



# 40 TON C IRONWORKER

## INSTALLATION MANUAL



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## OPERATOR AND SUPERVISOR INFORMATION

This is one of four manuals supplied with your machine.

- **Installation Manual**
- **Safety Instructions Manual**
- **Operations Manual**
- **Maintenance Manual**

**READ ALL MANUALS BEFORE OPERATING MACHINERY.** Operating machinery before reading and understanding the contents of all four manuals greatly increases the risk of injury.

Each of the four machine manuals describes 'best practices' in handling, installing, operating and maintaining your machine. The contents of each manual is subject to change without notice due to improvements in the machinery or changes in National or International standards.

All rights reserved. Reproduction of this manual in any form, in whole or in part, is not permitted without the written consent of Edwards Manufacturing Company.

Keep all manuals close to the machine to allow for easy reference when necessary.

Provide operators with sufficient training and education in the basic functions of the machine prior to machine operation.


Do not allow for operation of the machine by unqualified personnel. Edwards Manufacturing Company is not liable for accidents arising from unskilled, untrained operation.


Do not modify or change the machine without written authorization from Edwards Manufacturing Company. Unauthorized modification to a machine may result in serious operator injury, machine damage and will void your machine warranty.

Never leave a powered machine unattended. Turn machinery **OFF** before walking away.

This machine is manufactured for use by able bodied and able minded operators only. Never operate machinery when tired or under the influence of drugs or alcohol.

Do not resell, relocate or export to a destination other than to the original point of sale. Edwards has designed this machine to meet the standards of the original receiving country and is not liable for meeting any governing body or performance standards beyond those of the original receiving country.

 **WARNING:** This product can expose you to chemicals including Methyl Isobutyl Ketone which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <http://www.p65warnings.ca.gov>.

 **WARNING:** Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead based paint
- crystalline silica from bricks, cement and other masonry products
- arsenic and chromium from chemically treated lumber

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles. For more information go to <http://www.p65warnings.ca.gov/> and <http://www.p65warnings.ca.gov/wood>.

## SIGNAL WORD DEFINITION

 **DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 **WARNING**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 **CAUTION**

Indicates a hazardous situation that, if not avoided, could result in mild or moderate injury.

**NOTICE**

Indicates information considered important, but not hazard related.

## SIGNAL WORD PANEL ON MACHINE

 **DANGER**

Critical machine safety information is identified on signal word labels. Labels are attached adjacent to the potentially hazardous locations of the machine. Reference the Safety Instruction Manual for additional information regarding the potentially hazardous condition identified on the label.

**Review ALL labels on the machinery, reference the operational precautions and safe operations sections within this manual before any operation activity is initiated.**

***Failure to read and understand the signal word labels affixed to the machinery may result in operator death or injury.***

# INSTALLATION REQUIREMENTS

This manual provides installation information for the following Edwards Ironworkers:

25 Ton	40 Ton	40 Ton C
50 Ton	55 Ton	60 Ton
65 Ton	75 Ton	100 Ton
100 Ton DX	120 Ton	Elite 110
Elite 110/65 D.O.		

- **Relative Humidity:** This equipment will operate correctly within an environment at 50% RH, +40°C. Higher RH may be allowed at lower temperatures. Measures shall be taken by the Purchaser to avoid the harmful effects of occasional condensation.
- **Altitude:** This equipment will operate correctly up to 1000m above mean sea level.
- **Transportation and Storage:** This equipment will withstand, or has been protected against, transportation and storage temperatures of -25°C to +55°C and for short periods up to +70°C. It has been packaged to prevent damage from the effects of normal humidity, vibration and shock.

## NOTICE

### Environmental Requirements at Work Station

The work station environment for your Edwards Ironworker must meet the following minimum requirements:

- **Floor area:** Assure that the machinery work area provides for a stable, adequately sized and load rated floor area for material movement to and from the machinery work stations.
- **Shelter:** Edwards Ironworkers are designed for indoor use only. Protect your Ironworking machinery from water, salts and corrosive elements.
- **Lighting:** 500LUX (50 footcandles) minimum.
- **Operating Temperature:** This equipment will operate correctly in its intended ambient, at a minimum between +5° C and +40°C.

## DANGER

### Electrical Requirements at Work Station

Locate your Ironworker directly adjacent to your power supply. Confirm that power supply is not connected in series with other machinery. Provide dedicated electrical socket and circuit breaker for each Ironworker installed. Edwards Ironworkers are protected from voltage variations provided the variation does not exceed +/- 10% machine rating.

