

## Case Study

# Turbo Blower: An efficient solution for sustainability.

## Pachacutec Wastewater Treatment Plant: A Sustainable Solution for Wastewater Treatment in Peru

**Access to safe drinking water for over 200,000 people**

**67.7 m<sup>3</sup>/day**  
maximum flow capacity

**Reduction in consumption**  
Up to 30%



In recent years, society at large has embraced a sense of social responsibility, seeking to protect the environment and preserve the future for the next generations. In this regard, the Peruvian government has driven a series of projects, such as the construction of Wastewater Treatment Plants (PTARs), to reduce the pollution of Peruvian rivers and water bodies. As of 2020, there were a total of 12 wastewater treatment plants that would benefit more than 4,695,000 residents.

One of the ongoing projects is the Pachacutec Wastewater Treatment Plant, located in the Ventanilla district, which will provide over 200,000 people with 24/7 access to safe drinking water. The plant will have the capacity to treat a daily flow of 37.6 m<sup>3</sup>/day and a maximum daily flow of 67.7 m<sup>3</sup>/day. It is expected to commence operations in mid-2023, with the plant currently at 77% overall completion.

ACCIONA is the company responsible for the construction of this significant project and has demonstrated environmental commitment by collaborating with suppliers and technologies that promote resource conservation.

In a Wastewater Treatment Plant (PTAR), 60 to 80% of energy consumption is attributed to the biological cleaning phase. UN Sustainable Development Goal No. 7, "Affordable and Clean Energy," aims to ensure access to sustainable and safe energy for all while reducing environmental impact by decreasing the use of fossil fuels, which account for 73% of greenhouse gas emissions.

Sedapal and ACCIONA, aligned with the aforementioned objectives, have chosen to incorporate Turbo equipment from Aerzen for this project, capable of reducing energy consumption by up to 30% compared to conventional blowers



<b>Type of technology</b>	Turbo Blowers
<b>Design</b>	Positive pressure
<b>Volumetric flow rate</b>	1,200 to 16,200 m <sup>3</sup> /h
<b>Medium</b>	Air
<b>Transport</b>	Oil-free

Aerzen Turbo technology not only contributes to energy efficiency but also offers low maintenance capabilities, allowing operation in hot and heavily polluted areas, as found in the Pachacutec Wastewater Treatment Plant. Initiatives like this in public investment, supported by companies like Acciona and Aerzen, provide hope for a cleaner future and the delivery of a healthier and more sustainable environment to future generations.



**30%**

of energy consumption reduction.

## Summary

By selecting Aerzen Turbo equipment, energy consumption at the plant, which will experience flow variations up to a maximum of 67.6 m<sup>3</sup>/day, will be significantly reduced.<sup>3</sup> This will benefit over 200,000 people in the region.