

Best Practice

High Precision, hygienic design weighing solution impresses the pharmaceutical industry



Various installation heights, compliance with hygienic design directives, total weighing reliability, and reproducible weighing solution results presented a difficult task for the plant manufacturer Pharmatec.

Key facts

The pharmaceutical manufacturer Pharmatec GmbH tasked Minebea Intec with the installation of six vessel scales in its production process for liquid medicines. The application was carried out based on the premise of observing a hygienically clean production environment while achieving precise measurement results.

Application

Liquid medicines are produced in the customer's plant in Middle-East-Asia, which means special standards in terms of measurement accuracy, hygiene and above all, reproducibility are required.

Products

- Weighing module Novego
- Cable junction box PR 6130
- Weight indicator X3 with ProfiNet interface

Customer benefits

- High process reliability and precision
- High insensitivity to transverse forces
- Hygienic design ensures efficient cleaning processes
- High resistance against cleaning agents and corrosion

The customer

Pharmatec GmbH is part of Robert Bosch Packaging Technology GmbH and is the competence centre for pharmaceutical process systems in the group. The company is a technology leader in the sector of plant manufacturing for the production of liquid substances and medicines.



Project goal and implementation

The plan was to build a plant for the production of a medicine in the Kingdom of Bahrain. The plant manufacturer Pharmatec won the tender, but faced a challenging task: the smallest possible quantities had to be accurately dosed from tanks, which had a capacity of several tonnes, to the millilitre. Not only high-precision dosing measurements, but also reliable reproducibility of the measurement results had to be guaranteed.

High-precision and reliable weighing technology was an essential prerequisite to ensure all requirements were met. Even the smallest deviations can lead to potentially harmful consequences in the production of medicines. Pharmatec therefore decided on the weighing module Novego from Minebea Intec.

In addition to the process requirements, the local conditions also presented additional challenges and several visits by specialist staff were required just for the constructive planning. Among other issues, the plant manufacturer had the problem that an inconveniently placed pump made construction more difficult. Pharmatec was able to benefit from Minebea Intec's equipment here: the weighing module Novego has an integrated continuously variable height adjustment of up to 8 cm, allowing for different installation heights. The integrated mounting kit consisting of a 360° constrainer, lifting and tipping protection eliminates the need for time-consuming constrainer adjustment.

Further criteria included the special insensitivity to transverse forces and the hygienic design of the weighing module. In a production plant in the pharmaceutical industry, simple and residue-free cleaning must be ensured for maximum sterility. The accuracy class C3 according to OIML also ensures that the measuring accuracy and reproducibility of recipes are maintained.

"Thanks to the hygienic design and the integrated height adjustment, the weighing module Novego was simply the perfect solution for us."

(Pharmatec)

trating from the outside. This feature is particularly essential in temperature-sensitive environments.

The cable junction box PR 6130, which is sealed according to the Goretex principle, was another impressive component: moisture arising inside the box escapes to the outside without any moisture penetrating from the outside.

Once the ideal components for the vessel scales were found, nothing stood in the way of building the plant. Minebea Intec provided support for the design process as well as the installation and calibration. Pharmatec's conclusion: "We are sure that with Minebea Intec's components, we have found an extremely precise and durable weighing solution for our process containers. All our expectations were met, and sometimes even exceeded."



The installation of the weighing module was particularly simple thanks to the integrated height adjustment of the Novego.



Hygienic design is crucial in the pharmaceutical industry in order to enable maximum sterility.



Are you interested in finding out more? We will be more than happy to draw up a quote for you! All you have to do is send us an email to: sales.hh@minebea-intec.com

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