

CASE STUDY

THE INGREDIENTS OF SUCCESS

Kerry Foods (Wastewater)

How RS Industria is helping Kerry Foods to cut costs and maintain environmental compliance.



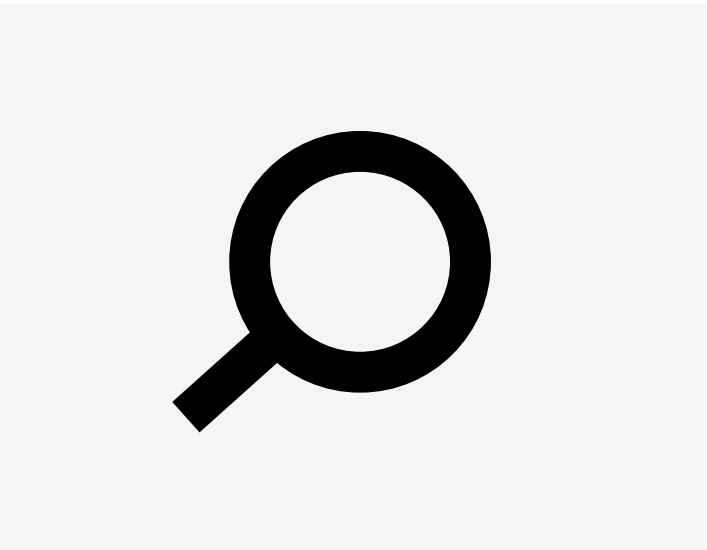
CUSTOMER OVERVIEW

Kerry Foods is part of Kerry Group, a global leader in taste and nutrition. Its Worcestershire-based Tenbury Wells site produces sweet and fruit ingredients, including preserves, fillings, sauces, and toppings.

Nestled to the northwest of the Malvern Hills, rivers local to the Tenbury plant include the River Teme, which has been designated a Site of Special Scientific Interest (SSSI). For Kerry Foods, environmental compliance of its onsite wastewater plant is a necessity so as not to overwhelm local treatment works or pollute the nearby waterways.

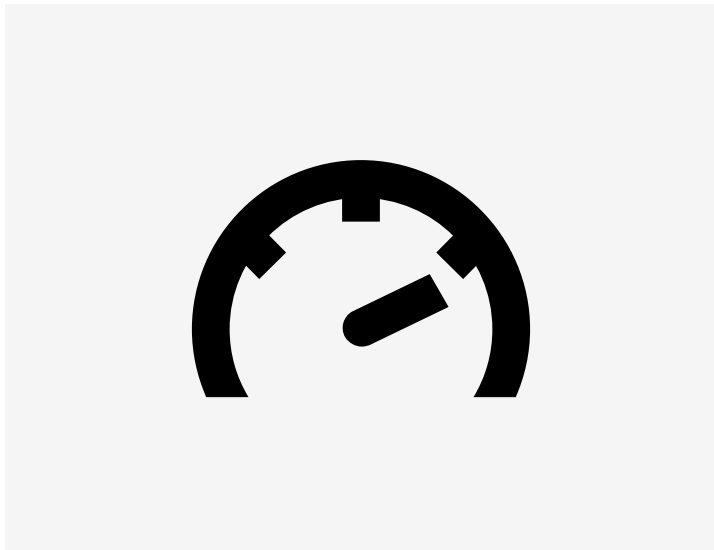


BENEFITS SUMMARY



GREATER VISIBILITY

Real-time data and understanding of plant performance have enabled a better-informed and timely response



