



# Howden Uptime for wastewater treatment plants



## Howden Uptime benefits



Increase the life of your asset to reduce maintenance costs



Predict failure before it happens to reduce unplanned downtime



Improve equipment performance to reduce energy costs



Optimise plant processes to reduce total cost of ownership

## Howden Uptime seamlessly distills your rotating equipment's operational data into actionable insights on performance and reliability.

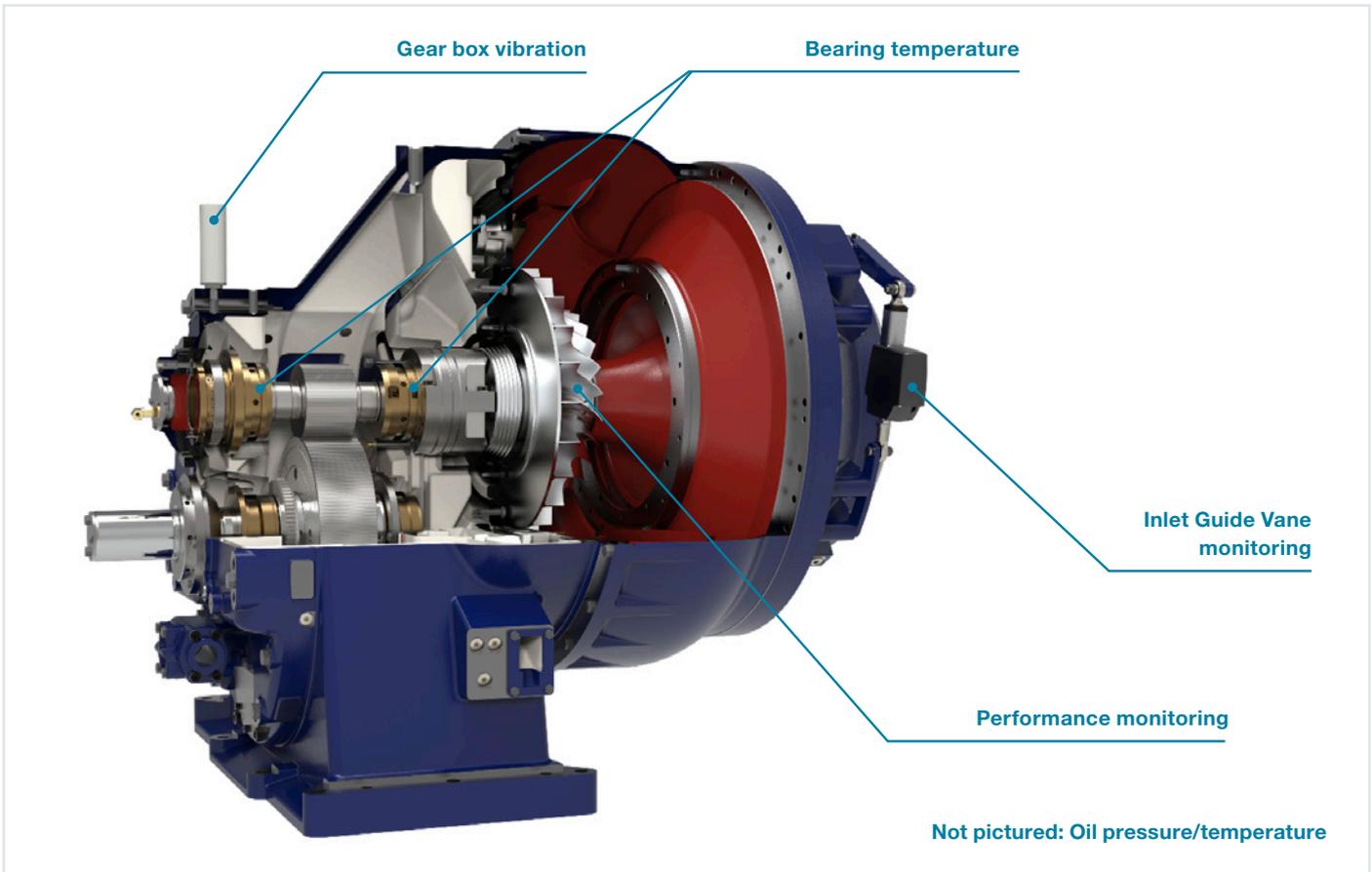
### Keep your process running at optimal efficiency and reduce your total cost of ownership.

