



Operator Aboard Battery Extractors



BHS offers a variety of distinct Operator Aboard Battery Extractors (BE). Each BE is designed and built for a specific application, yet all share common features and benefits which make them the most versatile, reliable, and cost-effective Battery Extractors in the industry.

Operator Aboard Battery Extractors

Not all battery extraction applications demand the same handling solutions, equipment, or stacking requirements. To suit a variety of needs, BHS offers several distinct Operator Aboard Battery Extractors.

Strict Quality Assurance

BHS inspects every product made including manufactured parts, powered equipment, and all Battery Extractors to provide the highest quality products to meet all performance needs. Every Operator Aboard Battery Extractor undergoes up to ten hours of actual run time and two 108-point inspections prior to shipment in order to confirm quality assurance.

Available Models

Single Side (BE-SS)

BE-36-1-SS

Single Level (BE-SL)

BE-24-2-SL

BE-36-2-SL

BE-42-1-SL

BE-42-2-SL

Double Stack (BE-DS)

BE-24-2-DS

BE-36-2-DS

BE-42-1-DS

BE-42-2-DS

Triple Stack (BE-TS)

BE-24-2-TS

BE-36-2-TS

BE-42-1-TS

BE-42-2-TS

Quad Stack (BE-QS)

BE-24-2-QS

BE-36-2-QS

BE-42-2-QS

Multi-Shifter® Direct Replacement (BE-MS)

BE-22-2-SL

BE-14-4-SL

BE-22-2-SL-DC

BE-14-4-SL-DC

MTC Direct Replacement (BE-MT)

BE-24-2-SLN

BE-36-2-SLN

BE-24-2-DSN

BE-36-2-DSN

BE-24-2-TSN

BE-36-2-TSN

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Features & Benefits

- Heavy-duty construction for added reliability
- Low-maintenance design reduces preventative maintenance frequency
- No exposed components for added safety
- Durable powder coat finish resists both acid and scratches
- Manual control of hydraulics for easy operation
- Vacuum extraction reduces wear and tear on batteries*
- Vacuum extractor arm adjustable for various reach requirements*†
- Non-proprietary hydraulic and electrical components lower replacement part costs
- Redesigned hydraulic system for increased flow capacities and consistent function speeds
- Quiet-running dual floor drive system provides positive traction on wet or dry surfaces*†
- BHS exclusive Non-Inter-Flow (NIF) hydraulic manifold system stabilizes the lift cylinders to ensure a level roller bed during load transfers*†
- Four lift cylinders, in combination with four-point equalization, assure smooth and level vertical movement of the roller bed when empty or loaded*†
- Five hydraulic-powered rollers per compartment provide a brake for safe, easy battery transfer*†
- Induction-type proximity switch disables floor drive to protect equipment when the extractor arm is outside the envelope of the compartment††

* Not available on BE-MS

† Not available on BE-SS

‡ BE-MS utilizes roller/lever type switch

Available Options

Audible Alarm (BE-AUDALM)

Alarm is activated while machine is in operation to notify pedestrians that the Battery Extractor is in use

BE-Mounted Water Tank (BE-WC-SS)

Stainless steel water tank allows quick, easy battery maintenance from the Battery Extractor during battery change-out

Custom Lasered Logo (BE-LOGO)

Custom logo can be added to the front panel of the Battery Extractor

Electric Drive (BE-EDRIVE)

Replaces hydraulic floor drive system with variable frequency drive (VFD) controlled system

Extended Reach (BE-EXTRCH)

Increases the reach of the extractor arm and is ideal for use with forklifts with outriggers

Horn (BE-HORN)

Horn is utilized by the operator to alert pedestrians

Keytroller (BE-KEYTROLLER)

Provides a timed lockout until an operator logs in and provides the ability to schedule maintenance, pre-operation checklists, and operator training

Lead Acid Battery (BE-DC-LA)

Lead acid battery available for DC-powered models only

Level Assist Indicator (BE-LAI)

An LED on the dash of the Battery Extractor alerts operator when proper vertical alignment with stands is achieved

Magnet Extraction (BE-MAG)

Ideal when batteries are too narrow for vacuum extraction

Operator Shield (BE-OS)

Isolates operator console from BE roller deck

Overhead Guard (BE-OHG)

Protects the operator from falling objects

Power Roller Cut-Out (BE-PRC-1/-2)

Disengages powered rollers requiring additional input from operator to discharge battery from extractor

Safety Scanner (BE-SICK)

A compact system which scans the area in front and behind the Battery Extractor to identify objects or pedestrians in its detection zone, stopping movement of the Battery Extractor upon detection

Strobe Light (BE-STBLT)

Visually notifies bystanders when machine is in operation

	BE-SS	BE-SL	BE-DS	BE-TS	BE-QS	BE-MS	BE-MT
Audible Alarm	•	•	•	•	•	•	•
BE-Mounted Water Tank		•	•	•	•		•
Custom Lasered Logo		•	•	•	•		•
Electric Drive		•	•	•	•		•
Extended Reach		•	•	•	•		S
Horn		•	•	•	•	•	•
Keytroller	•	•	•	•	•	•	•
Lead Acid Battery						•	
Level Assist Indicator		•	•	•	•		•
Magnet Extraction	•	•	•	•	•	S	•
Operator Shield		•	•	•	•		•
Overhead Guard		•	•	•	S	•	•
Power Roller Cut-Out		•	•	•	S		•
Safety Scanner	•	•	•	•	•	•	•
Strobe Light	•	•	•	•	•	•	•

