

ALTA

MOTIVE POWER

POWER TO MOVE MORE



Alta Motive Power Solutions

[Lead Acid](#)

[Thin Plate Pure Lead](#)

[Lithium ion](#)

[Hydrogen Fuel](#)

[High Frequency Chargers](#)

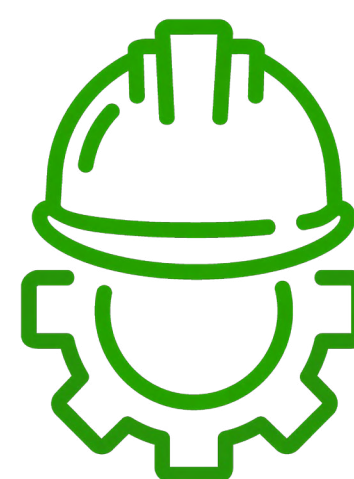
[Access Power Chargers](#)

[Hands-free Charging](#)

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**ALTA****MOTIVE POWER****POWER TO MOVE MORE**

Our goal at Alta Motive Power is to provide you with the industry's best motive power solutions including lead acid, thin plate pure lead, lithium ion batteries, and hydrogen fuel cells. Let Alta Motive Power simplify the complicated process of converting your mobile equipment, reduce your total cost of ownership, and increase your productivity and performance.



Our specialists start a discovery process to determine which power source is right for you, then compare the benefits of different manufacturers. Utilizing specialized feasibility modeling software allows us to engineer the right power solution for your unique needs. We provide cost comparisons for multiple technologies to provide you with clear savings on investments.







Alta Motive Power specializes in internal combustion engine to electric conversion. We utilize the latest advanced power technology to improve sustainability, uptime, and performance while reducing the cost of ownership.



Upgrade Your Mobile Equipment Batteries

Develop more profitable and sustainable operations by upgrading your mobile equipment lead acid batteries or adopting alternative technologies like lithium ion and hydrogen.

				
	Conventional Lead Acid	Thin Plate Pure Lead	Lithium Ion	Hydrogen Fuel Cell
Maintenance	Weekly watering, annual battery wash	Scheduled Inspection	Scheduled Inspection	Regularly Scheduled
Discharge Limit	80%	60%	95%	N/A
Daily AH Usage Limit	Up to 120% of Nameplate AH Capacity	Up to 160% of Nameplate AH Capacity	Unlimited	Unlimited
Charge Time	Approximate 4hr to 8hr recharge with 3hr 6 hour equalize charge per week	2 hr to recharge fully with 100% recharge required per week	Up to 1hr to recharge fully	3 to 5 Minute Refill
Over-Discharge Protection	None	Audible alarm or CAN Bus communication with truck	Direct communication with lift truck (CAN Bus)	Direct communication with lift truck (CAN Bus)
Warranty	5 Year	3 or 5 Year	5 year Extendable	Full Maintenance Contract
Warranty Cycles	1200-1800 Throughout Cycles	1540 Throughout Cycles	3000 Throughput Cycles	N/A
Antcipated Life	4-5 Year Average	3-5 Year Average	5-10 YEAR	5-10 YEAR
Smart Battery Technology	Data Logger	Data Logger	BMS Computer and IOT Reporting	IOT Reporting
Operator Involvement	Proper watering, charging and discharging	Proper charging and discharging	Proper charging	Proper fuel filling
Disadvantages	High maintenance costs, low productivity	Short life, limited discharge capacity	High equipment cost	High infrastructure, fuel, maintenance and equipment costs
Benefits	Low equipment costs	Fast recharge, low maintenance costs	Long life, fast recharge, low maintenance costs, low electrical costs	High productivity, low emissions, long life

Power Your Mobile Equipment with Lead Acid Batteries

Lead acid batteries offer some of the lowest costs of acquisition. Traditional Flat Plate design battery is a tried-and-true technology, appropriate for many applications. In addition, the Tubular design lead acid battery can offer an increased level of performance.

