





PROSERIES

BATTERY HANDLING EQUIPMENT

BATTERY BULL ELECTRIC FULLY AUTOMATED BATTERY HANDLING EQUIPMENT

SINGLE, DOUBLE & TRIPLE MODELS

The BBE-FA battery handling equipment is a flexible and effective system to support battery change requirements for broad-scale automated applications. Employing the same high-efficiency, high-performance and low-maintenance AC power core as the rest of our BBE battery handling equipment range, the BBE-FA battery handling equipment leverages advanced logic programming and sensor-based diagnostics to remove the need for a human operator.

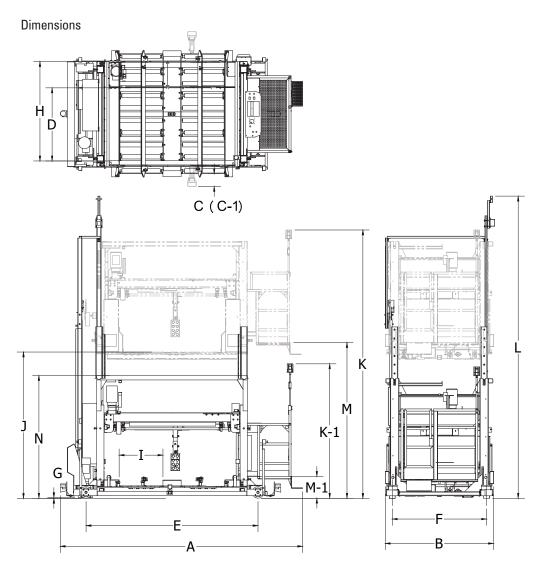
Our proven system meets and/or exceeds all of the toughest AGV industry standards and includes comprehensive self-diagnostic and logging capabilities to reduce downtime through servicing and unscheduled maintenance even further.

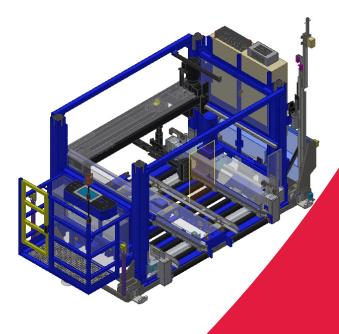
FEATURES AND BENEFITS

- Full Automation
 - The BBE-FA battery handling equipment is a fully automated system that does not require an operator
- Programmable
 - Equipped with fully programmable logic-based AC power systems to provide precise control and responsiveness for faster changes
- Detailed Self-diagnostics
 - Logging functions and self-diagnostics allow significant decreases in both downtime and servicing, therefore
 maximizing machine productivity
- Control
 - Complete user compartment and controls allow for manual over-ride and operation if required.
- No Hydraulics
 - Fully electric, the BBE-FA battery handling equipment has no hydraulics ensuring no oil leaks, reducing servicing by up to 30%.
- Powered Rollers
 - Powered lead rollers mean up to 25% faster changes with less wear and tear on key components when compared to comparable systems.
- Electro-magnetic Extraction
 - Equipped with a powerful and reliable 817 kg electro-magnetic extraction system



SINGLE, DOUBLE & TRIPLE MODELS



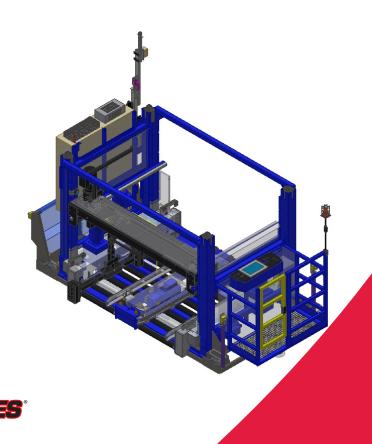




BBE-FA 1-3 LEVEL BATTERY HANDLING EQUIPMENT

Specifications

	MODEL NO.	BBE-FA-2-30		BBE-FA-2-36		BBE-FA-2-42		BBE-FA -2-48	
1	Drive system H.P./KW	3 HP	2.25 KW	3 HP	2.25 KW	3 HP	2.25 KW	3 HP	2.25 KW
2	Raise/Lower H.P.	2 x 5 HP	2 x 3.75 KW	2 x 5 HP	2 x 3.75 KW	2 x 5 HP	2 x 3.75 KW	2 x 5 HP	2 x 3.75 KW
3	Raise/Lower speed	0-21 FPM	0-6.4 MPM	0-21 FPM	0-6.4 MPM	0-21 FPM	0-6.4 MPM	0-21 FPM	0-6.4 MPM
4	Travel speed	0-175 FPM	0-53.3 MPM	0-175 FPM	0-53.3 MPM	0-175 FPM	0-53.3 MPM	0-175 FPM	0-53.3 MPM
5	Machine duty cycle	5,500 Hrs		5,500 Hrs		5,500 Hrs		5,500 Hrs	
6-A	Input voltage/frequency/max current down	415 V / 50 Hz / 23 A		415 V / 50 Hz / 23 A		415 V / 50 Hz / 23 A		415 V / 50 Hz / 23 A	
6-B	Input voltage/frequency/max current down	460 V / 60 Hz / 20 A		460 V / 60 Hz / 20 A		460 V / 60 Hz / 20 A		460 V / 60 Hz / 20 A	
6-C	Input voltage/frequency/max current down	575 V / 60 Hz / 17 A		575 V / 60 Hz / 17 A		575 V / 60 Hz / 17 A		575 V / 60 Hz / 17 A	
7	Control Voltage	110 VAC / 24 VDC		110 VAC / 24 VDC		110 VAC / 24 VDC		110 VAC	C / 24 VDC
8	Draw Bar Pull Magnet	1800 lb / 817 kg		1800 lb / 817 kg		1800 lb / 817 kg		1800 lb / 817 kg	
9	Magnet Break Off Point 1/4", 3/16", 1/8" 7 mm, 5 mm, 4 mm	1800, 1200, 700 lb 817, 545, 318 kg		1800, 1200, 700 lb 817, 545, 318 kg		1800, 1200, 700 lb 817, 545, 318 kg		1800, 1200, 700 lb 817, 545, 318 kg	
10	Power Unit Type	Electric		Electric		Electric		Electric	
11	Urethane Wheel (DxW)	8" x 4" / 203 x 102 mm		8" x 4" / 203 x 102 mm		8" x 4" / 203 x 102 mm		8" x 4" / 203 x 102 mm	
12	Capacity (Fully Loaded)	10000 lb / 4536 kg		10000 lb / 4536 kg		10000 lb / 4536 kg		10000 lb / 4536 kg	
13	Service Weight (Empty)	7000 lb	/ 3176 kg	7100 lb	7100 lb / 3221 kg		7300 lb / 3312 kg		/ 3402 kg



