

# **Inverter range of industrial MIG**

We know many customers like the simplicity, reliability & cost of traditional transformer MIG machines & we don't disagree. However, UK & EU regulations mean we have had to re design our complete range.

We now have a unique modern solution which will more than satisfy traditional customers. Built like the best US or EU machine but priced like traditional transformer machines.











- Compact & SWF 250A-500A
- 3 phase or 230V single phase
  - Air cooled or water cooled

Superb performance with all materials, steel, Stainless steels, flux cored, metal cored, hardox, aluminium & alloys.



Our new Ci pro & Si pro inverter machines are simple to use, rugged, reliable & offer better welding performance than older transformer MIG machines.

## Key features of all Ci pro & Si pro inverter models.

- ✓ Infinitely variable weld power from 20A to max power with absolute precision.
- Digital displays show set values prior to welding & precise values when welding.
- Super smooth low spatter MIG welding with perfect welds & instant arc starts without popping.
- ✓ Unique DAP control allows operator full control over welding characteristics from CV through to CC.
- ✓ Infinatly variable inductance (DAP control) fine tune the arc to your exact requirement.
- Reversible polarity, 2T/4T function, adjustable burnback, (water cooled adjustable post cooling time).
- ✓ Auto compensation for extension cables up to 100M & voltage fluctuations etc.
- ✓ Generator friendly with built in protection from over & under voltage, over temp, over current, WC fault etc.
- High efficiency design, 20W standy + fan & WC pump on demand reduces running costs & helps the environment.
- High duty cycle of up to 60% to keep you welding all day long.
- √ S44 wire feeder probably the toughest + most portable 4x4 feeder you can buy.
- ✓ Wire feeder display holds welding values after finish of weld.
- ✓ Rugged power source case design with galvanised chassis & front panel bash protection.
- ✓ Cooling chamber keeps airflow away from electronic PCBs.
- Built using rugged reliable technology with minimum components for a long life & best servicability.

✓ Reasonable purchase cost ✓ Lower running costs ✓ Long life ✓ joy to use

There is a lot to like about these models!



#### New UK & EU Government ECODESIGN legislation comes into force on 1st January 2023 (EU 2019/1784).

The main aspect of the legislation cover's power consumption, both standby power & electrical efficiency whilst welding. As a result significant savings in energy consumption are possible compared to older transformer based equipment. This can result in £100's savings per year.

There are many models of inverter on the market today from Chinese imports to well made German/EU or US machines. Some are good solid machines, although many are considerably over complex. The high end machines are generally more reliable with a longer life but often prohibitively expensive to repair when faults occur. Many of the lower cost imports have a short life, particularly in industrial environments, some are plagued by unreliability & quickly end up scrapped. For the last 30+ years our Electronic Engineers have repaired almost every fault going on all makes & models, Esab, Miller, Lincoln, EWM, Lorch, Migatronic, CEA, Cebora, GYS, Fronius, Stel, Kemppi, Jasic, OTC, Panasonic etc.

Welding equipment is never used in perfect conditions, damp, dirty workshops are the norm! This alone causes many of the problems. We have seen almost every fault possible; we know what works well & lasts well.

# We have applied that expertise into these models to give you something completely different from competitors products.

No microprocessor or over complex circuitry is fitted. A cooling chamber is used to prevent ingress of debris to the electronic components. We don't parallel 20 or 30 IGBTs we fit only 2 IGBT modules – minimum parts & maximum reliability!

We make everything we can 'in house' including inverter transformers, coils & PCBs, we even draw our own copper litz wire. From a serviceability point our inverter machines are simple, no need for an Electronic Degree! these can be maintained by any competent welding service Technician.

Our models are simpler to use than an old style MIG, with just one knob to set the welding power & another to set wire speed. All have a super stable digital display fitted & show set welding power prior to welding, with exact values shown during welding. On the Si models both controls are on the wire feeder.

