



# VANGUARD®



## CONNECTING THE DOTS ON ELECTRIFYING EQUIPMENT

***Kraft Fluid Systems and Vanguard® help Allen Engineering Corporation buggy reach zero-emission status***

Concrete jobsites are wet, messy and dusty, so the equipment used on these sites needs to be rugged, powerful and able to withstand the elements.

That's where leading concrete equipment manufacturer Allen Engineering Corporation (Allen) comes in. Allen works to provide contractors with innovative concrete and related equipment solutions that solve quality and productivity issues on challenging jobsites.

The Allen product line brings a complete system for site prep, placing and finishing and paving of all types of concrete. The power buggies from Allen provide contractors with versatile machines that can easily maneuver in and out of tight spaces that would be hard for larger material handlers to navigate.

Concrete jobs often require power buggies to be used in enclosed spaces with low ceilings. So when it came time for Allen to find a power source for their new AW16-B battery-powered buggy, safety was top of mind as they looked for a low-emission solution that would not only keep operators safe while operating the machine indoors but also provide the durability and power needed to work on concrete jobsites.

Allen knew what it was looking for in a power source but didn't know where to start with the electrification

process. The company turned to system integrator Kraft Fluid Systems (Kraft) for assistance in finding the ideal solution that would meet its safety, power and durability needs.

### **A POWERFUL PARTNERSHIP**

Allen first considered a propane engine as a potential power source for its power buggy, but wasn't happy with the emission rates. The company decided it was time to pursue a zero-emissions solution.

"We're really good at making equipment. But what we needed was someone who could help us connect the dots on new technologies-like battery power," said Joey Ward, sales director for Allen. "That's how we got connected with Kraft. They had experience integrating these kinds of systems into applications like ours. They were invaluable throughout that process and in directing us. We knew what we wanted, and they helped us to achieve that goal."

Kraft is a distributor and systems integrator for electric-drive off-highway manufacturers. The company provides engineering support to OEMs to develop application solutions.

“Electrifying equipment is very new to a lot of manufacturers,” said Ryan Walker, territory manager for Kraft. “That’s where we come in with more than 20 years of experience in electrifying equipment. We show OEMs how to put all the pieces together to make it work.”

After exploring different power solutions, Allen and Kraft landed on a battery pack for the AW16-B.

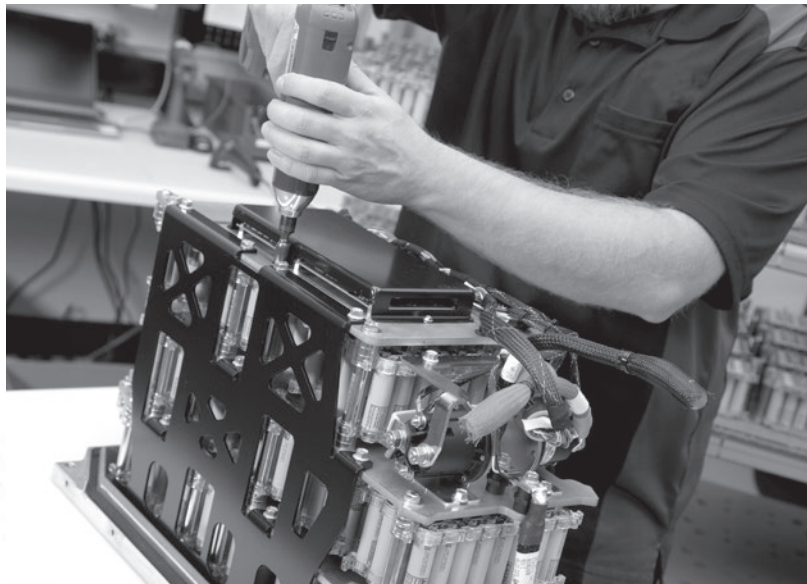
“From our limited understanding of battery power, we knew it was achievable; but everything that was on the market at that time didn’t really have the performance, runtime or ability to handle the wear and tear of working with concrete every day,” Ward said.

Another challenge Allen faced was finding a power solution that could fit within the power buggy’s limited footprint. Kraft suggested the Vanguard 5kWh\* Commercial Battery Pack.

