

/ Perfect Welding / Solar Energy / Perfect Charging



SHIFTING THE LIMITS



ACCUPOCKET 150/400

/ Off-grid MMA welding



/ Ever since 1950, we've been developing innovative comprehensive solutions for arc welding and resistance spot-welding. Like the world's first-ever portable, compact MMA welding unit to run on integrated lithium-ion batteries. This marriage of welding technology and rechargeable-battery technology lets users weld anywhere, whether there is a mains supply or not, and without any current cables. Day-in, day-out, we're working at full power on our vision: to "decode the DNA of the arc". So it's no wonder that we're the welding-sector's technological leader worldwide, as well as being the European market leader.

ABOUT FRONIUS:

/ Fronius is the world market leader for robot welding.

/ Fronius brings you the very latest technologies for arc welding and resistance spot-welding.

/ Fronius guarantees a perfect interplay between all the components in its welding systems.

/ Fronius offers a perfectly co-ordinated programme of service, training and support.

/ Fronius has mastery of the entire spectrum: MMA, TIG, MIG/MAG, plasma, LaserHybrid.

/ Fronius is a byword for superlative product quality, economy and energy efficiency.



WELDING WITHOUT A MAINS CABLE. ACCUPOCKET MAKES IT POSSIBLE.

TECHNOLOGICAL LEAPS-AHEAD AT FRONIUS:

/ Turning visions into series-production-ready, cost-saving innovations – that's what we're known for in the industry:

1981

/ World's first-ever primary transistor-switched MIG/MAG inverter power sources

1997

/ First fully digitised welding systems

2005

/ CMT – first metallurgical join of steel to aluminium

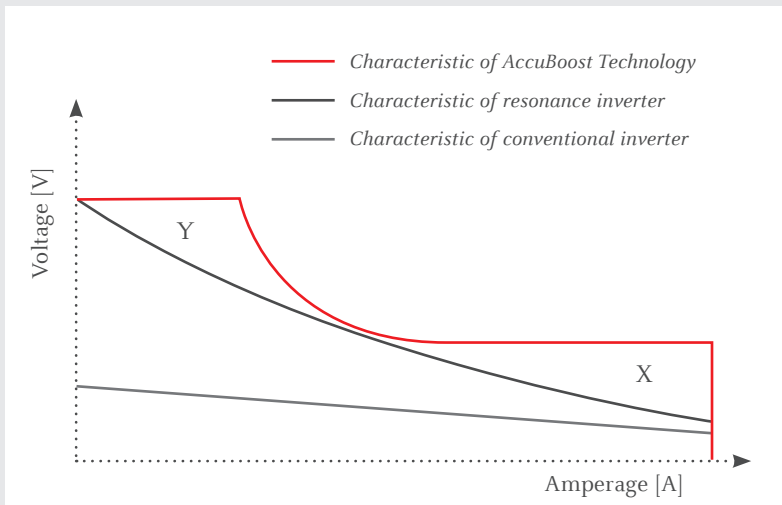
2013

/ AccuPocket – portable, cableless welding now possible for the first time

ACCUBOOST TECHNOLOGY

/ AccuBoost delivers marked improvements in the ignition properties, arc stability and arc dynamics.

/ The integral high-performance rechargeable battery momentarily delivers above average high short-circuiting currents during welding, reliably minimising electrode-sticking (Y). The perfect interplay between the battery and the welding electronics also permits high welding voltage at high power. This prevents annoying arc-breaks (X).



/ Enhanced power range with AccuPocket as compared to conventional inverter technologies

/ AccuPocket welds all types of electrode (rutile, basic, CEL and special-purpose electrodes) up to a diameter of 3.25 mm (0.13"). Steel, high-alloy steels and aluminium are all suitable base metals. This versatility makes the AccuPocket an attractive proposition in every user segment. A fully charged battery is enough to weld up to six 3.25 mm (0.13") electrodes or up to eighteen 2.5 mm (0.1") ones.