The unique Howden Uptime solution is powered by a world-leading analytics model with intelligent machine-learning algorithms.

This combined with our physics-based Digital Twin enables owners and operators to extend compressor life, improve performance, and avoid unplanned events leading to reduced maintenance costs and improved site safety.

### How does it work?

Howden Uptime integrates compressor process data related to the equipment's performance. The system analyses real-time parameters such as, temperature, pressure, amperage and vibration, from local transmitters on the compressor, with reference data from specifications and Howden's design expertise.



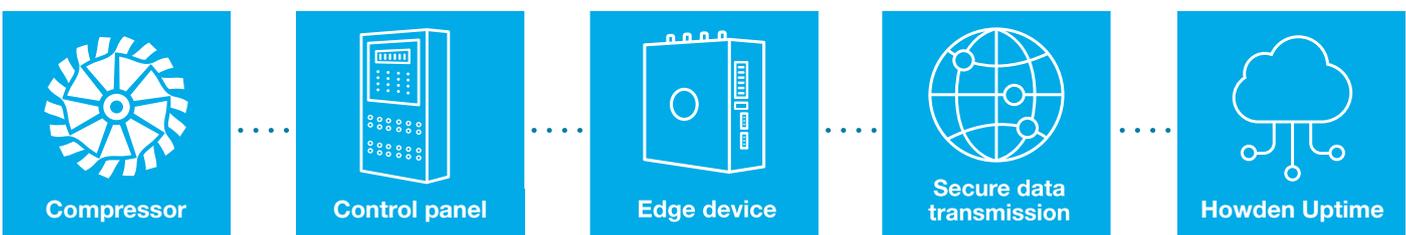
**Turbo compressor instrumentation**

Howden Uptime is a cloud-based subscription service, enabling secure access to real-time operational insights and alerts, virtually anywhere, with immediate upgrades as new features and functionality are developed.

To enable the service, we install an industrial Edge computer within the master or local control panel. The Edge device transmits critical equipment data to the Howden Uptime platform.

The user, along with Howden product specialists, can then access the data from any device with an internet browser and view advanced data analytics and recommendations to optimise maintenance planning and energy consumption for the equipment.

Howden Uptime is available on all new equipment and is easily retrofitted on your existing turbo compressor. During commissioning and throughout the operational lifecycle Howden Uptime streamlines remote assistance and ensures optimal performance.

