

OXFORD MULTI-TIG DC inverter 220A – 410A

Hand portable » exceptional TIG & MMA welding performance » rugged & reliable.

230V 1ph + 400V 3 ph



Key features

- ✓ Precision control of weld power from 5A.
- ✓ Digital display shows set values & precise welding values.
- ✓ TIG 2T/4T torch trigger normal/latch function.
- ✓ Slope up & down controls.
- ✓ Gas preflow circuit built in & adjustable postflow gas.
- ✓ TIG pulse with extended frequency range.
- ✓ Remote socket for foot pedal or other remote amps control.
- ✓ MMA welding of all rods including cellulosics.
- ✓ Generator friendly & compensation for cables up to 100M.
- ✓ Protection from over/under input volts, over temp.
- ✓ High efficiency & 20W standby power = low running costs.
- ✓ High duty cycles to keep you welding all day long.
- ✓ Rugged case design - drop tests exceed IEC60974-14
- ✓ Cooling chamber keeps dirty airflow away from PCB.
- ✓ Low weight & compact size for great portability.
- ✓ Industrial machines built to work hard for 25+ years.



No nonsense TIG with outstanding weld performance

MULTI-TIG DC - Basic models & specs

Model	Input Volts	Amps range	Duty cycle @40C - TIG	Rec fuse *	Idle power	OCV	Pulse range	Slope up	Slope down	Gas post F.	Weight approx.
221	230V 1ph	5-220A	220A@35%, 170A@60%	16A *13A	20W	85V DC	1Hz-200	0-5 sec	0-10 sec	0.5-14 sec	15kg
271	230V 1ph	5-270A	270A@60%, 210A@100%	32A *13A	20W	85V DC	1Hz-200	0-5 sec	0-10 sec	0.5-14 sec	19kg
273	400V 3ph	5-270A	270A@60%, 210A@100%	16A	20W	85V DC	1Hz-200	0-5 sec	0-10 sec	0.5-14 sec	18kg
413	400V 3ph	10-410A	410A@60%, 320A@100%	16/25A	20W	85V DC	1Hz-200	0-5 sec	0-10 sec	0.5-14 sec	23kg

Power source case size 230Wx510Lx400H (or 460mm including top handle).

Output amps range on MMA is the same as TIG, duty cycle is reduced up to 6% when using on MMA.

*Recommended fuse is 'D' slow type, a lower size such as 13A is OK up to 200A on TIG.

Duty cycle is tested at 40°C, at 20°C the duty cycle increases by approx. 5%.

Efficiency = 85% (221 & 271) 86% (273 & 413)

Compliance with BS IEC60974-1, WEE/HD0071UZ, EU2019/1784. Protection - IP23S (suitable for use outside with cover).

Options available at time of enquiry/order.

Extra length cables	Different input volts, 110V, 440V/480V.	Adjustable pre flow gas.	Adjustable hot start.	Voltage read out	3A min current	Other – please ask
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Accessories available to add at any time.

Foot pedal to control current & start/stop.	Water cooler.	Trolley with gas bottle carrier	TIG Cold wire feeder.
TIG torches 4M or 8M air cooled or water cooled.	MMA electrode leads.	TIG torch with remote current control.	Hand remote control of current.

AC - DC models 230V & 400V available to 270A

PTO for more information.



