

Empowering Cemex to deliver their sustainability and efficiency goals



Cemex, a leading global cement manufacturer with operations in 50 countries and a workforce of 41,000, is committed to sustainability. The company has launched its innovative “Future in Action” initiative, which aims to achieve net-zero emissions by 2050 and reduce fuel usage by 40% in 2030.

In the UK, where Cemex operates 500 pieces of mixed OEM fleet, the disparity in data and algorithms provided by different original equipment manufacturers (OEMs) for calculating idling created significant challenges in evaluating machinery performance and resulted in unnecessary CO2 emissions. This, combined with the fact that three-quarters of Cemex carbon footprint in the UK is attributed to diesel usage was an area that Cemex needed to address.

To overcome this challenge, Cemex has implemented a seamless solution that measures all necessary data on one platform, providing a comprehensive view of their site. MachineMax, an innovative digital solution, enables Cemex to achieve optimal efficiency and performance while meeting its environmental goals. Even where machine data (API) is not available, MachineMax provides wireless non-intrusive sensors or easy-fit machine-powered solutions (15-minute set-up) to ensure that any machine can provide live up-to-date data, ensuring that Cemex has visibility of their site and can implement decisions on site to reduce their emissions.

Steven Coles, the Operational Excellence Manager at CEMEX, supports this by stating:

“The ability to integrate our mixed fleet of OEM data without having to worry about machines that didn’t have API feeds is why we chose MachineMax. Furthermore, the installation process was easy, and we didn’t have to hire specialist people to do it which therefore reduced our costs.”

To improve idling, Cemex has implemented a comprehensive strategy that focuses on eight key categories, including driver behavior and training, fuel and CO2 reduction, maintenance and repair costs, vehicle availability, safety, and overall cost reduction. Utilising advanced data analytics provided by MachineMax, Cemex has been able to identify areas for improvement and implement targeted solutions to reduce idling.

By analysing the MachineMax dashboard, Cemex can quickly identify areas of high idling and the machines responsible for it. This allows them to provide additional training to operators, ensuring they are using their machines efficiently and safely. In addition, heatmaps generated by MachineMax allow Cemex to investigate the reasons behind this idling which could be incorrect machine deployment to the given task or inefficient site layout. For example, Cemex identified inconsistencies in excavator and articulated dump truck pairings that were leading to inconsistent cycle times. Through the MachineMax platform, Cemex was able to achieve a significant fuel and emissions reduction, as well as improved safety and vehicle availability from utilising this data.

This is further supported by Steven Coles who said:

“For one single machine, we were able to save over £20,000 on fuel usage and maintenance costs and we were only aware of this through analysing the data from MachineMax.”

James Atkinson, MachineMax VP of Global Sales commented:

“The benefits that Cemex are experiencing are very much in line with those across our customer base. There is a problem across heavy equipment fleets, on average machines are working for 4.5 hours a day and alarmingly, idling up to 45% of that time. The associated fuel wastage and unnecessary Co2 implications are significant but organisations simply do not have the visibility, transparency or granularity of data to identify the issues and implement positive change. MachineMax provides exactly this and as a direct result our customers are experiencing dramatic reductions.”

MachineMax is integral to Cemex because it helps the company achieve its sustainability goals and improve its operational efficiency. By integrating a mixed fleet of OEMs without requiring API feeds, the platform enables Cemex to easily collect and analyse data on machine performance, fuel usage, and emissions. This data allows the company to identify areas for improvement and implement strategies to reduce idling, which has resulted in significant savings in terms of fuel costs and emissions reduction, as well as improved safety and vehicle availability.

Overall, MachineMax is an important tool for Cemex as it helps the company to achieve its sustainability goals, improve operational efficiency, and reduce costs.