- indicates option is available
- S indicates standard feature

Single Side

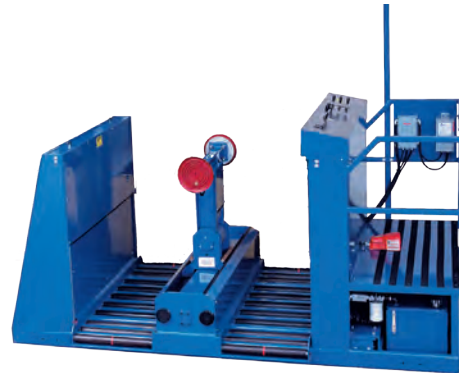
The BHS Single Side Battery Extractor (BE-SS) features a heavy-duty structure with various available options to meet specific needs. The BE-SS is fully hydraulic, track-mounted, and floor-driven for added convenience. The vehicle's control console is located on the rear of the machine for unobstructed operation. The BE-SS also features eight load rollers and an 8" (203 mm) urethane drive wheel.



BE-SS

Single Level

The BHS Single Level Battery Extractor (BE-SL) is the perfect solution for lower capacity applications with a battery fleet containing up to 99 batteries. The BE-SL makes removing and replacing discharged batteries faster and easier than ever.



BE-SL

Double Stack

The BHS Double Stack Battery Extractor (BE-DS) is designed for applications with a battery fleet containing up to 149 batteries. As with all BHS Operator Aboard Battery Extractors, the BE-DS is a safe, cost-effective solution to battery handling requirements and saves vital floor space, increasing the capacity of a battery room.



BE-DS

Triple Stack

The BHS Triple Stack Battery Extractor (BE-TS) offers a greater opportunity to optimize floor space for valuable warehousing functions. This Battery Extractor is ideal for a battery fleet containing up to 299 batteries. Like all BHS Operator Aboard Battery Extractors, the BE-TS is designed and built to expand as battery handling needs grow.



BE-TS

Quad Stack

The BHS Quad Stack Battery Extractor (BE-QS) offers the best solution for large battery changing operations. The BE-QS provides optimum floor savings while providing the latest technological advancements in battery changing equipment. Quad Stack models are designed for fleets containing 300 or more batteries.



BE-QS

Multi-Shifter® Direct Replacement

The BHS Multi-Shifter® Direct Replacement Battery Extractor (BE-MS) is specifically designed for battery systems with aisles as narrow as 52" (1321 mm) and is available in AC- or DC-powered models. The extra-heavy-duty base design allows for greater load handling capacity. Access to each compartment on the Battery Extractor is quick with the hydraulic-powered, multi-axis extractor arm, utilizing magnet extraction. Twelve load rollers on model BE-22-2-SL and twenty-four load rollers on model BE-14-4-SL allow for better load and wear distribution. The roller bed divider is easily removable to accommodate larger batteries as needed. The centerline is marked on the lead rollers for easy alignment.

Disclaimer: Multi-Shifter® is a registered trademark of Multi-Shifter®, Inc. BHS is not affiliated with Multi-Shifter®, and Multi-Shifter® does not endorse or sponsor BHS or BHS products.



BE-14-4-SL



BE-14-4-SL-DC

MTC Direct Replacement

BHS also offers the MTC Direct Replacement Battery Extractor (BE-MT) models: Single Level (BE-SLN), Double Stack (BE-DSN), and Triple Stack (BE-TSN). Each machine is designed and built for applications utilizing a 72" (1828 mm) aisle width.

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BE-TSN

Single Side

Product Specifications - Imperial / Metric

	BE-36-1-SS
Travel Speed	60 ft/min / 0.30 m/s
Raise - Lower Speed	8 ft/min / 0.04 m/s
Draw bar Pull / Vacuum (12" / 305 mm Round Cup)	1,000 lb / 450 kg
Draw bar Pull / Magnet	800 to 1,200 lb / 363 to 540 kg
Vacuum Attach Time	< 1 s
Vacuum Release Time	< 1 s
Input Voltage	240/480 V / 3 ph / 60Hz
AC Current Draw	5.8 / 2.9 A
Control Circuit Voltage	120 V ac
Hydraulic Power Unit	2 hp / 1.49 kW
Hydraulic Pump	2 gal/min / 7.57 L/min
Vacuum Pump	1/3 hp / 0.25 kW
Vacuum	21" HG / 711 mbar
Full Load Capacity	4,500 lb / 2041 kg
Weight (Empty)	2,560 lb / 1161 kg
Total Compartment Rollers	6
Guide Track	2" x 2.5" Angle / 51 mm x 64 mm
Overall Dimensions (L x W x H)	120" x 68.5" x 67.75" / 3048 mm x 1740 mm x 1721 mm
Extractor Arm Reach (Beyond Roller Bed)	9" / 228 mm
Extractor Arm Travel Speed	0 to 20 ft/min / 0 to 0.10 m/s
Wheel Base (Front to Back)	75.75" / 1924 mm
Wheel Base (Side to Side)	56.13" / 1426 mm
Battery Compartment Width	36.38" / 924 mm
Maximum Battery Dimensions (L x W x H)	45" x 35" x 36" / 1140 mm x 890 mm x 910 mm
Minimum Battery Width (w/ magnet)	6" / 155 mm
Minimum Battery Length	24" / 610 mm
Minimum Battery Height	19" / 483 mm
Roller Height	5.5" Min / 25.5" Max 140 mm Min / 647 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency.
Values represented under normal operating conditions.

