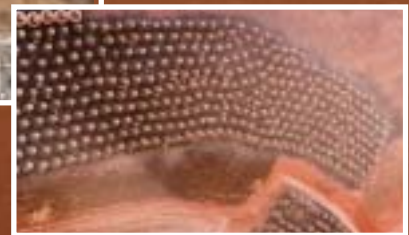


NELSON[®]

STUD WELDING

**Wear Protection for Mining
and Crushing Equipment**

**Superior Performance
and Lower Cost**



AR STUDS
ABRASION RESISTANT WELD STUDS

STUD WELDING PROCESS

The stud welding process is an extremely fast and dependable process for attaching abrasion resistant "hard facing" studs. The stud and a ceramic ferrule are held in proper position in the gun by the chuck and ferrule grip (A).



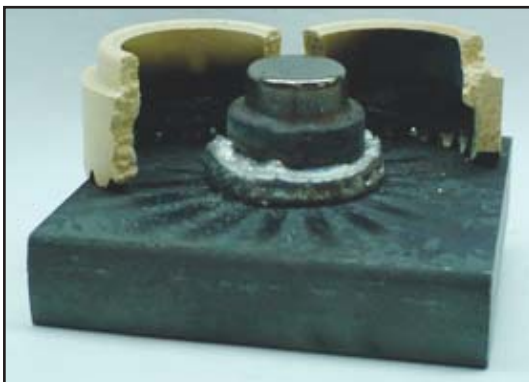
A. Operator Loads Stud & Ferrule into the hand gun

Once the operator positions the stud to the work surface, they simply squeeze the gun trigger and the weld is automatically completed in less than 1 second (B).



B. Locate the stud, pull the trigger, and weld is automatic

The process is so simple and reliable, unskilled labor can consistently make high quality welds (C) at the rate of 4-8 studs per minute throughout the work shift.



C. The weld solidifies instantly, and the ferrule is then removed

SHOP EQUIPMENT SYSTEM

For shop applied studs, or where power is readily available, the Nelson Nelweld 4000 will weld the full range of AR Studs. It can be configured as a single gun or dual gun output unit. The LED operator interface permits adjustment or monitoring of as many as 30 different weld parameters to precisely dial in the correct weld setting. As many as 6 different settings can be stored in memory as presets, and can be called up with a single button. A hand held, hand fed Heavy Duty Gun, along with 25 feet of 4/0 extension cable and ground cable complete the equipment package.



Single Gun Nelweld 4000

FIELD WELDING SYSTEM

For field application where power is not available, Nelson has a skid mounted diesel generator that can be mounted in a heavy duty truck bed. It is

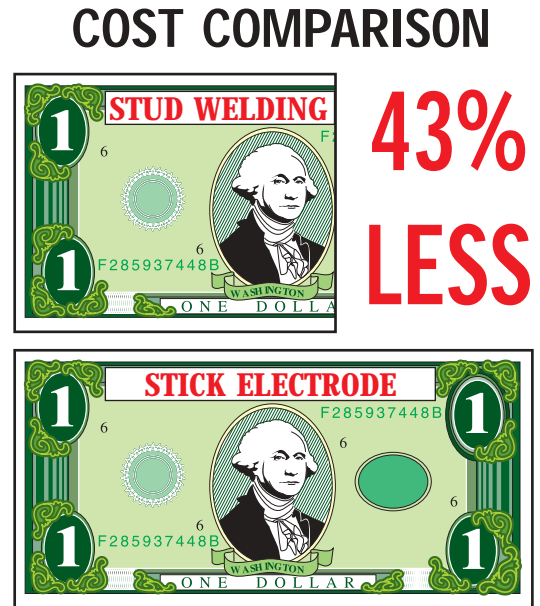
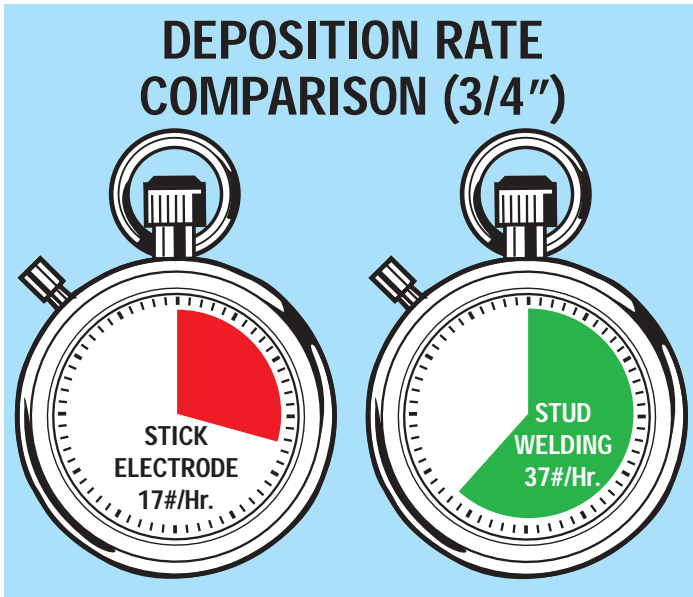


