

Howden Uptime

Smart connectivity for optimization on demand



Howden Uptime is a unique and innovative platform for gathering, interpreting and analysing data. This digital platform seamlessly integrates data related to the performance of your rotating equipment.

Our systems are designed to gather a wealth of data regarding your rotating equipment. All this data is critical to understanding the behaviour of the products in your process. Through a partnership with Microsoft we have developed a solution which securely manages this data in the cloud, where it is processed using powerful analytics tools and monitored by Howden engineers.

What sets Howden applications apart from the rest is that we have used our 160 years of engineering expertise to develop a solution to bring the essential information and advice to your attention.



Driving customer advantage from data

The system combines active inputs, such as temperatures, pressures and vibration, with reference parameters from manuals, specifications and maintenance reports. When the data is analysed, it provides a unique foundation for maintaining and enhancing operational excellence.

System features include:

Online monitoring and condition analysis

Modern machine learning algorithms powered by world leading IoT platform – ThingWorx – to enable predictive maintenance

Real time prognosis and solutions

Insight into maintenance planning and scoping

Anomaly and wear pattern detection

Augmented reality experiences of the rotating equipment displayed on mobile devices and smart eyewear

Prescriptive decision making enabling the performance optimization of your equipment

How Howden Uptime performance optimization works

If your rotating equipment is not already equipped with sensors, the Howden engineers will install a sensors suite and communications modules without any modifications to the existing plant infrastructure. No interfaces or any other site systems are needed, in fact the only requirement is a power supply. The system is suitable for installation in Zone 2 hazardous areas.

The data gathered by Howden Uptime is continuously relayed to Howden in-house experts for analysis. As an equipment manufacturer with over 160 years' experience, we can translate the data to provide valuable advice and recommendations for action, transforming your operations into informed decision making to optimize the performance of your equipment and reduce your total cost of ownership.

The digital twin

The digital twin is at the centre of Howden Uptime. Using physics data on how your equipment operates and responds to the environment, as well as data provided by the sensors fitted in the real world, the digital twin is used to analyse and simulate real world conditions, including how it responds to changes, and how you can improve your operations.

The digital twin gives you a safe environment to make changes and quickly analyse the short and long term impact that they would have, prior to actually implementing in real life.

Major benefits of using Howden Uptime:

Powered by the world leading IoT platform ThingWorx and hosted securely by Microsoft cloud solutions

Providing a unified view of the equipment health, anytime and anywhere

Implementing maintenance strategy tools to help our customers understand efficient and reliable equipment operation, while reducing operational costs and risks

Direct personal connections with Howden OEM specialists

Getting ahead of failure and unifying operations through data intelligence and visibility

Instant access to the asset documentation including drawings, 3D models, parts lists, inspection records and other historical data