FEATURES:

HOTSTART

/ Perfect ignition behaviour on Cel and rutile electrodes.

SOFTSTART

/ SoftStart delivers a stable arc for basic electrodes that ignite at low welding amperages.

CONTINUOUSLY ADJUSTABLE ARC-FORCE DYNAMIC

/ The arc-force dynamic can be continuously regulated so as to prevent weld-pool solidification and prolonged arc short-circuiting, by momentarily increasing the amperage.

EXTRA TIG FUNCTIONS:

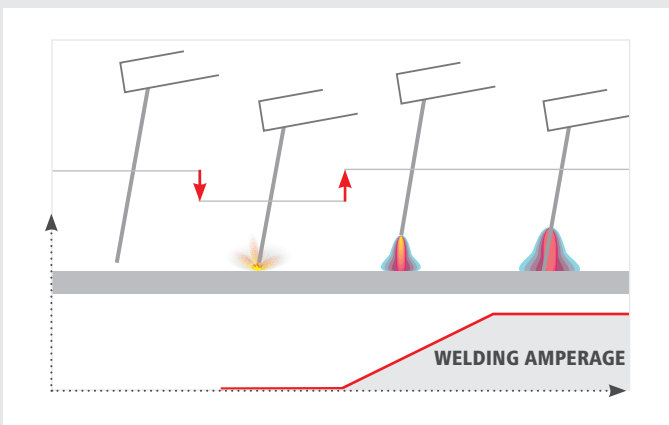
TAC

/ Quick and easy tacking made possible by pulsating arc, in one workstep

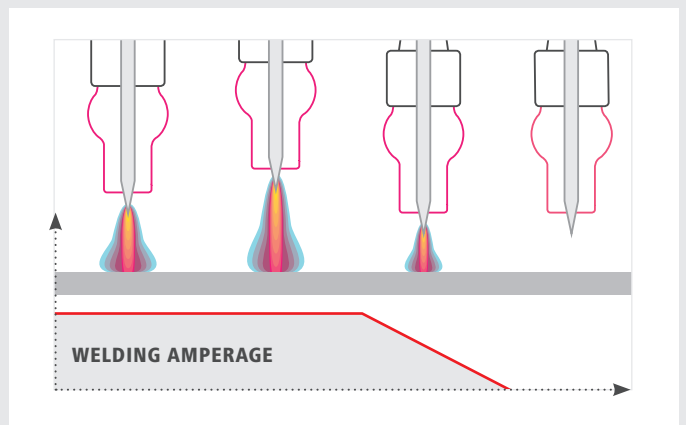
TIG COMFORT STOP

/ A defined motion of the welding torch automatically lowers the welding amperage. This prevents annoying arc-breaks at the end of welding.





/ SoftStart delivers a stable arc for basic electrodes that ignite at low welding amperages.



/ TIG Comfort Stop: A defined up-and-down motion of the welding torch vis-à-vis the workpiece causes the welding amperage to drop automatically.

UNLIMITED MOBILITY FOR THE WELDER

/ Repair-welding high up in the mountains, field erection jobs out in the country or welding work at exposed locations: until recently, jobs like these always involved costly and time-consuming preparations. Long mains supply leads or big, heavy 8 kVA generators are now no longer necessary. Because AccuPocket ushers in a new and unprecedented era of mobile welding.





/ There no longer has to be mains power nearby. Now jobs needing up to six 3.25 mm (0.13") electrodes or up to eighteen 2.5 mm (0.1") ones can be welded autonomously. For more substantial welding applications, a small, compact 2 kVA generator is sufficient. And without any limitations on the welding power or the quality of the arc. Far from it – thanks

to AccuBoost Technology, AccuPocket welds extremely reliably and utilises its built-in power reserve to achieve perfect ignition and welding properties. Its advanced functional design – with very small dimensions, low weight and rugged build – makes AccuPocket the perfect companion at any field worksite.

