



# ARE DEMOLITION ROBOTS GET VANGUARD™ BATTERY POWER BOOST FOR CABLE-FREE MOVEMENT

**Briggs & Stratton breaks new ground in the robotics field, as it works with producer Advanced Robotic Engineering (ARE) to power their range of mobile industrial demolition robots with the Vanguard 48V 1.5kWh\* Swappable and 48V 3.5kWh\* Fixed Battery Packs.**

For many years, onsite workers have struggled with needing their demolition machines to be cable-powered when moving from one site to another: While one operator controlled the machine, another assisted in navigating the cable. As a consequence, moving machines was not only complicated and time-consuming, but also required the involvement of several people at the job site. This a disaster in an industry where uptime is everything and the reduction of the total cost of ownership is crucial. In search of a more efficient operational solution, and

after consultation with their technical partner aDrive, ARE turned to Briggs & Stratton for the company's extensive Vanguard-branded commercial battery range. Dawid Majchrzak, CEO of aDrive, commented: "ARE originally designed their own custom battery and used it during the early stages of the project. Seeing how safe Vanguard batteries are and how they perform in the most extreme operating conditions, ARE decided to integrate Vanguard into their design."

\* Total energy measured using a 0,2C discharge per IEC 61960-3:2017.

“

**SEEING HOW SAFE VANGUARD BATTERIES ARE AND HOW THEY PERFORM IN THE MOST EXTREME OPERATING CONDITIONS, ADVANCED ROBOTIC ENGINEERING DECIDED TO INTEGRATE VANGUARD INTO THEIR DESIGN.** ”

Dawid Majchrzak  
CEO of aDrive

While the large ARE 3.0 is powered by Vanguard's 48V 3.5kWh\* Fixed Battery Pack (Fi3.5), allowing the demolition robot to operate on job sites for up to 30 minutes, the smaller ARE 1.0 and 2.0 models run on a 48V 1.5kWh\* Swappable Battery Pack (Si1.5). This feature provides additional operational flexibility through interchangeability, as a discharged Si1.5 battery can be easily swapped with a fully charged one.

No matter which battery they use, all three models improve efficiency for the operator and free up co-workers to complete other activities.

The Vanguard battery solution is instrumental in providing a practical and innovative answer to current jobsite challenges, enabling seamless movement between different locations or floors, even navigating stairs. This flexibility is particularly advantageous when



**48V 1.5KWH\*  
COMMERCIAL BATTERY  
SWAPPABLE BATTERY - Si1.5**

This battery pack offers the ability to swap out between applications on the job site, reducing downtime, and featuring multiple mounting configurations, ensuring flexibility for any situation.

- **Operational Confidence:** Integrated Battery Management System (BMS) constantly monitors and measures the pack's voltage and temperature to ensure safe and efficient operations.
- **Flexibility:** Single CANbus J1939 communication protocol allows OEMs to communicate with the battery's J1939 (automotive standard) CANbus.
- **Increased Uptime:** Up to 1000-cycle life to 80% initial capacity.

<b>NOMINAL VOLTAGE (V):</b>	51,4
<b>NOMINAL CAPACITY** (Ah):</b>	28,4
<b>NOMINAL DISCHARGE CURRENT (A):</b>	100
<b>CHARGE TIME WITH 1425W CHARGER*** (H):</b>	1,25
<b>PACK WEIGHT (KG):</b>	11,8



**48V 3.5KWH\*  
COMMERCIAL BATTERY  
FIXED BATTERY - Fi3.5**

Powerful, efficient and safe: This fixed battery pack is designed to blend seamlessly into any equipment setup.

- **Expandable:** Packs can be combined in parallel for additional capacity.
- **Durable:** Multiple protective features tested to withstand harsh conditions, including extreme temperatures, impact, vibration, moisture and dirt.
- **Increased Uptime:** Up to 2000-cycle life to 80% initial capacity.

<b>NOMINAL VOLTAGE (V):</b>	51,6
<b>NOMINAL CAPACITY** (Ah):</b>	67,5
<b>NOMINAL DISCHARGE CURRENT (A):</b>	67
<b>CHARGE TIME WITH 1050W / 1425W / 3000W CHARGER*** (H):</b>	4 / 3 / 2
<b>PACK WEIGHT (KG):</b>	26,3

\* Total energy measured using a 0,2C discharge per IEC 61960-3:2017. \*\* PER IEC61960 \*\*\* Based on nominal temperatures, charge will vary at the extremes.

deploying the robot for diverse tasks, necessitating its transport to various construction sites. While the actual demolition process operates with 400 V AC power, the ARE robots furthermore stand out as the only machines on the market that allow users to simultaneously operate the robot and charge the integrated Vanguard battery pack for further movement. This feature additionally reduces overall downtime, enabling more efficient operation in various work settings. "We've calculated that in a typical eight-hour working day, robot operators can save at least one hour by using this ARE/Vanguard hybrid system compared to only cable-operated robots." explains Krzysztof Jakubowski, CEO of Advanced Robotic Engineering (ARE), demonstrating how this new battery innovation will revolutionize the efficiency of demolition workers in the future.

