

SMC Expert Article – Maintenance

Counting the real cost of incorrect or poor maintenance

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It's tempting to cut corners on your maintenance operations. After all, maintenance is an indirect cost with a direct impact on your bottom line profitability. In reality, however, performing insufficient maintenance simply to save on costs is counter intuitive, with such an action incurring far more cost than it recoups.

Energy efficiency is a prime example. Say you notice a leak in your compressed air circuit. So what, it's only air, right? Well, it may only be air, but it's expensive compressed air. The cost of a 1mm leak at 6 bar pressure amounts to more than €800 a year at today's energy prices. This is just one leak: a typical compressed air circuit frequently has many.

Energy efficiency also suffers from failing to replace filters periodically. Clogged filters can cause your pressure drop to increase. In turn, you'll find yourself increasing the input pressure to maintain the same performance levels. Here at SMC, experience reveals that this leads to an increase in energy consumption of around 7%.

Damage limitation

Put simply, incorrect or poor maintenance, or avoiding it altogether, can damage your system. The upshot is machine downtime, which has a direct impact on productivity and OEE (Overall Equipment Effectiveness), while your non-planned maintenance costs inevitably rise.

For every second a machine is idle, your revenue dwindles away. Tangible costs here include lost production, lost capacity, a decrease in direct labour cost per unit, and higher inventory costs. There are also many intangible costs, such as the stress of responding to a downtime situation, the impact it has on detracting from your other core business activities, and potential damage to brand reputation if your customers are left waiting for products.

Incorrect or poor maintenance undoubtedly has an impact on overall MRO costs and could potentially even compromise your safe working environment. What price do you put upon a workplace accident, or worse? A lack of maintenance can also impact product quality.

Stay in control

Among the most cost-effective solutions is monitoring. If you are able to monitor critical system values like pressure, flow, temperature and position, you can plan a predictive maintenance programme which avoids the aforementioned situations. We've helped many customers implement this type of strategy, leading to benefits such as: enhanced safety, sustainability and energy efficiency; improved equipment performance, availability and reliability; and minimised maintenance time and costs.



SMC's Air Management System – Monitor the temperature, pressure and flow of your system and program shut-off times and standby periods to save energy.

Another good complementary strategy involves correct component selection. By opting for high-durability components from the outset you can lower your total cost of ownership (TCO) considerably, largely because the extended operating life reduces or avoids the need for maintenance.

Ultimately, there is no production process that can achieve optimum productivity without implementing a considered maintenance programme. We have the know-how to help you take the right steps.

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