Single Level

Product Specifications - Imperial / Metric

	BE-24-2-SL	BE-36-2-SL	BE-42-2-SL
Travel Speed	0 to 190 ft/min / 0 to 0.97 m/s	0 to 190 ft/min / 0 to 0.97 m/s	0 to 190 ft/min / 0 to 0.97 m/s
Raise - Lower Speed	0 to 10 ft/min / 0 to 0.05 m/s	0 to 10 ft/min / 0 to 0.05 m/s	0 to 10 ft/min / 0 to 0.05 m/s
Powered Roller Speed	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s
Arm Traverse Speed	0 to 20 ft/min / 0 to 0.10 m/s	0 to 20 ft/min / 0 to 0.10 m/s	0 to 20 ft/min / 0 to 0.10 m/s
Arm Rotation Time	6 s to 8 s	6 s to 8 s	6 s to 8 s
Draw Bar Pull / Vacuum (12" / 305 mm Round Cup)	1,000 lb / 454 kg	1,000 lb / 454 kg	1,000 lb / 454 kg
Draw Bar Pull Magnet*	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg
Vacuum Attach Time	< 1 s	< 1 s	< 1 s
Vacuum Release Time	< 1 s	< 1 s	< 1 s
Input Voltage	240/480 V / 3 ph / 60Hz	240/480 V / 3 ph / 60Hz	240/480 V / 3 ph / 60Hz
AC Current Draw	20.2 / 10.1 A	20.2 / 10.1 A	20.2 / 10.1 A
AC Current Draw w/ Electric Drive Option	31.8 / 15.9 A	31.8 / 15.9 A	31.8 / 15.9 A
Control Circuit Voltage	120 V ac	120 V ac	120 V ac
Hydraulic Power Unit	5 hp / 3.73 kW	5 hp / 3.73 kW	5 hp / 3.73 kW
Hydraulic Power Unit w/ Electric Drive Option	8 hp / 5.97 kW	8 hp / 5.97 kW	8 hp / 5.97 kW
Hydraulic Pump	8 gal/min / 30 L/min	8 gal/min / 30 L/min	8 gal/min / 30 L/min
Power Unit	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement
Operating Pressure	1,500 psi / 103 bar	1,500 psi / 103 bar	1,500 psi / 103 bar
Vacuum Pump	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW
Vacuum	21" Hg / 711 mbar	21" Hg / 711 mbar	21" Hg / 711 mbar
Full Load Capacity	10,000 lb / 4535 kg	10,000 lb / 4535 kg	10,000 lb / 4535 kg
Weight (Empty)	5,800 lb / 2631 kg	6,200 lb / 2812 kg	6,500 lb / 2948 kg
Total Compartment Rollers / Powered	11/5	11/5	11/5
Guide Track	2" x 2.5" Angle / 51 mm x 64 mm	2" x 2.5" Angle / 51 mm x 64 mm	2" x 2.5" Angle / 51 mm x 64 mm
Overall Dimensions (L x W x H)	130" x 72" x 70" / 3302 mm x 1829 mm x 1778 mm	154" x 72" x 70" / 3912 mm x 1829 mm x 1778 mm	166" x 72" x 70" / 4217 mm x 1829 mm x 1778 mm
Vacuum Arm Reach	4.5" to 14" / 114 mm to 356 mm	4.5" to 14" / 114 mm to 356 mm	4.5" to 14" / 114 mm to 356 mm
Vacuum Arm Reach (Hydraulic Extension) Truck Side	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm
Magnet Arm Reach (Hydraulic Extension) Truck Side	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm
Wheel Base	95.75" / 2432 mm	119.75" / 3042 mm	131.75" / 3346 mm
Drive Wheel Centerline	53" / 1346 mm	53" / 1346 mm	53" / 1346 mm
Battery Compartment Width	24" / 610 mm	36" / 914 mm	42" / 1067 mm
Maximum Battery Dimensions (L x W x H)	48" x 23" x 36" / 1219 mm x 584 mm x 914 mm	48" x 35" x 36" / 1219 mm x 889 mm x 914 mm	48" x 41" x 36" / 1219 mm x 1041 mm x 914 mm
Minimum Battery Width (with vacuum / magnet)	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 155 mm	12" / 305 mm 6" / 155 mm
Minimum Battery Length	16.5" / 419 mm	16.5" / 419 mm	16.5" / 419 mm
Minimum Battery Height	17.75" / 451 mm	17.75" / 451 mm	17.75" / 451 mm
Ground Clearance	0.63" / 16 mm	0.63" / 16 mm	0.63" / 16 mm
Roller Height	6.5" Min / 26.5" Max 165 mm Min / 673 mm Max	6.5" Min / 26.5" Max 165 mm Min / 673 mm Max	6.5" Min / 26.5" Max 165 mm Min / 673 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

* Varies with battery case thickness and condition.

