MASTERTIG 425 DC G (VRD locked on)	MASTERTIG 535 ACDC GM	MASTERTIG 535 ACDC GM (VRD locked on)
Mains connection voltage	3~ 50/60 Hz	380...460 V ±10 %	380...460 V ±10 %	220...230 V; 380...460 V ±10 %	220...230 V; 380...460 V ±10 %
Fuse		16 A	16 A	32 A	32 A
Open circuit voltage (average)	MMA	50 V	23 V (locked to VRD)	50 V	23 V (locked to VRD)
Rated maximum output at 40 °C	TIG	30 % ED 400 A / 26 V	30 % ED 400 A / 26 V	40 % ED 500A/30V (400V) 40 % ED 450A/28V (220V)	40 % ED 500A/30V (400V) 40 % ED 450A/28V (220V)
Range of output	TIG	3 A / 1 V...400 A / 41 V	3 A / 1 V...400 A / 41 V	3 A/1 V-500 A /37 V (400V) 3 A/1 V-450 A /32 V (220 V)	3 A/1 V-500 A /37 V (400V) 3 A/1 V-450 A /32 V (220 V)
Operating temperature range		-20...+40 °C	-20...+40 °C	-20...+40 °C	-20...+40 °C
EMC class		A	A	A	A
Degree of protection		IP23S	IP23S	IP23S	IP23S
External dimensions	LxWxH	544 x 205 x 443 mm	544 x 205 x 443 mm	860 x 263 x 610 mm	860 x 263 x 610 mm
Weight without accessories		23.6 kg	23.6 kg	57 kg	57 kg
Recommended generator power (min)	Sgen	20 kVA	20 kVA	35 kVA	35 kVA
Stick electrode diameters	ø	1.6...7.0 mm	1.6...7.0 mm	1,6...7,0 mm	1,6...7,0 mm
Standards		IEC60974-1,-3,-10, AS60974.1, GB/T15579.1	IEC60974-1,-3,-10, AS60974.1, GB/T15579.1	IEC60974-1,-3,-10, AS60974.1, GB/T15579.1	IEC60974-1,-3,-10, AS60974.1, GB/T15579.1

MASTERTIG COOLERS	MASTERTIG COOLER M	MASTERTIG COOLER MXL
Cooling power	0.9 kW	1.7 kW
Recommended coolant	MPG 4456 (Kemppi mixture)	MPG 4456 (Kemppi mixture)
Tank volume	3.0 l	3.0 l
Operating temperature range	-20...+40 °C	-20...+40 °C
Weight without accessories	12.5 kg	25 kg

FLEXLITE TIG TORCHES		TX 135GF	TX 165GF	TX 165GS	TX 165G	TX 225G	TX 225GS	TX 255WS	TX 305WF	TX 355W	TX 455W
Type of cooling		Gas	Gas	Gas	Gas	Gas	Gas	Liquid	Liquid	Liquid	Liquid
Type of connection	Current-gas	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4	G1/4
Load capacity @ 40 % (Argon)	A	130	160	160	160	220	220	250	300	350	450
Load capacity @ 100 % (Argon)	A	-	-	-	-	-	-	200	200	250	320
Remote control		Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Neck type		Flexible	Flexible	Rotating	70° angle	70° angle	Rotating	Rotating	Flexible	70° angle	70° angle

These equipment comply with standard IEC 60974-7.

## ORDERING INFORMATION

Equipment	Description	Ordering code
MasterTig 235 ACDC GM	Power source: 230 A AC/DC, generator and multi-voltage use	MT235ACDCGM
MasterTig 235 ACDC GM	Power source: 230A AC/DC, generator and multi-voltage use, VRD locked on	MT235ACDCGMAU
MasterTig 325 DC	Power source: 300 A DC	MT325DC
MasterTig 325 DC G	Power source: 300 A DC, generator use	MT325DCG
MasterTig 325 DC G	Power source: 300 A DC, generator use, VRD locked on	MT325DCGAU
MasterTig 325 DC GM	Power source: 300 A DC, generator and multi-voltage use	MT325DCGM
MasterTig 335 ACDC	Power source: 300 A AC/DC	MT335ACDC
MasterTig 335 ACDC G	Power source: 300 A AC/DC, generator use	MT335ACDCG
MasterTig 335 ACDC G	Power source: 300 A AC/DC, generator use, VRD locked on	MT335ACDCGAU
MasterTig 335 ACDC GM	Power source: 300 A AC/DC, generator and multi-voltage use	MT335ACDCGM
MasterTig 425 DC G	Power source: 400 A DC, generator use	MT425DCG
MasterTig 425 DC G	Power source: 400 A DC, generator use, VRD locked on	MT425DCGAU
MasterTig 535 ACDC GM	Power source: 500 A AC/DC, 3-phase generator and multi-voltage use, includes MTP35X	MT535ACDCGM
MasterTig 535 ACDC GM	Power source: 500 A AC/DC, 3-phase generator and multi-voltage use, VRD locked on, includes MTP35X	MT535ACDCGMAU
MasterTig Cooler M	Cooling unit, multi-voltage use	MTC1KWM
MasterTig Cooler MXL	MasterTig 535 Cooler 1.7Kw multi-voltage XL	MTC17KWMXL
MTP23X	Control panel: Membrane panel, DC	MTP23X
MTP33X	Control panel: Membrane panel, AC/DC	MTP33X
MTP35X	Control panel: 7" TFT panel, DC, AC/DC	MTP35X
HR43	Wired remote	HR43
HR45	Wireless remote	HR45
FR43	Wired foot pedal remote	FR43
FR45	Wireless foot pedal remote	FR45
P43MT	Transport unit, 4 wheel undercarriage	P43MT
T25MT	Transport unit, 2 wheel cart	T25MT
P45MT	Transport unit, 4 wheel cart	P45MT
X5701020000	MT535 ACDC Transport unit, 4 wheel cart	X5701020000



P43MT



T25MT



P45MT



X5701020000



Scan this QR code to download Kempfi Discovery App. It creates for you a vivid simulation of MasterTig placed in your environment using augmented reality technology (AR).

**The forerunner of arc welding.** Kempfi is the design leader of the arc welding industry. We are committed to boosting the quality and productivity of welding by continuous development of the welding arc. Kempfi supplies advanced 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, Kempfi employs close to 800 professionals in 17 countries and has a revenue of 140 MEUR.

**Kempfi - Designed for welders**

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