



## The level sensor VEGAPULS 64 secures the raw material supply in the cosmetics industry

Although beauty is in the eye of the beholder, it does no harm to give a little help for peoples' well-being. With this goal in mind, the multinational company Croda Ibérica SA has been supporting renowned companies in the beauty and personal care branch with the development of their products. These must be made, on the one hand, from high-quality raw materials to meet the high-quality demands of the end users in this branch and, on the other hand, must be sustainable. This includes, for example, the use of renewable energy sources as well as careful handling of natural resources, also including the use of certified, sustainable palm oil.

A cosmetic product has undergone many tests before it comes onto the market and nothing or hardly anything in the actual process may change. This also applies for the by-products which are manufactured in large quantities at the site in Fogars de la Selva, a Catalanian district of Barcelona, under the name Croda Ibérica, responsible for the Spanish and Portuguese market.

Croda Ibérica is therefore grateful for every process and every measuring point that works reliably over many years. The company has been working with VEGA Spain for more than 10 years. The whole factory houses about 200 sensors of different product families including **pressure transducers**, **guided radar sensors**, different **limit detectors** for liquids and solids as well as **differential pressure transducers**.

The **VEGAPULS 64** level sensor launched onto the market last year is also in use at the site and demonstrates its advantages in the measurement of a mixture of special detergent recipes and alcohols. Here, the sensors measure the raw material supplies in three tanks with heights of two, three and five metres. The result of the measurement is decisive for the further processes because the end product of this raw material accounts for about a quarter of the whole production at the factory. Because the level sensor VEGAPULS 64 measures without contact with the help of radar technology, there are automatically fewer problems with **product deposits** and the radar measuring technology is also ideal from a hygiene point of view. The front-flush, encapsulated antenna, for example, can be cleaned optimally and is insensitive to the extreme conditions of the SIP and CIP processes.



The factory premises of Croda Ibérica SA at the Fogars de la Selva site (Barcelona).



There is not only a lot of pipework on the outside; heating coils and installations also influence the measuring signals inside the reactor.

The level sensor **VEGAPULS 64** is also insensitive to deposits or formation of condensation despite its shorter wavelength. This is achieved, above all, by adaptation of the sensitivity in the near range of the sensor. The distance-dependent dynamic adaptation reduces the influences of interferences directly in front of the antenna system and at the same time enables very high signal sensitivity at a greater distance. Reliable filling level measurement is therefore also possible during cleaning cycles.



The narrow radar beam of the level sensor allows it to be installed where metal elements exist.

The structure of the tank with its complex installations now no longer has any influence on the measurement either. This was achieved by **better focussing** of the level sensor which depends on the transmitter frequency and the effective antenna surface area. And another positive aspect has emerged: With the VEGAPULS 64, it is possible to measure right **down to the bottom of the tank** even with quite different media. This is decisive in view of the fact that the tank must be emptied completely every two weeks.

Although the structure of the tank was very complex, the conversion and installation of the level sensor were still very quick. Since the **existing process connection** could be used, the new sensor was simply installed on the available connection. This procedure has already proven effective in other applications in the pharmaceutical and cosmetics industry. Plants and apparatuses have usually, after all, gone through acceptance testing and later constructional modifications are only possible at great expense.

In addition to the reliable measured values, Croda Ibérica values the professional knowledge of the VEGA technician above all. They have had the same contact for years who responds quickly to calls and also has a solution to hand even in the event of unforeseen incidents.



The measuring uncertainties could be solved with the installation of the VEGAPULS 64. The sensor was simply fitted onto the existing nozzle.

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