

Nederman

Nederman Insight

Digital monitoring solutions



Nederman Insight

Everything you need around your filtration system at your fingertips

Modern facilities are on a digital journey to leverage data and connectivity to improve all aspects of their operations including safety, productivity, regulatory compliance and sustainability. We help with our clean air products and services to support customers on their journey. As part of our connected solutions we have developed Insight, a platform for Digital Monitoring, to cover today's expectations and the needs for future.

The Nederman advantage

Industrial Internet of Things (IIoT) technology is reshaping industrial processes and gives new possibilities to make operations more efficient, safer and more sustainable. Nederman Insight creates an opportunity for customers to take control and monitor their Nederman clean air equipment.

What is Nederman Insigth?

Nederman Insight is a digital, cloud-based IIoT monitoring platform, developed by us. Nederman Insight creates an opportunity for customers to take control and monitor their filtration system and related processes from any location at any time.

It not only provides you with available data on how your filter is working but helps to build a broader understanding of your complete filtration system - its performance, maintenance needs, associated costs and potential improvements.

Providing live and remote monitoring, visualisation and performance tracking, the system continuously monitors your filtration system. To present the data and get the most value out of it, Nederman Insight includes user-defined dashboards, alarms and reports.

Live data is accessible via the web and mobile devices, as well as stored in the cloud for trending and performance analytics.





Connected solutions

We deliver complete system solutions, including smart automation technology, that collects all relevant data of your filtration system and related processes.

Once connected to the cloud, data is sent and stored on Insight enhancing the most advanced real time monitoring and remote view of your system allowing you round a clock access to your data, as well as enabling remote service and support through the myAir service concept from Nederman.

Nederman Insight platform

- Continued development, several yearly releases with new functionality at no additional cost for the customer.
- Get overview of several locations by a mulitsite view showing all factories on a global map in one screen that indicaties any warning or issue.
- Enable remote access that is fully controlled by the customer to provide direct expert support for any troubleshooting and recommendations.
- The users can use any device with a web browser to access the data. For mobile devices there is also an Android and iOS app to download to enable notifications.
- Support regulations and legal compliance is an area that is getting stricter over time. Insight can provide reports structured according to the legal requirements.

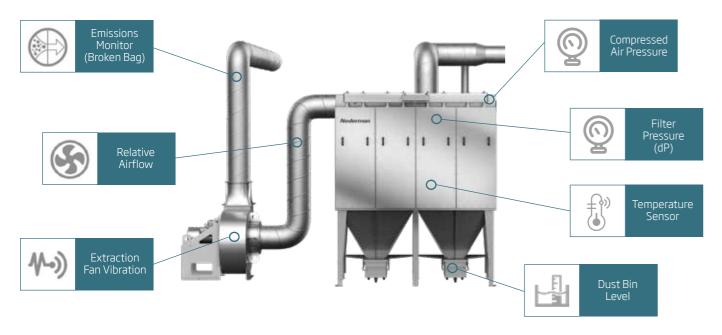


Clean air solutions empowered by smart technology



Digital monitoring

Our SmartFilters, including a wide range of equipment, are available with a huge variety of sensors allowing to collect all important data of your filtration system and related processes. Connected to Nederman Insight you enable access to your data remotely at any time.



Nederman Insight provides you with digital monitoring capabilities, allowing to have all relevant data available at your fingertips, have instant and detailed insights on your equipment performance and system health. The platform not only provides you with remote monitoring, but as well with automatic notifications and reports.

Round the clock alarms are sent via e-mail, app or SMS, as well as periodic system reports give you full overview of your system, provided completely automatic for convenient and easy tracking.

SmartFilters for smart technology

Nederman's SmartFilter family include a wide range of products suitable for a wide range of industries. Whether you need a pulse jet cartridge collector for weld fume, a high-vacuum collector for on tool machining or a baghouse for furniture manufacturing, we have a SmartFilter to meet your unique needs. Able to connect to the cloud - Insight ready!



Benefits of digital monitoring with Nederman Insight

We strive to deliver Clean Air Optimised through focus on energy use, process efficiency, health & safety and compliance. With real time monitoring Insight allows you to actively track the performance of the system and alerts you with actionable information. Whether taking care yourself fully or let Nederman industry experts assist you remotely or completely maintain your filtration system, we help you in case of any event or questions. With our solutions we protect people, planet and production from harmful effects of industrial processes.

Energy use. Optimally designed, operated and maintained filtration systems can reduce energy consumption and costs, improving sustainability and leading to huge amount of energy savings.

Compliance. Real time and historical data grants you overview of your system health, ensuring proper operation and safe to use products, meeting quality and performance criterias.



Health & Safety. Poorly maintained filtration systems increase emissions, fire or explosion risks, as well as reducing component life and maintenance needs throughout the facility. Digital monitoring helps you to maintain your filtration system properly, protecting your

workers, machines and processes.

Process efficiency. Migitally track and analyse key metrics like machine utilisation to optimise and understand your production better. Round the clock access to your data lets you optimise your filtration system, plan predictive maintenance, ensure optimal operation and reducing downtime of your production.