The right data for your operation, not all data

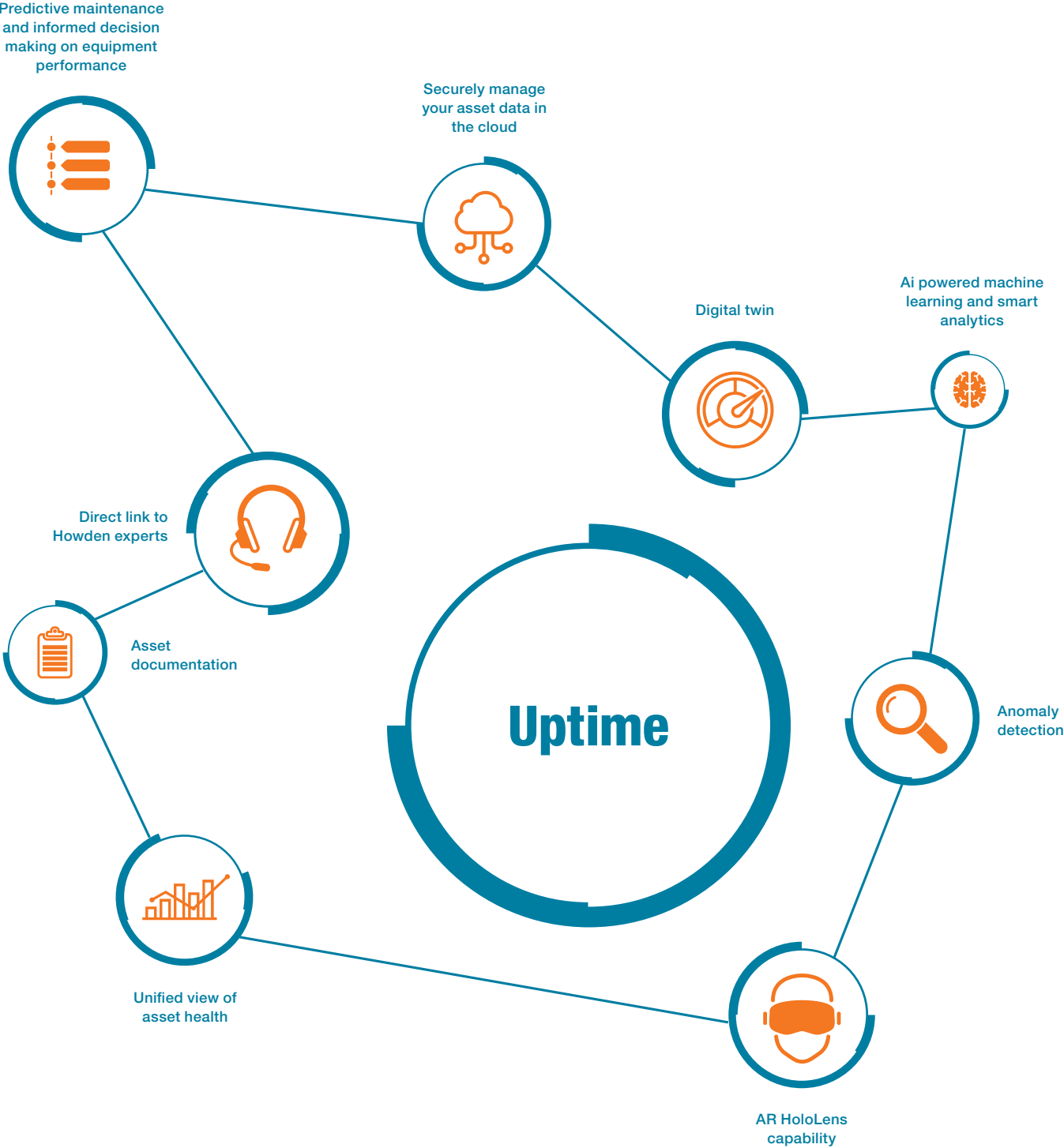
Why Howden Uptime is right for you

You should consider our unique digital solution if your Howden rotating equipment operates as critical asset and its continuous operation is an essential KPI for the overall plant performance. This will enable you to plan maintenance around such critical assets in the least disruptive way, that is synchronised with the overall maintenance cycle of the plant.

Having equipment operation strategies powered by the “clairvoyance” of predictive maintenance is the solution to optimizing your operations.

We recognise that condition monitoring and Big Data are no longer sufficient and through our OEM expertise, we are enabling smart connected products in your plant and focus on the right data for your operations, to deliver a truly unique digital platform for performance optimization.

Expert guidance close at hand



OEM differentiated digital solution that delivers optimized equipment and plant performance

Measure

Howden Uptime provides the means to comprehensively monitor the performance of your rotating equipment using data from the sensors. It is designed for effortless installation anywhere.

We selected standard packages of sensors to provide core data-gathering for critical measurements. Sensors are positioned based on machine type and process and we can recommend equipment specific sensor suites. Where the rotating equipment already benefits from existing sensors and controls, our solution is able to read historical data and connect seamlessly to existing sensing technologies.

Analyse

Data from the sensors is assessed, in conjunction with the information contained in maintenance reports. This enables us to produce an accurate assessment of the condition of the rotating equipment and provides a detailed and reliable basis on which to make decisions about the timing and scope of inspections and maintenance.

By connecting the operating data to the real-time performance and using our in-depth knowledge of compressor technology we create an accurate digital model of its future characteristics. This forms an invaluable guide to predicting the optimum moment for replacing parts, thus improving uptime.

Digital calculations also enable the performance mapping of the equipment and corrective actions to bring its operation around the best efficiency point.

Improve

The value of Howden Uptime far exceeds the data and analysis that it accumulates.

It gives you access, via the secure portal, to the most recently updated asset documentation, and to technological developments that will improve the reliability and availability of your equipment.

As experts in fan and compressor technology and the original manufacturers of the equipment, we will also use the data to advise on potential improvements to your installation. Revamps and overhauls can thus be planned at the best possible time. This offers an extremely cost-effective way of raising performance and production time to the highest levels.

Real-time solutions

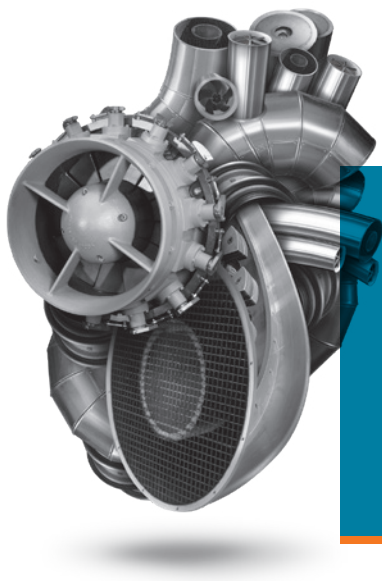
The online system displays the live status of your asset so that you get a real-time view of critical data for your machine. Sensors are placed at various points in the machine and we will guide you as to where would be the best places. Where ever you are able to access the internet, you will be able to access the real time sensor data and the status of your machine.

You can get the master overview of your asset, and then drill down into individual components where more specific sensor data will be displayed.

Data is shown live, so you will get the performance data presented as the machine runs. Monitor pressure, temperature, level and vibration changes as they happen.

Trend analysis

Along with documentation and a real time view of your machine, Howden Uptime also provides operational data over time. This allows you to monitor trends in the performance of the machine and therefore spot potential problems and take action before they become issues.



At the heart of your operations

Howden people live to improve our products and services and for over 160 years our world has revolved around our customers. This dedication means our air and gas handling equipment adds maximum value to your operations. We have innovation in our hearts and every day we focus on providing you with the best solutions for your vital operations.