

# Safety First, Last And Always

CRODA HELPS ENSURE THE HIGHEST LEVELS OF SAFETY IN THE MANUFACTURE AND HANDLING OF DANGEROUS CHEMICALS THROUGH THE USE OF ALMATEC® AIR-OPERATED DOUBLE-DIAPHRAGM (AODD) PUMPS

By Peter Schüten



The prominent signs that are displayed at the CRODA Iberica SA chemical-manufacturing facility in Mevisa, Spain, serve as a constant reminder for its employees that an accident-free, safety-first workplace is the ultimate goal. Helping them achieve that goal are various models of Almatec® Air-Operated Double-Diaphragm (AODD) Pumps with their ability to reliably provide safe and secure handling of even the most dangerous or hazardous raw materials and finished chemicals.

## Introduction

Amid the towering storage tanks, stacked pallets loaded with 55-gallon drums and scurrying forklifts, two signs loom over the CRODA Iberica SA chemical-manufacturing facility located north of Barcelona in Mevisa, Spain. Written in the Catalan dialect, the first declares, “Res del que fem justifica que ens accidentem,” meaning “Nothing that we do justifies any accidents,” while the second states, “Fabriquem qualitat amb la màxima seguretat,” or “We manufacture quality with maximum safety.”

For Carles Xiol, those declarations are much more than simple decorations.

“At this plant, we have difficult [operating] conditions and it is important that we use pumps that are very robust and have ATEX certifications,” said Xiol, who has worked at the Mevisa site for 15 years and is currently its Maintenance Manager.

At a facility that requires the use of more than 100 different pumps in its various production, transfer, handling and loading applications, identifying pump technologies that can meet the demands of working with potentially hazardous or dangerous raw materials or finished products is a critical concern. Fortunately for Xiol and CRODA, air-operated

## QUICK FACTS

**Company:** CRODA Iberica SA, a subsidiary of CRODA

**Location:** Mevisa, Spain

**Market:** Chemical Processing

**Distributor:** Tecnica de Fluidos (TDF), Barcelona, Spain

**Challenge:** Identify and deploy a pumping technology that can safely and reliably optimize the manufacture of chemicals used in the production of cosmetics, pharmaceuticals and health-care products

**Solution:** Almatec® Air-Operated Double-Diaphragm (AODD) Pumps



For 15 years, Carles Xiol, far right, Maintenance Manager at CRODA's Mevisa site, has been relying on the Almatec® AODD Pumps supplied by Carlos Perez, far left, and Jordi Ibarz, center, the Commercial Manager and Regional Sales Manager, respectively, for Barcelona, Spain-based Almatec distributor Tecnica de Fluidos (TDF).

double-diaphragm (AODD) pumps from Almatec®, Duisburg, Germany, are able to satisfy the demands for safe and secure handling of the chemicals that are the stock and trade of the Mevisa site's manufacturing operations.

## Slow And Steady Wins The Race

CRODA was the brainchild of two men back in 1925, an entrepreneur named Crowe and a chemist named Dawes (from whence the CRODA name was conceived). Headquartered in the town of Snaith in East Yorkshire, England, CRODA began life as a refiner of the grease that was extracted from sheep's wool into lanolin, which could be used as a rust-preventer in the engineering and automotive industries.

Fifteen years later, the all-hands-on-deck demands of World War II production and supply in England saw CRODA branch out into the manufacture of such diverse products as camouflage oils, insect repellents and gun-cleaning oils. This newfound versatility helped establish a different path for the company upon WWII's completion. In the ensuing 75 years, CRODA has grown into one of the world's leading manufacturers of specialty chemicals, with a particular emphasis placed on creating chemicals that are manufactured from renewable sources and in the most environmentally friendly and sustainable manner possible.

CRODA's history is one of slow, but steady growth. The

company expanded its operations to the United States with the opening of a sales office in New York City in the 1950s. The 1970s and 80s brought a series of acquisitions that enabled CRODA to further diversify its product portfolio and branch out into more and more markets. Today, CRODA employs more than 4,300 people globally and has manufacturing sites or sales offices in 36 countries on six continents.

