BHS. Battery Handling Equipment

Automatic Transfer Carriages

The BHS Automatic Transfer Carriage (ATC) is a portable forklift battery changer that mounts to the user's pallet truck, providing cost savings by using existing equipment. The ATC's hydraulic-powered extraction reduces the time needed to change-out forklift batteries in side-extraction applications, and provides OSHA-compliant safety benefits, so you can get your forklifts back to work quickly and safely. The ATC is available in a variety of models with many flexible options to satisfy unique battery handling requirements.



BHS provides custom battery handling equipment to meet any challenge. Contact BHS at bhs@bhs1.com to learn more about fully customized solutions for the battery room and beyond.





Automatic Transfer Carriages



KEEP YOUR FLEET ON THE MOVE

The ATC provides safe, efficient battery changes anywhere in the facility. That makes it the ideal choice for operations that only run one or two lift trucks, park & charge applications, and/or larger fleets in need of a versatile backup system.



CUSTOMIZE THE BATTERY CHANGER TO YOUR FLEET

Automatic Transfer Carriages feature a range of optional features to match any application. Custom options include:

- Multiple extraction methods: magnet extraction (ideal for narrow batteries) or vacuum extraction (ideal for cold-storage use), both of which include hook-and-chain extraction for backup.
- Cantilever and extended beds for servicing trucks with outriggers.
- Drop-in, extended height roller beds for battery compartments outside the mounting pallet trucks' maximum lift range.
- Three-way fork pockets (for side-access with a sit-down counterbalance truck or rear-access with a pallet truck), bolt-on mounting, permanent factory-weld mounting, and more.
- Dual electric quick-disconnect harness, rubber flap kits, extra service capacity, and other convenience modifications.



ATC FOR USE AS A BACKUP EXTRACTOR

Forklift users often supplement Operator Aboard Battery Extractor Systems with one or more ATCs. These backup battery changers keep the fleet active during maintenance downtime on the frontline system as the ATC can continue servicing batteries stored on single level stands or on the lowest tier of multi-level stands. (Choose the three-way fork pocket option to access the ATC within narrow battery-room aisles.)

Efficient Forklift Battery Exchange*

- 1. Simply mount the ATC onto a spare pallet truck and connect the battery (12 volt and 24 volt DC power available). The ATC's extractor arm is operated entirely by the pallet truck battery, removing the need for an auxiliary power source.
- 2. Position the ATC against the forklift battery compartment; rubber bumpers allow close contact without damaging the lift truck's finish.
- 3. Operators use easy-access, center-mounted controls to extend the extraction arm. Once it connects to the forklift battery (via magnetic, vacuum, or hook-and-chain attachment), the hydraulic-powered extraction arm gently pulls the battery over the ATC's 10 compartment rollers. A steel battery containment bar keeps the battery in place during transit.
- 4. Transfer the battery to a Battery Roller Stand for charging and retrieve a charged battery to bring back to the lift truck.

* Reference ATC manual (on the BHS Optima[™] App) and training materials for proper and safe operation of ATC units.



ATC Options

EXTRACTION METHODS

How will you extract batteries? Choose one of the following options.





Vacuum Extraction (ATC-HC/VAC)

Eliminates the need for manual hook-up and reduces wear and tear on batteries. Includes back-up Hook & Chain Extraction. Ideal for use with a dedicated battery room operator.



Magnet Extraction (ATC-HC/MAG)

Eliminates the need for manual hook-up, reduces wear and tear on batteries, and is ideal when batteries are too narrow for vacuum extraction. Includes back-up Hook & Chain Extraction. Ideal for use with non-dedicated battery room operators.

SERVICING TRUCKS WITH OUTRIGGERS

If your forklifts have Outriggers/Base Legs or a picking platform, you will require a Cantilever option for additional arm reach.

If you have batteries longer than 40", you will require an Extended Bed option.