### **A DURABLE, COMPACT SOLUTION**

As a Vanguard Battery Technology Partner, Kraft leverages Vanguard battery products when assisting OEMs like Allen on electrical engineering and product development. Kraft knew the 5kWh Commercial Battery Pack was the ideal, compact, zero-emission power solution that Allen was looking for.

“They chose Vanguard because we offer a complete package that includes a battery, charger and battery management system (BMS),” said Dylan Rewoldt, Vanguard sales manager. “We are currently the only battery system that is really built for the type of



range for a variety of applications. Each battery pack is backed by a three-year, limited commercial warranty so equipment manufacturers know they are covered. Equipment users of Vanguard-powered products also benefit from industry-leading customer support through the Briggs & Stratton dealer network.

Allen knew and trusted the Vanguard name after having previously worked with Vanguard combustion engines. With Kraft’s help, Allen quickly pivoted to using the 5kWh Commercial Battery Pack and put it through its paces during rigorous field testing.

“In a word, the battery pack was sleek. Its compact design and packaging made it really suitable for our equipment,” Ward said. “It was also really durable and the performance was great. We did a lot of testing with it on our buggy at different load sizes and were impressed with the run time. Other battery solutions we had seen on the market were lasting a couple of hours. But with the Vanguard battery, we were able to reach eight- to nine-hour runtimes.”

### **ANSWERING THE RENTAL MARKET’S CALL FOR A ZERO-EMISSION SOLUTION**

The impressive runtime and simplistic, off-the-shelf design of the 5kWh Commercial Battery Pack makes it an appealing power solution for the rental market as more industrial equipment goes electric.

“For that rental audience, there could be a day down the road where they need to swap out a battery. By going with Vanguard, there’s a better chance that they’ll just be able to walk into their rental shop and find a replacement,” Walker said.



**IN A WORD, THE BATTERY PACK WAS SLEEK. ITS COMPACT DESIGN AND PACKAGING MADE IT REALLY SUITABLE FOR OUR EQUIPMENT.**

*Joey Ward*  
Sales director for Allen



environment the power buggy is used in. Our high IP rating and fully sealed box with BMS and battery, as well as our roll cage design for durability and safety, make it hard to compete with.”

Designed to be scalable, serviceable and sustainable, the Vanguard battery packs offer a comprehensive power

\*Total energy measured using a 0.2C discharge per IEC 61960-3:2017.

Allen believes its rental customers will benefit from the battery's extended runtime.

"It essentially tripled the performance of the buggy, which means less downtime for our end users," Ward said. "A company is going to be able to rent this piece of equipment with a full charge and know that it's going to last them for a full day's work."

### **ELECTRIFYING RESULTS**

As emissions regulations continue to become more stringent, there is a growing focus on industrial equipment electrification.

Vanguard is helping to support OEMs in meeting their electrification goals by aligning with premier technology providers like Kraft to offer extended engineering support.

"As we continue to partner with OEMs on application solutions, we've been helping break down the misconceptions about battery power. There is a belief that it's too small or dinky and not robust enough to last in industrial applications and provide the power that's needed," Walker said. "So being able to show our partners what can be done with battery power and to have Allen be the first to get out there with their product and show its enhanced capabilities has been great. I think it's opened a lot of people's eyes to what you can do with batteries and electric motors."

The Vanguard battery pack not only provided an efficient electrification solution for Allen's end users, but also made the power buggy a safer, more advanced piece of equipment.

- ▶ **The Allen AW16-B battery-powered buggy is now available. [Click here](#) to learn more.**
- ▶ **To learn more about Vanguard Lithium-Ion Battery Packs, [click here](#).**
- ▶ **To learn more about Vanguard Battery Technology Partner Kraft Fluid Systems, [click here](#).**



"We were shortsighted at first because we just wanted battery options," Ward said. "But there were a lot of upgrades we were able to make because of the electronics on it and the new transaxle that we used. These upgrades made it a lot safer and really developed into a much more advanced piece of machinery."

### **EXCEPTIONAL SUPPORT AND SERVICE**

Allen plans to continue to work closely with Kraft as they explore electrifying other products in their lineup. Vanguard will be there to provide Allen with the right power solution for their application needs while also ensuring exceptional support and service.

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**KRAFT**  
FLUID SYSTEMS



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