-
- / Compact, lightweight, portable – 11 kg / 24.25 lb (incl. battery)
- / Rugged build for maximum operational reliability
- / A compact system – no separate battery
- / Integral dust filter provides reliable protection against dirt
- / Ergonomically shaped handle for great on-the-move handling
- / The plastic support feet double as edge- and drag protectors
-

ACTIVECHARGER

Intelligent charging meets high-tech welding

/ Fronius also has a decades-long track-record of researching, developing and producing battery charging systems. Equipped with Active Inverter Technology, these charging systems are both intelligent and thrifty, and prolong the lifespan of the battery. The ActiveCharger was specially developed for recharging the high-capacity batteries in the AccuPocket.

COMPACT, BUT PACKED WITH POWER

/ Active Inverter Technology means compact design and ultra-high efficiency. Weighing less than 2 kg (4.41 lb), the charger delivers output power of over 1000 watts.

CHARGE AND WELD

/ The charger is designed so that welding can continue while the battery is being charged (hybrid mode). The charger detects the start of welding and automatically increases the charging power. This lessens wear-and-tear on the battery at the same time as lengthening the welding unit's duty cycle.

OPERATING MODES:

NORMAL CHARGE:

/ The "normal" charging characteristic has been optimised to maximise battery lifespan. Charging duration: 45 minutes.

QUICK CHARGE:

/ The charging characteristic for maximum welding-unit availability. Charging duration: 30 minutes.

COMPENSATION CHARGE:

/ The ActiveCharger automatically changes over to compensation charging once the battery is fully charged. This prevents overcharging of the battery and prolongs its lifespan. There is no need to disconnect the AccuPocket from the charger.



LITHIUM-ION RECHARGEABLE BATTERIES

Safe high-power battery meets high-tech welding

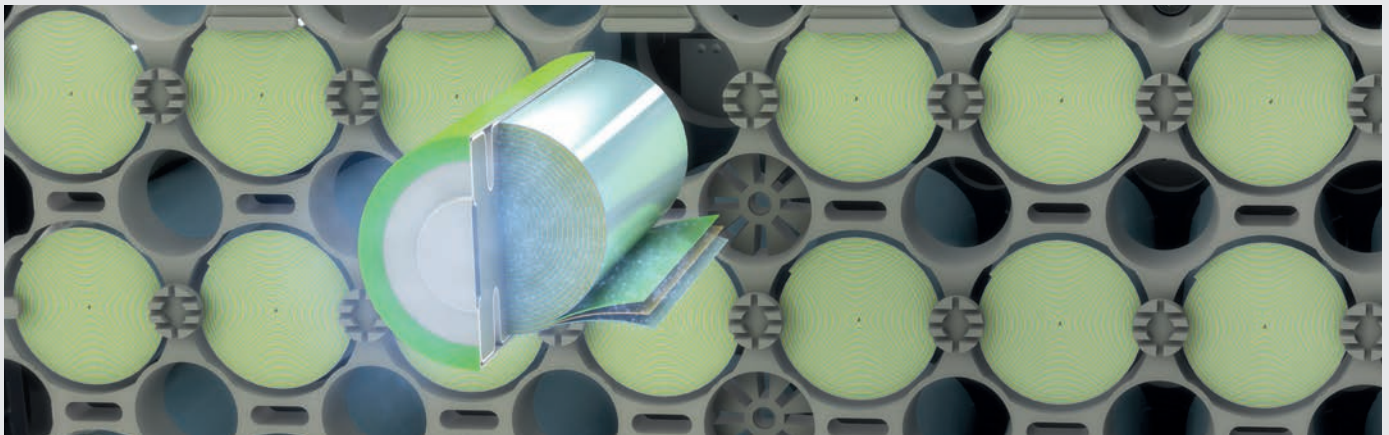
LiFePO₄ – BATTERIES

/ The AccuPocket's battery is a high-performance iron-phosphate-based lithium-ion (LiFePO₄) battery with a capacity of approx. 400 Wh. This corresponds to 160 cm (63") of TIG weld-seam in 17 minutes' welding time (130 A, 'a'-dimension 2 mm / 0.08") or eighteen 2.5 mm (0.1") electrodes.