7" Cantilever (ATC-CAN-7)

Extends extractor arm reach an additional 7" (178 mm) and is ideal for use with outriggers

7" Cantilever & 6" Extended Bed (ATC-CAN-7-6)

7" (178 mm) additional extractor arm reach is ideal for use with outriggers, and 6" (152 mm) bed extension accommodates longer batteries

7" Cantilever & 8" Extended Bed (ATC-CAN-7-8)

- 14" Cantilever & 6" Extended Bed (ATC-CAN-14-6)
- 14" Cantilever & 8" Extended Bed (ATC-CAN-14-8)

SERVICING ROLLER HEIGHTS OUTSIDE STANDARD ATC RANGE

Consider the lowest and tallest roller height you will be servicing to determine if a Drop-in-Roller (DIR) will be needed. If you don't have space to store a DIR, consider a Two-Tier Roller Compartment.

If only running forklifts with a roller height above 12.5", order the Base Elevation option.

When you need to service forklifts with roller heights lower than 6.5", order the Low Profile Design.



Uncoated Rollers (ATC-UNCTD)

Reduces roller height by 0.25" (6 mm) to accommodate low battery compartments Note: Available on ATC-24 model only





Two Tier Roller Compartment (ATC-2TIER)*

Combines two roller compartment levels in one unit, and is ideal for a combination of narrow aisle trucks and counterbalance trucks

Drop-In Rollers (ATC-DIR)*

Increases roller height up to 10" (254 mm) to reach battery compartments beyond pallet truck maximum lift range. Includes the DIR Centering Angle and DIR Retainer Plate Note: Recommended when ATC-2TIER is not feasible and extraction from multiple battery compartment heights is required

Drop-In Roller Friction Strips (ATC-DIR-FS)*



See ATC-DIR description above. Also includes friction strips to provide additional battery stability during transport (for use with standard bed length)



Drop-In Roller, Extended (ATC-DIR-LG)*

See ATC-DIR description above. This option features an extended Drop-in Roller for use with 6" (152 mm) or 8" (203 mm) Extended Bed options.



Drop-In Roller, Extended with Friction Strips (ATC-DIR-LG-FS)*

See ATC-DIR-LG description above. Also includes friction strips to provide additional battery stability during transport



Base Elevation (ATC-BSELV)* Permanently elevates ATC base up to 10" (254 mm)



Low Profile-Bolt-In Slide (ATC-LP)* Cost-effective ATC bolt-in slide option allows roller height to be adjusted 0.5" (13 mm) lower than standard unit



Low Profile Design (ATC-LPF)* Allows lowered roller height of 5.5" (140 mm) with or without FP-C option

Two Tier Poly Roller & SST Shaft (ATC-2TIER-PR) Converts the standard upper roller/shaft combination to solid poly rollers with 0.5" (13 mm) SST Shafts

ADDED CONVENIENCE

Need added stability when transporting batteries? Order Friction Strips.

Need to protect the equipment from dirt/debris? Order the Chain Guard Rubber Flap Kit.

Need to power the pallet jack and the ATC simultaneously? Order Electric Quick Disconnect.



Magnet Light Indicator (ATC-MLI)

Illuminates when magnet is on, providing a secondary indicator to the audible alarm



Electric Quick Disconnect (ATC-QDY) Dual SB-175 gray connector harness plugs into the pallet

truck and battery, allowing ATC and pallet truck to be powered simultaneously



Friction Strips (ATC-FS)* Provide additional battery stability during transport



Chain Guard Rubber Flap Kit (ATC-RGD)

Covers chains and sprockets to prevent dirt and debris from accumulating on or around chains and sprockets



Extra Service Capacity (ATC-ESC)

Increases ATC load capacity by 1,000 lb (454 kg) and also extends the life of the ATC in harsher environments (includes increased side rail support, front rail reinforcement, front overhead cross bar, and heavy-duty, high-torque, low-speed extractor arm drive motor)



Self-Contained Battery and Charger (ATC-BATT), (ATC-CHGR)

The ATC-BATT and ATC-CHGR allow the ATC to operate independently from lift truck, and the self-contained charger used in conjunction with self-contained battery provides a convenient and complete battery changing system



