

OXFORD MULTI-TIG AC DC inverter models 220A – 270A

Hand portable » exceptional 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.
- ✓ AC/DC infinite balance control, totally unique to our machines.
- ✓ Advanced AC squarewave gives superior weld performance.
- ✓ Ultra low AC arc noise thanks to advanced squarewave.
- ✓ AC frequency control from 20Hz to 200Hz.
- ✓ Slope up & down controls.
- ✓ Gas preflow circuit built in & adjustable postflow gas.
- ✓ Pulser controls with extended frequency range.
- ✓ Remote socket for foot pedal or other remote amps control.
- ✓ MMA welding of all rods including cellulose on DC & AC.
- ✓ 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 electronic parts.
- ✓ Low weight & compact size for great portability.
- ✓ Industrial machines built to work hard for 25+ years.



No nonsense AC DC TIG with outstanding weld performance

MULTI-TIG AC DC - Basic models & specs

Model	Input Volts	Amps range	Duty cycle @40C - TIG	Rec fuse *	Idle power	OC V	Pulse range	Slope up	Slope down	Ac freq	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	20-200Hz	0.5-14 sec	17kg
271	230V 1ph	5-270A	270A@60%, 210A@100%	32A *13A	20W	85V DC	1Hz-200	0-5 sec	0-10 sec	20-200Hz	0.5-14 sec	22kg
273	400V 3ph	5-270A	270A@60%, 210A@100%	16A	20W	85V DC	1Hz-200	0-5 sec	0-10 sec	20-200Hz	0.5-14 sec	21kg

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.

All above input ratings are based on TIG welding, higher input power may be needed if running MMA.

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

Efficiency = 83% (273) 82% (221/271)

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.	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.

DC only models available up to 410A output.

PTO for more information.



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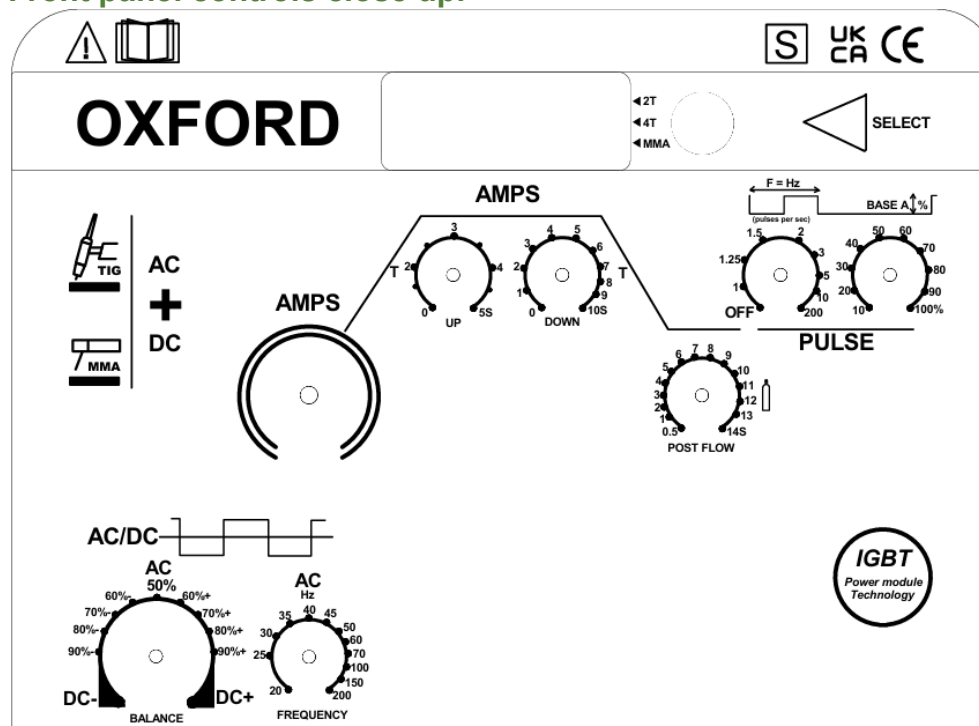
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TIG functions & performance – At switch on, all models start up in 2T torch switch operation (press & hold torch switch to weld), select 4T for trigger latching function, ideal for long welds. Welding power is set on the display prior to welding. Gas preflow (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.

All Oxford AC DC TIGs have our unique AC/DC balance control. One control provides infinite adjustment from DC- (normal DC TIG) through all AC variations to DC+ (special TIG applications). This extended balance range gives you the opportunity to tackle a greater range of materials than normally possible with a 220A/270A machine. Set a large AC – balance such as 80-90% to maximise heat input to the job, weld large castings, alloy wheels, heavy plate etc. This also reduces the heat input to the torch & electrode, extending the usable range of an air cooled torch by up to 25% & eliminating the need for water cooling on many jobs. Set a large AC + balance for superior cleaning & minimal heat input, jobs such as exotic aluminium alloys, titanium, aerospace work etc. Adjustable AC frequency from 20Hz to 200Hz brings additional benefits. A low frequency provides a super soft AC arc with a wide pool & very low noise, ideal for heavier jobs. Increasing the frequency constricts the arc to provide a narrow & focused weld pool, ideal for thin sheet materials.

Arc starting on AC & DC is instant. On AC you will notice how smooth & quiet the arc runs compared to most AC TIG machines. Our advanced square wave design carefully controls the AC waveform to combine exceptional welding performance with ultra-low arc noise. DC welding is super smooth & virtually silent throughout the range. AC or DC these are a pleasure to use.

Front panel controls close up.



MMA functions & performance

– Simply select MMA via the top mode select switch.

Every type of electrode can be used, including cellulosic & other difficult to run rods. Hot start is built in to give instant arc up. Weld with DC – or DC + or AC. Full AC TIG balance & frequency controls provide even more flexibility. Super smooth arc welding guaranteed!

**A joy to use on both
TIG & MMA
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. Adjustable pre flow gas 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