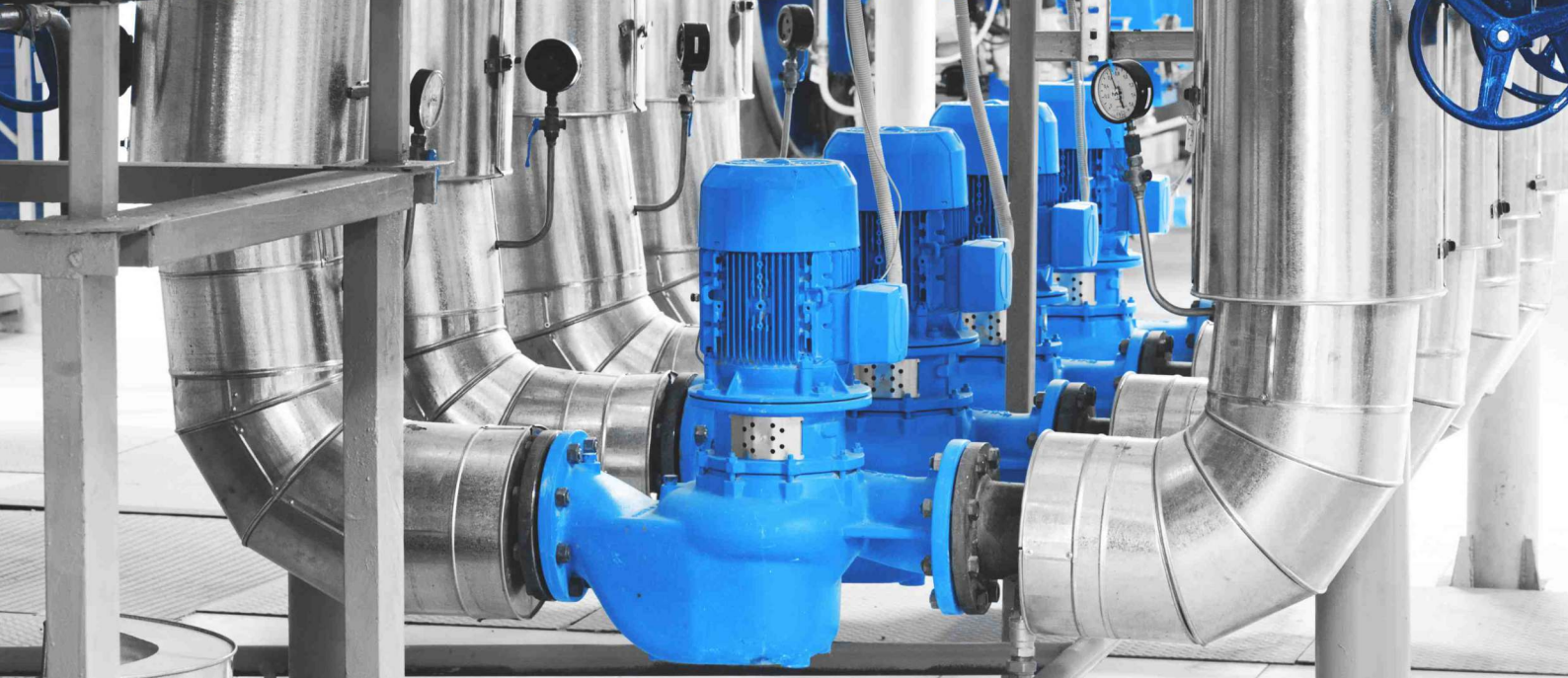




InsAlde Predictive
Vibration monitoring





InsAide

PREDICTIVE

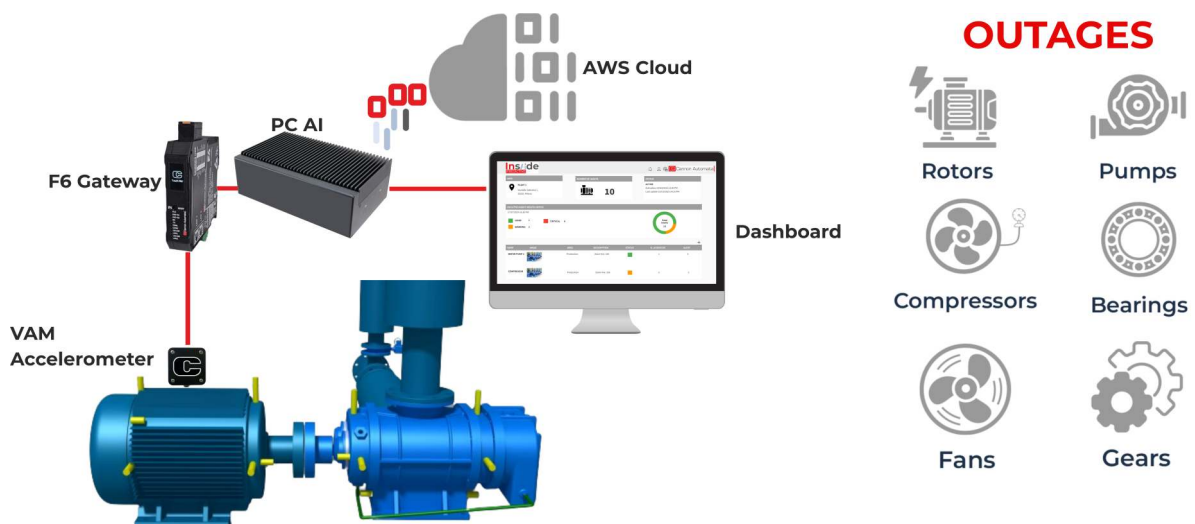
Prevent upcoming failures for your machine

InsAlde Predictive is our predictive maintenance kit. It uses advanced machine learning and statistical modeling techniques to monitor vibrations and anticipate anomalies, making maintenance and assistance activities more efficient.

Through accurate, real-time analysis of our field-installed vibration sensors, we are able to identify correlations, trends, and the status of different equipment.

This kit, ideal for both new and existing plants, significantly reduces the likelihood of failures by providing a deeper understanding of the causes, and the possibility of occurrence. It also makes it possible to manage and optimize production activities, giving accurate indications of the useful life of the asset. The system perfectly integrates vibration sensors, controllers and predictive software with a dedicated supervision dashboard.

Our solution supplies the maintenance, service and R&D departments with strategic information on the status of assets that influence the operation of a single machine or the entire plant.



A complete kit

From sensor to AI model

Vibration Analysis Module (VAM) Accelerometer

The Micro Electro Mechanical Systems (MEMS) capacitive and triaxial smart vibration sensor filters the signal and locally transforms acceleration data into the frequency domain using Fast Fourier Transform (FFT).

- **Bandwidth: 6 kHz**
- **Selectable sensitivity: ± 2 , ± 4 , ± 8 or ± 16 g**
- **Serial communication interface RS485**
- **Operating temperature: -40°C / $+85^{\circ}\text{C}$**

F6 Gateway

