



Spirit

Stud Welding Unit

The HBS Insulation Welder - for CD stud welding (capacitor discharge welding) according to current standards

Technical Data

Welding range	#4 to 1/4", 14 ga to 1/4" (M3 to M6, dia. 2 to 6); cupped head pins dia. 14 ga to 10 ga (dia. 2 to 3.1 mm)
Welding material	Mild steel, stainless steel
Welding rate	M3 to 30 studs/min (80 V to step 4), M6 to 12 studs/min (220 V to step 11) cupped head pins dia. 14 ga (dia. 2 mm) to 23 studs/min (115 V to step 5) dia. 10 ga (dia. 3.1 mm) to 20 studs/min (130 V to step 6)
Capacitance	66,000 µF
Welding time	4 to 7 msec
Energy	1,600 Ws
Charging voltage	60 to 220 V (stepless voltage regulation)
Primary power	115/230 V, 50/60 Hz, 10 AT
Power source	Capacitor
Cooling type	F (cooling fan)
IP-Code	IP 21
Dimension L x W x H	13.78" x 7.48" x 9.45" (350 x 190 x 240 mm) without handle
Weight	44.09 lbs (20 kg)
Order No.	92-12-0110

General Information

Application

- Especially suitable for thin sheets (at least 0.5 mm)
- **ISO** – especially suitable for welding on insulation pins with flange and ignition tip

Process variants

- **Contact welding** - special designed for welding capacitor discharge welding elements and cupped head pins with same adjustment, no spring pressure adjustment, no change of spring (one welding gun for two applications)

Advantages

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 LED displays



Structure

- **Extremely easy to operate**
- **Compact**
- **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 (- 25% + 20%)
- **EMC test**
- **High-voltage test with log**
- **Retriggering lock-out** – prevents welding on a welding element that has already been set
- **Thermal monitoring of transformer** – automatic shutdown in case of overheating
- **Optimal protection against external interferences**
- **IP-Code: IP 21**

Welding

- **Display** – infinitely adjustable power setting; easy monitoring of all functions via LED displays
- **Powerful** – built-in power reserves
- **Trouble-free changing** of welding voltage polarity possible by reconnecting welding current and ground cables
- **Use of special capacitors** (developed for stud welding)

Suitable welding guns

- **C 06**

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(Technical data may change)