Ladislav Poledna, Business Development Manager for Electrification & Rental EMEA for Briggs & Stratton / Vanguard, adds: "We are extremely proud of our game-changing technology and even more excited to have it integrated into innovative industry-leading products like the ARE demolition robots. What belongs together comes together." Krzysztof Jakubowski continues: "Integrating Vanguard batteries in our demolition robots is an exciting industry-first innovation for the construction industry. This new hybrid robot will enable end users to complete tasks in a time-effective

“

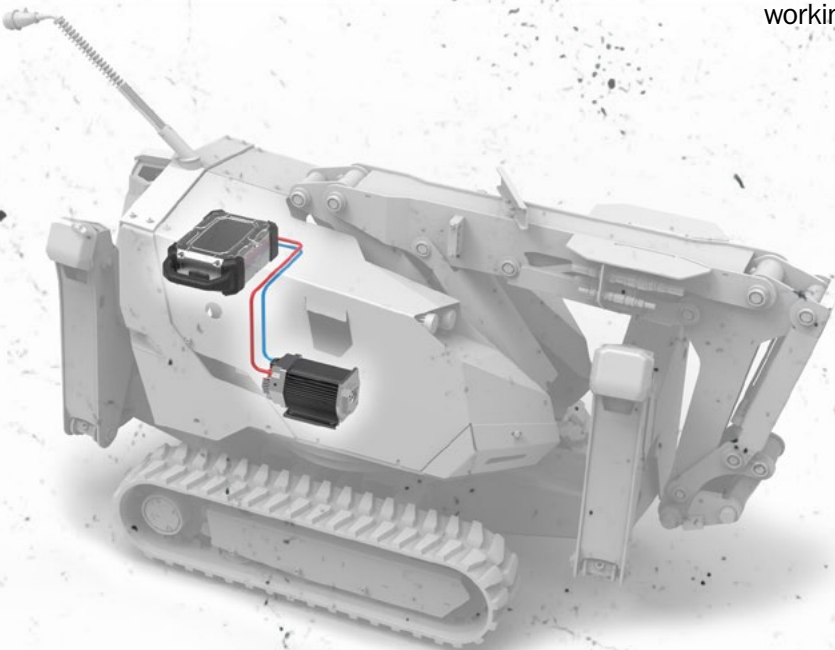
**INTEGRATING VANGUARD BATTERIES IN OUR DEMOLITION ROBOTS IS AN EXCITING INDUSTRY-FIRST INNOVATION FOR THE CONSTRUCTION INDUSTRY. THIS NEW HYBRID ROBOT WILL ENABLE END USERS TO COMPLETE TASKS IN A TIME EFFECTIVE MANNER AND WITHOUT CHARGING DOWNTIME.**

”

Krzysztof Jakubowski

CEO of Advanced Robotic Engineering (ARE)

manner and without charging downtime. We are looking forward to seeing the reaction from the industry and getting the feedback from operators." Based on this improvement, ARE is currently developing a pioneering operator-as-a-service concept to increase the added value provided. With this concept, machines will in the future be remotely controlled by experts all over the world without the necessity of having them on the working site.



**aDrive**

Compact drive, developed by ARE's Technology Partner aDrive perfectly working with Vanguard 48V Si1.5kWh swappable battery within ARE1.0 and 2.0.

# CONTACT US NOW

## TO FIND OUT HOW VANGUARD CAN HELP YOU POWER YOUR EQUIPMENT



Find out more about Vanguard on: [www.vanguardpower.com](http://www.vanguardpower.com)



For more news and updates, follow us on LinkedIn:

[www.linkedin.com/company/vanguard-commercial-power/](http://www.linkedin.com/company/vanguard-commercial-power/)

### ABOUT BRIGGS & STRATTON

Briggs & Stratton, headquartered in Milwaukee, Wisconsin, provides innovative products and diverse power solutions to help people get work done. Briggs & Stratton is the world's largest producer of engines for lawn and garden, turf care and job site power equipment and is a leading designer, manufacturer and marketer of lithium-ion batteries, standby generators and energy storage systems through its Briggs & Stratton®, Vanguard®, Ferris®, Simplicity®, Snapper®, Billy Goat®, Allmand®, Branco® and Victa® brands. Briggs & Stratton products are designed, manufactured, marketed and serviced in over 100 countries on six continents.

### ABOUT ARE

Advanced Robotic Engineering (ARE) specializes in manufacturing mobile industrial robots, with its main innovation being a hybrid system designed for efficient robot mobility. This system proves essential when the robot requires relocation, such as the daily transfer by the operator from storage to the workplace before and after each workday.

### ABOUT aDRIVE

aDrive aims to introduce a compact drive for heavy industrial, gardening, and agricultural equipment. The device is compatible with brushless motors and integrated batteries, resistant to harsh environmental conditions, and has a compact design. The solution is ready for implementation in machines, requires minimal costs, and is integrated with the Internet of Things. They aim to introduce innovative technology ready for installation in mobile machines and devices powered by battery-powered traction units used in many industries.

# VANGUARD

### BRIGGS & STRATTON

Milwaukee, WI 53201-0702 USA  
(414) 259-5333  
Copyright ©2024. All rights reserved.

[WWW.VANGUARDPOWER.COM](http://WWW.VANGUARDPOWER.COM)

