

STUD WELDING PRODUCTS, INC.



STUD WELDING UNIT

Model: IT-1001



APPLICATION

- Especially suitable for thicker sheets of about 2 mm or higher

PROCESS VARIANTS

- Short cycle drawn arc welding
- Drawn arc welding

EQUIPMENT

- Welding with ceramic ferrule (series)
- Welding with shielding gas (series)
- Automation (optional)
- Process sequence control (optional)

FEATURES

- Microcontroller – for precise process times, optimal functional reliability and maximum operating convenience
- Function monitoring – automatic function test following power-up; monitoring of all internal system functions
- Display of error codes – on digital display
- Lift test – for gap welding guns and welding heads
- Library function – automatic specification of welding current and welding time through selection of stud diameter according to welding range (with and without shielded gas); fine adjustment via arrow keys
- Process monitoring – recording and analysis of factors affecting the welding process; after each weld, the reference and actual values are compared; display of the welding energy input; switchable automatic welding stop if limits are exceeded
- RS232 interface – for data output; data and time of day are stored; welding parameters of each weld are logged (only for version gas/automation/process control)

FEATURES	WELDING UNIT IT-1001
SIZE	25.98" length, 11.02" width, 13.39" height (660 x 280 x 340 mm) without handle
WEIGHT	63.93 lbs. (29 kg)
WELD RANGE	#4 to 5/8", dia. 14 ga to 9/16" (M3 to MR16, dia. 2 to 14 mm)
WELD MATERIALS	Mild steel, stainless steel, aluminum
WELDING RATE	1/2" (M12) = 20 studs/min
WELDING CURRENT	1,000 A (max.)
CURRENT ADJUSTMENT RANGE	Stud welding 100 to 1,000 A, electrode 50 to 400 A (stepless)
WELDING TIME	5 to 1,000 msec (stepless)
PRIMARY POWER	480/460 V, 3 phases, 50/60 Hz, 35 AT (alternative input voltages available)
CURRENT CONSUMPTION	50 KVA (with 400 V mains)
COOLING TYPE	F (temperature controlled cooling fan)
INSULATION CLASS	IP 23
OPERATIONAL & STORAGE CONDITIONS	According to current standards
GAS/AUTOMATION/PROCESS CONTROL	Series/Option/Option
ORDER NUMBER	93-66-1102A (Gas) 93-66-1104A (Gas/Automation) 93-66-1106A (Gas/Automation/Process control)

STRUCTURE

- Extremely easy to operate
- Compact
- Mobile – highly mobile thanks to compact dimensions and low weight (50% weight savings vis-à-vis conventional stud welding units)
- Robust – metal housing withstands rough treatment in shop and on site

SAFETY

- With integrated mains filter (protection against voltage peaks)
- Optimal for construction sites with large mains voltage fluctuations – use even with critical voltage supply (- 10% + 10%)
- EMC test
- High-voltage test with log
- Retriggerring lock-out – prevents welding on a welding element that has already been set
- Thermal monitoring of transformer – automatic shutdown in case of overheating
- Temperature-regulated ventilator –reduces noise and dust in the stud welding unit (greater system reliability)
- Control unit galvanically separated from welding lines – high degree of functional safety
- Optimal protection against external interferences
- Protection class IP 23
- Also permits operation outdoors

WELDING

- Display – infinitely adjustable power setting; easy monitoring of all functions via LED displays; easy operation via membrane keyboard and digital display; setting of welding parameters, programs, shielding gas, automation and process monitoring possible; digital display of current, welding and gas-preflow time (optional: pneumatic feed time for automation); separate settings for welding current and welding time
- Powerful – built-in power reserves • Trouble-free changing of welding voltage polarity possible by reconnecting welding current and ground cables
- Outstanding welding quality – very high arc stability even at weak welding currents
- High process flexibility – high clock frequency (30 kHz) of stud welding unit allows highly dynamic regulation of welding process
- 2 in 1 – switchable from drawn-arc ignition to electrode welding

Suitable stud welding guns

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|---------|---------|---|
| • A 12 | • CA 08 | • PAH-1 (only suitable for automatic version) |
| • AI 06 | • PMH-6 | • KAH 412 (only suitable for automatic version) |

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