Double Stack

Product Specifications - Imperial / Metric

	BE-24-2-DS	BE-36-2-DS	BE-42-2-DS
Travel Speed	0 to 190 ft/min / 0.97 m/s	0 to 190 ft/min / 0.97 m/s	0 to 190 ft/min / 0.97 m/s
Raise - Lower Speed	0 to 16 ft/min / 0 to 0.08 m/s	0 to 16 ft/min / 0 to 0.08 m/s	0 to 16 ft/min / 0 to 0.08 m/s
Powered Roller Speed	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s
Arm Traverse Speed	0 to 20 ft/min / 0 to 0.10 m/s	0 to 20 ft/min / 0 to 0.10 m/s	0 to 20 ft/min / 0 to 0.10 m/s
Arm Rotation Time	6 s to 8 s	6 s to 8 s	6 s to 8 s
Draw Bar Pull / Vacuum (12" / 305 mm Round Cup)	1,000 lb / 454 kg	1,000 lb / 454 kg	1,000 lb / 454 kg
Draw Bar Pull Magnet*	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg
Vacuum Attach Time	< 1 s	< 1 s	< 1 s
Vacuum Release Time	< 1 s	< 1 s	< 1 s
Input Voltage	240/480 V / 3 ph / 60Hz	240/480 V / 3 ph / 60Hz	240/480 V / 3 ph / 60Hz
AC Current Draw	20.2 / 10.1 A	20.2 / 10.1 A	20.2 / 10.1 A
AC Current Draw w/ Electric Drive Option	31.8 / 15.9 A	31.8 / 15.9 A	31.8 / 15.9 A
Control Circuit Voltage	120 V ac	120 V ac	120 V ac
Hydraulic Power Unit	5 hp / 3.73 kW	5 hp / 3.73 kW	5 hp / 3.73 kW
Hydraulic Power Unit w/ Electric Drive Option	8 hp / 5.97 kW	8 hp / 5.97 kW	8 hp / 5.97 kW
Hydraulic Pump	8 gal/min / 30 L/min	8 gal/min / 30 L/min	8 gal/min / 30 L/min
Power Unit	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement
Operating Pressure	1,500 PSI / 103 bar	1,500 PSI / 103 bar	1,500 PSI / 103 bar
Vacuum Pump	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW
Vacuum	21" Hg / 711 mbar	21" Hg / 711 mbar	21" Hg / 711 mbar
Full Load Capacity	10,000 lb / 4535 kg	10,000 lb / 4535 kg	10,000 lb / 4535 kg
Weight (Empty)	6,000 lb / 2722 kg	6,600 lb / 2994 kg	6,800 lb / 3084 kg
Total Compartment Rollers / Powered	11/5	11/5	11/5
Guide Track	2" x 2.5" Angle 51 mm x 64 mm	2" x 2.5" Angle 51 mm x 64 mm	2" x 2.5" Angle 51 mm x 64 mm
Overall Dimensions (L x W x H)	130" x 72" x 92" 3302 mm x 1829 mm x 2337 mm	154" x 72" x 92" 3912 mm x 1829 mm x 2337 mm	166" x 72" x 92" 4217 mm x 1829 mm x 2337 mm
Vacuum Arm Reach	4.5" to 14" / 114 to 356 mm	4.5" to 14" / 114 to 356 mm	4.5" to 14" / 114 to 356 mm
Vacuum Arm Reach (Hydraulic Extension)	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm
Magnet Arm Reach (Hydraulic Extension) Truck Side	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm
Wheel Base	95.75" / 2432 mm	119.75" / 3042 mm	131.75" / 3346 mm
Drive Wheel Centerline	53" / 1346 mm	53" / 1346 mm	53" / 1346 mm
Battery Compartment Width	24" / 610 mm	36" / 915 mm	42" / 1067 mm
Maximum Battery Dimensions (L x W x H)	48" x 23" x 34" 1219 mm x 584 mm x 864 mm	48" x 35" x 34" 1219 mm x 889 mm x 864 mm	48" x 41" x 34" 1219 mm x 1041 mm x 864 mm
Minimum Battery Width (with vacuum / magnet)	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 152 mm
Minimum Battery Height	17.75" / 451 mm	17.75" / 451 mm	17.75" / 451 mm
Ground Clearance	0.63" / 16 mm	0.63" / 16 mm	0.63" / 16 mm
Roller Height	6.5" Min / 56" Max 165 mm Min / 1422 mm Max	6.5" Min / 56" Max 165 mm Min / 1422 mm Max	6.5" Min / 56" Max 165 mm Min / 1422 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