BBE-FA 1-3 LEVEL BATTERY HANDLING EQUIPMENT

DIMENSIONAL DATA

	MODEL NO.	BBE-FA-2-30		BBE-FA-2-36		BBE-FA-2-42		BBE-FA -2-48	
Α	Overall Length	176 in	4470 mm	188 in	4775 mm	200 in	5080 mm	212 in	5385 mm
В	Overall Width (Standard)	80.5 in	2045 mm						
С	Max. Magnet Arm Reach (Standard Arm)	12.25 in	311 mm						
C-1	Max. Magnet Arm Reach (Extension Arm)	Customized to suit							
D	Bridge Travel	53.5 in	1359 mm						
Е	Wheel Base	125 in	3175 mm	137 in	3480 mm	149 in	3785 mm	161 in	4089 mm
F	Centerline of Drive Wheels	64.75 in	1645 mm						
G	Ground Clearance	0.5 in	13 mm						
	Grade Percent	1%	1%	1%	1%	1%	1%	1%	1%
Н	Battery Compartment Size Length	64 in	1626 mm						
I	Battery Compartment Overall Width (Urethane)	30 in	762 mm	36 in	914 mm	42 in	1067 mm	48 in	1219 mm
	Max. Battery Length	60 in	1524 mm						
	Max. Battery Width	28 in	711 mm	34 in	864 mm	40 in	1016 mm	46 in	1168 mm
	Max. Battery Height	37 in	940 mm						
	Min. Battery Length	18 in	457 mm						
	Min. Battery Width	6 in	152 mm						
	Min. Battery Height	20 in	508 mm						
	Min. Over Travel (Front)	94 in	2388 mm	103 in	2616 mm	112 in	2845 mm	121 in	3073 mm
	Min. Over Travel (Rear)	114 in	2896 mm	122 in	3099 mm	132 in	3353 mm	140 in	3556 mm

LEVEL HEIGHT DIMENSIONAL DATA

	MODEL NO.	SINGLE		TRIPLE		DOUBLE	
J	Carriage Roller Bed (Raised)	30 in	762 mm	54 in	1372 mm	100 in	2540 mm
J-1	Carriage Roller Bed (Lowered)	5.5 in	140 mm	5.5 in	140 mm	5.5 in	140 mm
K	Overall Height (Raised)	108 in	2743 mm	139 in	3531 mm	184 in	4674 mm
K-1	Overall Height (Lowered)	89 in	2261 mm	89 in	2261 mm	89 in	2261 mm
L	Overall Height to Top of Tow Arm	134 in	3404 mm	168 in	4267 mm	208 in	5283 mm
М	Operator Platform Height (Raised)	36.5 in	927 mm	62.5 in	1588 mm	106.5 in	2705 mm
M-1	Operator Platform Height (Lowered)	12.5 in	318 mm	12.5 in	318 mm	12.5 in	318 mm
N	Shipping Height	84 in	2134 mm	84 in	2134 mm	84 in	2134 mm
	Upper Guide Required? (Yes / No)	No		No		No	
	Floor Variance (+ or – in 3 m / 10 ft)	0.25 in	6 mm	0.25 in	6 mm	0.25 in	6 mm

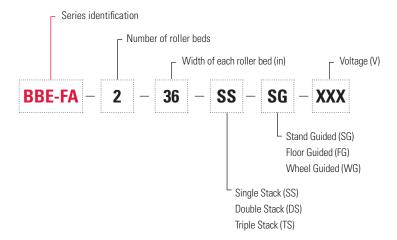


OPTIONS AT ADDITIONAL COST

- Remote management interfaces for offsite management and control
- Integrated battery management system to optimize battery performance and life
- Automation level one
- Automation level two
- Custom powder coating in various colours

MODEL/PART NUMBER BREAKDOWN

Example: BBE-FA-2-36-SS-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.

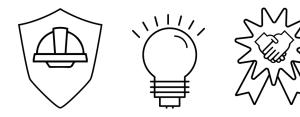
PRO Series® battery handling solutions include a range of systems and equipment that comply with health and safety regulations. Using the latest CAD software, we will design a system that matches the needs of your business. With PROSeries® battery handling solutions, you'll enjoy the highest degree of 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.



EnerSys EMEA

EH Europe GmbH Baarerstrasse 18 6300 Zug Switzerland EnerSys Ltd (UK)

Oak Court, M60 Office Park, Wynne Avenue, Swinton, Manchester, M27 8FF

 $Please\ refer to\ the\ website\ address\ for\ details\ of\ your\ nearest\ Ener Sys\ office: {\color{blue} www.enersys.com}$

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