



News Release

Air is money

Cutting operating costs with Festo Energy Saving Services

Well-organized energy management increases the efficiency of pneumatic systems and components. It provides protection against gradually increasing compressed air losses and ensures a long-term gain in performance through the integration of new technical developments. Accurate analyses form the basis for lower energy costs.

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HAUPPAUGE, NY, September 26, 2011 — Pneumatic

installations frequently do not include any monitoring facilities – a serious error, since 79 percent of the costs of compressed air are accounted for by the electricity used for generation and preparation. Even if compressors, distribution systems, and pneumatic actuators are correctly dimensioned, leakage often causes losses of up to 600 l/min. What does it matter, it's only air, users might think. But even a reduction of compressed air losses of 100 l/min. saves up to \$1,450 (€1000) a year.

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Potential for savings

However, users often fail to exploit this potential for savings due to lack of know-how. Furthermore, in many cases, the technical equipment necessary to localize losses is not available. Frequently, lack of time prevents the implementation of energy-saving measures. Here Festo Energy Saving Services can help to monitor and optimize compressed air consumption by simple means.

Reducing energy costs

As part of an efficient leak-management system, a specialist will check during operation the compressed air system in question for leaks and will record each leak together with all the associated technical data, such as details of the spare parts required. This documentation will then show all the required maintenance measures and list the long-term savings against the short-term repair costs.

Optimizing compressed air consumption

More and more industrial companies are using precise compressed air consumption data as the main criterion for the choice of new equipment. With a detailed compressed air

consumption analysis, they can make savings of up to 50 percent more than with conventional methods. Even before commissioning, a compressed air consumption analysis can determine the precise compressed air consumption of an installation – both during normal operation and with machines at a standstill. It thus guarantees optimum dimensioning of the compressed air supply system and prevents unnecessary costs, which might be caused by an over-dimensioned compressed air distribution system.

Increasing service life

Any excesses or shortages in the compressed air quality, with regard, for example, to oil, water or dirt particles, will have a negative effect on the service life of the pneumatic components concerned, resulting in increased energy and operating costs. The compressed air quality analysis offered by Festo Energy Saving Services measures the residual oil content and pressure dew point, identifies weaknesses and develops suggestions for improvements, for example filter changes at more frequent intervals. Optimized maintenance allows average savings of 35 percent to be achieved.

Saving compressed air

Ideally, savings measures should begin at the source of the compressed air, the compressors. An energy analysis of compressed air generation provides detailed consumption profiles for electricity and compressed air, together with data on pressure levels, better timing of compressor run times, and flexible operating scenarios. In this way it is possible to ensure optimum use of available compressor capacity. A measurement of compressed air delivery with machines at a standstill provides a mathematical indication of leakage losses and thus the possible savings in the compressed air system as a whole.

Energy monitoring

When an installation is optimized with Energy Saving Services, the aim is to avoid damage and breakdowns in advance. Festo offers various condition monitoring and diagnostic measures for this purpose.

Through the continuous monitoring of critical components, it is possible to detect wear, pressure, and flow changes at an early stage and avoid the danger of machine downtime. If a breakdown nonetheless

occurs, the diagnostic systems ensure that the cause of the trouble is quickly located.

Energy Monitoring GFDM is a complete system for the continuous monitoring of compressed air consumption and volumetric flow. Alternatively, installation operators can select a customer-specific condition monitoring system.

Diagnostic systems are compiled from function modules in accordance with individual customers' requirements. The available functions include not only consumption monitoring, but also time monitoring of actuators and valves, monitoring of vacuum applications, and detailed monitoring of actuators (e.g. force monitoring and fault detection).

For sales information, call Festo at 800-993-3786 and visit www.festo.com/us.

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For the following images, [click here](#)

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Caption: As part of an efficient leak-management system, a specialist will check during operation the compressed air system in question for leaks and will record each leak together with all the associated technical data, such as details of the spare parts required. (Photo: Festo)

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Caption: Even before commissioning, a compressed air consumption analysis can determine the precise compressed air consumption of an installation – both during normal operation and with machines at a standstill. (Photo: Festo)

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Caption:

Energy savings of up to 35 percent: The compressed air quality analysis offered by Festo Energy Saving Services measures the residual oil content and pressure dew point, identifies weaknesses and develops suggestions for improvements, for example, filter changes at more frequent intervals. (Photo: Festo)

Photo:

Festo press photo

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Caption:

An energy analysis of compressed air generation provides detailed consumption profiles for electricity and compressed air, together with data on pressure levels, better timing of compressor run times, and flexible operating scenarios. (Photo: Festo)

Photo: Festo press photo

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Caption: Automatic monitoring and analysis of air consumption: the Festo Energy Monitoring System GFDM offers a complete package of products and services for condition monitoring. (Photo: Festo)

Photo: Festo press photo

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Caption: Installation, commissioning and use of GFDM are possible without extensively training maintenance personnel thanks to its intuitive user interface software. (Photo: Festo)

Media Contact:

Journalists write to the Festo Marketing Manager
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high resolution images.