

JOSKIN POLSKA Galvanising Plant: the Event of the Decade

On 15 August 2020, the JOSKIN Group started a major project: the first replacement of the zinc tank at its galvanising plant in Poland. A project that turned out to be a very challenging and impressive one! A new story confirming that JOSKIN does not hesitate to do whatever it takes to meet its quality standards.

JOSKIN has for many years come to be associated with and be widely acknowledged for its galvanised machines. This is no coincidence. Based on the principle that agricultural machinery is used all year round and is mostly in direct contact with aggressive substances (slurry, manure, etc.) that cause corrosion, JOSKIN was actively looking for the best coating to guarantee a long-lasting protection for the machines, and the choice naturally fell on galvanisation.

## A First-Choice Solution

Hot-dip galvanising is a very complex process. It happens at a temperature of 450°C. During this process, the steel is covered with three coatings made of a mix of steel and zinc, as well as with an outer coating of pure zinc. These three coatings are anchored perfectly to act as the protected surface, unlike the paint that is just shot-blasted directly onto the steel. As for the outer coating, the galvanisation is less hard and therefore absorbs the shocks very well.

This process provides effective protection throughout the life of a machine. This not the only advantage: this coating requires no or little maintenance, protects perfectly against bad weather and it is not damaged by mechanical deformation. Galvanisation is therefore a first-choice solution allowing to save a lot of time and money.

In 2010, true to its high-quality standards, JOSKIN decided to set up its own galvanising plant. To do so, the existing Polish site, located in the town of Trzcianka, was provided with an automatic galvanising line. Thanks to this, the company has since then been able to control internally all stages of the process in an optimal way, from pre-treatment to the actual galvanisation, and can carry out this crucial stage in a minimum amount of time.



## **A Major Project!**

Having reached 10 years of use and after having galvanised several thousands of machines, the time had come to carry out a thorough and rigorous maintenance of the baths to be able to maintain the acknowledged galvanising quality standards. JOSKIN therefore decided to get rid of its very first tank to make way for a brand-new zinc bath.

This project was not that easy as it required meticulous planning and top-quality workmanship to achieve the desired result. The preparations included: ordering and transporting the tank, pumping the zinc, building a rail track in the factory, preparing the technicians, preparing the fume extraction box... and even: partially dismantling the factory roof! The crane indeed did not allow to lift the tank out of the furnace to then take it out through the removable wall... What to do in this case? Dismantle the roof to allow the different cranes to do all the work! Really nothing stops JOSKIN...

Fortunately, during the process, the weather was good in Trzcianka. However, there was a plan B in case of rainfall, as the insulation of the furnace could not get wet at all!

After 5 days of preparatory work (from 10/08/2020 to 15/08/2020), the new 47-ton empty bath was finally introduced into the building. After that, the tank has been heated up for 48 hours, the liquid zinc has been pumped into the new bath and then it has been filled up gradually by adding zinc ingots.

After 10 days of work, the tank, named "Antonina" by the galvanising plant workers as tradition dictates, was ready to meet all galvanising requests for the next 10 years.



Cranes in action to replace the tank



Naming of the tank

At last, this project once again confirms the brand's slogan:

"JOSKIN: Quality without compromise!"

## For more information...

The tank is 50 mm thick and loses on average 2 mm a year. When the thickness reaches 28 mm, this indicates that the bath must be changed. As the tank should be ordered 1 year in advance, the 30 mm thickness measurement indicates the start of the process.