Equipped with a 32-bit ARM Cortex-A8 microprocessor, it is ideal for environments requiring a compact, high-performance, low-power system with the possibility of expansion through I/O modules for inputs from the field. This, via a 485 bus, manages the configuration of the individual VAM accelerometers and the signal acquisition trigger logic. The information, once processed in real time, is communicated to the AI PC.

PC AI

This high-performance controller with an Nvidia Jetson Orin NX module communicates bidirectionally with the cloud to send data from the field. The predictive model, installed locally via license, operates on this system.

AWS Cloud

The model is trained and verified on the AWS platform before being provided to the client. This optimizes the parameters with the aim of making increasingly accurate predictions.

Dashboard

The information coming from the PC can be viewed from a web browser through simple, intuitive dashboards. This allows departments to build a fully-planned inefficiency-free maintenance strategy. The package can be integrated with our MES maintenance module.

For easily installing the kit at the plant, we provide the Smart Box system equipped with a 2.4" display for checking the operating status and a connection cable for the cascade modules.

Why choose InsAlde Predictive

- **Easily detects anomalies**
- **Increases machine availability**
- **Improves maintenance and test activities**
- **Optimizes spare parts management**
- **Increases the useful life of machinery**

We are part of the Cannon Group, an international machinery manufacturing holding, which comprises more than 30 companies and branches worldwide.

Dedication to continuous innovation and a solid commitment to reducing the ecological footprint are the drivers of all the Group's technology developments, with a clear focus on energy efficiency, resource consumption reduction, and emissions reduction.

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