- ✓ 6-8 hour run time
- ✓ 1500+ cycles
- ✓ 99% recyclable
- ✓ A variety of power options
- ✓ Easily integrated



Thin Plate Pure Lead Batteries Provide Superior Flexibility

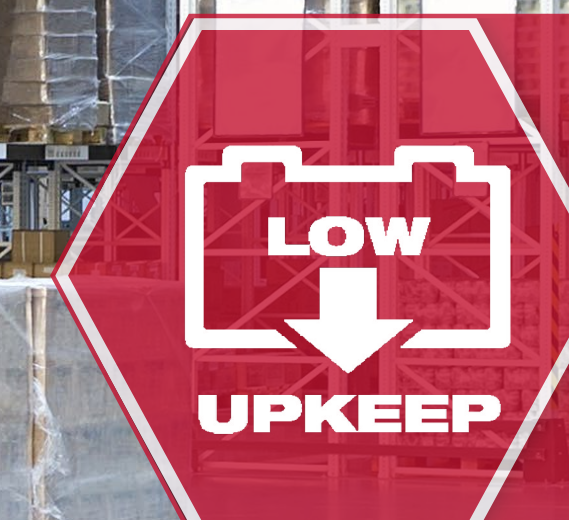
Thin Plate Pure Lead batteries (TPPL) are designed to help reduce the unplanned downtime and unexpected operating costs associated with conventional lead acid batteries. Optimized for fast and opportunity-charging, TPPL batteries are available in a range of capacities and configurations. They also include intelligent, integrated data management tools that support higher reliability and longer battery life.



Design that powers productivity: 3X more plates and 10% more energy density vs. flooded batteries



Virtually maintenance-free: no watering, battery cleaning, battery changing or long equalize charges.



A more flexible workflow: full charge in less than 2 hours; opportunity charge during breaks and whenever convenient.

Enhance Your Mobile Equipment with Lithium ion Batteries

Save time, money, and square footage when you upgrade to lithium ion batteries for your mobile equipment. Without the need for a dedicated battery room, you can optimize your facility footprint for more value-added storage and tasks. Increase the sustainability of your mobile equipment and the overall profitability of your facility by upgrading from internal combustion engine or lead acid batteries to lithium ion technology.

2X Battery Life

Lithium ion batteries have on average double the lifespan of lead-acid batteries and can last more than 3,000 charge cycles.

Improved Performance

Lithium ion batteries have a low depth of discharge (DoD), meaning more usable capacity. Higher nominal voltage for

65% More Energy Savings

Lithium ion batteries can provide energy savings of up to 65% more than lead acid batteries.

Less Maintenance

Lithium ion requires less maintenance. No watering is required, no washing, and no equalization charges.



Hydrogen Fuel Provides Maximum Performance



Increased Uptime

Hydrogen fuel cells store energy 10x more densely than lithium ion batteries and operate with 100% capacity.



Refill In < 5 Minutes

Hydrogen mobile equipment refills in 3-5 minutes, runs the entire shift, and has no battery droop, which means a 5% lift in productivity.



Save Space

Hydrogen fuel cell technology doesn't require dedicated battery rooms or operators like lead acid batteries.



Alta Motive Power extensive line of chargers represents the future of motive power innovation. We offer advanced scalability, redundant power, simplified service, and maximum flexibility to enhance your operations.



[High Frequency Chargers](#)



[Access Power](#)



[Hands-free Charging](#)



High Frequency Chargers

- Energy savings with efficiency up to 94% and .96 power factor
- High-frequency technology
- Wireless communication
- IONIC smart charge profile and opportunity charge profile
- Multi-capacity and auto cell sizing



Access Power

Access your fleet's real potential with this high frequency based multi-charger. It charges all battery types, is high-efficiency at 92%, has a low weight and small volume, and has advanced precision control for best battery life.

- Charges all battery types
- High efficiency, 92%
- High power factor, 0.95
- Wireless radio standard on all powerhouse access chargers
- Multi-Volt DC Operation



Hands-free Charging That Drives Productivity

NexSys® AIR wireless chargers deliver the convenience of hands-free charging across a wide range of equipment applications. Able to charge multiple battery technologies, NexSys® AIR wireless chargers can help boost safety, reliability and productivity.