* *Varies with battery case thickness and condition.*

Triple Stack

Product Specifications - Imperial / Metric

	BE-24-2-TS	BE-36-2-TS	BE-42-2-TS
Travel Speed	0 to 240 ft/min / 0 to 1.22 m/s	0 to 240 ft/min / 0 to 1.22 m/s	0 to 240 ft/min / 0 to 1.22 m/s
Raise - Lower Speed	0 to 26 ft/min / 0 to 0.13 m/s	0 to 26 ft/min / 0 to 0.13 m/s	0 to 26 ft/min / 0 to 0.13 m/s
Powered Roller Speed	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s
Arm Traverse Speed	0 to 20 ft/min / 0 to 0.10 m/s	0 to 20 ft/min / 0 to 0.10 m/s	0 to 20 ft/min / 0 to 0.10 m/s
Arm Rotation Time	6 s to 8 s	6 s to 8 s	6 s to 8 s
Draw Bar Pull / Vacuum (12" / 305 mm Round Cup)	1,000 lb / 454 kg	1,000 lb / 454 kg	1,000 lb / 454 kg
Draw Bar Pull Magnet*	800 lb to 1,200 lb / 363 to 544 kg	800 lb to 1,200 lb / 363 to 544 kg	800 lb to 1,200 lb / 363 to 544 kg
Vacuum Attach Time	< 1 s	< 1 s	< 1 s
Vacuum Release Time	< 1 s	< 1 s	< 1 s
Input Voltage	480 V / 3 ph / 60Hz	480 V / 3 ph / 60Hz	480 V / 3 ph / 60Hz
AC Current Draw	35 A	35 A	35 A
AC Current Draw w/ Electric Drive Option	42 A	42 A	42 A
Control Circuit Voltage	120 V ac	120 V ac	120 V ac
Hydraulic Power Unit	20 hp / 14.9 kW	20 hp / 14.9 kW	20 hp / 14.9 kW
Hydraulic Power Unit w/ Electric Drive Option	25 hp / 18.7 kW	25 hp / 18.7 kW	25 hp / 18.7 kW
Hydraulic Pump	22 gal/min / 83 L/min	22 gal/min / 83 L/min	22 gal/min / 83 L/min
Power Unit	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement
Operating Pressure	1,500 psi / 103 bar	1,500 psi / 103 bar	1,500 psi / 103 bar
Vacuum Pump	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW
Vacuum	21" Hg / 711 mbar	21" Hg / 711 mbar	21" Hg / 711 mbar
Full Load Capacity	10,000 lb / 4535 kg	10,000 lb / 4535 kg	10,000 lb / 4535 kg
Weight (Empty)	8,000 lb / 3629 kg	8,300 lb / 3765 kg	8,600 lb / 3901 kg
Total Compartment Rollers / Powered	11/5	11/5	11/5
Guide Track	3" x 2.5" Angle 76 mm x 64 mm	3" x 2.5" Angle 76 mm x 64 mm	3" x 2.5" Angle 76 mm x 64 mm
Overall Dimensions (L x W x H)	156.5" x 72" x 158.188" 3975 mm x 1829 mm x 4018 mm	180.5" x 72" x 158.188" 4585 mm x 1829 mm x 4018 mm	192.5" x 72" x 160.688" 4890 mm x 1829 mm x 4081 mm
Vacuum Arm Reach	4.5" to 14" / 114 mm to 356 mm	4.5" to 14" / 114 mm to 356 mm	4.5" to 14" / 114 mm to 356 mm
Vacuum Arm Reach (Hydraulic Extension)	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm
Magnet Arm Reach (Hydraulic Extension) Truck Side	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm
Wheel Base	98" / 2489 mm	122" / 3099 mm	134" / 3404 mm
Drive Wheel Centerline	51" / 1295 mm	51" / 1295 mm	51" / 1295 mm
Battery Compartment Width	24" / 610 mm	36" / 915 mm	42" / 1067 mm
Maximum Battery Dimensions (L x W x H)	48" x 23" x 34" 1219 mm x 584 mm x 864 mm	48" x 35" x 34" 1219 mm x 889 mm x 864 mm	48" x 41" x 34" 1219 mm x 1041 mm x 864 mm
Minimum Battery Width (with vacuum / magnet)	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 152 mm
Minimum Battery Height	17.75" / 451 mm	17.75" / 451 mm	17.75" / 451 mm
Ground Clearance	0.63" / 16 mm	0.63" / 16 mm	0.63" / 16 mm
Roller Height	6.5" Min / 96" Max 165 mm Min / 2438 mm Max	6.5" Min / 96" Max 165 mm Min / 2438 mm Max	6.5" Min / 96" Max 165 mm Min / 2438 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

* Varies with battery case thickness and condition.

Quad Stack

Product Specifications - Imperial / Metric

	BE-24-2-QS	BE-36-2-QS	BE-42-2-QS
Travel Speed	0 to 240 ft/min / 0 to 1.22 m/s	0 to 240 ft/min / 0 to 1.22 m/s	0 to 240 ft/min / 0 to 1.22 m/s
Raise - Lower Speed	0 to 26 ft/min / 0 to 0.13 m/s	0 to 26 ft/min / 0 to 0.13 m/s	0 to 26 ft/min / 0 to 0.13 m/s
Powered Roller Speed	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s	0 to 37 ft/min / 0 to 0.19 m/s
Arm Traverse Speed	0 to 24 ft/min / 0 to 0.12 m/s	0 to 24 ft/min / 0 to 0.12 m/s	0 to 24 ft/min / 0 to 0.12 m/s
Arm Rotation Time	6 s to 8 s	6 s to 8 s	6 s to 8 s
Draw Bar Pull / Vacuum (12" / 305 mm Round Cup)	1,000 lb / 454 kg	1,000 lb / 454 kg	1,000 lb / 454 kg
Draw Bar Pull Magnet*	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg
Vacuum Attach Time	< 1 s	< 1 s	< 1 s
Vacuum Release Time	< 1 s	< 1 s	< 1 s
Input Voltage	480 V / 3 ph / 60Hz	480 V / 3 ph / 60Hz	480 V / 3 ph / 60Hz
AC Current Draw	45 A	45 A	45 A
AC Current Draw w/ Electric Drive Option	52 A	52 A	52 A
Control Circuit Voltage	120 V ac	120 V ac	120 V ac
Hydraulic Power Unit	25 hp / 18.7 kW	25 hp / 18.7 kW	25 hp / 18.7 kW
Hydraulic Power Unit w/ Electric Drive Option	30 hp / 22.4 kW	30 hp / 22.4 kW	30 hp / 22.4 kW
Hydraulic Pump	36 gal/min / 136 L/min	36 gal/min / 136 L/min	36 gal/min / 136 L/min
Power Unit	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement	Hydraulic, Variable Displacement
Operating Pressure	1,200 psi / 76 bar	1,200 psi / 76 bar	1,200 psi / 76 bar
Vacuum Pump	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW	1/3 hp / 0.25 kW
Vacuum	21" Hg / 711 mbar	21" Hg / 711 mbar	21" Hg / 711 mbar
Full Load Capacity	10,000 lb / 4535 kg	10,000 lb / 4535 kg	10,000 lb / 4535 kg
Weight (Empty)	9,660 lb / 4382 kg	9,960 lb / 4518 kg	10,940 lb / 4962 kg
Total Compartment Rollers / Powered	11/5	11/5	11/5
Guide Track	3" x 2.5" Angle 76 mm x 64 mm	3" x 2.5" Angle 76 mm x 64 mm	3" x 2.5" Angle 76 mm x 64 mm
Overall Dimensions (L x W x H)	168" x 74" x 223" 4267 mm x 1880 mm x 5665 mm	192" x 74" x 223" 4877 mm x 1880 mm x 5665 mm	204" x 74" x 223" 5182 mm x 1880 mm x 5665 mm
Vacuum Arm Reach	3.5" to 13" / 89 mm to 330 mm	3.5" to 13" / 89 mm to 330 mm	3.5" to 13" / 89 mm to 330 mm
Vacuum Arm Reach (Hydraulic Extension)	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm	9" to 23" / 229 mm to 584 mm
Magnet Arm Reach (Hydraulic Extension) Truck Side	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm	14" to 22" / 355 mm to 559 mm
Wheel Base	109" / 2769 mm	133" / 3378 mm	145" / 3683 mm
Drive Wheel Centerline	51" / 1295 mm	51" / 1295 mm	51" / 1295 mm
Battery Compartment Width	24" / 610 mm	36" / 915 mm	42" / 1067 mm
Maximum Battery Dimensions (L x W x H)	48" x 23" x 34" 1219 mm x 584 mm x 864 mm	48" x 35" x 34" 1219 mm x 889 mm x 864 mm	48" x 41" x 34" 1219 mm x 1041 mm x 864 mm
Minimum Battery Width (with vacuum / magnet)	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 152 mm	12" / 305 mm 6" / 152 mm
Minimum Battery Height	17.75" / 451 mm	17.75" / 451 mm	17.75" / 451 mm
Ground Clearance	0.63" / 16 mm	0.63" / 16 mm	0.63" / 16 mm
Roller Height	6.5" Min / 136.75" Max 165 mm Min / 3473 mm Max	6.5" Min / 136.75" Max 165 mm Min / 3473 mm Max	6.5" Min / 136.75" Max 165 mm Min / 3473 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