Despite the simplicity we have included features to give you superb welding characteristics, with low spatter, instant arc starting (no popping or delays) & full control over the output inductance & arc characteristics. 4 roll drive wire feed on all models ensures consistent hour after hour reliable welding.

In addition, all offer superb performance on MMA electrode welding & lift TIG DC, also electrode polarity can be swapped in seconds.

From a mechanical point all models have a tough galvanised chassis & front panel bash protection.

Another advantage over transformer power sources is size & weight, which is considerably lower for better portability.

## Basic specs Ci Pro models (compact inverter)

(3 phase 400V models finish ..3, single phase 230V finish ..1).

| Model                | Output amps range | Duty cycle @ 40C | Rec fuse – 3<br>phase 400V | Rec fuse – 1<br>phase | OCV |
|----------------------|-------------------|------------------|----------------------------|-----------------------|-----|
| Ci 253 pro / 251 pro | 20-250A           | 230@60%          | 16A                        | 25/32A                | 70V |
| Ci 303 pro / 301 pro | 20-300A           | 290@60%          | 16A                        | 32A D                 | 70V |
| Ci 403 pro / 401 pro | 20-400A           | 370@60%          | 16/20A                     | 32/45A D              | 70V |
| Ci 503 pro / 501 pro | 30-500A           | 470@60%          | 20/32A                     | 45/63A D              | 75V |

# Basic specs Si Pro models (SWF inverter) Supplied with S44 4 roll wire feeder & 3M intercon

(3 phase 400V models finish ..3, single phase 230V finish ..1).

| Model                | Output amps | Duty cycle @ 40C | Rec fuse – 3 | Rec fuse – 1 | OCV |
|----------------------|-------------|------------------|--------------|--------------|-----|
|                      | range       |                  | phase 400V   | phase        |     |
| Si 303 pro / 301 pro | 20-300A     | 290@60%          | 16A          | 32A D        | 70V |
| Si 403 pro / 401 pro | 20-400A     | 370@60%          | 16/20A       | 32/45A D     | 70V |
| Si 503 pro / 501 pro | 30-500A     | 470@60%          | 20/32A       | 45/63A D     | 75V |

### **S44 wire feeder** - a rugged, ultra-compact feeder built on a 2.5mm galvanised steel chassis.

Fitted with a spool cover, swivel kit & castors as standard. An ergonomically designed handle is fitted to allow weight balancing of wire spool for easy transportation. The interconnection cables are in a tough rubber sheath & are secured with a metal clamp to prevent pull out. The digital display on the S44 wire feeder shows set values & actual values whilst welding & holds these for 2 secs after welding. Interconnection cables up to 25M can be supplied, these can exit the power source at the front panel for maximum reach or the rear panel, a storage compartment can hold up to 5M excess cable length.

Both compact & SWF models can be equipped with internal high efficiency water cooling, this only runs on demand & includes torch flow protection. Post run time is adjustable & water cooling can be switched off.

Compact models have adjustable post gas control to allow better lift TIG operation.

Power source case size 330Wx550Hx620L (with wheels & gas bottle tray fitted overall 460Wx680Hx840L) Wire feeder case size 200Wx260Hx410L + extra for castors & wire spool cover.

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|   | opaiar options a acceptation      |                                 |                              |                             |  |  |  |
|---|-----------------------------------|---------------------------------|------------------------------|-----------------------------|--|--|--|
|   | Water cooling – built in          | Interconnectors – any length up | MIG torches – air & W cooled | TIG torch c/w Euro adaptor, |  |  |  |
| (super-efficient low noise design) to 25M |                                   | to 25M                          |                              | switched & sheathed.        |  |  |  |
|   | Wire feeder castor outriggers for | Wire feeder insulated boom      | Suitcase wire feeder         | Lifting eye point           |  |  |  |
|   | increased stability.              | hanging kit.                    |                              |                             |  |  |  |

Compliance with BS IEC60974-1, WEE/HD0071UZ, EU2019/1784, CE & UKCA marked