

CASE STUDY

Lead-Free Switch is First for Industry



Wedge Group Galvanizing completed a unique conversion to lead-free galvanizing. The company made the bold decision to eliminate lead from its process at all of its 14 plants across the UK 15 years ago.

Small amounts of lead have been used to facilitate the galvanizing process for decades and it continues to be widely used today.

The challenge was to develop the metallurgy and overcome technical challenges while maintaining and improving on the quality of the finish expected by our customer base.

Chris Woolridge, Managing Director of Wedge Group Galvanizing Ltd, said: "The amount of lead used in a traditional galvanizing process is very small but we wanted to remove it from our processes completely and made a firm commitment to do that 15 years ago.

"We have put a significant amount of time and effort into perfecting a methodology that produces even better results than before.



"The fact we believe we're the first galvanizing company in the UK to run a lead-free operation is a fantastic achievement."

The initiative was made particularly timely by the 2018 reclassification of lead massive contained in REACH (an EU regulation for the Registration, Evaluation and Authorisation of Chemicals).

David Nobes, Technical Services Director at Wedge Group Galvanizing Ltd, said: "The reclassification could turn into a major headache for some of our customers, who might have to meet exceptionally tight tolerances or demonstrate exacting procedures. Some might even review the use of any process that involves lead as a result.

"Because of the commitment we made 15 years ago our process doesn't use lead at all and therefore removes any potential issues.

"Despite the challenges we've been running a lead-free galvanizing process in our plants for some time and we are very pleased with the results.

"It takes a very long time for background levels of lead to be removed from existing baths, but levels are monitored regularly and the fact we now achieve indicative levels of less than 50 parts per million (or 0.005%) within the bath melt means we can proudly claim our process is lead-free."

