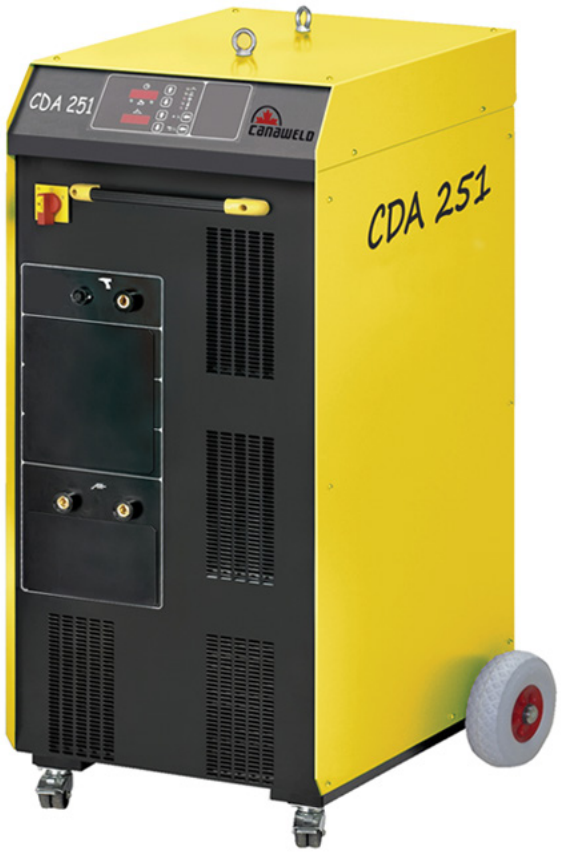
# CDA 251

Stud Welding Unit For ARC stud welding and welding with Magnetic Rotating Arc according to current standards.




## General Information
## Application

- Especially suitable for thicker sheets of about 2 mm or higher
- Especially suitable for welding of concrete anchors/shear connectors for job site applications
- Suitable for through deck welding

## Process Variants

- Short cycle drawn arc welding
- Drawn arc welding

## Equipment

- Welding with ceramic ferrule (series)

## 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
- **Lift test** – for gap welding guns and stud welding heads
- **Library function** – automatic specification of welding current and welding time through selection of stud diameter according to welding range; fine adjustment via arrow keys
- 2 gun connections (optional)

### Structure

- Extremely easy to operate
- **Mobile** – highly mobile thanks to compact dimensions and low weight (50 % weight savings vis-à-vis conventional stud welding units)
- 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 (- 10 % + 10 %)
- **Retriggering lock-out** – prevents welding on a welding element that has already been set
- **Thermal monitoring of transformer** – automatic shutdown in case of overheating
- **Temperature-regulated ventilator** – reduces noise and dust in the stud welding unit (greater system reliability)
- **Control unit galvanically separated from welding lines** – high degree of functional safety
- Optimal protection against external interferences
- EMC test
- High-voltage test with log
- IP-Code: IP 23
- Also permits operation outdoors

Headquarters:
155 Drumlin Circle
Concord, (Toronto)
Ontario, Canada
L4K 3E7

Tel : +1 647 548 5650
Fax : +1 416 548 5651
Email : info@canaweld.com
Website : www.canaweld.com

## Welding

- Powerful – built-in power reserves
- Trouble-free changing of welding voltage polarity possible by reconnecting welding current and ground cables
- Outstanding welding quality – very high arc stability even at weak welding currents
- High process flexibility – high clock frequency (30 kHz) of stud welding unit allows highly dynamic regulation of welding process
- Display – infinitely adjustable power setting; easy monitoring of all functions via LED displays; easy operation via membrane keyboard and digital display; setting of welding parameters, programs, digital display of welding current and welding time; separate settings for welding current and welding time