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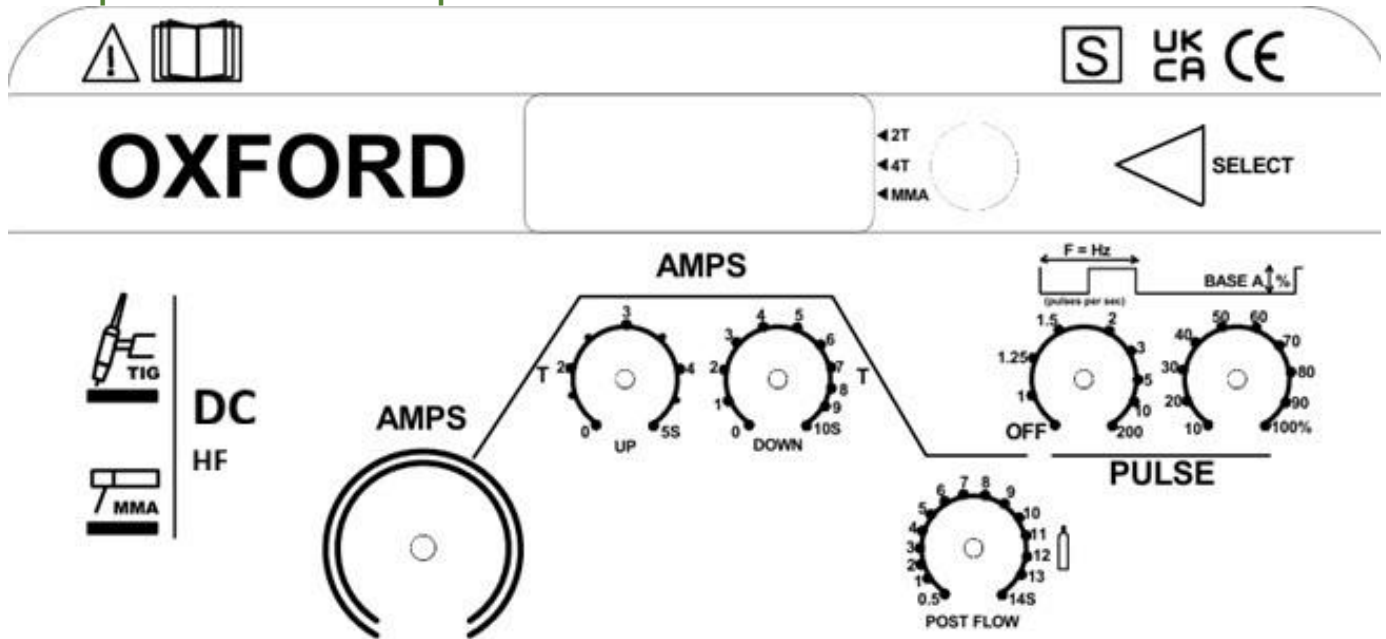
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TIG functions & performance – At switch on, all models start up in 2T torch switch operation (press & hold torch switch to weld), select 4T for trigger latching function, ideal for long welds. Welding power is set on the display prior to welding. Built in gas pre flow (0.5 sec) guarantees gas coverage of the job before arc up. Slope up & down controls can be set for controlled starts & crater filling. Gas post flow control is set to provide gas coverage of the weld pool & electrode at the end of each weld. Pulse controls include variable frequency from 1 pulse per second to 200PPS & variable pulse base current & peak current (main A control). A very low pulse frequency such as 1 PPS (1Hz) is ideal for controlled 'dabbing' of filler wire into the pool to minimise heat input & create the classic herringbone TIG weld appearance. Pulse frequency adjustment is scaled to provide best control at low frequencies so the operator can easily achieve superb results. High pulse frequency such as 200Hz can minimise the heat affected zone & constrict the arc.

TIG arc starts are instant thanks to our electronic HF. Welding is super smooth & virtually silent throughout the range. Analogue controls make TIG welding so easy, adjust everything needed in a second, no software to navigate!

These models are safe for use around IT equipment thanks to our electronic HF which creates minimal radiated noise.

Front panel controls close up.



MMA functions & performance – Simply select MMA via the top mode select switch & set the AMPS control to a suitable value.

Every type of electrode can be used, including cellulosic & other difficult to run rods. Hot start is built in to give instant arc up. Super smooth arc welding guaranteed!

OXFORD MULTI-TIG machines are joy to use Satisfaction guaranteed

Other - Despite the simplicity of these models we have included many unseen features to benefit welding & operation including. Auto shut down of gas & power if TIG output energised without welding, fan on demand circuit – only runs as needed to minimise noise & wear, output resets to off during slope down if arc is interrupted, upslope time starts only after arc starts. Pre flow gas time adjustable inside. Also, for enhanced safety the output power is always off at switch on until the torch switch is pressed or MMA selected.

Build quality & design – We design & build all our own PCBs, transformers, coils, power assemblies etc. There are NO microprocessors or programable technology used, GUARANTEED no software to corrupt! Built using our rugged 2 IGBT power module technology & simple electronics – **minimum parts & maximum reliability!** Our reliability is the very best, no matter if welding all day in production or storing in a barn for years for occasional jobs. From a serviceability point our inverter machines are simple, no need for an Electronics degree! We include diagnostic LEDs & test points. All OXFORD machines can be maintained by any competent Technician anywhere in the world.

Investing in an Oxford welder is your guarantee of a quality product with the best back up.

Our long term back up is the best in the industry. 2 year warranty on all items, 5 year main transformer warranty (the heart of the machine), 20 year minimum guarantee of spares availability.

Further info at www.oxfordwelders.co.uk