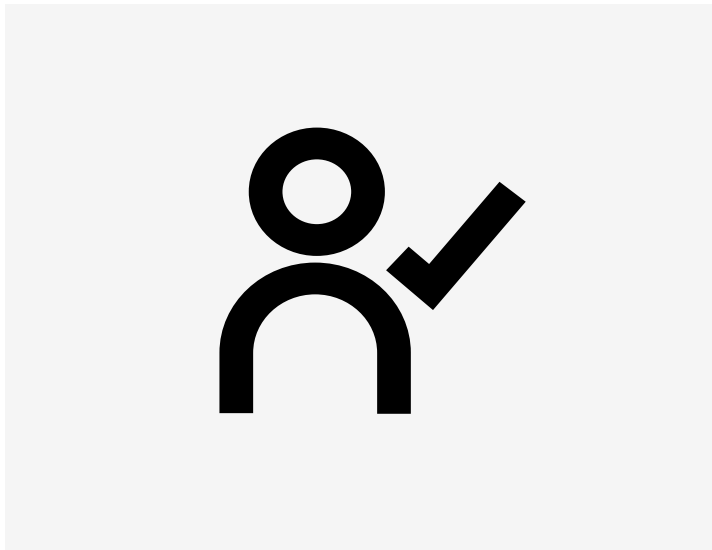
COMPLETE CONTROL

Engineers can work more efficiently, boosting uptime and productivity



ENVIRONMENTAL COMPLIANCE

Improved monitoring has significantly improved compliance monitoring and removed manual practices



USER-FRIENDLY SYSTEM

Straightforward and easy to use, with great tools and support from the solutions engineer



FRESHWATER CONSUMPTION HAS BEEN REDUCED BY UP TO 100,000 LITRES PER DAY

THE PROBLEM

With strict discharge consents in place for effluent, Kerry's wastewater plant - a fundamental part of the site's operations - requires regular monitoring.

However, having been expanded over many years to meet the Tenbury site's growing demands, Kerry's engineers had limited control over the plant and no single overview of performance. Its complex construction, made up of a patchwork of different pumps, meters, and control systems all run on separate networks, makes automation difficult.

As treatment tanks are remotely located, the necessary manual daily metre readings were also extremely time-consuming, making condition monitoring a real challenge.



“THE DATA HAS ENABLED US TO SIGNIFICANTLY REDUCE THE AMOUNT OF WATER BEING USED TO DILUTE HIGH STRENGTH OR OUT OF CONSENT EFFLUENT, AS WE HAVE BEEN ABLE TO INVESTIGATE WHERE THE SPIKES ARE COMING FROM AND STOP THEM AT SOURCE. EFFLUENT ISSUES HAVE SINCE GONE FROM BEING OUR BIGGEST HEADACHE TO THE ONE OF THE SITE’S BEST PERFORMERS.”

BEN BOTWRIGHT | ENGINEERING MANAGER

THE SOLUTION

In partnership with Kerry’s engineers, the RS Industria team designed a plant monitoring system to create a single point of asset insight.

By digitally connecting the site’s pumps, valves, level gauges, and pH/COD meters to an onsite edge gateway, relevant data is continuously uploaded to the RS Industria cloud application, which acts as a monitoring and alert service for the customer.

During implementation, the customer was able to set limits for key parameters such as COD and pH. As a result, Kerry’s engineers now receive mobile phone alerts if these limits are approached, triggering an immediate investigation to resolve the issue.

THE OUTCOME

RS Industria data insights yielded tangible results within weeks, enabling Kerry to efficiently achieve the required level of environmental compliance and understand their water usage and trends in detail and in real-time.

Kerry’s engineers now have greater visibility via a ‘Compliance Dashboard’, which details effluent quality and daily plant performance and automates pH and COD level measurements necessary for environmental compliance.

Early and timely warning alerts are also triggered if the chemical composition of effluent trends towards upper limits, which enables rapid, corrective action before problems become urgent.

As a direct result of the insight, Kerry’s team has been able to carry out targeted and immediate improvement activities to reduce freshwater consumption and, put in place better effluent treatment control. This has already saved 100,000 litres/day of fresh water and associated disposal costs, as the volume discharged is now much lower.

Crucially, time-consuming, manual practices have been replaced with digital insight, freeing up engineers’ time which can be better spent elsewhere.

NEXT STEPS

Following its success on the treatment plant, RS Industria has since been used to significantly reduce the site's energy consumption through production line metering, enabling an energy usage reduction of 14% within a few weeks of installation.

Engineers are also now in the process of rolling out RS Industria to monitor the site's two fuel-oil-fired boilers, which will unlock further energy savings.

“WE’VE BEEN ABLE TO INFLUENCE PEOPLE’S DECISIONS AND BEHAVIOURS, BY GIVING THEM BASIC INFORMATION”

BEN BOTWRIGHT | ENGINEERING MANAGER



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