AB InBev expands PNEUMOFORE UV100 deployment

Expanded installations at AB InBev glass plants underscore how PNEUMOFORE UV100 air-cooled vacuum systems are delivering verified energy savings, stable high-speed forming performance and long-term reliability, as manufacturers pursue efficiency upgrades, lower defect rates and resilient 24/7 operations across modern hollow glass container production worldwide.

Engineer Daniel Hilfiker,
President of Pneumofore

Following the successful installation of Pneumofore UV100 vacuum pumps at the Tierra Blanca hollow glass plant in Mexico in 2020, two additional units have now been commissioned at the San Luis Potosí facility. Part of the Anheuser-Busch InBev group since 2013, Grupo Modelo has now installed the world's largest air-cooled vacuum systems for container glass manufacturing, Pneumofore UV100 rotary vane pumps. These units represent the most powerful air-cooled solution available globally for hollow glass production.

PROVEN PERFORMANCE

The first two UV100 pumps, each delivering the capacity of 6.610 m³/h, entered operation at Tierra Blanca in 2020. Their installation resulted in substantial reductions in electrical energy consumption. Based on verified performance data, a third unit was added to the same site in 2021. The demand for consistent high-speed, high-quality glass container production continues to accelerate. Efficient vacuum plays a decisive role, enabling optimal productivity and significantly lowering rejection rates. Today's inspection technologies classify more than one hundred potential defect types, spanning finish, neck, shoulder, sidewall, base, and other categories, as evidenced in leading technical studies in the

sector. While vacuum alone does not eliminate all defect modes, its contribution to forming precision, thermal stability, and process speed is widely acknowledged across the industry.

OPERATIONAL RELIABILITY

Continuous operations, typically running over three uninterrupted shifts, place strict requirements on equipment reliability and lifecycle efficiency. Maintaining stable performance with minimal main-

tenance and without major overhauls is increasingly regarded as an operational necessity rather than an advantage. Governmental pressure to reduce industrial energy consumption continues to intensify, often coupled with incentive programs supporting efficiency upgrades. Replacing legacy technology, particularly liquid ring vacuum pumps, with Pneumofore's rotary vane systems usually results in a reduction of absorbed power of 50%. The UV Series has also proven capable of replacing rotary screw vacuum pumps, which suffer efficiency decline and require scheduled overhauls after relatively short cycles of continuous 24/7 operation. Before every installation, Pneumofore conducts detailed energy audits and provides guaranteed performance commitments, including projected financial return.

SYSTEM ENGINEERING

Long-term operational experience remains the most credible reference for capital investment, especially when measured over multiple years of reliable performance. This has been demonstrated in AB InBev's case. In 2024, Pneumofore commissioned two additional UV100 units at the Vidriera Industrial del Potosí plant. In vacuum systems, the machine itself is only part of the equation; pipeline design, pressure loss control and system engineering are decisive in determining final performance. Pneumofore provides dedicated pipeline and system design support as part of its commitment to ensure installations operate efficiently over decades. ■

ABOUT THE AUTHOR

Pneumofore President Daniel Hilfiker represents the third generation of Swiss engineers managing Pneumofore, the world's oldest rotary vacuum pumps and air compressor manufacturer, celebrating more than 100 years of expertise. Daniel graduated as Mechanical Engineer at the Federal Technical Institute of Zürich, Switzerland, in 1993. He is personally engaged in R&D with strong commitment for lowest environmental impact which corresponds to minimal operational costs. He participates at worldwide conferences on a regular basis, given that his pneumatic theory and products are applied in many sectors including container glass production, can making, aerospace, medicine, food, petrochemical and more.

ABOUT PNEUMOFORE

Founded in 1923, Pneumofore manufactures vacuum pumps and compressors for industrial applications worldwide. Pneumofore compressors and vacuum pumps are found worldwide, whenever customers require extraordinary reliability and constant performance over time. Leader in the Rotary Vane technology, Pneumofore solutions focus on efficiency, durability, minimal Life Cycle Cost and high environmental respect.

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