

PROSERIES

**BATTERY HANDLING EQUIPMENT** 

#### **BATTERY BULL ELECTRIC LEVEL 6 BATTERY HANDLING EQUIPMENT**

The BBE Series man-aboard Battery Bull Electric battery handling equipment offers new levels of performance, reliability and safety to support your high-volume and high-density battery change requirements. This product is available as a single level system, up to a 6-level system.

The BBE battery handling equipment is the industry's first fully electric system with no hydraulics, which ensures maximum up-time and minimum maintenance.

Powerful, compact and energy efficient PLC controlled Variable Frequency Drives (VFD) are coupled with electric gear boxes to provide simultaneous power to both the lift and drive functions. The BBE battery handling equipment is one of the few options in high-volume fully electric transfer carts.

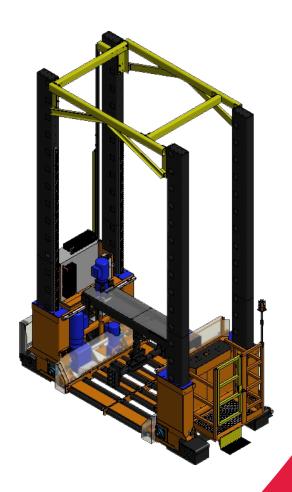
#### FEATURES AND BENEFITS

- Laser Height Alignment Indicator
  - Visually displays the exact height of roller bed carriage for precision alignment when transferring batteries into racks or vehicles
- Operator Safety Gate Lock Out
  - Safety Proximity Switch prevents vehicle operation unless the compartment gate is closed, and the E-Stop/Start Button is engagedHand Pallet Truck Integration
- Carriage Outboard Rollers
  - Aids to bridge the gap between truck and battery changer
- Latched Thumb Switch on Joystick
  - This new feature allows the operator to press and hold the magnet button to attach to the battery and when released the magnet is off
- Solid Steel Core Urethane Coated Roller Bed
  - This ensures more traction to the bottom of the battery while transferring as well as long service life
- Dual bridge position monitoring sensors from "Sick Ltd."
  - Programmed and set up to extend the life of the bridge motors and clutches



#### **FEATURES AND BENEFITS**

- Emergency Stop Control
  - Safety relay monitored to safely decelerate all motions and come to complete stop
- Battery Presence Photo Eye Safety System
  - Electronic Photo Eyes sense the batteries in the carriage and cut power to the roller beds. Operator must press the Override Release Button to discharge batteries from the carriage
- New 95 Durometer Poly Load Wheels
  - Increases load wheel life and prevents wheel memory
- Powered Outboard Carriage Rollers
  - Requires less magnet arm travel to allow faster removal and replacement of batteries into racks and vehicles
- Precision Variable Frequency Drives (VFD) for both Raise/Lower and Travel Functions
  - Allows smooth ramp speed starts and stops to both travel and lift functions. Allows for speed adjustments
    depending on the size of the system
- Ergonomic dash panel and control station
  - Intuitive controls that allow battery changes at all operator skill levels



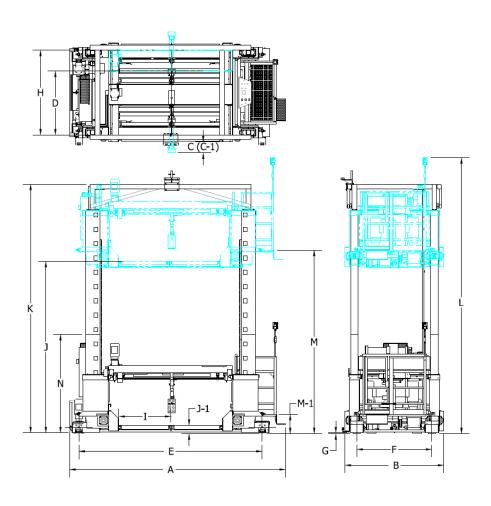


## **AVAILABLE OPTIONS**

#### Options (at extra cost)

#### Description

Battery carriage/bed LED spot lamps	Allows additional light for battery changes
"Sick" laser pedestrian safety protection	Laser distance travel stops
Allen Bradley light tower	Activation status/travel alarm
Auto position system with PLC	Touch screen control
Auto level system	To align BBE with racks
Cameras & monitor	Allow viewing of the roller bed and/or front of the BBE