Cummins Diesel Generator, 77KW with integral Arc Lite Plus Stud Welding System

teamed with the Nelson Arc Lite Plus stud welding system that is capable of welding AR Studs through 3/4 inch diameter. The system is equipped with the NS 40 standard duty gun and #1 cable set.

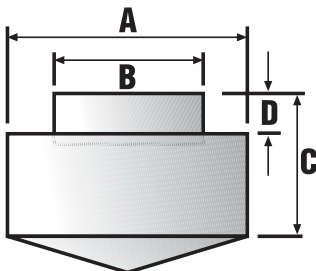
BENEFITS OF NELSON A R STUDS

- Deposition rates are more than 2 times faster than alternate methods.
- Stud welding cost is 43% less than stick electrode
- Studs provide maximum high impact and wear resistance
- Welded studs can be applied quickly and in areas where hard facing is slow or difficult
- The stud welding tool can be operated by unskilled labor because the weld process is automatic
- Stud welding can be done on-site or in the maintenance shed
- Less heat input is needed resulting in less heat cracking, distortion, or warpage
- Operator friendly – gloves and helmet are not required and fumes are minimized



NELSON STUD WELDING is the only manufacturer of both studs and ferrules, thereby having control over compatibility to ensure optimum weld quality results. Standard ferrules are recommended for down hand welding positions. When welding to a vertical surface, better results will be obtained with our specially vented vertical ferrule.

NELSON AR STUDS are cast from a special Chromium Molybdenum Carbide alloy with proven superior impact and abrasion resistance. Typical hardness is 48-53 Rc. When welded in a pattern they create a “rock box” effect where the protective layer is continually renewed during operations at no cost.



Part Number	Major Dia.	Chucking Dia.	Overall Length	Chucking Length
102-061-003	A	B	C	D
102-061-001	5/8	1/2	13/16	3/16
102-061-002	3/4	1/2	13/16	3/16
	7/8	5/8	13/16	3/16

Standard Ferrule	Vertical Ferrule	Chuck	Ferrule Grip	HD Foot
5/8 100-101-187	100-101-224	500-001-014	501-001-014	502-001-002
3/4 100-101-152	100-101-226	500-001-014	501-001-014	502-001-002
7/8 100-101-140	Not Recommended	500-001-016	501-001-015	502-001-003

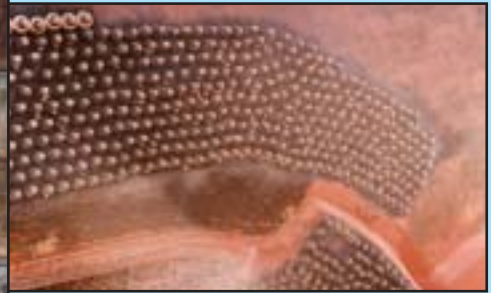
SOME STUD WELDED APPLICATIONS



A bucket on a Bucket Wheel Reclaimer



Floor of a 35 yard Shovel Bucket



Cheek Plate on exterior of Drag Line Bucket

RECOMMENDED STUD PATTERNS & DENSITY

To get the greatest wear protection and the longest life the stud pattern should be as dense as possible. Because of the ceramic ferrule and the weld metal at the base of the studs, there are limitations to how close one stud can be welded to another. Staggering or offsetting the rows of studs will give a denser pattern and better wear resistance.

There are three common patterns of applying studs. In all three patterns the ferrule of the stud being welded is placed against the ferrule or weld metal of previously welded studs to control the stud pattern density.

Standard Pattern (Continuous Welding)

106 studs / square ft. (3/4"). Ferrules are left in place to act as spacers for all subsequent welds.

Dense Pattern (Row Welding)

118 studs / square ft. (3/4"). Ferrules are removed from last row welded.

Super Dense Pattern (Single Stud Welding)

124 studs / square ft. (3/4"). Ferrules are removed from each stud before making the next weld.

*Call your Nelson Stud
Sales Representative
TODAY
at
1-800-635-9353*

The Bottom Line: Stud Welding Saves Time & Money!

NELSON[®]
STUD WELDING

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