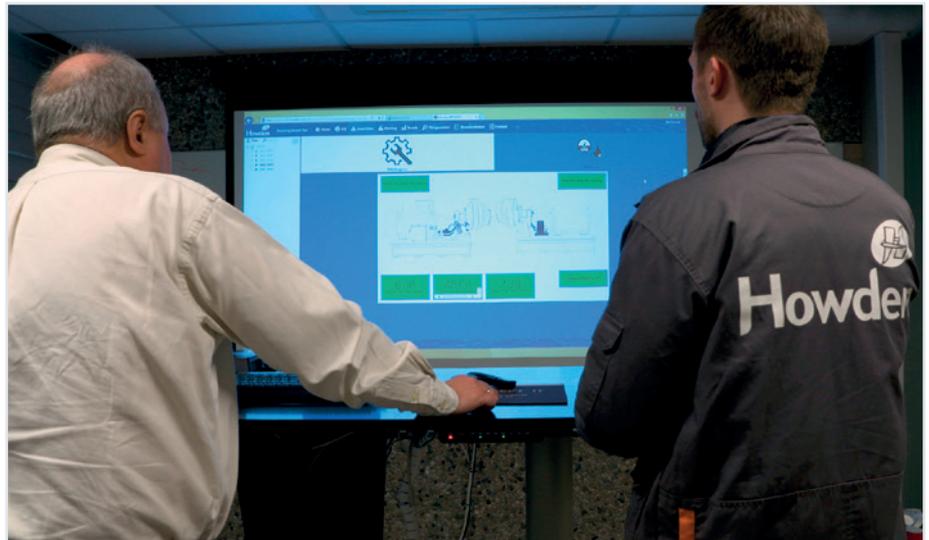


## Reduce unplanned outages up to 75%

Access real-time trending and anomaly detection of critical operational parameters. Howden Uptime's automated notifications are sent to you and Howden specialists to provide insight on a broad spectrum of systems and components.

Deviations in the performance of check valves, BOV's and IGV's can be identified by Howden Uptime.

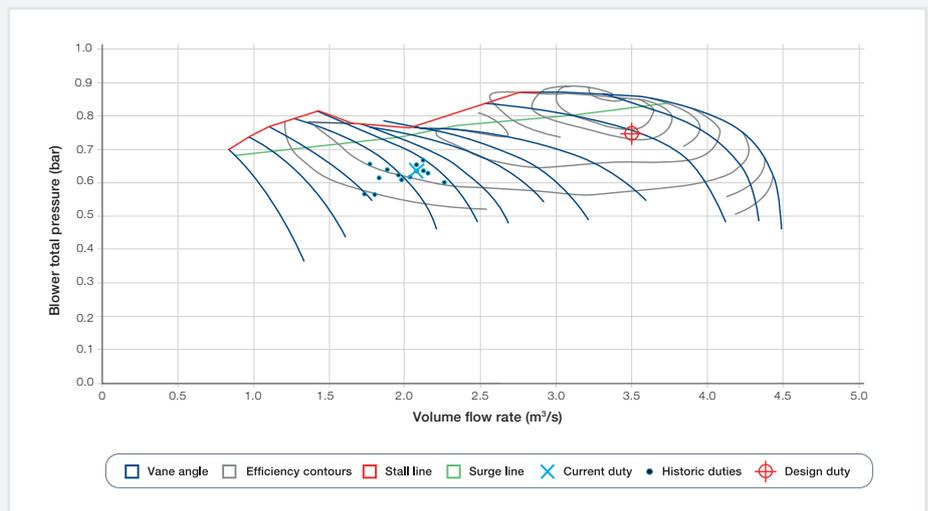
If left unaddressed, this can cause reverse rotation and compressor surge and can lead to collapse of the bearings and damage to the impeller, resulting in repair costs exceeding €100,000.



## Improve operational efficiency

Howden Uptime technology makes it possible to monitor each product separately, revealing trends and comparing their status over time and across the fleet.

This provides a deeper understanding of how the equipment operates allowing you to make adjustments to optimise the performance and improve the operational efficiency.

