

NELSON[®] STUD WELDING

A Nelson Fastener Systems Company

Stud Welding Equipment



www.NelsonStud.com

N550c Arc Charger™

Breakthrough Charger design provides powerful 550A Arc Welder from 120V wall outlet!

The N550c Arc Charger™ is the first of a revolutionary new class of stud welding power sources developed around Nelson's patent pending Arc Charger™ platform. The N550c Arc Charger™ has the capacity to weld the full range of drawn arc studs, up to 3/8" pitch (M8) diameter, with an ultra-smooth high-speed switching welding arc, while requiring power from just a standard household 120V wall outlet! This breakthrough combination enables high-strength drawn arc stud welding in just about any location, without the need for high-voltage, industrial 3-phase power, or a large generator!



www.ArcCharger.com

Pinnacle™ NCD+500b

High performance battery-powered design delivers 1000's of welds from a single charge!

Nelson's first stud welder powered exclusively by a rechargeable battery. The Pinnacle™ has the capacity to weld CD studs up to 3/16" diameter, including standard tip studs and Cupped Head Pins (CHP) for insulation.



www.PinnacleStudWelder.com



SPECIFICATIONS

- 120V input voltage
- 3A to 15A input current, user adjustable
- 60 Hz input line frequency
- Welds 6-3/8" pitch studs per minute
- Welds 15-3/16" studs per minute

- 3/8" pitch maximum diameter for steel, stainless steel and aluminum studs
- 9 ft. (2.75 m) power cord
- 86 lbs. (39 kg)
- Standard 120VAC, 3-prong, grounded input power connection
- 25W maximum idle power
- Touch pad display with graphical diagnostics

SPECIFICATIONS

- 115V charger input voltage
- 6A input current
- 60 Hz input line frequency
- Welds Rate (studs/minute)
 - Weld voltage = 70-100
 - Weld rate = 14-8

- 10 gauge maximum diameter for steel, stainless steel studs
- 12 gauge maximum diameter for aluminum studs
- 18 lbs. (8 kg)
- 2 hr maximum battery charge time
- Welds per battery charge
 - Weld voltage = 70-100
 - Weld rate = 2140-1010

NCD+™

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 3/8" (M8) CD studs with the contact CD or gap CD welding process to eliminate drilling, tapping, grinding and polishing operations.

The NCD+ product line includes:

NCD+ 1000, NCD+ 1600, NCD+ 3200 and Pinnacle NCD+ 500b



Nelweld

The Nelweld line of equipment offers more features, and superior performance, than any other system available!

Our microprocessor-based systems are proven to be more reliable and repeatable than conventional solidstate systems. And, because the Nelweld systems are based on a modular design, customers can select just the right amount of features and benefits that serve their needs. If those needs change in the future, add on modules can upgrade any system to a higher level of sophistication.

Available with Single or Dual Outputs!

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SPECIFICATIONS

	NCD+ 1000t	NCD+ 1600t	NCD+ 1400	NCD+ 3200
Input Power connection	1 phase 220V-230V, 50/60 Hz @ 5A 1 phase 110-120V, 50/60 Hz @ 10A		200 VAC, 50 Hz, 20A	120 VAC, 20A
Cap Voltage (V)	70-200 (Stepless)		45-200	70-200
Capacitance	54,000	81,000	66,000	81,000-189,000
Idle Power	25 or less			80 or less
Weld Base Diameter	5/16" (8 mm)	3/8" (10.5 mm)	1/4" flanged	3/8" flanged
Weld Rate (studs/minute)	18@100V, 8@200V	14@100V, 6@200V	12	low cap. 20@120V, high cap. 8@120V

SPECIFICATIONS

NelWeld 4000		NelWeld 6000	
Transformer Rating	2400 amps	Transformer Rating	7600 amps
Input Voltage	230/460/575 VAC-60Hz 400 VAC-50/60 Hz 200A@208VAC 100A@575 VAC	208/230/460 VAC-60 Hz 220/350/415/440 VAC-50/60 Hz 200A@230 VAC 400V-check local standards	230/460/575 VAC-60Hz 400 VAC-50/60 Hz 200A@208VAC 100A@460 VAC 400V-check local standards
Fusing	20-1500 milliseconds, stepless	Fusing	20-2500 milliseconds, stepless
Regulated Output	300-2100 amps, regulated	Regulated Output	300-2500 amps, regulated

N800i

Stud Range: $\frac{3}{16}$ " - $\frac{1}{2}$ "
(4 mm - 12 mm)

A 2 year or 1,000,000 weld warranty comes with all Nelson equipment. The welding processes supported by this unit are Drawn Arc, Gas Arc, and Short-Cycle. Its lightweight portable design allows a single person to carry the complete welding system. It is the third generation all digital inverter system that delivers 50% more power than comparable products available. It is also capable of driving more cable than comparable products available (100 - 600 feet).