## **PRODUCT SPECIFICATIONS**

DESCRIPTION		BBE-2-30		BBE-2-36		BBE-2-42		BBE-2-48	
1	Drive sytem H.P./KW	2 x 2 HP	2 x 1.5 KW	2 x 2 HP	2 x 1.5 KW	2 x 2 HP	2 x 1.5 KW	2 x 2 HP	2 x 1.5 KW
2	Raise/lower H.P./KW	2 x 7.5 HP	2 x 5.6 KW	2 x 7.5 HP	2 x 5.6 KW	2 x 7.5 HP	2 x 5.6 KW	2 x 7.5 HP	2 x 5.6 KW
3	Raise/lower speed	0-30 FPM	0-9.14 MPM						
4	Travel speed	0-175 FPM	0-53.3 MPM						
5	Machine duty cycle (per year)	5,500 Hrs.		5,500 Hrs.		5,500 Hrs.		5,500 Hrs.	
6-A	Input voltage/frequency /Max current drawn	415 V / 50 Hz / 30 A		415 V / 50 Hz / 30 A		415 V / 50 Hz / 30 A		415 V / 50 Hz / 30 A	
6-B	Input voltage/frequency /Max current drawn	460 V / 60 Hz / 28 A		460 V / 60 Hz / 28 A		460 V / 60 Hz / 28 A		460 V / 60 Hz / 28 A	
6-C	Input voltage/frequency /Max current down	575 V / 60 Hz / 26 A		575 V / 60 Hz / 26 A		575 V / 60 Hz / 26 A		575 V / 60 Hz / 26 A	
7	Control voltage	110 VAC	24 VDC						
8	Draw bar pull magnet	1800 lbs	817 kg						
9	Magnet break off point (1/4", 3/16", 1/8")	1800, 1200, 700 lbs							
10	Power unit type	Electric		Electric		Electric		Electric	
11	Wheel type/size (dia x width)	10" x 6"	254 x 153 mm	10" x 6"	254 x 153 mm	10" x 6"	254 x 153 mm	10" x 6"	254 x 153 mm
12	Capacity (fully loaded)	10000 lbs	4536 kg						
13	Service weight (empty)	9775 lbs	4434 kg	10275 lbs	4661 kg	10775 lbs	4888 kg	11275 lbs	5515 kg



## **PRODUCT DIMENSONS**

MODEL NO.		BBE-2-30		BBE-2-36		BBE-2-42		BBE-2-48	
Α	Overall length	154.88"	3934 mm	166.88"	4239 mm	178.88"	4543 mm	190.88"	4848 mm
В	Overall width (standard)	71.75"	1822 mm						
С	Max. magnet arm reach (standard arm)	8.75"	222 mm						
C-1	Max. magnet arm reach (extension arm)	Customized to suit							
D	Bridge travel	53.5"	1359 mm						
Е	Wheel base	127.5"	3239 mm	139.5"	3542 mm	151.5"	3848 mm	163.5"	4153 mm
F	Centerline of drive wheels	51.60"	1311 mm						
G	Ground clearance	0.75"	19 mm						
	Grade percent	1%	1%	1%	1%	1%	1%	1%	1%
Н	Battery compartment size length	58.5"	1486 mm						
ı	Battery compartment overall width	30"	762 mm	36"	914 mm	42"	1067 mm	48"	1219 mm
	Max. battery length	60"	1524 mm						
	Max. battery width	24"	610 mm	30"	762 mm	36"	914 mm	42"	1067 mm
	Max. battery height	37"	940 mm						
	Min. battery length	18"	457 mm						
	Min. battery width	6"	152 mm						
	Min. battery height	20"	508 mm						
	Min. over travel (front)	98"	2489 mm	108"	2743 mm	116"	2946 mm	125"	3175 mm
	Min. over travel (rear)	113"	2870 mm	114"	2896 mm	131"	3327 mm	140"	3556 mm