* *Varies with battery case thickness and condition.*

Multi-Shifter® Direct Replacement (BE-MS)

Product Specifications - Imperial / Metric

	BE-14-4-SL	BE-22-2-SL
Travel Speed (empty or loaded)	0 to 180 ft/min / 0 to 0.9 m/s	0 to 180 ft/min / 0 to 0.9 m/s
Raise - Lower Speed	6.3 / 9.5 ft/min Empty, 6.3 / 11 ft/min Loaded 0.03 / 0.05 m/s Empty, 0.03 / 0.06 m/s Loaded	6.3 / 9.5 ft/min Empty, 6.3 / 11 ft/min Loaded 0.03 / 0.05 m/s Empty, 0.03 / 0.06 m/s Loaded
Arm Traverse Speed	0 to 36 ft/min / 0 to 0.18 m/s	0 to 36 ft/min / 0 to 0.18 m/s
Magnet Carrier Traverse Speed	0 to 36 ft/min / 0 to 0.18 m/s	0 to 36 ft/min / 0 to 0.18 m/s
Magnet Draw Bar Pull*	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg
Input Voltage	240/480 V / 3 ph / 60Hz	240/480 V / 3 ph / 60Hz
AC Current Draw	13.8 / 6.9 A	13.8 / 6.9 A
Control Circuit Voltage	110 V ac	110 V ac
Hydraulic Power Unit	5 hp / 3.7 kW	5 hp / 3.7 kW
Hydraulic Pump	6.25 gal/min / 23.5 L/min	6.25 gal/min / 23.5 L/min
Operating Pressure	1200 psi / 83 bar	1200 psi / 83 bar
Magnet Size	4" x 12" / 102 mm x 305 mm	4" x 12" / 102 mm x 305 mm
Full Load Capacity	9,000 lb / 4082 kg	9,000 lb / 4082 kg
Weight (Empty)	2,833 lb / 1285 kg	2,653 lb / 1203 kg
Total Compartment Rollers	6 Per Compartment	6 Per Compartment
Guide Track**	Inverted "V" 1.25" x 1.25" x 0.25" Angle on 0.25" x 4" HRB Inverted "V" 32 mm x 32 mm x 6 mm on 6 mm x 102 mm HRB	Inverted "V" 1.25" x 1.25" x 0.25" Angle on 0.25" x 4" HRB Inverted "V" 32 mm x 32 mm x 6 mm on 6 mm x 102 mm HRB
Overall Dimensions (L x W x H)	119" x 63" x 74" / 3023 mm x 1600 mm x 1880 mm	106" x 63" x 74" / 2693 mm x 1600 mm x 1880 mm
Arm Reach (Stand Side)	6.25" / 159 mm	6.25" / 159 mm
Arm Reach (Truck Side)	15.75" / 400 mm	15.75" / 400 mm
Wheel Base	93.88" / 2384 mm	80.81" / 2053 mm
Drive Wheel Centerline	42" / 1067 mm	42" / 1067 mm
Battery Compartment Width	(4) 14" / 356 mm or (2) 28" / 711 mm	(2) 22" / 559 mm or (1) 44" / 1118 mm
Maximum Battery Dimensions (L x W x H)	(4) 40" x 13.5" x 33" or (2) 40" x 27.5" x 33" / (4) 1016 mm x 343 mm x 838 mm or (2) 1016 mm x 699 mm x 838 mm	(2) 40" x 21.5" x 33" or (1) 40" x 43" x 33" / (2) 1016 mm x 546 mm x 838 mm or (1) 1016 mm x 1092 mm x 838 mm
Minimum Battery Dimensions (L x W x H)	20" x 6" x 19" / 508 mm x 152 mm x 483 mm	20" x 6" x 19" / 508 mm x 152 mm x 483 mm
Ground Clearance	1.25" / 32 mm	1.25" / 32 mm
Roller Height	6" Min, 22" Max / 152 mm Min, 559 mm Max	6" Min, 22" Max / 152 mm Min, 559 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

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* Varies with battery case thickness and condition.