Remote Control (ATC-RMT)*

6' (1.83 m) cord enables ATC control from operator's position on fork lift

Heavy-Duty Extraction (ATC-HD)

High torque hydraulic motor is recommended for applications using slide strips

OPTIONS FOR MOUNTING THE ATC TO THE HOST TRUCK

Whether mounting an ATC to one pallet truck or requiring the flexibility to mount to multiple trucks, the ATC can be customized to meet a variety of facility requirements. **Choose one of the following required options.**



Part-Time Mount Fork Pocket/QDY/Tongue Kit (ATC-FP-C-24/30, ATC-FP-C-36/42)

Designed for applications where a pallet truck can't be dedicated full time to the battery changing process. Includes a welded Tongue Kit to enhance stability and an SB quick disconnect (ATC-QDY). Rear-entry fork pockets are designed for use with pallet truck. See fork pocket dimensions below.





3-Way Part-Time Mount Three-Way Fork Pocket/QDY (ATC-FP-3-24/30, ATC-FP-3-36/42)[†]

Designed for multi-purpose, multi-position and for applications where a pallet truck can't be dedicated full time to the battery changing process. Rear-entry fork pockets are designed for use with pallet truck. Side-entry fork pockets are designed for use with SDCB lift trucks. Includes a welded Tongue Kit to enhance stability and an SB quick disconnect (ATC-QDY).



3-Way Part-Time Mount Three-Way Fork Pocket (ATC-FP-3)[†]

Designed for multi-purpose and multi-position. Side-entry fork pockets are designed for use with SDCB lift trucks, typically as a back-up to Operator Aboard Battery Extractors when combined with the Remote Control (ATC-RMT) and Vacuum Extraction (ATC-VAC) options. Rear-entry fork pockets can also be used with a pallet truck host truck when the bolt-on Tongue Kit is attached.



Permanent Mounting (ATC-MPJ)*

Operations that can dedicate a pallet truck to battery changing full-time can make the transformation permanent with factory welding to the customer-supplied pallet truck

Bolt-On Mounting (ATC-BLTON)

Semi-permanent mounting solution when the host truck is occasionally required for other tasks

* Consult factory for this option.

[†] 24 V dc must be supplied from the host truck for powering the ATC (may require special taps and cable from SDCB battery), or optional on-board battery and charger packages are available if required.



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Advanced Battery Fleet Management

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STREAMLINE & MONITOR BATTERY ROOM OPERATIONS

BHS Fleet Tracker[®] is a cloud-based fleet-management system, with detailed reporting that allows users to right-size their fleets for optimal efficiency. Connection to the IIoT allows managers to measure the health of batteries, stands, and trucks by logging into a secured Web Portal.

Fleet Tracker's touchscreen HMI mounted to the Automatic Transfer Carriage guides users to charged batteries, posts maintenance reminders, and updates the status of battery assets to the cloud. The Fleet Tracker system improves battery health, improves change-out efficiency, and gives

managers the real-time data they need to eliminate waste by matching assets to needs exactly.

- Reduce Maintenance Costs
- Increase Productivity
- Improve Profitability

Ask a BHS Representative for more information on Fleet Tracker.