### Electrical Performance Specification

Machine	Motor #	Type	Brand	60Hz/V	FLA	50Hz/V	FLA
25 Ton	116676	1Hp 1~	Leeson	60 Hz 115/208-230	12/6	50 Hz 110/220	13/6
40 Ton C	EM1110275	2Hp 1~	Leeson	60 Hz 115	17		
40, 50, 55, 60 Ton, Porta-Power	132089	5Hp 1~	Leeson	60 Hz 230	19	50 Hz 208-220	23-22
	132077	5Hp 3~	Leeson	60 Hz 208-230/460	14/7	50 Hz 190/380	16/8
	CEM3615T-5	5Hp 3~	Baldor	60 Hz 575	5		
65, 75, 100 Ton, Elite 110, Elite 110/65 D.O.	132089	5Hp 1~	Leeson	60 Hz 230	19	50 Hz 208-220	23-22
	140809	7.5Hp 3~	Leeson	60 Hz 208-230/460	22-21/10	50 Hz 190/380	24/12
	CEM3710T-5	7.5Hp 3~	Baldor	60 Hz 575	8		
141140		7.5Hp 1~	Leeson	60 Hz 230	36		
100DX, 120 Ton	CEM3714T	10Hp 3~	Baldor	60 Hz 208-230/460	25-24/12		
	EM3714T-5	10Hp 3~	Baldor	60 Hz 575	10		
	CEM3714T-50	10Hp 3~	Baldor			50 Hz 220/380/440	28/16/14
	CL3712T	10Hp 1~	Baldor	60 Hz 208-230	38		

# INSTALLING THE IRONWORKER

## Receiving the Ironworker



Edwards Ironworking machinery is fully assembled and is shipped either by palletized custom wooden crate or by shrink-wrapped wooden pallet for ease of transport and receiving.

Inspect the packaging for damage and follow shipping/receiving instructions as listed on the packaging prior to receiving the Ironworker into your facility.

When receiving your Ironworker, be prepared to safely move your machinery with a fork-lift rated for the following equipment weights:

### Minimum Machinery Weights

25 Ton	453.6 kg / 1000 lb
40 Ton	861.8 kg / 1900 lb
40 Ton C	780.2 kg / 1720 lb
50 Ton	916.3 kg / 2020 lb
55 Ton	1124.9 kg / 2480 lb
60 Ton	1156.7 kg / 2550 lb
65 Ton	2154.6 kg / 4750 lb
75 Ton	1859.7 kg / 4100 lb
100 Ton	2109.2 kg / 4650 lb
100 Ton DX	2349.6 kg / 5180 lb
120 Ton	2494.8 kg / 5500 lb
ELITE 110	2440.3 kg / 5380 lb
ELITE 110/65	3891.8 kg / 8580 lb

**Utilize best practices for fork-lift operation.** Handle material as close to the drive surface as possible with the widest spread and deepest penetration of forks effective to service the pallet. Forks should be adjusted and locked into the safety detent closest to the maximum available fork spread.

## Unpacking/Moving the Ironworker

Your Edwards Ironworker includes surface and remotely mounted electrical cabling and hydraulic lines. Exercise caution when removing the factory supplied packaging. Do not cut electrical wires or hydraulic hoses.

1. *Unbolt/unpack Ironworker from its pallet using a 3/4" (19.05mm) socket. Wear appropriate personal protective equipment.*
2. *Lift Edwards machinery using the designated fork lift locations and appropriately rated lifting equipment.*
3. *Move the Ironworker to the prepared workstation.*

## Anchoring Ironworker

Anchor the base of the Ironworker to the workstation floor using four 1/2" (12.7mm) wedge anchor bolts. Anchorage points are the front and rear of the fork-lift tubes. Secure the machinery with lock-nuts.

In the event the machinery needs to be relocated, reverse procedure.

## Electrical Connection



Confirm with a certified electrician that the electrical supply to the terminal location powering your Ironworker meets the operating specifications (page 2) of the machine prior to electrical connection.

Confirm your electrical supply with the electrical specifications of the machine or accessory listed (page 2), and located on the Ironworker starter box. ***It is critical that a qualified electrician install your machinery as your Warranty protection does not cover incorrect wiring of electrical components at your site.***

Prior to connecting your machine to the dedicated, protected power supply, match work station wiring to the power supply cable (Owner supplied) and the starter-box/motor specifications on the machinery. Install connections appropriately. Check for stability of connections.

If wiring through a plug/socket connection at the work station, match work station wiring to the socket (Owner supplied), plug (Owner supplied) and the power supply cable (Owner supplied) to the starter-box / motor specifications on the machinery. Install connections appropriately. Check for stability of connections.

Wire according to the electrical diagrams located within the control box.

## Starting Box Wiring



Provide the electrical schematic wiring diagram (located within the Ironworker control box) to your Electrician prior to initiating the electrical hookup of the machine.



## Power up the Ironworker

With all stations clear of tools, tooling or debris, power up the Ironworker by pressing the green button on the starter box. With the power on, your machine will return to a neutral position.

Cycle the machinery by pressing the foot pedal. If pressure is released at the foot pedal prior to completing a full stroke, the operating center of the machinery will return to a neutral position.

If the machinery fails to cycle the motor may be rotating incorrectly. To ensure the machinery cycles properly simply reverse two of the phase wires on the machine starter box (3-phase models only)

If the machine fails to cycle, power down the Ironworker by pressing the red button on the starter box, Lockout / Tagout the upstream power and consult the trouble shooting section of the Operator Manual.



# IRONWORKERS

1107 SYKES ST., ALBERT LEA, MN 56007 800-373-8206 [WWW.EDWARDSIRONWORKERS.COM](http://WWW.EDWARDSIRONWORKERS.COM)