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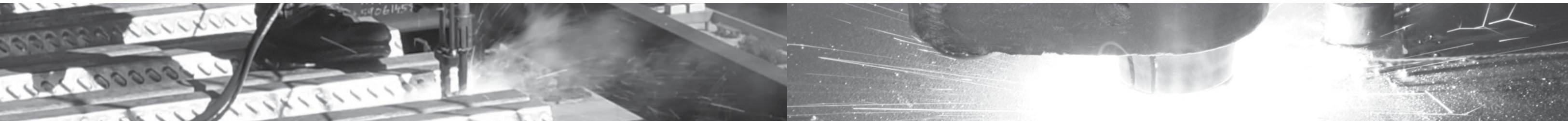
N1500i

Stud Range: $\frac{3}{16}$ " - $\frac{3}{4}$ "
(5 mm - 19 mm)

This new, dependable, light-weight stud welder is not light in power and precision. It can deliver up to 1500 amps for $\frac{3}{4}$ " (19mm) full base diameter stud welding. The friendly user interface has 10* preset buttons, bright alpha-numeric displays, graphic gun, and weld quality indicator. Its simplicity reduces set-up time, operator training, and error. Precision control at 60,000 Hz frequency ensures the most stable arc, accurate heat input and highest quality welding process.



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SPECIFICATIONS

Input Power 3 phase 400-480V, 50/60 Hz @ 15A
Welding Current 50-800A
Welding Time 5-1000 ms
Stud Range #10 to $\frac{1}{2}$ " (2-12 mm)

Duty Cycle

$\frac{1}{2}$ " (13 mm)	19 per minute
$\frac{3}{8}$ " (10 mm)	29 per minute
$\frac{5}{16}$ " (8 mm)	36 per minute
$\frac{1}{4}$ " (6 mm)	48 per minute
$\frac{3}{16}$ " (5 mm)	52 per minute

SPECIFICATIONS

Input Power 3 phase 208-240V, 50/60 Hz @ 60A
3 phase 400-480V, 50/60 Hz @ 30A
1 phase 200-220V, 50/60 Hz @ 60A
Welding Current 50-1500A
Welding Time 5-1000 ms
Stud Range $\frac{3}{16}$ " to $\frac{3}{4}$ " (5-19 mm)

Duty Cycle

$\frac{3}{4}$ " (19 mm)	4 per minute
$\frac{5}{8}$ " (16 mm)	8 per minute
$\frac{1}{2}$ " (13 mm)	19 per minute
$\frac{3}{8}$ " (10 mm)	29 per minute
$\frac{5}{16}$ " (8 mm)	36 per minute
$\frac{1}{4}$ " (6 mm)	48 per minute
$\frac{3}{16}$ " (5 mm)	52 per minute

N1500i Autofeed

Low-Cost Short-Cycle Fastener Welding with Semi-Automatic Handgun or Automated Weld Head

This portable auto-feed stud welding package is ideal for quality-minded fabricators in need of boosting fastener welding productivity. N1500i can deliver up to 1500 amps for short-cycle drawn-arc fastener welding, and FFL100M feeder can feed stud pneumatically to a hand-held PFL901 gun or a KFL901 robot-held weld head. N1500i features a user-friendly interface with 10+ weld program presets, bright alpha-numeric displays; graphic gun and weld quality indicator. Its simplicity reduces set-up time, operator training, and error.



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N4s Inverter

Perfect for all Short Cycle Studs used in the Drawn-Arc Stud Welding Method

This inverter based welding system is the most advanced stud welder on the market. The adaptable configuration allows the user to connect up to 5 weld tools to attach a wide range of fasteners (including studs, TARC brackets, and TARC nuts). The flexible approach can combine auto feed servo electric weld heads, semi-automatic hand guns, and manual feed weld tools. The power supply can include customer interfaces (discrete, DeviceNet, EtherNet IP, CCLink, ProfiBus, etc.) to connect to the customer's choice of automation protocols, and support networking possibilities with PC based software. The welding system offers a complete range of process monitoring and predictive maintenance indicators to ensure all quality standards are met. The Power Savings mode, and ECO feeding designs reduce the operating costs up to 62% over conventional automated stud welding systems.



