

# Turnkey vacuum system for Crown in Mexico

With almost a century of expertise in designing and manufacturing industrial vacuum pumps and compressors, all based on rotary vane technology, Pneumofore is able to satisfy market demand where others fail. The company provides tailored solutions to meet the strict specifications of customers looking for constant efficiency, reduced operational cost and trouble-free operation over decades. This is also the case of the glass manufacturing plant of Crown Vichisa in Mexico, as Francesco Amati explains.

As a leading supplier of beverage, food and specialty packaging to consumer marketing companies internationally, Crown runs more than 140 manufacturing plants worldwide. The company has relied on Pneumofore rotary vane solutions since 2006 for the supply of centralised vacuum at its can manufacturing facilities.

In Mexico, the group is also active in glass manufacture through its subsidiaries Crown Vichisa and Crown Sivesa. To serve the growing domestic beer market, the company decided to invest in a new glass plant at Chihuahua in the northern part of the country, which was originally scheduled for commissioning during 2018.

For the plant engineering and for defining the best equipment investments, the customer relied on a renowned independent consultancy, with strong world references in industrial facility design, especially in the field of glass production. The engineering consultants evaluated many vacuum pump manufacturers to define the optimal vacuum supply solution and to fit the stringent criteria approved by the customer. The plant has been designed for a production capacity of 145,000 tons of glass, equivalent to 750 million bottles, from three IS machine lines working 24/7. The glass bottles are destined for the local Heineken brewery.

The criteria were satisfied by Pneumofore, who supported the customer's request by designing a dedicated centralised vacuum system, based on a tailored vacuum pump, model UV24, which is now part of the standard range of the UV



Pneumofore centralised vacuum system for glass manufacturing at Crown Vichisa, Mexico. Installed in 2017, the system comprises four units of UV24 VS45 rotary vane vacuum pumps.

Series. With 37kW nominal power for up to 1.589m<sup>3</sup>/h capacity, the UV24 has been designed to fit the specific vacuum level required by the IS machines in glass manufacture. This vacuum pump is equipped with a state-of-the-art control system and a recently designed cooling system. As for the entire UV Series, the UV24 vacuum pumps are robustly manufactured with a compact, easy-to-maintain design that can work trouble-free even in harsh, hot and/or humid environments. They represent the ideal solution for centralised vacuum systems in continuous operation.

## Turnkey solution

For Crown Vichisa, Pneumofore supplied a centralised vacuum system made of four UV24 VS45 vacuum pumps, with one pump used as a back-up unit. These machines were delivered in their hot climate and variable speed version. Along with the UV24 units, the company offered a turnkey solution that included the entire vacuum system engineering, the room layout, the piping design and the installation. The system enables a smart operation, delivering variable capacity according to actual requests

from production. Pneumofore also supervised the on-site start-up phase.

At the time of the first delivery, the UV24 pumps were painted in white; customised colours are an option available for Pneumofore customers.

Thanks to the smooth start-up of the production line, the glass facility started operation in late 2017, well ahead of schedule. The company is planning to expand the production site in the coming years.

Pneumofore is present in Mexico via a local distributor and a certified service centre to provide timely and comprehensive on-site technical support, including evaluation, installation and maintenance, for all its vacuum and compressors systems operating in Central and South America. ●

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Pneumofore rotary vane vacuum pump, model UV24. Designed to fit the vacuum level required by the IS machines, this 37kW vacuum pump is available with variable speed drive and hot climate options.