CAT PUMPS UK

FLEET, HAMPSHIRE

Manufacturers & Distributors of SolaSkirt

INTRODUCTION

CAT Pumps (U.K.) Ltd has built its reputation on engineering reliability and long-term performance – and in recent years has brought that same focus to sustainability.

At its Fleet facility, the company has taken significant steps to reduce its carbon footprint with a bespoke solar PV system designed to maximise roof space and blend seamlessly with the building's architecture. The project forms part of a wider initiative that also includes LED lighting upgrades and and charging infrastructure for electric vehicles – marking an important step towards a more efficient, lower-carbon future.

> *A year now has passed since Titan Eco installed 206 panels on the roof of our warehouse and offices... and the long view may help business owners who are considering solar panels make an informed choice. We firmly believe we couldn't have picked a better installer than Titan Eco. 12 months on, the quality of their decision-making in the early stages of the project has become increasingly clear... Beyond reducing energy costs, this installation actively contributes clean energy back to the grid, marking our commitment to environmental responsibility and energy independence.*

Cat Pumps U.K. Limited

ANNUAL OUTPUT

60,584

kWh CLEAN ENERGY

ANNUAL REDUCTION

30

TONNES OF CO_2

ANNUAL SAVINGS

£12,420

ELECTRICITY & EXPORT

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IMPLEMENTATION

- **Assessment & design:** The site was assessed to determine roof suitability, shading and load capacity. The system was then designed with SolarEdge technology with dual panel optimisers, to mitigate shading from nearby trees.
- **Installation:** The K2 BasicRail framework was fixed to the roof structure, providing secure attachment points and even weight distribution. Each of the 206 Jinko panels were then lifted into place and securely fastened to the mounting rails.
- **Integration:** SolarEdge Dual Optimisers and the SolarEdge 66kW 3-phase Synergy Inverter were seamlessly integrated into the system, facilitating efficient energy conversion and performance management.
- **Commissioning:** Rigorous testing and programming of the system ensured reliable energy production, with real-time monitoring capabilities, and validation of excess energy exported to the grid.

SYSTEM COMPONENTS

- **Solar panels:** 206 × Jinko 420 W monocrystalline panels (86.5 kWp) – known for their reliability, low degradation rate and consistent performance, even under variable light conditions.
- **Inverter & optimisers:** SolarEdge Synergy 66.6kW 3- phase Inverter with dual optimisers – providing panel-level optimisation and monitoring, and advanced safety features including fault detection with automatic circuit shut-down and built-in surge protection to absorb voltage spikes.
- **Mounting system:** K2 BasicRail mounting system – known to be an ideal solution for trapezoidal rooves, the K2 BasicRail is widely used across commercial installations. Backed by extensive testing and certification, the system is engineered for strength, corrosion resistance and long-term reliability.

OUTCOMES

The 86.5 kWp solar PV system now generates clean, renewable energy on-site, reducing CAT Pumps' reliance on grid electricity and lowering operational costs.

High-efficiency Jinko panels and SolarEdge technology ensure reliable long-term performance and continuous monitoring, allowing the company to track generation and optimise output, supporting the company's wider sustainability goals and long-term carbon reduction.