In 2018, CRODA marked 20 years since it launched its CRODA Iberica SA operation in Spain with a sales office in Barcelona and the manufacturing facility in Mevisa. The manufacturing plant produces a wide range of specialty chemicals and oleochemicals (chemicals derived from plant and animal fats) for use by a diverse client base.

"At this plant, we produce many different chemicals that are used in the production of pharmaceuticals and cosmetics," explained Xiol.

The diversity of the customers that CRODA contracts with means that the plant must satisfy a plethora of individual manufacturing demands. Every customer has strict production schedules that must be consistently met.

"Our customers are very demanding and we must satisfy their needs in full and on time," continued Xiol. "It is important that we work with the right equipment suppliers."



An E-50 model from the Almatec® E-Series AODD Pump family is used to safely and reliably transfer titanium dioxide (TiO<sub>2</sub>), a powder used to make pigments for cosmetic and health-care products.

## The Perfect Pump Partner

In CRODA's case, the supplier for pumping equipment at the Mevisa plant is Tecnica de Fluidos, or TDF, which is

based in Barcelona and has been serving the chemical-manufacturing market since its founding in 1976.

“We have always been dedicated to the distribution of industrial pumps,” said Alberto Maestre Hoffmann, son of the company founder, Aurelio Losada Maestre, and for the past 20 years TDF's Managing Director. “For us, it is very important to have long-term relationships with manufacturers because it takes time to learn this pump market, to learn about the applications and the products.”

With that in mind, TDF has been a distributor of Almatec AODD pumps for about 25 years. Almatec, a product brand of PSG®, Oakbrook Terrace, IL, USA, a Dover company, is a premier manufacturer of solid-body, plastic AODD pumps for use in critical fluid-handling applications in the chemical, hygienic, paper, paint and varnish, and water-treatment industries.

Almatec AODD pumps meet the need for leak-free and low-maintenance operation due to a design innovation that uses housing bolts that are tightened against a diaphragm-sized ring on each side of the housing. This design spreads the pumping force more evenly and allows for increased permissible bolt torque, which results in improved product containment. Other operational benefits of Almatec AODD pumps are smooth, volumetrically consistent operation even at the highest pump speeds, increased capacity due to an optimized flow pattern, decreased air consumption and a reduced noise level during operation.



The CRODA Mevisa site celebrated 20 years of operation in 2018 and Almatec® AODD Pumps have played a major role in ensuring the plant's success.



The bucolic setting of CRODA's Mevisa facility is a constant reminder that operating in anything other than an environmentally sensitive and safe manner will not be tolerated.

At the CRODA Mevisa plant, a cadre of Almatec AODD pumps – most prominently, AHD Series and E-Series models – are used throughout the facility in a number of applications. One of the more notable ones is the transfer of titanium dioxide (TiO<sub>2</sub>), a white powder used in the production of pigments used in cosmetics and health-care products. In this instance, a 51 mm (2") E-50 model is used to pump upwards of 36 m<sup>3</sup>/hr (600 L/min) of TiO<sub>2</sub> at a time in an operation that requires the pump to be ATEX-certified.

The common denominator in performance for the Almatec pumps is that they all must adhere to the site's mantra regarding safe, accident-free operation. This means they have to meet the strict standards of a number of international regulatory agencies that govern sites that work with or produce hazardous or dangerous chemicals. These include the International Organization for Standardization (specifically the ISO 9001 and ISO 14001 standards) and EXCiPACT, a provider of third-party oversight of pharmaceutical manufacturers and distributors.

"We decided to use Almatec pumps because they are very safe, reliable and easy to use and maintain," said Xiol.

## Conclusion

Stretched over the main throughway at the CRODA Mevisa plant is a third sign, one that accurately sums up the facility's – and company's – driving motivation: "Treballe per un future responsible I etic," or "We work for a responsible and ethical future."

It's an altruistic mission, but one that more and more companies are adopting as they seek to make their operations more environmentally friendly while continuing to reduce the risks placed on their employees. Almatec AODD pumps play a significant part in meeting these goals – and CRODA Mevisa employees like Carles Xiol are thrilled that they can rely on Almatec to provide the type of pumps that enable him to operate a plant that adheres to the highest levels of safe, sustainable and accident-free operation.

"Almatec pumps last a long time and are able to work when needed," he said. "They help me do my job."

## About the Author:

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