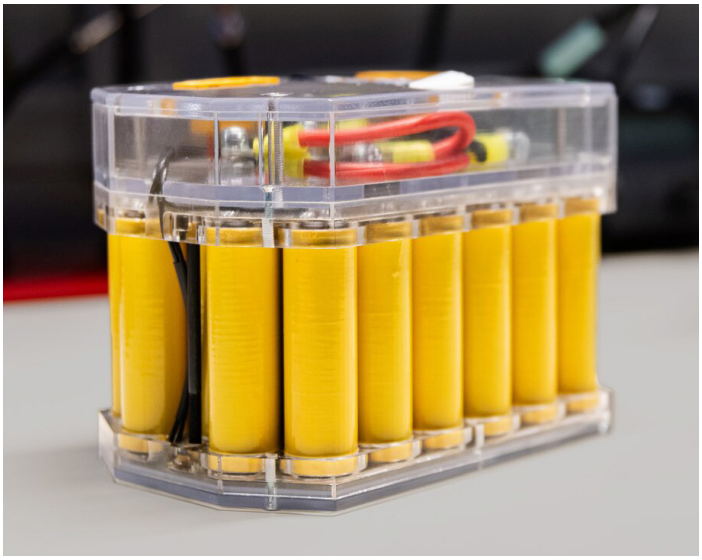
RAPID PACK SYSTEM

MODULAR BATTERY SOLUTIONS FOR UNMANNED SYSTEMS

High-Performance, Custom Lithium-ion Battery Modules for Critical Applications

Re:Build Battery Solutions' engineering team uses structural, electrical, and thermal modeling/simulation tools to design and develop Lithium Ion Battery (LiB) modules for performance in critical applications. Our LiB modules and packs are designed to withstand impact, vibration, shock, pressure and/or extreme temperatures, and we validate these products in rigorous third-party testing programs. Our engineers can design custom pack designs based on customer requirements or leverage our patented Rapid Pack System to rapidly assemble packs from our tested components.



Re:Build Battery Solutions Rapid Pack 8S4P-MOD, 2170

We offer a robust platform, including an 8S 4P Module as one example of a configuration.

Pack Features:

- 8S 4P
- 28.8 V Nominal
- 18Ah Pack, 0.52 kWh
- H 112 mm x W 107.4 mm x L 165.7 mm
- Molicel P45B NCA Cells
- XT60 E Connectors 120A max (+/-)
- Integrated Lead Connector

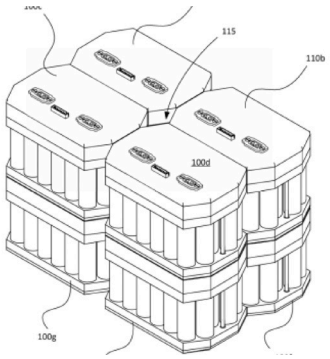
Rapid Pack 8S4P-MOD, 2170 Structural Features

These modular units are stackable to increase capacity. The wired design includes balance lead cable routing channels to an 80A fuse with through-bolts to fasten the entire pack and an isolated wiring compartment. This design renders glue unnecessary, facilitating pack refurbishment.

Units include fully exposed top-mounted busbars, accessible for BMS attachment and nonconductive fasteners and easily modified S-P configurations. A 18650-based variant is available. These stackable units can be easily integrated into larger capcity systems to support a variety of applications.

Markets Served

- Unmanned Air, Land, & Sea
- Off-highway
- Defense
- Agriculture
- Rescue
- Research



Robust Performance

The rapid pack 8S4P-MOD is being subjected to rigorous internal testing. The pack is designed to accept an optional thermal management system, and with an enclosure, is IP rated.

LEARN MORE ABOUT OUR CAPABILITIES:

SCAN ME

Factory Design/Build and System Level Production

Re:Build facilitates battery pack development, offering data-driven, predictive assessments of fit-for-performance and Design for Manufacturing (DFM). Working with our customers, we iterate on pack development and can rapidly progress from concept designs to optimized products that undergo testing in the field and laboratory.

Our Pittsburgh, PA production facility uses data-driven process monitoring to provide real-time quality control and supports your progression from introduction through high-volume manufacturing. Alternatively, our factory design/development programs allow us to provide you with a line of your own, incorporating data-driven process control and advanced automation to ensure the quality, yield, and efficiencies you need to compete in this challenging market.

Advanced Materials

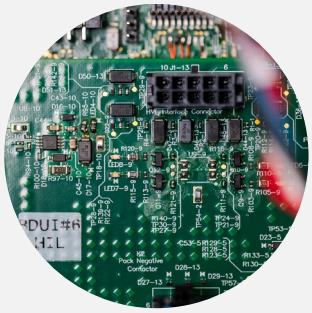
Re:Build designs and constructs rugged, lightweight, IP-rated enclosures for applications in challenging environments incorporating thermoset composites, thermoplastic composites, and lightweight metals. We optimize these designs through structural, electrical, and thermal analyses of the designs using tools such as SolidWorks & Ansys.

Battery Management Systems (BMS)

Re:Build develops configurable Battery Management Systems (BMS) that offers control of all pack performance, including cell balancing and protection, system monitoring, State-of-Charge, State-of-Health, performance data collection, and monitoring of onboard environmental sensors. Its data-logging features allow users to learn from its use history, and it is ITAR-friendly.

Arcadia Comprehensive Wiring Schematic Design & Integration

Arcadia software includes a proprietary simulation engine that allows engineers to design advanced schematic diagrams and build wire harnesses directly from the schematics, specifying connectors, splices, and part numbers. The software uses files easily integrated with ERP, PLM, and MCAD.



Re:Build Battery Solutions' advanced materials protect your batteries from the elements, ensuring mission success. In addition, our configurable BMS and Arcadia wiring schematic software simplify the design and control of unmanned systems.

LOCATION:

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Advanced Manufacturing Park
Building 225
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