

NCD+ 1000 & NCD+ 1600

Efficient switch-mode power topology and precision digital technology

NCD+™ is a dependable, new generation capacitor discharge (CD) stud welding power source built on the foundation of 30,000 Hz switch-mode power conversion topology controlled by high performance 32-bit microprocessor with integrated DSP. At half the weight for ultimate portability, it delivers the same stored energy to the arc. It is the ideal tool to weld up to 5/16" (M8) CD studs with the contact CD or gap CD welding process to eliminate drilling, tapping, grinding and polishing operations. The features and benefits include:

- **Ultra Portable.** Half the weight of a conventional CD welding power source.
- **Consistency and Reliability.** Weld strength consistently exceeds that of the stud or parent metal.
- **Assembly Quality.** No back side marking, burn through, or dimpling. A vibration/leak-proof connection.
- **Power Convenience.** Operates on a standard wall outlet power input (120V or 230V).
- **Speed.** Typical weld cycle is milliseconds. Auto feed systems are available for mass production.
- **Dissimilar Metals.** Mild steel stud can be welded to stainless, brass or copper.
- **Electricity Savings.** Switch-mode power topology consumes 40% less power for reduced carbon footprint.
- **TFT Display.** Friendly and full color graphical user interface for operations and maintenance.
- **Stud Expert™.** Weld voltage, pressure & gap database for various materials, thread sizes and gun types.
- **Circuit Breaker.** Over current protection without the inconvenience of replacing a fuse.
- **Safety First.** Galvanic isolation, fail-safe, hi-pot routine test, surge protection, EN14121.
- **Sliding Legs.** Ease of adjusting foot to accommodate different stud length, pressure and plunge.
- **Polarity Change.** Ease of changing between straight and reverse polarity.
- **Stepless Voltage Adjustment.** Precision voltage setting, reduce without total discharge.
- **Chuck Saver.** Prevents chuck damage due to double trigger & trigger interlock on stud-ground contact.
- **RoHS Compliant.** Eliminates lead and 5 other hazardous substances to protect the environment.
- **Outdoor IP Rating.** Rated IP23 for outdoor construction and shipbuilding, e.g. insulation pins.

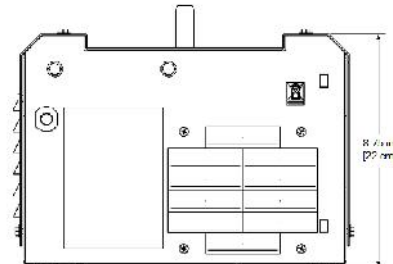
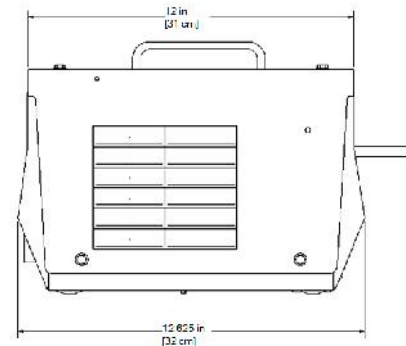
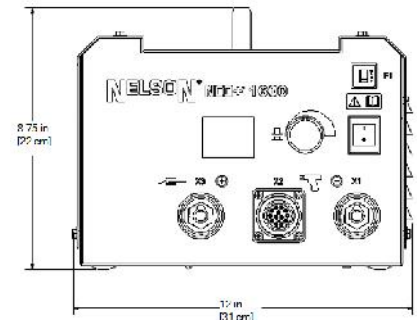
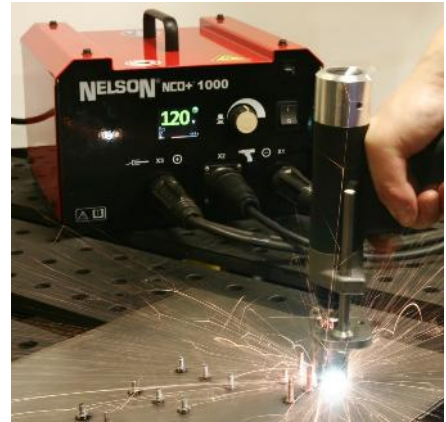
Applications

- Thin sheet metal fabrication with minimal heat, distortion, backside marking & weld flash interference.
- Insulation pins in shipbuilding and construction.
- Materials with high thermal conductivity such as copper and aluminum alloys.

NCD+

Technical Data

			NCD+ 1000	NCD+ 1600
Max Diameter	Steel & Stainless Steel	Thread	1/4"-20 (M6)	5/16"-18 (8mm)
		Weld Base	5/16" (8mm)	3/8" (10.5mm)
	Aluminum	Thread	#10 (M5)	1/4"-20 (M6)
		Weld Base	1/4" (6mm)	5/16" (8mm)
Welding Process		Contact CD, Gap CD		
Stored Energy (Ws)		1080	1620	
Cap Voltage (V)		70—200 (Stepless)		
Capacitance (µF)		54,000	81,000	
Weld Rate (Studs / Minute)		18@100V, 8@200V	14@100V, 6@200V	
Dimensions		12 5/8" x 12" x 8 3/4" (32 cm X 31 cm X 22 cm)		
Weight		17 lb (7.7 kg)	19 lb (8.6 kg)	
Input Power Connection*		1 phase 220-230V, 50/60 Hz @ 5A 1 phase 110-120V, 50/60 Hz @ 10A * Specify input voltage when ordering.		
Stud Material		Mild steel, stainless steel, aluminum, brass, copper, Ni-based superalloys, titanium		
Guns		NCD+ contact gun, NCD+ auto gap gun		
Ingress Protection Rating		IP23 (outdoor operation)		
Safety Standard Compliance		ANSI/IEC/EN 60974-1		
EMC Compliance		ANSI/IEC/EN 60974-10 (CE Model Only)		
Idle Power (W)		20 or Less		
Efficiency		80%		
Display		Full Color TFT, LED backlit		



NCD+

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