Arc studwelding units : MICROMARK

This line of stud welding equipments is a unique, microprocessor-controlled stud welding system with great versatility and near-perfect reliability. Features include: Precise regulation and duration of weld current, immediate digital verification of all weld parameters, diagnosis of weld and system deviations, self-monitoring system...
In other words, you'll get a perfect weld every time - or no weld at all. And in either case, you'll know why.

Standard Features

- **The High Level Digital Advantage** Possibly the most popular feature of the MicroMark series. Our microprocessor-based systems are proven to be more reliable and repeatable than conventional systems, since the equipment itself monitors, controls and display the quality of each weld it makes. Features include: diagnosis of each weld and system deviations, self-monitoring system, current & voltage tolerance ranges adjustable, large display, Lift check mode (lift & plunge time measurement), permanent record of 400 last welds parameters.

- **Communication** This allows an external device to download all weld parameters and functions of the welder. There are two different schemes supported:
  - Powerful control scheme using RS-232 communication for downloading weld parameters. (PC or Printer)
  - A PLC can achieve sophisticated control of the welder using discrete I/0 lines (optional features). This can include changing weld schedules, identifying specific errors and collecting welds quality data, etc.

- **Pilot arc Adjustment :** The Pilot Arc is the part of the weld sequence, which starts the arc. Typically this setting does not need to be adjusted. However, there are some special circumstances where it is beneficial to adjust it.

- **Hammer mode** assists in penetrating rust, mill scale or even paint.

- **Multi-Gun** is the ability to expand with multiple output ports. This is beneficial when there is a need for multiple stud sizes that a single operator must install.

- **Memory Presets** The memory preset module (9 memories) can store ALL information related to a weld schedule. This includes the main weld current parameters, programmable pilot arc, gas mode and limits.

- **Feature Locking** Eliminates concerns about unwanted parameter adjustments. This feature can lock all, some or none of the MicroMark features. To access a locked feature, a password must be entered.

- **Maintenance Tracker** This feature counts the actual number of welds. The user can set an alert or notification point

Additional Standard Features

- Measurement of lift & drop time welding guns, integrated self-protective device in case of excess temperature, phase failure control, weld counter, multilingual operator guidance, function tests without welding, …

Optional Features

- **Auto Feed** The MicroMark series welders have been designed with auto-feed in mind. The power supply directly controls the gun and the feeder bowl. This can work with hand held, production or robotic applications.

- **Integrated Gas Arc** This allows for welding using shielding gas instead of flux and ferrule combination. Gas arc is also required for welding alloys such as aluminum. Pre-flow and Post-flow values are controlled.

Specifications

	MICROMARK 900	MICROMARK 1400	MICROMARK 2100	MICROMARK 2500
	 (Photo not contractual)			
Stud Welding Range :	Ø 3 to Ø 12 mm (M 14)	Ø 3 to Ø 18 mm (M 20)	Ø 3 to Ø 22 mm (M 24)	Ø 3 to Ø 25 mm (M 30)
Short Cycle Range :	M 3 to M 8	M 3 to M 10	M 3 to M 12	M 3 to M 12
Weldable material :	Mild Steel / Stainless Steel (Aluminum with inert gas)	Mild Steel / Stainless Steel (Aluminum with inert gas)	Mild Steel / Stainless Steel (Aluminum with inert gas)	Mild Steel / Stainless Steel (Aluminum with inert gas)
Current/Time control :	Digital adjustment	Digital adjustment	Digital adjustment	Digital adjustment
Stud welding current :	100 A to 900 A	100 A to 1.400 A	100 A to 2.100 A	100 A to 2.500 A
Stud Welding time :	12 to 200 mS (Short Cycle)	12 to 200 mS (Short Cycle)	12 to 200 mS (Short Cycle)	12 to 200 mS (Short Cycle)
:	50 to 1400 mS (Drawn Arc)	50 to 1400 mS (Drawn Arc)	50 to 1400 mS (Drawn Arc)	50 to 3000 mS (Drawn Arc)
Duty cycle :	PD M 10 : 9 studs / min.	PD M 10 : 30 studs / min.	PD M 10 : - studs / min.	PD M 10 : - studs / min.
	PD M 12 : 5 studs / min.	PD M 12 : 12 studs / min.	PD M 12 : 49 studs / min.	PD M 12 : 114 studs / min.
		HSC Ø 16 : 3 studs / min.	HSC Ø 16 : 12 studs / min.	HSC Ø 16 : 23 studs / min.
			HSC Ø 19 : 5 studs / min.	HSC Ø 19 : 13 studs / min.
			HSC Ø 22 : 3 studs / min.	HSC Ø 22 : 7 studs / min.
				HSC Ø 25 : 4 studs / min.
Incoming power :	230 V - 50 A / 400 V - 40 A	230 V - 63 A / 400 V - 50 A	230 V / 400 V - 63 A	230 V - 125 A / 400 V - 80 A
Size (w x h x l) :	340 x 510 x 600 mm	425 x 720 x 770 mm	520 x 730 x 820 mm	650 x 950 x 1100 mm
Protection :	IP 21	IP 21	IP 23	IP 21
Insulation Class :	1	1	1	1
Weight :	89 Kg	159 Kg	245 Kg	450 Kg
Optional :	Shielding gas module	Shielding gas module	Shielding gas module	Shielding gas module
	Automatic feeding module	Automatic feeding module	Automatic feeding module	Automatic feeding module
		Extended I/O module	Extended I/O module	Extended I/O module
		2 to 4 outputs	2 outputs	2 outputs

THOMAS Welding systems

Technical data may change without prior notice

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