



Prevent compressed air losses and save money



GHM ONE multifunction unit

Get a grip on compressed air with the GHM-ONE

The requirements placed on us

The compressed air supply of industrial production plants must provide an adequate amount of air for all machine processes at a constant system pressure while reliably avoiding drops below the dewpoint. The system process data, individual consumption values ensuring the compressed air quality and the production availability must be monitored automatically at all times and the processes must be documented. And it must be possible to call up and view all of this information within the company network in a clearly arranged format.

Our solution

The measuring technology of GHM GROUP that is used, enables detection of leaks and provides information about system optimization and permanent reduction of energy costs. With intelligent, time-optimized activation of the individual consumer machines, the total amount of air consumption can be kept within economically logical limits (measured on the basis of the graduated energy prices for maximum withdrawal).

The purposeful heat recovery of compressor systems for room ventilation technology fulfils an additional point of the energy



BENEFITS.

- efficiency characteristic determination
- recognition of maximum loads
- visualization of pressure losses with trend graphs
- cost reduction with consistent consumer control
- optimization of return heat utilization

saving according to DIN EN ISO 50001. Used as a central energy management system, the compact GHM-ONE multifunction unit shows the system operator the status of process data and trend curves (short-term and long-term) for efficiency evaluation in a clear layout on a colour touch display.

The sensors are connected directly, such as a dew point measuring transducer (measuring range – 20 to + 30 °C td), type GHM series EPS 2 pressure measuring transducer (0..16 bar) for system pressure and type GHM Labo-FG-I/U/F/C volume flow meter in m³/min, which reliably calculates the consumed volume from the flow speed and gas density.

The supply and exhaust air, including circulating air of the central compressor station and, if applicable, the ancillary room are regulated with corresponding temperature sensors and via motors (for fans, valves).

An easily expandable number of energy meters (kW/h) for the individual consumers and connection of logicsignals for the start and locking signals account for the entire process data recording in GHM-ONE (MDE, BDE).

Benefits

With this equipment, the user determines the **individual consumption processes** of their individual production machines and **the leakage portion** in the overall system.

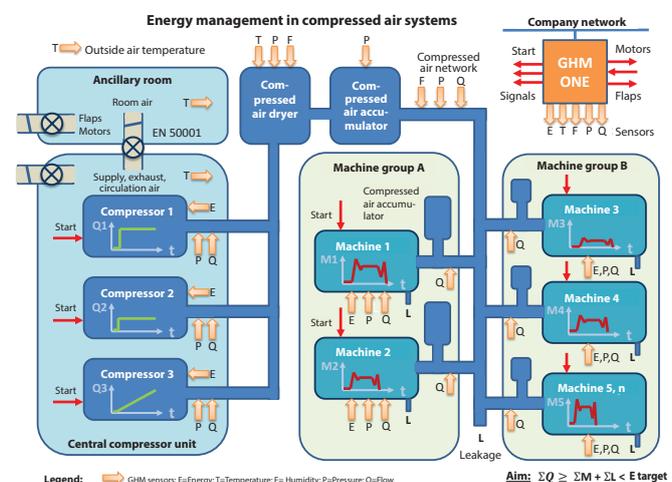
Based on the resulting **process data analysis**, the necessary number of screw compressors to be activated, the reduction / decrease of the buffer tanks used on the machines, and the measures for elimination of leakage are optimised. Therefore, with an **intelligently processed, individual machine start-up**, the overall amount of compressed air to be provided by the system is reliably adequate at all times and processes are optimally adapted to current **graduated energy pricing for maximum withdrawal**.

Summary

The graphic representation of the current energy management via trend graphics on the local display and simple communication with the mobile and stationary computers (MES, ERM) connected via the company network are the decisive factors.

The practical expansion of the modular hardware and the surprisingly quick adaptation of software components via the graphically operable GHM-CAT tool to the individual customer requirements with verifiable preliminary testing available at all times round out an impressive offering.

The GHM-ONE is a profitable solution for the reliable support of tasks for consulting, planning, installation, energy efficiency, maintenance, service and customer service. For the production plant, use of the GHM technology is a cost-effective and reliable implementation that transparently displays all machines in the process sequence.



Energy management in compressed air systems