



## OPTeARC PMIG 300A, 350A, 400A, 450A, 500A

### Synergic pulsed MIG /multi-process industrial welding machines

#### MIG, MAG, MMA, TIG, ARC AIR GOUGING, (SMAW, FCAW, MCAW, CAC)

The OPTeARC PMIG range of machines are constructed using the very latest Mitsubishi IGBT chopper technology, this combines the performance advantages of inverter technology with the ruggedness of transformer based machines. The benefits of this technology are not to be underestimated. For MIG welding you can choose between standard MIG or pulsed MIG with double pulsing option. Pulsed MIG is especially advantageous for aluminium & stainless steel welding with TIG like quality welds possible. On steel the pulsed MIG benefits are a stable arc right through the range with virtually no spatter & one wire size covers a massive range. MIG synergic one knob control makes for fast easy setting for any weld. There is a built in arc start circuit for instant arc starting every time you press the trigger. The welding characteristics are superior to any conventional machine; the arc control system & variable inductance guarantee very low spatter across the range, the PCB monitors the arc up to 10,000 times per second & makes tiny corrections to the output to seamlessly maintain the exact weld power. It even compensates if the wire feed is slipping or a poor earth develops. Furthermore to achieve all the advantages of these models you would previously have had to purchase an inverter based machine, however inverter technology is not rugged & reliable in industrial environments, they all suffer from major blow ups & typically have a life span of a few years for the best made German machines & much less for others. With the OPTeARC chopper technology you get all the performance benefits of inverter but with the rugged reliability of transformer based machines. Also you will find virtually all pulse MIG machines are complex to set up & use, but not ours! We have designed these to be used by anyone who can already MIG weld, the controls are simple switches & knobs, no complex programming or constantly referring to instruction manuals is needed just pick up the torch & weld! You will see the benefits of the OPTeARC PMIG machines really do add up, which makes these machines the perfect choice for all demanding welding applications.



#### Main features & functions

- Infinite synergic control of output power so you get the exact setting you need.
- True multi process output, standard MIG/MAG, pulse MIG, double pulse MIG, MMA, DC lift TIG, arc air gouging etc.
- Variable arc length trim / wire speed.
- Variable crater filling function to get the perfect finish to every weld.
- Simple to use no fuss controls, just pick up the torch & weld.
- Wire feed creep starts for perfect arc initiation every time.
- Pulse welding gives spatter free clean perfect welds across the range.
- Standard dip & spray MIG/MAG gives superior welding with minimal spatter.
- Automatic compensation for unstable input power.
- Automatic compensation for long welding cables.
- Digital volt & ammeter shows set material thickness prior to welding, when welding shows true Amps & Volts.
- Torch trigger latching (2T-4T) torch trigger function.
- Electronic burnback control to carefully control finish of each weld.
- Wire feeder fitted with metal 4x4 wire feed system & powerful motor.
- 100% copper wound transformer with 5 year warranty & 2 years on all other parts.
- Rugged transformer & Mitsubishi chopper technology for unbeatable reliability in all industries.

**Guaranteed  
rugged & reliable  
technology built  
to last 25+ years  
in industry!**

**All models can be supplied as 400V three phase or 230V single phase or 230/400V dual voltage. Other voltages on request.**

Spec	OPTeARC	PMIG 300	PMIG350	PMIG400	PMIG450	PMIG500
Amps range		10-350A	10-350A	15-400A	20-450A	20-500A
Max OCV		70V DC	80V DC	80V DC	80V	85V
Duty cycle @60%		300A	350A	400A	450A	500A
Duty cycle @100%		230A	270A	310A	350A	390A
MIG / MAG welding		Yes	Yes	Yes	Yes	Yes
MMA Arc welding		Yes	Yes	Yes	Yes	Yes
TIG welding with true lift arc start		Yes	Yes	Yes	Yes	Yes
Arc air gouging		No	No	Yes	Yes	Yes
MIG welding wire size		0.6-1.4	0.6-1.6	0.6-1.6	0.6-1.6	0.6-2.4
400V models Input fuse (D)		16A	16A	16/20A	32A	32A
230V single phase fuse (D)		32A	32A/45A	45A	63A	63A

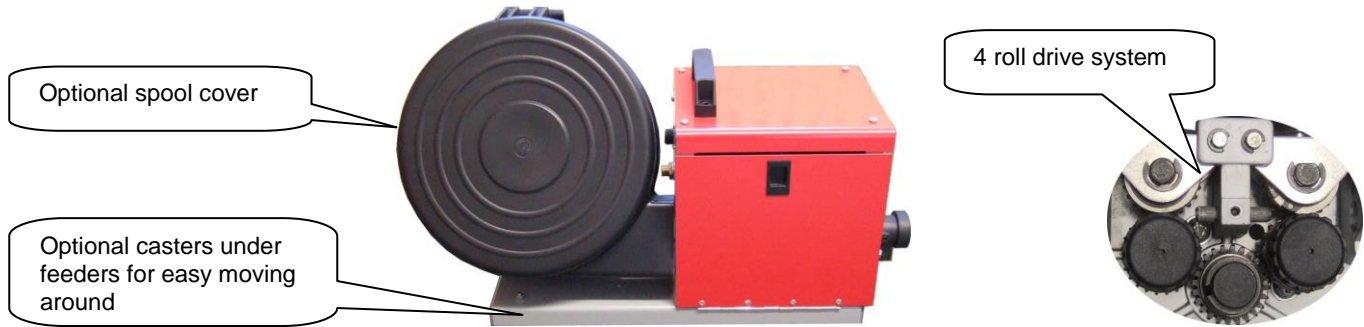
**All models comply with BS EN60974-1, BS EN50199, WEE/HD0071UZ**

**PTO for further information & options.**



## OPTIONS

Open style MIG wire feeder instead of fully enclosed, this has an advantage for some applications, its more compact & slightly more rugged as less steelwork to get bashed & has a really strong 3mm chassis. The low height of between 350-400mm (depending on whether casters are fitted) means these are a good option for structural steel fabrication as they fit under low trestles.



Other MIG wire feeder options include our site wire feeder in a rugged GRP case with seal to keep out moisture & our ARoboFeed wire feeder which is ultra compact & designed to fit onto a robot arm or boom arm & work with a separate spool holder or bulk packs of MIG wire.



Site wire feeder options in rugged plastic case with seal to prevent moisture ingress. Ideal for construction sites etc

ARoboFeed AF40 Boom arm / robotic arm wire feeder ultra compact. Designed to work with payoff packs or separate wire spools



DC TIG options include our TIGSTART range of TIG boxes to provide full HF TIG.

### Other options.

- Water cooling unit built into power source.
- Push pull torch & spool on gun torches.
- Interconnecting leads up to 30M long.
- Welding cables up to 100M long.
- Hand remote control up to 100M long.
- DC TIG functions can be built into main power source if required.
- Carbon arc gouging torch & lead.
- Fan on demand so it only runs when machine is working hard.
- Different input voltages, 380V, 440V, 480V, 500V, 550V, etc
- Standard colour blue with red & yellow options.

Optional TIGSTART full function TIG box to provide HF start, TIG current control with slope functions, gas control & post



**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**