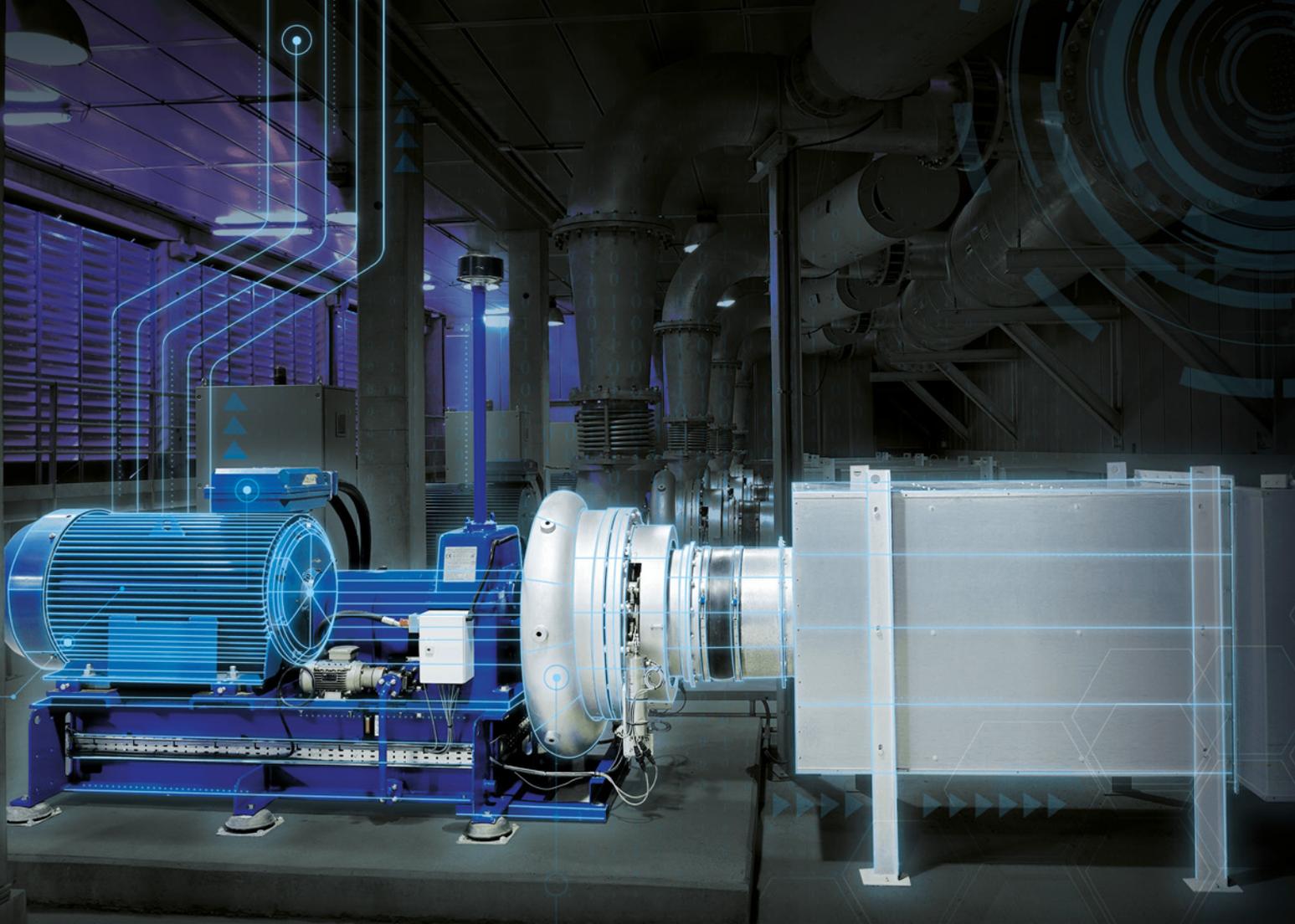


## Real-time monitoring, trending and automated alerts

Howden Uptime provides a 24/7 real-time view of your equipment's operational performance, if any of the parameters fall outside the recommended limits then there will be an alert sent with corrective action.

The data is shown live on the Howden Uptime platform, which can be accessed anywhere with an internet connection. The dashboards on the platform show the master view of all assets, with an overview of the performance status, you are then able to drill down into each individual asset and component to show specific sensor data and trends.





## Optimising your wastewater plant with a Howden service agreement

**Combined with a Howden Service Agreement, Howden Uptime improves site safety and can reduce annual maintenance costs by as much as 20%.**

Our approach is to be a trusted partner by supporting you in maintaining your equipment and to keep wastewater plant's availability at the optimal level.

We offer a modular approach to service agreements, allowing you to define a package that meets your specific needs.



**Contact us for a free estimate of site specific costs and savings:**

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