Q+MONI & Q+ZONE

Enersize monitoring tools drive compressed air optimization and enable predictive maintenance.

A new compressed air culture is emerging

We developed Q+MONI to provide advanced decision support for data driven energy optimization of industrial compressed air. As the industry is getting more aware of the lifecycle costs associated with industrial compressed air systems we see an increased interest in capturing objective, real-time data as a foundation for changing the culture around the use of compressed air. We support all steps from system analysis to leakage detection surveys and then to a new future state of continuous monitoring.

With continuous monitoring you get the data and documentation you need to ensure that the compressed air system is operating at peak efficiency. When the system is fully measured and tracked, it is much easier to recognize the opportunities for compressor optimization, demand savings and air quality assurance, as well as predict likely equipment failure.

We provide all the tools and sensors required to measure flow, pressure, power, dew point, etc under different operating conditions. Data from the sensors is continuously uploaded to the Enersize cloud platform, supporting real-time analysis of the compressed air system's status.
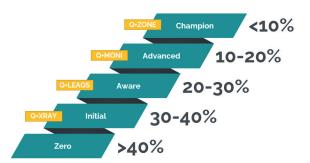
The journey to energy excellence

Reaching the significant energy efficiency gains that come from an optimized compressed air system is in part about embracing the journey to excellence – introducing a new culture around the use of compressed air. To help organizations with this change, we developed the Enersize maturing ladder as well as the tools and training to succeed.

The maturing ladder is designed to support organizations in understanding their relative performance compared to an expansive benchmark of peers. It provides visibility into business activities and key performance measurements so organizations can compare, diagnose and improve their own performance. It visualises the steps required to advance to the next level of maturity.

The journey to energy excellence

Enersize maturing ladder – supporting energy optimization of compressed air

Visit our website for more information about the Enersize maturing ladder.

Supporting predictive maintenance and optimization

When an organization retrofits its systems with permanent electronic sensors that measure all manner of key performance indicators, then it derives the data that shows the true behaviour and cost of compressed air. This can be used as the basis for improving efficiency and productivity. The data enables you to identify when compressors are working unloaded or identify the best possible combination of compressors at different flows.

The monitoring solution includes a complete package of monitoring, analysis, control and different reporting tools. This helps facility teams transition maintenance of the compressed air system from being calendar based (at best) to a continuous, predictive maintenance procedure based on objective data.

The software can be used in combination with well-defined procedures to identify the leakage levels in a scientific way. This gives exact saving potentials at any given time—moving the trigger for leakage detection to be based on commercial grounds.

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Visualisation

With piping and instrumentation diagrams you can render a digital visualisation of the setup of the compressed air system. The diagrams can be created at a facility level and/or for the individual compressor stations.

The diagrams give you the opportunity to document the installation of compressors, piping, receivers, dryers and filters. They help you better understand the data when it comes in from across the facility and provides the basis for optimal control. Pressure drops can be localized quickly and accurately when you know exactly from where in the plant data has been captured.

Notifications and alarms

You can set up email or text alert notifications and alarms to automatically alert the team when things go wrong or when conditions are developing that could indicate trouble for your system, for instance exchanging filters or refurbishing dryers as you see the pressure dropping below a certain level.

Examples:

- Pressure drop over filters and dryers
- Deviations from average flow
- Monitor flow during production stops so that you can identify leakage levels.

Automated decision-making support

Having the right data to support decision-making for your compressed air system is essential. In the Enersize Software-as-a-Service suite you can identify the Key Performance Indicators (KPIs) that you would like to monitor. The software will then automatically run reports in the background on a weekly/monthly/yearly basis, delivering them directly to your inbox.

Advanced compressor analysis

The Enersize suite provides capabilities for advanced analysis of your compressed air system. When you have entered all the details about the compressors on the platform then you can analyse the individual compressors and monitor their efficiency.

It is possible to simulate different combinations of compressors to best align supply and demand. You can use this data to analyse what kind of improvements are required to optimize efficiency and productivity.

In case you are looking to buy new compressors, the Enersize suite can provide you with precise, long-time data about supply and demand. With this data you can build an accurate business case for the compressor suppliers to bid against so that you avoid future control gap issues and excess compressor capacity.

Zone-based monitoring

We specifically developed Q+ZONE to provide a more granular view of information. On a day-to-day basis zone-based monitoring increases the detail level of data for analysis and improves action plans to optimize the compressed air system.

With increased numbers of sensors to measure flow and pressure, you can study the system design flaws, identify legacy solutions and optimise the demand side to fit new production demands as the production side evolves.

When leakage, damage or other sudden impacts occur it enables you to narrow down the area to survey and then identify the proper maintenance action to address leakage levels.

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