** Standard Angle Guidance available.

Multi-Shifter® Direct Replacement (BE-MS) DC Powered

Product Specifications - Imperial / Metric

	BE-14-4-SL-DC	BE-22-2-SL-DC
Travel Speed (empty or loaded)	0 to 145 ft/min / 0 to 0.75 m/s	0 to 145 ft/min / 0 to 0.75 m/s
Raise - Lower Speed	4.5 / 9.3 ft/min Empty, 4.5 / 10 ft/min Loaded 0.23 / 0.05 m/s Empty, 0.28 / 0.05 m/s Loaded	4.5 / 9.3 ft/min Empty, 4.5 / 10 ft/min Loaded 0.03 / 0.05 m/s Empty, 0.03 / 0.06 m/s Loaded
Arm Traverse Speed	0 to 36 ft/min / 0 to 0.18 m/s	0 to 36 ft/min / 0 to 0.18 m/s
Magnet Carrier Traverse Speed	0 to 36 ft/min / 0 to 0.18 m/s	0 to 36 ft/min / 0 to 0.18 m/s
Magnet Draw Bar Pull*	800 lb to 1,200 lb / 363 kg to 544 kg	800 lb to 1,200 lb / 363 kg to 544 kg
Input Voltage	24 V dc	24 V dc
DC Current Draw Max	150 A	150 A
Control Circuit Voltage	24 V dc	24 V dc
DC Motor HP	4 hp / 3.0 kW	4 hp / 3.0 kW
On Board Battery (Not Included)	12-85-9:340 AH	12-85-9:340 AH
Battery Size	21.5" (L) x 12.7" (W) x 23" (H) / 546 mm x 323 mm x 584 mm with Cover A-20, SB175 Grey	21.5" (L) x 12.7" (W) x 23" (H) / 546 mm x 323 mm x 584 mm with Cover A-20, SB175 Grey
Hydraulic Pump	4.5 gal/min	4.5 gal/min
Operating Pressure	1500 psi / 103 bar	1500 psi / 103 bar
Magnet Size	4" x 12" / 102 mm x 305 mm	4" x 12" / 102 mm x 305 mm
Full Load Capacity	8,000 lb / 3600 kg	8,000 lb / 3600 kg
Weight (Empty, without Battery)	2,833 lb / 1285 kg	2,653 lb / 1203 kg
Total Compartment Rollers	6 Per Compartment	6 Per Compartment
Guide Track**	Inverted "V" 1.25" x 1.25" x 0.25" Angle on 0.25" x 4" HRB Inverted "V" 32 mm x 32 mm x 6 mm on 6 mm x 102 mm HRB	Inverted "V" 1.25" x 1.25" x 0.25" Angle on 0.25" x 4" HRB Inverted "V" 32 mm x 32 mm x 6 mm on 6 mm x 102 mm HRB
Overall Dimensions (L x W x H)	119" x 63" x 74" / 3023 mm x 1600 mm x 1880 mm	106" x 63" x 74" / 2693 mm x 1600 mm x 1880 mm
Arm Reach (Stand Side)	6.25" / 159 mm	6.25" / 159 mm
Arm Reach (Truck Side)	15.75" / 400 mm	15.75" / 400 mm
Wheel Base	93.88" / 2384 mm	80.81" / 2053 mm
Drive Wheel Centerline	42" / 1067 mm	42" / 1067 mm
Battery Compartment Width	(4) 14" / 356 mm or (2) 28" / 711 mm	(2) 22" / 559 mm or (1) 44" / 1118 mm
Maximum Battery Dimensions (L x W x H)	(4) 40" x 13.5" x 33" or (2) 40" x 27.5" x 33" / (4) 1016 mm x 343 mm x 838 mm or (2) 1016 mm x 699 mm x 838 mm	(2) 40" x 21.5" x 33" or (1) 40" x 43" x 33" / (2) 1016 mm x 546 mm x 838 mm or (1) 1016 mm x 1092 mm x 838 mm
Minimum Battery Dimensions (L x W x H)	20" x 6" x 19" / 508 mm x 152 mm x 483 mm	20" x 6" x 19" / 508 mm x 152 mm x 483 mm
Ground Clearance	1.25" / 32 mm	1.25" / 32 mm
Roller Height	6" Min, 22" Max / 152 mm Min, 559 mm Max	6" Min, 22" Max / 152 mm Min, 559 mm Max

Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

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* Varies with battery case thickness and condition.