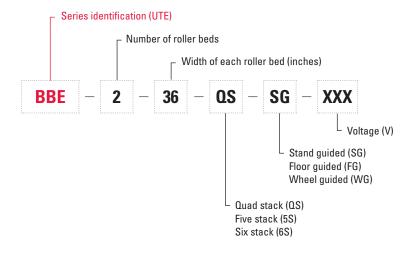
#### **LEVEL HEIGHT DIMENSIONS**

MOD	EL NO.	FOUR		F	IVE	SIX		
J	Carriage roller bed (raised)	144"	3658 mm	190"	4826 mm	236"	5994 mm	
J-1	Carriage roller bed (lowered)	5.5"	140 mm	5.5"	140 mm	5.5"	140 mm	
K	Overall height to top of frame	210"	5334 mm	256"	6502 mm	302"	7671 mm	
L	Overall height to top of tow arm	223"	5664 mm	269"	6833 mm	315"	8001 mm	
М	Operator platform height (raised)	254"	3912 mm	200"	5080 mm	246"	6248 mm	
M-1	Operator platform height (lowered)	16"	406 mm	16"	406 mm	16"	406 mm	
N	Shipping height	84"	2134 mm	84"	2134 mm	84"	2134 mm	
	Upper guide* required (yes/no)	No		ı	No		No	
	Floor variance (+ or - in 10ft/3m)	0.125"	3 mm	0.125"	3 mm	0.125"	3 mm	

 $<sup>\</sup>ensuremath{^{*}}$  Guide located at the top of the unit to provide more stability for taller units

## **MODEL/PART NUMBER BREAKDOWN**

Example: BBE-2-36-QS-SG-XXX





## **BATTERY HANDLING EXPERTISE**

Whatever the size of your battery fleet, PRO Series® battery handling solutions can help you streamline your battery changing operation with a safe, productive and cost-efficient system. From initial design, drawings and engineering through to complete installation and project management, PRO Series® battery handling solutions can support your operation with everything you'll ever need for effective battery charging and changing. Let us plan your success.

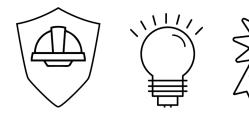
PRO Series® battery handling solutions include a range of systems and equipment that comply with health and safety regulations. Using the latest CAD software, we will design a system that matches the needs of your business. With PROSeries® battery handling solutions, you'll enjoy the highest degree of safety and ease of operation of any equipment available today — all backed by our skilled design and installation capabilities.

## OUR EXCLUSIVE PARTNERSHIP WITH CARNEY BATTERY HANDLING LTD

Since 1984, Carney Battery Handling Ltd has globally provided EnerSys® with turn-key battery room solutions, sharing our mission to innovate, design, and create quality critical battery room solutions as dedicated partners.

Our dependable alliance allows us to provide dedicated support, delivering tailored engineering and design individualized for every customer.

With an emphasis on quality and safety, all our equipment is rigorously tested for real-world environments ensuring its readiness to meet the demands of any application.



# COMMITTED TO QUALITY EVERYWHERE FOR EVERYONE.



## WHEREVER YOU DO BUSINESS, ENERSYS® CAN SUPPORT YOU WITH MOTIVE POWER ENERGY.

#### **ABOUT ENERSYS®**

EnerSys, the global leader in stored energy solutions for industrial applications, manufactures and distributes energy systems solutions and motive power batteries, specialty batteries, battery chargers, power equipment, battery accessories and outdoor equipment enclosure solutions to customers worldwide.

Energy Systems, which combine enclosures, power conversion, power distribution and energy storage, are used in the telecommunication, broadband and utility industries, uninterruptible power supplies, and numerous applications.

Motive Power batteries and chargers are utilized in electric forklift trucks and other industrial electric powered vehicles requiring stored energy solutions. Specialty batteries are used in aerospace and defense applications, large over-the-road trucks, premium automotive, medical and security systems applications.

EnerSys also provides aftermarket and customer support services to its customers in over 100 countries through its sales and manufacturing locations around the world. With the recent NorthStar acquisition, EnerSys has solidified its position as the market leader for premium Thin Plate Pure Lead batteries which are sold across all three lines of business.

More information regarding EnerSys can be found at www.enersys.com.



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