## Suitable Stud Welding Guns

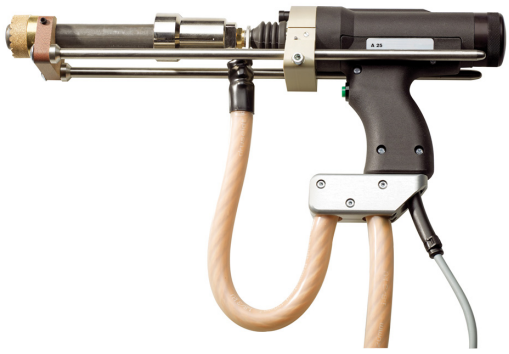
- A 12
- A 16
- A 22
- A 25
- AI 06

## Optional Accessories

- Auto-Darkening Welding Helmet

## A 25

Stud Welding Gun (damped) for ARC stud welding according to current standards



### General Information
### Applications

- Especially suitable for thicker metal sheets from approx. 2 mm
- Especially suitable for through deck welding
- Automatic compensation of length tolerance of welding elements through integrated length adjustment

## Process Variants

- Drawn arc welding with ceramic ring

### Advantages
### Structure

- Rigid casing made of impact-resistant plastic
- Slide bearing for guiding the welding piston
- Sealed welding piston guidance
- Ergonomic design
- Compact dimensions
- Lift adjustment
- Stud length freely adjustable
- Mechanical structure tested in production
- Reduced heating of the stud welding gun body thanks to externally positioned welding current cable

## Welding

- Individual adjustment options for optimum welding results
- Reproducible piston movement with minimized rebound effect for optimum welding quality via lift damper
- Optimum handling and fatigue-free operation
- Welding on painted sheets possible (clean, smooth and flat surfaces and grounding required)
- Ideal for high clock sequences with big diameters
- Automatic length compensation
- Damped plunging in the weld pool with installed oil damper

## Safety

- Lock-in lift adjustment
- High level of security to prevent the selected settings being changed inadvertently
- Guidance system protected against spatters

Headquarters:
155 Drumlin Circle
Concord, (Toronto)
Ontario, Canada
L4K 3E7

Tel : +1 647 548 5650
Fax : +1 416 548 5651
Email : info@canaweld.com
Website : www.canaweld.com

# STUD WELDING MACHINE

| TECHNICAL DATA | CDA 251 |
|---|---|
| Welding Range | Dia. 14 ga to 1'', #4 to 1'' (dia. 2 to 25 mm, M3 to M24) |
| Welding Material | Mild steel, stainless steel, aluminum |
| Welding Rate | Dia. 1'' = 6 studs/min (dia. 25 mm = 6 studs/min)<br>Through deck welding 3/4" = 12 studs/min (300 feet, AWG 4/0)<br>Industrial application 3/4" = 14 to 15 studs/min |
| Welding Current | 2 600 A (max.) |
| Current Adjustment Range | 300 to 2 600 A (stepless) |
| Welding Time | 5 to 1 500 ms (stepless) |
| Primary Power | 480/460 V, 3 phases, 50/60 Hz, 125 AT (alternative input voltages available) |
| Connected Load | 150 kVA (400 V mains), 120 kW |
| Cooling Type | F (temperature controlled cooling fan) |
| IP Code | IP 23 |
| Weight | 93-66-3211: 374.786 lbs (170 kg) |
| | 93-66-3221: 403.446 lbs (183 kg) |
| Dimension L x W x H | 25.6" x 22" x 50.8" (650 x 560 x 1 290 mm) without handle |

| TECHNICAL DATA | A 25 STUD WELDING GUN |
|---|---|
| Welding range | Dia. 9/16" to 1" (dia. 14 to 25 mm) |
| Stud length | 0.39" to 15.35" (10 to 390 mm) depending on tripod |
| Stud material | Mild steel, stainless steel |
| Stud type | Any type or shape (special chucks if required) |
| Length compensation | 0.35" (9 mm) automatic |
| Stroke | Adjustment range 0.24" (6 mm), (0.01" (0.25 mm) steps, arresting) |
| Damping | Adjustable oil damper |
| Welding cable | 4.92', 4/0 (1.5 m, 120 mm²) |
| IP-Code | IP 20 |
| Workplace noise level | Up to 90 dB (A) may occur during welding |
| Weight | 4.41 lbs (2 kg) without cable |
| Dimensions L x W x H | 10.24" x 2.91" x 8.66" (260 x 74 x 220 mm) without cable, with foot piece |

Headquarters:
155 Drumlin Circle
Concord, (Toronto)
Ontario, Canada
L4K 3E7

Tel : +1 647 548 5650
Fax : +1 416 548 5651
Email : info@canaweld.com
Website : www.canaweld.com