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SPECIFICATIONS

Input Power 1 phase 100-240V, 50/60 Hz @ 15A
 Welding Current 50-1500A
 Welding Time 5-100 ms
 Stud Capacity Approx. 7500 studs (SC-Z 5x14.2 mm)
 Base Material Steel, stainless steel, aluminum, heat-resistant steel, advanced high-strength steel

Welder Input 3 phase 208-240V, 50/60 Hz @ 60A
 3 phase 400-460V, 50/60 Hz @ 30A
 3 phase 575V, 50/60 Hz @ 25A
 Feeder Input 1 phase 200-220V, 50/60 Hz @ 60A
 Feed Rate 1 phase 100-240V, 50/60 Hz
 Max. 45 per minute
 Air Pressure 4.5 to 5.5 bar
 Gun or Head PFL hand gun or KFL weld head

SPECIFICATIONS

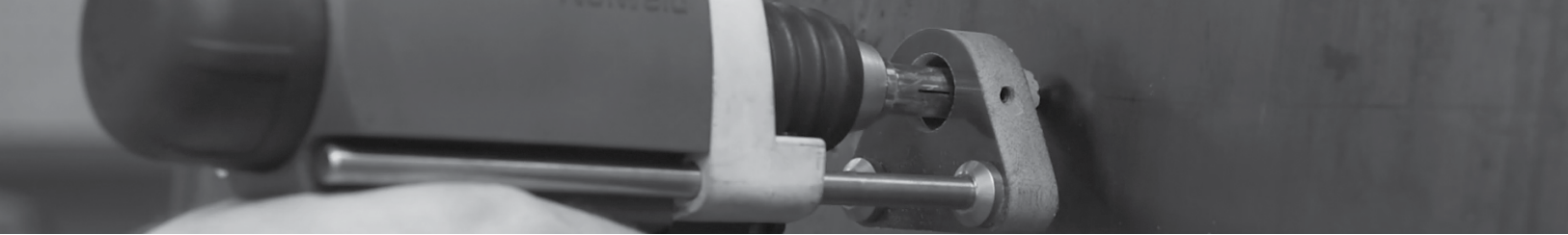
- Power-Safe mode: (energy saving model) for low power loss in idle mode
- 10% More Output Power: optimized internal circuitry
- Fast Ethernet: 10x faster transfer (100 Mbits/sec)
- Weld Capacitance Control: Warning when the maximum welding circuit impedance (resistance) is exceeded
- Professional Control Panel: VGA Color display on Windows CE basis
- Individual Allocation of Access Privileges
- Double Storage Capacity for Program Extensions

NS-40 SD

Proven Design Specifically for Welding Medium Diameter Studs

The Nelson NS-40 SD, a rugged, standard duty Drawn Arc stud welding gun designed specifically to weld studs up to 5/8" diameter. It can be used to weld smaller diameter studs using the Gas Arc or Short Cycle Welding Procedure. The NS-40 SD gun operates with power control units such as the Nelweld, transformer-rectifiers, or Nelson inverters. The gun is a pistol shaped tool with a compensating lift mechanism. The gun body is molded of high impact plastic in one piece. To minimize weld splatter, a TRANQUIL-ARC® assembly option is available for this gun.

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SPECIFICATIONS

Length (less accessories)	7.88 in. (200 mm)
Weight	5 lbs. 2 oz. (2.3 kg)
Working weight: standard legs & foot, 4' (1.2 m) of cable from tool handle	6 lbs. 14 oz. (3.1 kg)
<small>NOTE: 4" (1.2 m) of cable is normally supported by operator when in working position</small>	
Shipping weight: standard legs & foot, 8 ft. of cable with connectors normally supplied	3/8" (10 mm)
Total Travel (Total Stroke= Left & Plunge)	

NS-20 HD

Proven Design Specifically for Welding Large Diameter Studs

The Nelson NS-20 HD, a rugged, heavy duty stud welding gun designed specifically to weld studs 5/8" diameter and larger. It can be used to weld smaller diameter studs, if required. The NS-20 HD gun operates with D.C. power sources such as the Nelweld, transformer-rectifiers, or Nelson inverters. The gun is a pistol shaped tool with a compensating lift mechanism. The gun body is molded of high-impact reinforced plastic in one piece. To minimize weld splatter, a TRANQUIL-ARC® assembly is standard on this gun.

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SPECIFICATIONS

Length (less accessories)	12 in. (305 mm)
Weight	6 lbs. 13 oz. (3.1 kg)
Basic weight: standard legs & foot, cable loop to cable spud	9 lbs. 9 oz. (4.3 kg)
Working weight: standard legs & foot, 4' (1.2 m) of cable from tool handle	
<small>NOTE: 4" (1.2 m) of cable is normally supported by operator when in working position</small>	
Shipping weight: standard legs & foot, 7 ft. 3 in. (2.2 m) to 7 ft. 5 in. (2.3 m) of cable with connectors normally supplied	11 lbs. 2 oz. (5.0 kg)
Lift Height Range (Total Stroke= Left & Plunge)	7/8" (22 mm)



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7900 W. Ridge Rd. • Elyria, OH 44035 USA • PH: +1 (440) 329-0400 • Fax: +1 (440) 329-0526 • www.NelsonFastenerSystems.com
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