/ The latest generation of LiFePO₄ batteries is small, light yet extremely powerful. Complying with stringent safety standards, these battery cells put in a particularly convincing performance in high-power applications.

LiFePO₄ batteries stand out for the following attributes:

- / High intrinsic safety
- / No memory effect
- / Long lifespan
- / Low self-discharge



SAFETY FEATURES

- / Voltage monitoring of all battery-cells
- / Cell balancing during charging
- / Charge monitoring
- / Short-circuit-proof
- / Protection against overcharging
- / Protection against exhaustive discharge and overheating

TECHNICAL DATA OF RECHARGEABLE BATTERY-PACK

- / Rated voltage: 52.8 V: comes under the definition of SELV (Safety Extra-Low Voltage) in IEC60974-1
- / Nominal capacity: 7.5 Ah
- / Rated energy: 396 Wh
- / Weight: 4.5 kg (9.9 lb)

BMS BOARD – BATTERY MANAGEMENT SYSTEM

- / Monitors all cells for uniform charging and discharging
- / Ensures that all battery cells have uniform voltage and temperature
- / Safety cut-out

PERMANENTLY MOUNTED BATTERY-PACK

- / Highly robust, for mobile use
- / Fixed, solid mounting for perfect transmission of high welding currents; no exposed battery-connections
- / Optimum cooling concept with additional fans for extra-long lifespan
- / Exchanging the battery: easy to service, battery can be changed quickly by trained skilled personnel

RUGGED CHARGER DESIGN

To withstand the rough-and-tumble of workaday practice, the charger has been designed to fulfil IP43S. In addition, the edges of the unit have been rubberised to give them extra protection.

The connection points can be covered to protect them from soiling.

LOW POWER INPUT, LOW NETWORK LOAD

The mains network is subjected to significantly lower loads than is the case with mains connected appliances. Even on a 120 V mains, the full 150 A of output power is still possible. This makes tripping of the fuse a thing of the past.

Fluctuating mains voltages and voltage-drops caused by very long supply lines are equalised by the battery. This keeps the arc stable at all times.

GENERATOR-COMPATIBLE

Due to the low power input, it is also possible to use a much smaller generator (2 kVA) than for mains-connected appliances.

BATTERY LIFE

Battery lifespan is maximised by:

- / Cell balancing during charging
- / Protection against overcharging and exhaustive-discharge
- / Over/undertemperature protection
- / Active battery cooling
- / Optimum charging characteristics



EASY TO OPERATE

- / Easy, 1-knob operation
- / All parameters are continuously adjustable
- / Charge level is shown directly on the unit

FUNCTIONAL DESIGN

When the machine was being developed, great emphasis was placed on functional design.

- / Handle and carrying-strap for easier transport
- / Facility for winding up the welding cables
- / Filter grille can be cleaned tool-lessly



TIG OPTION

Special TIG functions on AccuPocket TIG

- / Supports Up/Down welding torches
- / Integral gas solenoid valve
- / TAC function
- / TIG Comfort Stop
- / Extra torch connector

SUPERIOR WELDING PROPERTIES THANKS TO ACCUBOOST TECHNOLOGY

Superior welding properties every time, regardless of the battery charge status and of the mains supply lead.

RUGGED POWER-SOURCE DESIGN

- / Permanently integrated rechargeable battery
- / Recessed user interface
- / Raised support feet to prevent penetration by water
- / Combined plastic/metal casing for maximum sturdiness

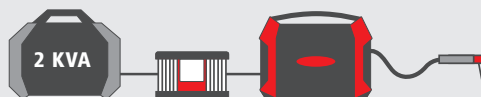
BATTERY MODE

Specially for repair welding in inaccessible terrain where there is no access to mains electricity. The welding energy is obtained from the rechargeable battery only. Up to 18 electrodes (2.5 mm / 0.1") possible from one battery charge. The charge level is always displayed on the unit.