- Fully automated charging with no manual intervention
- Compatible with all EnerSys® battery technologies
- Eliminates physical wear from mechanical contacts
- Safety features include foreign and live object detection

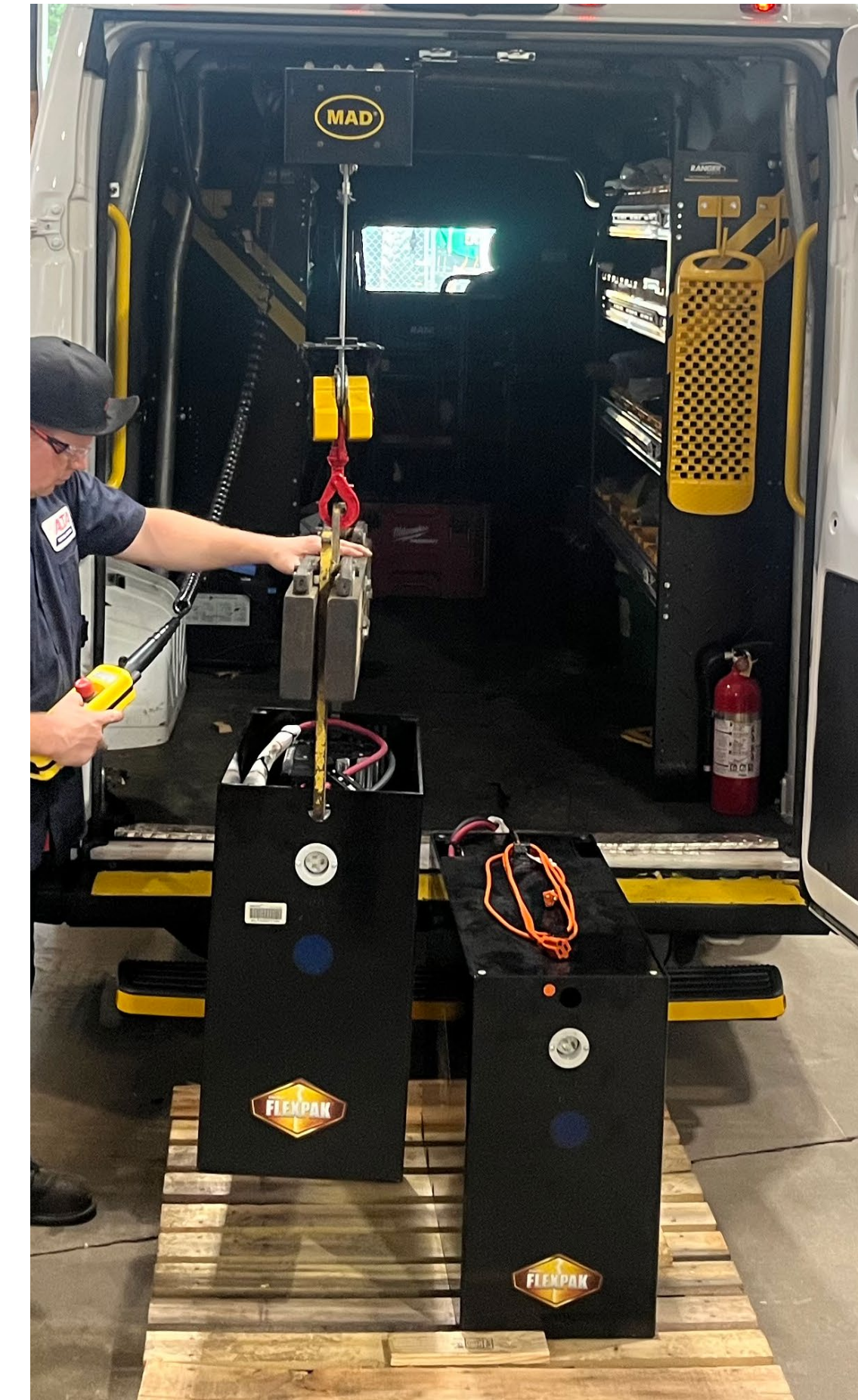




We're Committed to Helping You Maximize Your Uptime

Alta Material Handling offers industry-leading professional support to meet all your mobile equipment needs. You can rely on us for repairs, parts, forklift certification, training, fleet management, and an extensive best-in-class network to ensure your mobile equipment needs are met. After all, you're the expert at running your business. Leave the fleet management to us!

CUSTOMER
FIRST





POWER TO MOVE MORE

Total support for all your motive
power needs. Call us to learn more.

800.261.9642

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