

## OPTeARC ETIG DC compact range

### Portable high performance DC TIG models 100A – 280A 3 phase, 230V, 110V & dual voltage

The ETIG compact range of machines are British made industrial machines built using our unique Mitsubishi hybrid chopper technology. This design gives you all the performance benefits of a good inverter based machine with instant arc starts, a smooth superior arc & very low power consumption, but with the rugged reliable build of a transformer machine. In addition, due to the high efficiency of this technology the size, weight & input power are reduced by a massive amount compared with conventional machines. Furthermore these tolerate harsh operating conditions such as extreme temperatures, damp & dust & can be used outside in the rain.

The ETIG range are really simple to set up & use, anyone who has TIG welded previously can use these in seconds. Unlike some machines there is no programming needed or constant referring back to instruction manuals, yet they have all the features needed for high performance welding. These machines will not fail in dirty or damp workshops like inverters do, they are not affected by fluctuations on input supply they keep welding reliably year after year.

They are equally happy in any environment including industrial workshops, off shore oil & gas, mobile welding, outside on construction sites etc.

*Green, low energy consumption gives you more welding for lower running costs*



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#### Key benefits of the ETIG compact models.

- ✓ Superior TIG welding characteristics with perfect arc starts & welds every time from min to max power.
- ✓ Rugged reliable design is not affected by harsh operating conditions or poor input supply, guaranteed!
- ✓ Can be used in all environments including outside.
- ✓ Ultra low power consumption reduces your running costs & helps the environment.
- ✓ All models will also weld MMA electrodes superbly including cellulose type rods.
- ✓ Up to 220A on a 110V supply, unbeatable!
- ✓ ETIG100 *micro* is a precision micro TIG for those special very thin material jobs.
- ✓ Generator friendly with automatic compensation for varying input power, long extension leads or unstable generators

#### Standard ETIG compact machine functions.

- ✓ Precise stepless current control can be set to within +/-1 amp, digi meter shows set value then exact value when welding.
- ✓ Variable up & down slope controls, 0-5 seconds upslope, 0-15 seconds downslope range.
- ✓ TIG Torch trigger latching 4T/2T.
- ✓ Variable gas post flow control, 0-15 seconds postflow range.
- ✓ Electronic pulse HF for precise instant arc starts (I.T. friendly so will not affect your phone or PC etc)
- ✓ MMA electrode welding with super smooth arc on all electrodes & will also weld cellulosic rods 6010 etc!
- ✓ Remote current function allows use of a foot pedal or hand remote or special current control on TIG torch.

#### Technical specs

	ETIG100 <i>micro</i>	ETIG160	ETIG220	ETIG280
Input volt dual 110/230 option *	Yes	Yes	Yes	No
Input volt dual 230/400 option *	Yes	Yes	Yes	Yes
Input volt 400V 3ph option *	Yes	Yes	Yes	Yes
Amperage range	2-100A	5-160A	5-220A	10-280A
Duty cycle* 40% @	100A	160A	220A	280A
Open circuit volts (OCV)	82V	82V	82V	85V
Min input KVA (for ¾ output on TIG)	1.2 kva	2.2 kva	3.3 kva	4.8 kva
Recommended KVA (for max out TIG)	2 kva	3.3 kva	5 kva	7.5 kva
Approx case size all models	260mm W x 520mm L x 420mm H (excludes exterior hardware)			
Approx net weight (excludes extras)	19kg	23kg	29kg	39kg

\*Duty cycles are quoted at 40°C; at lower temperatures the duty cycle will be higher. For MMA welding duty cycle reduces by 10% & input kva increases by 15%.

\*Please state required input voltage option at time of order.

**Note: ETIG100 *micro*** is a precision micro TIG designed for welding of very thin materials, the output is precisely controllable from 2 amps upwards. Ideal for mould & tool repair, wire & coil termination, jewellery work, fine mesh & chain, filter manufacture etc.

#### Optional machine functions (to be specified at time of order).

Pulse functions • pre-flow gas control • input voltage options including dual voltage 110/230, 230/400 & 400V three phase • longer cables etc.

#### Optional accessories

Footpedal with ultra smooth amps control • TIG torches up to 8M & with current control • Remote current control unit.

#### OPTeARC hybrid chopper technology - further reading

With so many different makes & models of machines on the market today its difficult to make the right decision when considering which TIG welder to buy. The range is huge, from 100's of low cost imported inverters that have a short lifespan to the most expensive American or European made inverters & a few old school transformer machines. Inverters are usually due to better performance & good portability, yet more & more customers are reluctant to buy inverters due to bad experiences with expensive repair bills & scrapped machines. Our OPTeARC Hybrid chopper technology solves the problem! It utilises the best parts of both older & new technologies, it works like an inverter by controlling the output at high frequency, but on the low voltage welding output (80V), not the high voltage mains input side like inverters do. Even the best inverters suffer with expensive blow ups. By working on the low voltage side our hybrid models do not suffer reliability problems, they are simple to maintain with minimal electronics but you get the welding performance & low power consumption of a good inverter combined with the superior reliability of a transformer based machine & an expected life span of 25+ years which no inverter gets anywhere close to. Whilst initial cost price on our ETIG models is a little higher than the cheap imports its certainly lower than a good EU or USA made inverter. The size of our ETIG models may not be as small as a compact inverter, but unless portability is your number one priority our OPTeARC ETIG hybrid machines tick more boxes than any of the other options. We get many repeat orders from existing ETIG customers so we are certain you will be delighted with an OPTeARC ETIG purchase.

**All models comply with BS EN60974-1, BS EN50199, WEE/HD0071UZ**

**We guarantee to fully support these machines with spares & service for a minimum of 20 years.**

*'Invest in the best' quality made British welding equipment*

*Technical Arc York UK [www.tecarc.com](http://www.tecarc.com)*