Because there is no mains supply lead, the machine is highly suitable for welding in electrically hazardous environments such as those encountered in the welding of boilers and tanks, shipbuilding and so on...



UTILISATION



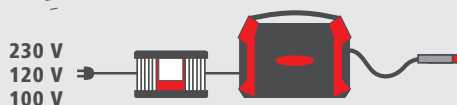
GENERATOR MODE

Due to the low power input, a much smaller generator (2 kVA) can be used than for mains-connected appliances. This saves on investment outlays and makes mobile applications very much easier indeed. With AccuPocket, having to use big, heavy 8 kVA generators is definitely a thing of the past.



HYBRID MODE

In hybrid mode, the unit can be used for welding at the same time as being charged. The built-in power reserve provided by the battery ensures a constant arc despite any mains-voltage fluctuations, and prevents the mains fuse being tripped in the event of an overvoltage. Even on a 120 V mains, the full 150 A of output power is still possible.





SAFETY

Safely within the permitted Standard

With its safety-first appliance concept, the AccuPocket lies beneath the maximum peak value of 113 V DC allowed by EN Standard 60974-1. Particularly in the boiler and vessel construction field, the issue of safety is of very great importance for the workers. The reason is that these applications present an “increased electrical hazard”. In battery mode, the AccuPocket can be taken into and used in electrically high-risk areas.

If necessary, the open-circuit voltage can be individually reduced.

The advantages are plain to see:

- / Reduced electrical hazard for users
(peak value < 113 V DC)
- / No expensive, heavy auto-transformer systems
(when the unit is used in battery-only mode)
- / Eliminates additional hazard sources
(e.g. mains cables and connecting cables to external batteries)
- / No longer necessary to arrange long mains supply leads

ACCUPOCKET SET

Everything you need all in one place.

The carry-case set puts all the components you need for an AccuPocket system right at your fingertips. The carry case is equipped with transport rollers, so you can take it with you wherever you go. The set also contains welding gloves, a deslagging hammer and the system components needed for MMA or TIG welding.

TECHNICAL DATA

ACCUPOCKET

| | | |
|---|--|------------|
| Rated voltage of battery | 52.8 V | |
| Charging current (normal charge) | 10 A | |
| Charging current (quick charge) | 18 A | |
| Battery capacity | 396 Wh | |
| Battery type | Lithium ion | |
| Welding amperage range | Electrode-DC | 10 - 140 A |
| | TIG-DC | 3 - 150 A |
| Welding amperage in hybrid mode (MMA rod-electrode welding) | | |
| 40°C (104 °F) | 18 % duty cycle | 140 A |
| 40°C (104 °F) | 25 % duty cycle | 100 A |
| 40°C (104 °F) | 100 % duty cycle | 40 A |
| Welding amperage in hybrid mode (TIG welding) | | |
| 40°C (104°F) | 25 % duty cycle | 150 A |
| 40°C (104°F) | 50 % duty cycle | 100 A |
| 40°C (104°F) | 100 % duty cycle | 65 A |
| Open-circuit voltage | 90 V | |
| Reduced open-circuit voltage | 15 V | |
| IEC Ingress Protection rating | IP 23 | |
| Type of cooling | AF | |
| Marks of conformity | CE, S | |
| Dimensions L x W x H | 435 x 160 x 310 mm (17.1" x 6.3" x 12.2") | |



ACCUCARE

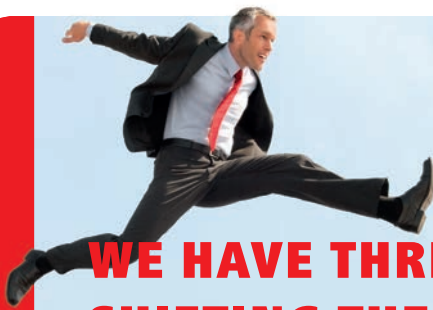
The “no-worries” package for AccuPocket

AccuCare is the name of the 5-year “no-worries” package that Fronius offers for the AccuPocket. You can decide whether to sign up for AccuCare when you buy your system. By paying a periodic flat-rate fee spread across 5 years, you enjoy complete peace of mind during this entire period – 5 years’ warranty on the whole system, and the guarantee of having a fully functioning battery.