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Models & Specifications

	ATC-24	ATC-30	ATC-36	ATC-42
Max. Load Capacity ¹	4,000 lb / 1814 kg	4,000 lb / 1814 kg	4,000 lb / 1814 kg	5,000 lb / 2268 kg
Voltage Requirement	12/24 V dc	12/24 V dc	12/24 V dc	12/24 V dc
Hydraulic Pump	Gear	Gear	Gear	Gear
Extractor Arm Travel Speed	0-24 ft/min 0.12 m/s	0-24 ft/min 0.12 m/s	0-24 ft/min 0.12 m/s	0-24 ft/min 0.12 m/s
Battery Attachment	Hook & Chain Standard Vacuum & Magnet Optional			
Optional Magnet	4" x 12" / 101 mm x 305 mm	4" x 12" / 101 mm x 305 mm	4" x 12" / 101 mm x 305 mm	4" x 12" / 101 mm x 305 mm
Optional Vacuum ²	10" Diameter / 254 mm	12" Diameter / 305 mm	12" Diameter / 305 mm	12" Diameter / 305 mm
Primary Drive Reduction	2:1	2:1	2:1	2:1
Primary Drive Chain Size	#50	#50	#50	#50
Roller Diameter	2.4" / 61 mm			
Roller Shaft Size	7/16" Hex / 11 mm	3/4" Hex / 19 mm	3/4" Hex / 19 mm	3/4" Hex / 19 mm
Battery Width	6" Min / 23" Max 152 mm Min / 584 mm Max	6" Min / 29" Max 152 mm Min / 736 mm Max	6" Min / 35" Max 152 mm Min / 889 mm Max	6" Min / 41" Max 152 mm Min / 1041 mm Max
Battery Length ³	41" Max / 1041 mm			
Min. Battery Height Hook & Chain Magnet Vacuum	12" / 305 mm 18" / 457 mm 21" / 533 mm	12" / 305 mm 18" / 457 mm 21" / 533 mm	12" / 305 mm 18" / 457 mm 21" / 533 mm	12" / 305 mm 18" / 457 mm 21" / 533 mm
Overall Length	62.75" / 1594 mm Standard 69.75"/ 1772 mm CAN-7 Option 76.75" / 1949 mm CAN-14 Option	62.75" / 1594 mm Standard 69.75"/ 1772 mm CAN-7 Option 76.75" / 1949 mm CAN-14 Option	62.75" / 1594 mm Standard 69.75"/ 1772 mm CAN-7 Option 76.75" / 1949 mm CAN-14 Option	62.75" / 1594 mm Standard 69.75"/ 1772 mm CAN-7 Option 76.75" / 1949 mm CAN-14 Option
Overall Width	29.5" / 749 mm	35.5" / 902 mm	41.5" / 1054 mm	47.5" / 1207 mm
Overall Height	34" / 864 mm			
Base to Roller Height	3" / 76 mm			
Roller Width	24.5" / 622 mm	30.5" / 775 mm	36.5" / 927 mm	42.5" / 1079 mm
Extended Arm Reach (Beyond Roller Bed)	6" / 152 mm Standard 13" / 330 mm Cantilever	6" / 152 mm Standard 13" / 330 mm Cantilever	6" / 152 mm Standard 13" / 330 mm Cantilever	6" / 152 mm Standard 13" / 330 mm Cantilever
Rated Draw Bar Pull	1,000 lb / 453 kg			
Average Holding Force	750 lb / 340 kg Vacuum 775 lb / 351 kg Magnet	1,000 lb / 453 kg Vacuum 775 lb / 351 kg Magnet	1,000 lb / 453 kg Vacuum 775 lb / 351 kg Magnet	1,000 lb / 453 kg Vacuum 775 lb / 351 kg Magnet
Service Weight (unloaded) ⁴	580 lb / 263 kg	640 lb / 290 kg	700 lb / 317 kg	770 lb / 349 kg

NOTES: BHS recommends that high-speed travel be disabled on pallet truck and maximum speed set at turtle or lowest setting.

1. Verify capacity of pallet truck being used at the specified load center (minimum 34" with 38" battery). Load center increases by 0.5" (12.7 mm) for every inch of battery over 38" (965 mm) in length.

Certain options may affect load capacity. Consult factory.

2. Minimum battery width for 10" (254 mm) diameter vacuum is 11.5" (292 mm). Minimum battery width for 12" (305 mm) diameter vacuum is 13.75" (350 mm).

3. Consult factory for additional options.

4. Weight does not include options. Add 80 lb (36 kg) for magnet extraction.

IMPROVE YOUR BATTERY ROOM

BHS' full line of industry-leading equipment can help any facility maintain a productive battery room. From battery and charger stands, to cable management and safety accessories, BHS has the total solution to fit the needs of any size facility.



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