



POLISH WITH POWER

**B-mac's new electric walk behind finishing trowel, powered by
Briggs & Stratton's Vanguard™ 48V 1,5kWh* swappable battery pack – Si1,5**

Established in 1992 in Belgium, B-mac specializes in the manufacture of high-performance concrete trowels and A-class parts for finishing freshly poured concrete floors. B-mac's walk-behind concrete trowel is a key tool in concrete work, designed to smooth and level concrete surfaces before they fully set. Typically powered by petrol engines and used by residential construction professionals for finishing areas like basement floors, garage slabs, and driveways, a demand arose for an electric-powered version due to customer requests for a machine suitable for indoor use and emission-sensitive areas.

B-mac sought a robust battery solution that would deliver emission-free, continuous electric operation,

whilst also meeting the rental industry's requirements for complete standardization capabilities. These include charging, communication protocols, safety, and interchangeability across a wide range of applications, which combine to contribute to a reduction in total cost of ownership (TCO). The focus on continuous operation was driven by the historic fact that battery-powered products came with unavoidable downtime for battery-charging, which is untenable when working on wet concrete surfaces that cannot wait for drying. Overcoming this challenge would deliver the desirable efficient completion times versus traditional engine-powered machines used indoors.

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



**FINDING THE RIGHT
ELECTRIFICATION PARTNER
WAS VITAL FOR PRODUCT
DEVELOPMENT, TO ENSURE THAT
OUR NEW BATTERY POWERED
CONCRETE TROWELS WOULD
MAINTAIN OUR HIGH-QUALITY
PERFORMANCE.**



Willem Decramer
Managing Director of B-mac



**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 CAN-bus J1939 communication protocol allows OEMs to communicate with the battery's J1939 (automotive standard) CAN-bus.
- **Increased Uptime:** Up to 1000-cycle life to 80% initial capacity.

NOMINAL VOLTAGE (V):	51.4
NOMINAL CAPACITY** (Ah):	28.4
NOMINAL DISCHARGE CURRENT (A):	100
CHARGE TIME TO 100% WITH 1425W CHARGER*** (MIN):	75
CHARGE TIME TO 80% WITH 1425W CHARGER*** (MIN):	50
PACK WEIGHT (LBS/KG):	26/11.8

The manufacturing company undertook a thorough research process, evaluating many of the lithium-ion battery options available on the market, and identified the Vanguard 48V 1.5kWh swappable battery pack (Si1.5) from Briggs & Stratton as meeting all its parameters. The interchangeability of the Vanguard Si1.5 allows one battery to charge while another is in use, enabling continuous operation of the concrete trowel as required with just two batteries in need. This significantly impacts operational efficiency, ensuring machines run for longer periods with virtually no downtime caused by charging. The high-power cells of the Si1.5 battery also allow for extremely fast charging currents - only 50 minutes to 80% and 75 minutes to 100% with Vanguard's 1425W mobile charger - ensuring that batteries are quickly ready for the next swap, whereas one Si1.5 can operate for up to 90 minutes on a single charge.

Regarding the indoor use requirements, the electric operation delivered by the Vanguard 48V 1.5kWh swappable battery pack ensures less noise, vibration, and harshness for equipment operators and their working environment. The reduced noise level and zero emissions at point of use facilitates operation in more diverse work sites, especially indoors, when compared to petrol-driven machinery, and allows the machine to be used at times when noisier machinery would be prohibited. Quieter operation also enables easier person-to-person communication, an important factor when working on-site.

Willem Decramer, Managing Director of B-Mac, said, "The benefit of zero emissions and quiet operation provides significant advantages for indoor operations where the use of traditional petrol engines is undesirable. Finding the right electrification partner was vital for product development, to ensure that our new battery powered concrete trowels would maintain our high-quality performance. The power solution delivered by Vanguard has answered every requirement and we are extremely pleased with our new electric product range."

As well as meeting these key requirements, the Vanguard Si1.5 battery guarantees durability in tough

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OUR Si1.5 COMMERCIAL BATTERY PACK DELIVERS SAFETY AND DURABILITY FOR USERS, AS WELL AS EASY INTERCHANGEABILITY BETWEEN EQUIPMENT AND CHARGER FOR MINIMAL DOWNTIME, MAKING IT PERFECTLY SUITED TO THE RENTAL MARKET.

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Paul Bramhall

Director of Electrification/Rental EMEA
at Briggs & Stratton



conditions with its sturdy casing and built-in battery management system, which is vital in the heavy-duty equipment sector. The Si1.5 also stands out for its excellent connectivity, thanks to the J1939 CAN-bus communication protocol, which allows the battery to communicate effectively with other components of equipment for seamless integration and efficient operation regardless of the brand.

Designed with a safety-first mentality, each Vanguard battery is equipped with a battery management system (BMS) which monitors the voltage, current, resistance and temperature while the pack is in use, as well as providing thermal runaway protection and communicating with the application to avoid shutdowns. It also controls the charge and discharge to maximize battery life.

B-Mac's newest series of electric concrete trowels, designed specifically for the rental industry, includes three models with working diameters ranging from 60 to 90 cm. All are powered by Vanguard's Si1.5 swappable lithium-ion battery. The 60 cm model is compact and well-suited for small areas, offering a 90-minute runtime. The 75 cm version strikes a balance between power and size, making it ideal for medium projects with a runtime of up to 80 minutes. The largest option

features a 90 cm width and a 60-minute runtime, perfect for large open spaces

Paul Bramhall, Director of Electrification/Rental EMEA at Briggs & Stratton said, "We are proud to have supported B-mac in the development of this new product, delivering against all their requirements and those of the rental industry, ultimately bringing an exciting new electric product to the construction market. Our Vanguard 48V 1.5kWh swappable commercial battery pack delivers safety and durability for users, as well as easy interchangeability between equipment and charger for minimal downtime, making it perfectly suited to the rental market. And as an added bonus, our competitive 8-year commercial limited warranty provides essential peace of mind."

B-mac's electric walk behind concrete trowel has refreshed the professional delivery of concrete finishing, enhancing the process for operators with no compromise on efficiency. Running on Vanguard's game-changing swappable lithium-ion battery pack Si1.5, delivering up to 90 minutes with one charge, B-mac's electric walk behind trowels ensure zero-emissions at point of use and provide comfortable, communicative and compliant indoor use.

CONTACT US NOW

TO FIND OUT HOW VANGUARD CAN HELP YOU POWER YOUR EQUIPMENT



Find out more about Vanguard on: www.vanguardpower.com



For more news and updates, follow us on LinkedIn:

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.

Vanguard helps professionals to get their work done by applying power to their unique commercial applications. For more than 35 years, Vanguard has partnered with customers to conquer challenges and develop innovative products. As Vanguard doesn't simply provide components, it supports customers in applying commercial lithium-ion and petrol power throughout the entire integration process, from development to serial production to after sales and training support. www.vanguardpower.com

ABOUT B-MAC:

Founded in 1992, Belgian company B-mac offers durable easy to use machines and quality parts for finishing concrete floors. They prioritize reliability, transparency, and efficient customer service. With a focus on high-quality components and extensive product development, B-mac ensures highly reliable machines. Their well-established dealer network serves customers worldwide, reflecting their global aspirations and commitment to innovation. www.b-mac.be

VANGUARD

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