- / 5 years’ full warranty on the whole system
- / Free battery-swap if residual capacity drops below 70%.
- / Repairs carried out professionally by Fronius experts.
- / The battery removed when the battery is changed is taken back by Fronius.

ACTIVE CHARGER 1000/230

| | 1000/230 | 1000/120 |
|---|--|-----------------|
| Mains voltage | ~ 230 V AC, ±15% | ~ 120 V AC, ±5% |
| Mains frequency | 50 / 60 Hz | |
| Mains current | max. 9.5 A eff. | max. 16 A eff. |
| Mains fuse protection | max. 16 A | max. 20 A |
| Power efficiency | max. 95 % | max. 93.5 % |
| Effective power | max. 1100 W | |
| Power input (stand-by) | max. 2.4 W | max. 1.7 W |
| Protection category | I (with PE conductor) | |
| Max. permissible network impedance at interface (PCC) to public mains network | None | |
| EMC emissions category | A | |
| Mark of conformity | CE | |
| Output-voltage range | 30 - 58 V DC | |
| Output current | max. 18 A DC | |
| Output power | max. 1040 W | max. 1025 W |
| Cooling system | Convection and fans | |
| Dimensions (L x W x H) | 270 x 168 x 100 mm (10.63" x 6.61" x 3.94") | |
| Weight (without cables) | approx. 2 kg (4.41 lb) | |
| IEC Ingress Protection rating | IP43S | |
| Overvoltage category The unit may be run on neutral-earthed networks only. | II | |



WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS OF POSSIBILITY.

/ What Günter Fronius started in 1945 in Pettenbach, Austria, has now become a modern day success story. Today, the company has around 3,000 employees worldwide and owns more than 850 active patents. Our goal has remained constant throughout: to be the innovation leader. We shift the limits of what's possible. While others progress step by step, we innovate in leaps and bounds. The responsible use of our resources forms the basis of our corporate policy.

PERFECT WELDING

/ We develop products and complete systems - both manual and automated - as well as the corresponding services for our customers in the global welding technology market. We have made it our goal to decode the "DNA of the arc".

SOLAR ENERGY

/ The challenge is to make the leap to a regenerative energy supply. Our vision is to use renewable energy to achieve energy independence. With our services, inverters and energy-storage systems for optimising energy yields, we are one of the leading suppliers in the photovoltaics sector.

PERFECT CHARGING

/ As know-how leaders in the world of battery charging, we deliver exceptional solutions to create the maximum benefit for our customers. For the intralogistics sector, we are committed to energy flow optimisation for electric forklift trucks and are constantly striving for the next innovation. Our powerful charging systems for vehicle workshops guarantee safe and reliable processes.

v02 Feb 2014 EN

Further information about all Fronius products and our global sales partners and representatives can be found at www.fronius.com

Fronius UK Limited
Northern Region
Sales & Service Centre
1a & 1b Langlands Square
East Kilbride, G75 0YY
Scotland
Telephone: +44 1355 573 640

Fronius UK Limited
Maidstone Road, Kingston
Milton Keynes, MK10 0BD
United Kingdom
Telephone +44 1908 512 300
Fax +44 1908 512 329
sales.uk@fronius.com
www.fronius.co.uk

Fronius International GmbH
Froniusplatz 1
4600 Wels
Austria
Telephone +43 7242 241-0
Fax +43 7242 241-953940
sales@fronius.com
www.fronius.com