



## 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	12 to 30 studs/min (depending on application and stud dia.)
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
Protection class	IP 21
Operational and storage conditions	According to current standards
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 (15 kg)
Order No.	<b>92-12-0110</b>

#### 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**

## 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**

Issue 05/09  
(Technical data may change)