Compressed Air Monitoring System Increases Compressor Efficiency and Performance



COMPANY DESCRIPTION

A large manufacturing plant utilizes compressed air for clamping devices, stamping machines, tool powering and cleaning.

CHALLENGES

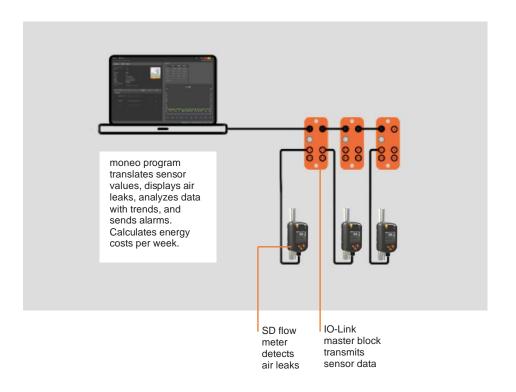
- Compressed air leaks often caused tools to work inefficiently. Products were affected and resulted in loss of profits.
- Continuous maintenance inspections were performed, but very often capital investment of a new compressor was difficult to justify and often postponed.
- A system was needed to lower annual energy spending without significant capital investment.

DISCOVER MONEO — SYSTEM IDENTIFIES AIR LEAKS IN REAL-TIME, CONVERTS SENSOR VALUES TO USEFUL DATA AND CALCULATES SAVINGS

- ifm's moneo real-time monitoring system allows air leaks to be identified, displays sensor values as data and calculates savings if leak is fixed.
- moneo converts the pressure, flow and air flow values to relevant information to add clarity to the process.
- moneo software provides analysis and trending of air lines.
- moneo records total consumption values and identifies savings potential.
- Integrated alarm management enables fast reaction to changing process parameters for increased compressor efficiency and performance.
- moneo system is capable of saving permanent data recordings and database storage.
- Independent system with CPU appliance with pre-loaded software is easy to use; no need for a plc.

ifm's moneo Real-Time Monitoring System reduces energy costs linked to compressed air or gas leaks, maximizes machine performance with the proper compressed air or gas supply and frees up the maintenance team to do value-added work versus time-based maintenance checks.

moneo|RTM System Structure



moneo | RTM

User-friendly software helps you align efficiency goals within one system.

Monitoring table Analysis Dashboard Tasks and Tickets IODD Management Config Tool Device Management





COCKPIT

- The moneo dashboard can be customized by drag-and-drop for a clear representation of flow, pressure, temperature values, and cost associated with compressed air leakage.
- Plant graphics for better visualization of the measuring points can be uploaded.
- System status across all sensors can be clearly represented.
- A traffic light function for quick detection of leaks can be set.

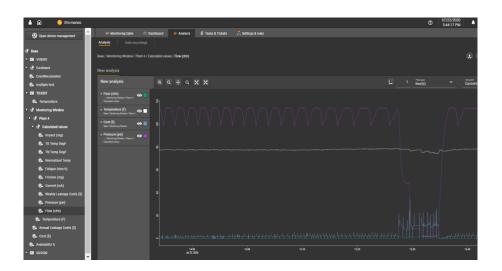


If the system leakage continues, moneo calculates that the cost is \$762.07 per week. The annual cost is \$39,736.48.



ANALYSIS

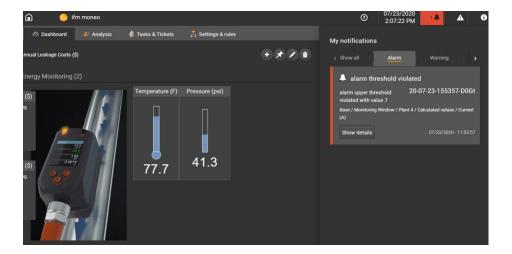
- moneo analyzes detection of air leaks and malfunctions
- Relevant sensor values are represented in the analysis chart
- Calculations and trend curves are displayed.
- Time of leaks, pressure drop, and costs associated with these events are shown.
- The Correlation of true compressed air flow values are graphed.





TASKS AND TICKETS

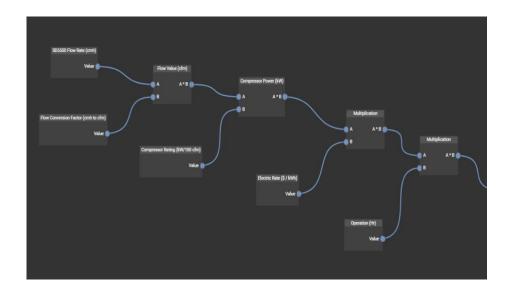
- Integrated alarm function for limit value monitoring is available.
- An automated ticket in the event of an alarm can be generated.
- Alarm-escalation strategies can be set.
- Early detection of damage cases and malfunctions can be programmed.





CALCULATED VALUES

- moneo calculates energy costs, leakage rates and potential savings.
- Process values are converted to useable information and data.



Overview of moneo | RTM System Components for Compressed Air Monitoring

Sensor	Product Picture	Item Number	Link
Compressed Air Meter	000	SD5500	https://www.ifm.com/us/en/product/SD5500
IO-Link Master	(a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c	AL1322	https://www.ifm.com/us/en/product/AL1322