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Economy and ecology thought together

Together with global partners, Palfinger build a modern and efficient paint shop in Argentina

Global companies need global solutions. The global market leader in innovative crane and lifting solutions Palfinger, is currently modernising its paint shop in Argentina and is working with its suppliers to strike a balance between standardisation and local adaptation.

BY JAN GESTHUIZEN

As a global company, Palfinger has an extensive international production network and strives on the one hand to produce in a standardised and uniform manner, while on the other hand taking local conditions into account. The main aim is to use standardised products and thus create the same conditions in the plants' processes. With local adaptations, for example, material approvals are necessary in certain markets. Many components are not available worldwide, which means that a single solution often seems difficult to achieve with local availability and technical service support.



The plant in Córdoba, Argentina, was set up in close cooperation with Mankiewicz and WIWA. The new paint line was built by the company Göttert.

Photos: Mankiewicz

Despite the desired standardisation, each plant is unique, as different products and requirements are needed in different countries. This also applies to the modernisation of the paint shop at the plant in Córdoba, Argentina. There the compa-

ny produces cranes and platforms for the South American market.

The new paint shop was realised without a general contractor, as Angelika Zeilinger, Senior Surface Technology at Palfinger, reports. „We are a

small, effective team of three people here in Austria that takes care of implementing of paint shops worldwide,“ she explains and adds: „We know our paint shops and requirements very well and therefore plan everything ourselves.“ Howe-

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Joint mixing and application parameter settings at the newly installed systems from WIWA.

ver, the project is not being realised alone; in Argentina, paint manufacturer Mankiewicz and application technology manufacturer WIWA Wilhelm Wagner GmbH were involved.

Long lasting partnership

WIWA has long been a system supplier for Palfinger in Europe and has now also supplied the application technology for Córdoba. The machine manufacturer was familiar with Mankiewicz from previous special coating projects. Its paint systems have been in use at various Palfinger sites around the world for many years. Mankiewicz was particularly interesting as a supplier for the new series coating in Argentina because they offer a single-coat system. Palfinger relies in many countries on single-layer systems, as these are both energy-saving and robust and can be processed flexible.

Although an oven is still used, it only runs at 60 °C and the components have to remain there for an hour. In addition, the components only have to pass through the oven once thanks to the single-layer paint. This reflects the high energy consumption that is as-

sociated with the sometimes massive components in crane and lifting solution construction in order to ensure an economical process.

Palfinger favours a painting process that is as straightforward as possible. Chemical pre-treatment is also omitted in Argentina. „Poor chemical pre-treatment is worse than no chemical pre-treatment,“ explains Zeilinger. All components are blasted beforehand, using Pantatec’s blasting agent cleaning additive, which serves to degrease and clean the

High-Solid systems without the need for thinners ensure low VOC emissions

substrate. This is based on the idea of minimising waste water output and thereby focusing on both economic and ecological aspects. Single-layer painting forms part of the product range that a system supplier must provide for the production of Palfinger: Depending on the requirements profile, multi-layer structures are also used - these include cathodic dip coating, powder and wet paint: „Ca-



Angelika Zeilinger and a service specialist from Mankiewicz check the layer thickness at the new paint shop in Argentina.

thodic dip coating simply offers too many advantages when it comes to infiltration,“ explains Zeilinger. But the customer still needs to be willing to pay for this.

High-quality single layer coatings

Nevertheless, the quality requirements outside Europe are just as high and strict standards apply even without dip coating. This applies to corrosion protection, for example, which is always checked on the company’s own material in salt spray tests. This was also the reason for working with Mankiewicz in Argentina. In addition to saving paint material and energy, the paint manufacturer offers a system that also withstands high mechanical stress. This is based on many years of experience: We have been offering single-layer systems for construction machinery for over twenty years and are constantly improving them,“ explains Laura Kahn - Key Account Manager at Mankiewicz. Durability plays a major role in further development. „Our customers’ specifications represent a minimum standard for us. In the further

development of our products, we also focus on the aspects of efficiency, application simplicity and process reliability. Our customers value these performance indicators,“ explains Kahn, adding: „This means we are always on the safe side.“

In order for the paintwork to fulfil these promises, it must be applied properly. Modern equipment from WIWA is used here, which is designed according to the air-assisted airless principle. „We use the same components from WIWA worldwide,“ explains Angelika Zeilinger. This means that a colleague from Brazil could theoretically also call the Palfinger plants in Argentina for advice, as they have practically the same equipment there. WIWA’s application technology copes well with the high-solids paint systems, explains Zeilinger.

The company favours paint systems with very high solids content, whereby no thinner is required. The application technology also delivers high efficiency and speed. The system is equipped with an electronic control system with a variable mixing ratio of 0.5:1 to 10:1 and three A components, one

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B component and an automatic rinsing function. The control system also enables electronic fill level monitoring and VOC calculation as well as the storage of up to 10 recipes. The consumption quantities can also be analysed. In Argentina, the A components are stored in 216 litre drums and delivered via a rotary encoder pump with direct suction.

A 45-litre container with isocyanate hardener is available for the B component. We have installed lifts to simplify handling of the heavy rotary encoder pump including agitator, so that the drum can be changed more quickly, explains Dimit-

rij Beibajew from WIWA. The system is also equipped with a data logger and remote maintenance, so that a service technician does not have to travel to every irregularity.

If something does go wrong, a small team of experts is closely meshed to solve any problems. The fact that WIWA components are the same worldwide and that Mankiewicz offers a globally certified coating means that problems can be solved quickly. „It is very rare that I have to get on a plane in person. The colleagues and partners on site are able to deal with the issues quickly and sustainably,“ explains Zeilinger. Of

course, small teams also bring risks, knowledge management is important and you have to train and integrate new people early enough. However, they are more effective and can implement modern systems more quickly. Zeilinger is surprised that single-layer-systems are still so rarely used in the ACE market.

„The first systems were not that convincing, but a lot has happened since,“ she says, adding: „Surface technology is often too cautious and uses obsolete systems out of habit. I believe we can achieve a lot, both in terms of cost-effectiveness and sustainability.“

NETWORKING:

Palfinger AG,
AT - Salzburg,
press@palfinger.com,
www.palfinger.com;

Mankiewicz Gebr. & Co,
GER - Hamburg,
Laura Kahn,
Tel. +49 40 75103 0,
industrial@mankiewicz.com,
www.mankiewicz.com;

WIWA LLC,
USA - Alger, Ohio,
WIWA Wilhelm Wagner
GmbH, Germany
Jeff Wold,
jeff@wiwa.com
Tel. +1 419 757-0141
www.wiwa.com