

ULTIMATE CELL HYDROGEN CELL TRIAL



Ultimate Cell

Ultimate Cell is a **hydrogen-on-demand technology** designed to optimise combustion engines by introducing small amounts of hydrogen into the engine's air intake. This process, powered by electrolysis, responds to throttle commands and adjusts the amount of hydrogen injected to match the engine's speed and load. The technology **requires no hydrogen storage**, making it a simple, scalable solution. It can be **retrofitted to a range of engines and fuels, including diesel, petrol, and LPG**, without voiding warranties.

In trials conducted between February and May 2024, the results were impressive. A machine fitted with Ultimate Cell showed a **31% reduction in fuel consumption** compared to a standard machine. Fuel use dropped from **12L per hour to 8L per hour**, and total consumption decreased from **1,329.6L to 868.8L** over the four months. CO2 emissions were similarly reduced by **31%, from 3,576.6 kg to 2,337.1 kg**.

The projected annual savings per machine are **£11.4k**, with further indirect savings expected due to reduced maintenance needs. Ultimate Cell offers a quick payback period of three months, making it a **cost-effective** solution for **reducing both operational costs and carbon emissions**.