

FUTURE READY



Your partner for success
in a world of evolving energy

STAMFORD | AvK TM

POWERING TOMORROW, TOGETHER



SUSTAINABILITY; A VITAL CREDENTIAL FOR YOUR FUTURE POWER PARTNER

Your future is our mission

For those operating within the power generation industry, the market is moving towards cleaner, greener alternative energy sources.

Working towards decarbonisation, STAMFORD I AvK have been making positive changes as part of our mission to energise lives with reliable power.

Sustainability is built-in to every part of the STAMFORD I AvK business, not just our products. Our commitment to designing, manufacturing and supplying high quality, long life, 'future-proof' alternators without compromising natural resources, shapes how we work within the company today, and informs the way we will operate in the future.

Sustainability and decarbonisation go hand in hand. The move towards more sustainable fuels resulting in net-zero emissions is clearly the way forward for businesses, especially those with a power generation requirement, and we are helping to make that transition seamless.



One of 14 hybrid gensets containing STAMFORD® alternators in transit to remote Alaskan coast

EQUIPPED FOR THE TRANSITION TO A WORLD OF EVOLVING ENERGY



The proven agnostic solution

Our understanding of how markets will shift to meet sustainability goals, together with our technical expertise and innovation, means STAMFORD I AvK is already leading the way with the design and production of alternators engineered to work efficiently and effectively with all fuels.

Within this alternative fuels category, an important area of focus is hydrogen (H₂), where STAMFORD I AvK is working in partnership with world-leading brands to develop carbon neutral solutions for power generation and marine markets.

Across the turbine powered industries, STAMFORD® and AvK® alternators are successfully deployed in a wide range of industrial applications using steam turbines, gas turbines and combined heat and power plants (CHP). While to help the world stay connected, our products are being chosen to power the telecoms sector using hybrid applications combining battery and solar power.

STAMFORD alternators have also shown success in usage of paraffinic fuels, including Hydrotreated Vegetable Oil (HVO), a diesel-like fuel that can be produced without fossil resources by processing renewable waste lipids. This provides a simple and efficient alternative to diesel for new or existing fleets of gensets in standby applications.

OUR ALTERNATORS ARE SPECIFIED TO POWER HYBRID APPLICATIONS COMBINING BATTERY AND SOLAR POWER

Norwegian dual fuelled hybrid ferry featuring AvK®



© multi-maritime.no
Image courtesy of multi maritime

A PROVEN SOLUTION WITH HYDROGEN, BATTERY, HVO AND GAS POWERED PRIME MOVERS



SUSTAINABILITY INITIATIVES ACROSS THE WORLD



Sustainable production

In line with our mission to maximise our sustainability and minimise our carbon impact, we have adopted a number of bold, imaginative initiatives that affect the way we do business today, and tomorrow.

Both in the UK and across the wider world, our manufacturing facilities adhere to a strict policy for continual improvement in energy efficiency, with the focus on reducing, re-using and recycling.



Solar panels at the STAMFORD | AvK Ahmednagar, India site

At both Romania and China facilities, we have introduced LED lighting throughout the plant's production facilities and offices, installed recycling containers for paper and wood waste, added insulation, switched to a submetering system that reduces electricity consumption.

We are working to our most stringent energy efficiency targets which involve a 50% reduction in greenhouse gases and 30% reduction of waste by 2030.

Our Ahmednagar plant in India has already saved 420 metric tonnes of CO₂ through the installation of solar roof panels.

This figure equates to approximately 90 petrol-engine cars being driven for an entire year*. Additionally, water consumption at the plant has been cut by 50% since 2018.

2,664 METRIC TONNES OF CO₂ SAVED



19,160 M₃ WATER SAVED



690,551 kWh OF ELECTRICITY GENERATED THROUGH SOLAR PANELS



Investing in the future

Through a 20-year partnership with the University of Nottingham Power Electronics, Machines and Control (PEMC) Research Group, we have invested in a number of research projects. Most recently, reporting on material changes that improve machine performance, structural and thermal properties, while reducing the carbon footprint. For increased sustainability, changes already made to some of our exciter rotor and stator designs not only reduce the mass by over 50% but reduce the carbon emissions related to production by as much as 36%.

20 YEAR RESEARCH PARTNERSHIP



Global facilities 2018-2021



PROVEN PERFORMANCE FOR YOUR RENEWABLE ENERGY APPLICATIONS

Partnering for sustainability

To enable our customers to realise their own sustainability aims, our on-going working relationships with companies including Frontier Power, Vard and Shenzhen Dongjiang have resulted in applications that now run on greener energy.

In developing a hybrid electric power system for a remote Alaskan location, Frontier Power, a leading original equipment manufacturer, chose STAMFORD alternators for their durability and performance. Powered by propane engines and paired with renewable solar and wind energy, the site's generator sets are providing an environmentally-friendly, low-maintenance, highly reliable power supply that charges the battery, which in-turn powers the GPS system.

To meet the latest energy-efficiency requirements, global designer and shipbuilder Vard Electro AS have selected AvK as the alternator solution for several projects, including vessels with hybrid gas-electric propulsion plus battery systems to reduce fuel consumption and emissions. In operation for over 10 years, the Scandi Iceman hybrid vessel has been part of critical operations in Norway and worldwide and supporting in wind turbine installations.

STAMFORD is commonly seen in biogas CHP operations and renewal operations. The partnership with SCHNELL, included 1,400kVA of STAMFORD in the fermentation of biogas which is converted and supplied to the grid, with waste heat re-purposed.

STAMFORD® power for biogas fuelled CHP plan in Germany



The hybrid Skandi Iceman vessel, powered by AvK, supporting critical operations worldwide

(C) Kjell Randa

THE POWER TO SUCCEED IN A TRULY SUSTAINABLE ENVIRONMENT

Your future power partner

Robust, reliable and engineered to the highest quality standards, genuine STAMFORD | AvK alternators are designed to deliver efficiencies across an unmatched range of continuous or standby power applications. Just as importantly, in a world driven by the need for sustainability, they are proven to work effectively, efficiently and economically in the field with renewable, alternative power supplies as well as traditional fuels. All of which will help our customers compete more successfully – and sustainably – around the globe.

To learn more about our sustainability initiatives and solutions, visit:
stamford-avk.com/future-ready



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Part no: CB_FutRed_EN_RB rev 1

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