



## VEGA sensors handle complex measuring tasks in pharmaceuticals production

In this highly regulated industry, every individual process component forms part of an important, validated production system. So it's vital that the process measurement instruments function reliably for many years and the plant operators can trust the information they deliver. That's why a major Italian pharmaceuticals manufacturer relies exclusively on VEGA sensors for pressure and level measurement.

When it comes to safety and quality, pharmaceutical products have to meet extremely high quality standards. Producing them requires a whole series of difficult processing steps. These steps often take place in potentially explosive atmospheres or have to be carried out in compliance with strict environmental regulations. The company ACS Dobfar is well aware of the responsibility this brings. They are a privately-held Italian chemical-pharmaceutical company headquartered in Tribiano, about 10 km east of Milan, and produces high-quality pharmaceutical intermediates, active pharmaceutical ingredients (APIs) and ready-to-use medicinal products. ACS Dobfar's core business is the production of active ingredients and antibiotics such as cephalosporins, penicillins and carbapenems.



The manufacturing processes are extremely complex. For that reason, numerous sensors are required to monitor production. In the storage tanks and reactors, it is mainly parameters such as level and pressure that are of interest. The company became aware of VEGA through the positive feedback coming in from the market. Today more than ever, people are convinced of the high quality of VEGA process instrumentation. For its new production facilities, ACS Dobfar chose to use sensors from VEGA and is gradually replacing older instruments with them.

"We're using mainly **VEGAPULS** non-contact radar and **VEGAFLEX** guide wave radar level sensors on our raw material and waste water tanks. And since the market launch of **VEGAPULS 64** non-contact radar in 2016, we've been using it more and more in our reactors," explains Lino Brucoli, – the person responsible for plant automation at ACS Dobfar – pointing out the main areas of application for radar level sensors.



Headquarters of ACS Dobfar in Tribiano near Milan.

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"We've used VEGA sensors successfully in numerous processes for many years now. And there are measures in place to ensure that this will continue to be so."

Pressure transmitters are also deployed in many places in this Italian plant, for example in the feed lines that transport finished products to the storage tanks. The **VEGABAR 82**, for example, is used to both control production processes and monitor nitrogen neutralization. In some process areas, the **VEGABAR 82** – with its ceramic diaphragm – is used in combination with PVDF process fittings and FFKM seals where highly aggressive substances are involved. The measurement applications range anywhere from vacuum to an overpressure up to 15 bar.



VEGA sensors have been an integral part of production at ACS Dobfar for more than ten years.

## Difficult conditions in the tanks

On the main storage tanks, which have a height of 8 to 15 m and a diameter of approximately 2 to 3 m, a whole series of level sensors from VEGA are installed. There they monitor and control a wide variety of products. Besides raw materials, solvents and acids are also stored in the tanks. "We place a number of different requirements on the instruments at the same time. First and foremost, all the sensors we install must have ATEX approval. We also recently began to standardize our pressure transmitters according to SIL," explains Brucoli further.



Level sensors monitor and control widely different product quantities.

"On the process side, most of the problems that occur in our equipment are related to the high temperatures, condensation and vapours emanating from the chemically aggressive media." In addition, there are often dirt deposits and crystallization on the radar antenna. Even the process vessels and reactors themselves sometimes get in the way of obtaining an exact level measurement. The size of the tanks, their geometric shapes and characteristics related to the installation place and the mechanics in general, often make it difficult to use level sensors. And, as if that isn't enough, the product surfaces in some reactors and mixers are constantly in motion and are sometimes quite turbulent. Nevertheless, despite these adverse measuring conditions, ACS Dobfar and VEGA have always managed to obtain reliable and precise measured values in the end.

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He adds another important reason for using VEGA products: "Whenever an instrument doesn't function properly, or a measuring situation turns out to be too difficult for us to handle alone, VEGA always comes quickly to help us solve the problem."



ACS Dobfar produces high-quality pharmaceutical intermediates, active pharmaceutical ingredients (APIs) and ready-to-use medicinal products.

## Products



## Industries



Sensors for measurement under strict safety, sterility and accuracy requirements.