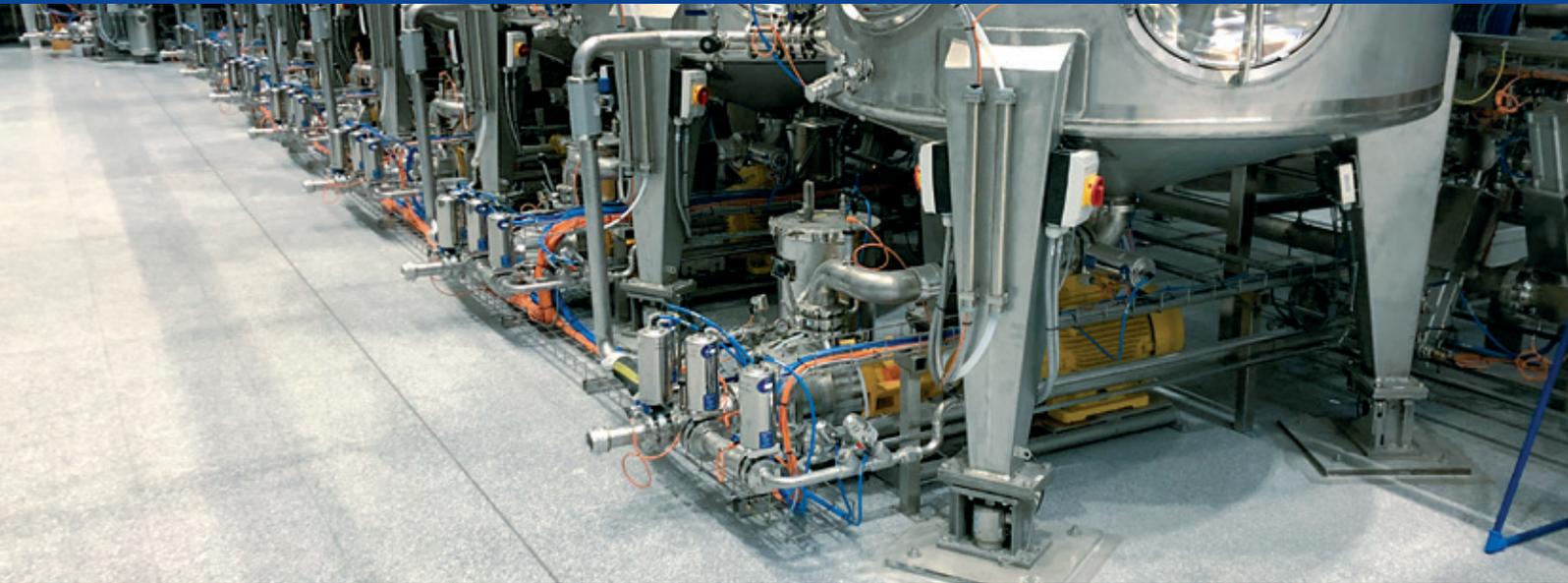


Best practice

# Minebea Intec provides precision solution for Europe's most up to date water based paint factory



*The paint industry 4.0 requires maximum dosing accuracy. In order to execute formulations to a high standard, ADLER-Lacke wanted the best possible readability for the weighing of its container tanks.*

## Key facts

Because environmental protection plays an important role at ADLER, the Tyrol-based family-owned company planned to construct the most up-to-date water-based paint factory in Europe by means of the unique "pig dosing".

50 stainless steel tanks had to be weighed to the highest degree of accuracy for this EUR 30 million project.

## Application

Precise weighing solutions and mounting kits for tanks, mixers and container tanks.

## Products

- S-type load cell PR 6241
- MiniFLEXLOCK PR 6043
- Load cell PR 6201
- MaxiFLEXLOCK PR 6001

## Benefits for the customer

- Professional consultation during the engineering phase with clear demo equipment
- Uniform load cell mounting part dimensions of 2–30 t
- Easy installation of compact and robust mounting kits
- German Quality

## Customer

ADLER is a third-generation family-owned business based in Tyrol with around 620 employees and is Austria's leading manufacturer of varnishes, paints and wood preservatives. Around 18,000 tonnes of paint leave the company's factory in Schwaz every year and are shipped to customers in more than 25 countries worldwide.

Photo credit: ADLER



## Project goal and implementation

The ADLER paint factory not only wanted to have a highly efficient production solution for the production of high-quality water-based paints, but environmental protection also played an important role during planning. This idea could be realised with the help of Minebea Intec's weighing solutions and a new production facility: since then, more than two thirds of the roughly 10,000 paints produced by the company are produced on a water-dilutable basis, making the plant one of the most up-to-date water-based paint factories in Europe.

More than 70 stainless steel tanks, 50 of which are weighed, have been installed in the newly erected production facility, as well as 4,000 valves and over 80 km of cables and pipes. High-tech process control, ultra-modern plant technology and a brand-new production process with semi-finished products provide for high levels of flexibility, efficiency and quality. The challenge from a weighing and dosing perspective is that if, for example, 500 kg of liquid is discharged from tank A, only around half would make it to tank B – the rest remains in the pipe. This means that only negative weighings are possible.

A key component of the factory is therefore a highly modern system of pigging lines: 13 pipes with a total length of two kilometres were installed in the hall.

The "pigging" ensures that exactly the right amount of water, binding agent or finished paint is transferred from one tank to another and the pipe is cleaned at the same time. The procedure guarantees fast and flexible processes and minimises material losses. In addition to the 40 tanks to be weighed and the mixers containing up to 80 tonnes, which are mounted on

three or four feet, Minebea Intec systems in particular also proved their weighing technology precision with ten rectangular additive container tanks on three floors.

*"If the weighing goes wrong, the entire formulation will go wrong. But with Minebea Intec's highly accurate tank-weighing systems, it never goes wrong."*

Christian Mair,  
(Head of Technical Plant Planning)

With their integrated pendulum support function, they compensate for horizontal dynamics, while the integrated constrainers mechanically restrain the system and, at the same time, divert any transverse forces that could distort the measurement results past the load cell.

Just as important is the separation of the pipes, which was achieved using intermediate hose pieces. In this way, the 1,500 kg vessel scales can be read to the nearest 20 g. "With this production facility we are setting new standards for modern, modular paint production," explains Andreas Knapp (Project Manager for Water-Based Paint Production), who coordinated the construction of the new factory.



Christian Mair (Head of Technical Plant Planning) seems highly satisfied with the new plant



The S-type compression load cells under the additive container tanks provide highly precise measurement results



Are you interested? We'll make you an offer!  
Simply send an email to  
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