Nederman Insight

Your filter is about to get a whole lot smarter



Nederman Insight platform features

Nederman Insight comes with several features integrated on its platform enhancing most advanced real time monitoring and remote view of your filtration system.

Dashboards - Real time information of the complete system based on equipment data and sensor signals. Intuitive interface built-up with easy possibility to adjust to your specific needs. Historical data available of all equipment.

Overview - Easy navigation on a world map showing all your sites and systems in a world card layout, including information on the system health by indicating alerts on a high-level overview.

Alarm Center - Collecting and showing all alarms in one place. Easy to navigate by filters and possibility to view alarms based on their status. Historical data is available to easily track and follow incidents and taken actions on the system.

Reports - Periodic reports of specific insights into areas such as system health and performance as well as tracking sustainability targets and investment requirements, delivered directly to your mailbox for convenient tracking. Optional compliance reporting feature to create automated reports of explicit data that can be reported to third parties like government agencies.

Service - Schedule all information around service; including upcoming service events and logging of service details. Tool that helps you to collect, track and follow service details directly trough the portal.





Insight dashboards

Nederman Insight includes user-defined dashboards, a visualisation tool transforming, presenting and organising live and historical data of your complete filtration system at one page. The dashboards come in a clear layout using symbols, figures and charts presenting the data in a human-readable information at glance.

- Most important data of your filtration system as an overview and full visualisation at one page •
- Clear view on actual system condition with included colored alarm thresholds ٠
- Navigation and displaying data through a time range selector to check certain periods or events in detail
- More detailed historic sensor and equipment data by one click on specific blocks of the dashboard
- Configurable dashboards as per your needs

Nederman SAVE with Insight

Nederman SAVE is an innovative technology that optimises your filtration system performance and reduce energy consumption by up to 70%. SAVE determines the precise amount of airflow and pressure required for effective dust extraction and safe material transport by monitoring the process. The fan operation is adjusted to achieve the actual airflow and pressure required resulting in significant energy savings and reducing the risk of fire or explosion.

The data collected can be visualised through Nederman Insight as a convenient way to monitor and track total and individual machine utilisation, as well as energy savings and detailed extraction related data.



Nederman Insight secure technology

Smart approach to service

The MCP-Go offers advanced controls packages that supports digital monitoring through the Nederman Insight cloud-based platform. Sensors on key components and the process helps manufacturers avoid costly downtime, improve maintenance, and drive safety of your fume extraction solution.



Insight security

Software compliance

developed under ISO/

management guidelines.

Insight software is

IEC 27001 security

Insight is built on the best and most advanced technologies available for reliable and secure web-based plant productivity software, IIoT, mobile and remote access. Our dedication to reliability, security first, and the use of only the best technologies from market leading companies provides the security industrial applications demand.

> **General Data Protection Regulation (GDPR)**

The Insight application is GDPR-compliant.



User acccess and identity

The Insight application uses Microsoft's leading identity management solution, called Microsoft Azure Active Directory. This provides protection against cyberattacks, while logon is easy for Microsoft Office 356 users with a single corporate credential. Security of the Insight Application Amazon Web Services (AWS ®) hosts the Insight software application.

Data and cellular

Mobile networks are generally unreachable from interceptions as all data is encrypted. In the event of a network interruption, the Insight gateway buffers the data and transits it again once the connection is re-established. Automatic fallback to a hardwired LAN connection is available to ensure operation. Or primary operation via LAN with automatic fallback to cellular.





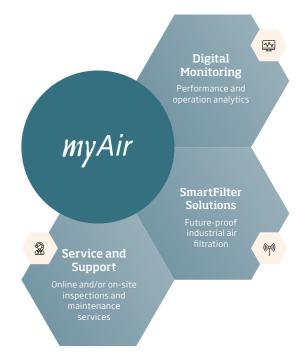
Securtiy on site

The Insight gateway is certified to the highest level of industrial security standards (IEC 62443-2 certified). Data is received from sensors and communicated to the Insight cloud platform. Communication is outbound only and fully encrypted. Where cellular service is present, there is no need to connect the plant network.

The global leader in complete dust collection solutions

For over 80 years, Nederman has developed products and solutions to reduce the strain on the environment and protect people from the harmful effects of indoor air pollution including dust, smoke, oil mist and gases. We have extensive experience in creating safe working environments, handling combustible dusts, managing turn-key projects and servicing dust collators. Our innovative, smart solutions including Insight have further strengthened our ability to deliver clean air to our customers throughout the world.





Worldwide presence

Nederman has a strong global presence in both sales and production. We have our own sales companies in 30 countries and distributors in more than 50 countries. Production is performed in 13 countries on five continents. In many countries, we also have a well-established service organization. By offering advanced service with high availability, Nederman helps customers to secure continuous, optimized production.



The Clean Air Company

Nederman is an environmental technology company and a global leader in industrial air filtration dedicated to extracting, transporting and cleaning air to make industrial production more efficient, safe and sustainable. Based on industry leading products, solutions and services in combination with innovative IoT technology, we monitor and optimise performance and validate emissions compliance to protect people, planet and production.