** Standard Angle Guidance Available.

MTC Direct Replacement (BE-MT)

Product Specifications - Imperial / Metric

	BE-24-2-SLN	BE-36-2-SLN	BE-24-2-DSN	BE-36-2-DSN	BE-24-2-TSN	BE-36-2-TSN
Travel Speed	0 to 190 ft/min / 0 to 0.97 m/s		0 to 190 ft/min / 0 to 0.97 m/s		0 to 190 ft/min / 0 to 0.97 m/s	
Raise - Lower Speed	0 to 10 ft/min / 0 to 0.05 m/s		0 to 16 ft/min / 0 to 0.08 m/s		0 to 26 ft/min / 0 to 0.13 m/s	
Powered Roller Speed	0 to 37 ft/min / 0 to 0.19 m/s		0 to 37 ft/min / 0 to 0.19 m/s		0 to 37 ft/min / 0 to 0.19 m/s	
Arm Traverse Speed	0 to 20 ft/min / 0 to 0.10 m/s		0 to 20 ft/min / 0 to 0.10 m/s		0 to 20 ft/min / 0 to 0.10 m/s	
Arm Rotation Time	6 s to 8 s		6 s to 8 s		6 s to 8 s	
Draw Bar Pull Vacuum (12" Round Cup)	1,000 lb / 454 kg		1,000 lb / 454 kg		1,000 lb / 454 kg	
Vacuum Attach Time / Release Time	<1 s / <1 s		<1 s / <1 s		<1 s / <1 s	
Input Voltage	240/480 V / 3 ph / 60Hz		240/480 V / 3 ph / 60Hz		240/480 V / 3 ph / 60Hz	
AC Current Draw	20.2 / 10.1 A		20.2 / 10.1 A		35 A	
AC Current Draw w/ Electric Drive Option	31.8 / 15.9 A		31.8 / 15.9 A		42 A	
Control Circuit Voltage	120 V ac		120 V ac		120 V ac	
Hydraulic Power Unit	5 hp / 3.73 kW		5 hp / 3.73 kW		20 hp / 14.9 kW	
Hydraulic Power Unit w/ Electric Drive Option	8 hp / 5.97 kW		8 hp / 5.97 kW		25 hp / 18.7 kW	
Hydraulic Pump	8 gal/min / 30 L/min		8 gal/min / 30 L/min		22 gal/min / 83 L/min	
Power Unit	Hydraulic, Variable Displacement		Hydraulic, Variable Displacement		Hydraulic, Variable Displacement	
Operating Pressure	1,500 psi / 103 bar		1,500 psi / 103 bar		1,500 psi / 103 bar	
Vacuum Pump	1/3 hp / 0.25 kW		1/3 hp / 0.25 kW		1/3 hp / 0.25 kW	
Vacuum	21" Hg / 711 mbar		21" Hg / 711 mbar		21" Hg / 711 mbar	
Full Load Capacity	10,000 lb / 4535 kg		10,000 lb / 4535 kg		10,000 lb / 4535 kg	
Weight (Empty)	5,300 lb / 2404 kg	5,700 lb / 2585 kg	5,500 lb / 2495 kg	6,100 lb / 2767 kg	7,500 lb / 3402 kg	7,800 lb / 3538 kg
Total Compartment Rollers / Powered	11/5		11/5		11/5	
Guide Track	2" x 2.5" Angle / 51 mm x 64 mm		2" x 2.5" Angle / 51 mm x 64 mm		3" x 2.5" Angle / 76 mm x 64 mm	
Overall Dimensions (L x W x H)	130" x 67" x 70" / 3302 mm x 1702 mm x 1778 mm	154" x 67" x 70" / 3912 mm x 1702 mm x 1778 mm	130" x 67" x 92" / 3252 mm x 1829 mm x 2237 mm	154" x 67" x 92" / 3861 mm x 1702 mm x 2237 mm	156.5" x 67" x 158.19" / 3975 mm x 1702 mm x 4018 mm	180.5" x 67" x 158.19" / 4585 mm x 1702 mm x 4018 mm
Vacuum Arm Reach (Stand Side)	8" / 203 mm		8" / 203 mm		8" / 203 mm	
Magnet Arm Reach (Stand Side)	8" / 203 mm		8" / 203 mm		8" / 203 mm	
Vacuum Arm Reach (Hydraulic Extension) Truck Side	5" to 17" / 127 mm to 432 mm		5" to 17" / 127 mm to 432 mm		5" to 17" / 127 mm to 432 mm	
Magnet Arm Reach (Hydraulic Extension) Truck Side	9" to 17" / 228 mm to 432 mm		9" to 17" / 228 mm to 432 mm		9" to 17" / 228 mm to 432 mm	
Wheel Base	95.75" / 2432 mm	119.75" / 3042 mm	95.75" / 2432 mm	119.75" / 3042 mm	98" / 2489 mm	122" / 3099 mm
Drive Wheel Centerline	48" / 1219 mm		48" / 1219 mm		46" / 1168 mm	
Battery Compartment Width	24" / 610 mm	36" / 915 mm	24" / 610 mm	36" / 915 mm	24" / 610 mm	36" / 915 mm
Maximum Battery Dimensions (L x W x H)	44" x 23" x 34" / 1118 mm x 584 mm x 864 mm	44" x 35" x 34" / 1118 mm x 889 mm x 864 mm	44" x 23" x 34" / 1118 mm x 584 mm x 864 mm	44" x 35" x 34" / 1118 mm x 889 mm x 864 mm	44" x 23" x 34" / 1118 mm x 584 mm x 864 mm	44" x 35" x 34" / 1118 mm x 889 mm x 864 mm
Minimum Battery Width	12" / 305 mm		12" / 305 mm		12" / 305 mm	
Minimum Battery Height	17.75" / 451 mm		17.75" / 451 mm		17.75" / 451 mm	
Ground Clearance	0.63" / 16 mm		0.63" / 16 mm		0.63" / 16 mm	
Roller Height	6.5" Min to 26.5" Max 165 mm Min to 673 mm Max		6.5" Min to 56" Max 165 mm Min to 1422 mm Max		6.5" Min to 96" Max 165 mm Min to 2438 mm Max	



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Note: Specifications may vary \pm 5% because of temperature, floor considerations, and operator efficiency. Values represented under normal operating conditions.

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