



Full steam ahead – fast and successful savings through energy management

Rowenta Werke GmbH is a company that produces steam irons at the highest level of innovation and efficiency. This long-established company has used Efficio for a few years now – a full-scale solution that has substantially impacted its energy efficiency. Even during the first year of using Efficio Rowenta managed to reduce its power consumption by 4.5% per manufactured iron.



The company: The brand name Rowenta has existed since 1909 and represents high standards in a variety of kitchen and household appliances. In 1988 it became part of a globally operating French company, Groupe SEB, which is based near Lyon. Rowenta Werke GmbH is SEB's German subsidiary and has its base in Erbach in the Odenwald district (in the state of Hesse).

It is the only facility in Germany, a place where irons are manufactured for the medium and high price segments – “made in Germany”.

Industry: small electrical household appliances

Areas of application: household, kitchen and body care

Customer benefit: Certification under ISO 50001 (planned for spring 2016) and resource-friendly manufacturing

Contact Rowenta Werke GmbH:

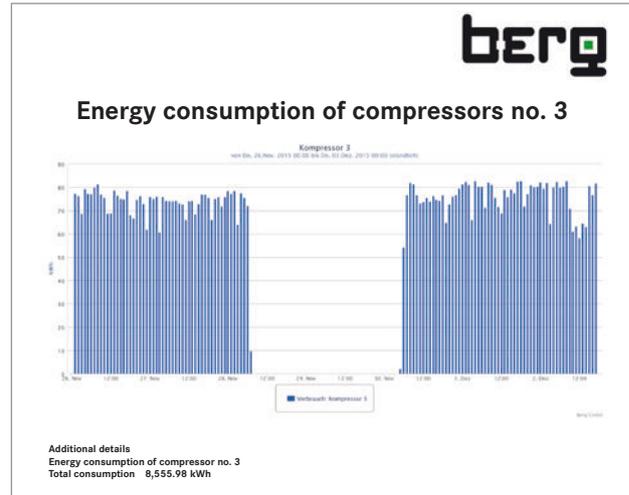
Bodo Schwarz, electrician with responsibility for testing devices, monitoring and energy management, phone: +49 6062 66214, email: bschwarz@groupeseb.com

Expertise and a commitment to excellence. The high-calibre lifestyle brand Rowenta is a byword for home appliances that appeal to discerning customers with a sense of aesthetics. The well-known name currently covers steam irons, steam generators, vacuum cleaners, hair dryers and straighteners, as well as coffee machines, electric kettles, heaters, fans and numerous other products. All of these are considered particularly efficient and easy to handle, due to their convenient features. What distinguishes Rowenta irons from those of other manufacturers is their high-quality electronics, excellent wattage, steam performance, anti-limescale systems and integrated safety devices, e.g. automatic switch-off. The reason why the company can be such an efficient manufacturer at its only remaining facility in Germany is that it is one of the most state-of-the-art plants in Europe. Its highly automated and innovative manufacturing lines ensure that wage costs are low and that margins remain economical. One major aspect is of course control over the facility's own energy consumption and full use of potential energy savings and thus costs. This is why the company took the logical decision to set up an energy management system that enables it to receive certification under ISO

50001. Certification also gives it exemption from a levy under the German Renewable Energies Act (EEG), and Rowenta will eventually pay less in power and energy tax.

“For a number of years now our parent company, Groupe SEB, has required us to comply with environmental and quality standards.” For Bodo Schwarz, Rowenta’s electrician who manages the company’s metering equipment, this was a major factor which prompted him to find a suitable energy management system. A few years ago he and Jürgen Neff – Rowenta’s environmental, energy, labour and health officer – came across the energy monitoring software company Berg GmbH at the Light and Building trade show in Frankfurt. They then compared Berg’s Efficio software with three other systems which they had found on the internet. “Within a very short time,” says Schwarz, “it became clear to us that Efficio was the best application to support us in preparing for an energy audit.” So Efficio was set up in spring 2013, and the company’s data collection and analysis has been fully automated to the present day. To start with, the number of electricity meters was increased from 3 to 20, and the relevant data loggers were also connected. Using BUS lines, all the metering points can now be read by a computer. “The installation was easy enough for us to handle ourselves,” says Bodo Schwarz, who was pleased about the simplicity of the plug-and-play setup. Until then he had to take manual readings of the company’s electricity consumption and then enter the data in a spreadsheet. Now, however, with Efficio, he can analyse and monitor the data quickly and therefore identify any major consumers straight away. As a result, some ancient fluorescent tubes in the hall lighting have been replaced by LED tubes, the air compressors have been replaced with speed-controlled machinery, and the cooling water system has been converted to a thermostatically controlled system. Schwarz is pleased: “Even during the first year our electricity savings reached 4.5% per manufactured steam iron.” Using Efficio’s reporting function, he regularly sends all the important energy data reports to his colleague, Jürgen Neff, in the form of charts and diagrams. If required, he can also do so on a daily basis. Neff has therefore retained full control in interpreting Rowenta’s overall energy consumption and can identify potential savings immediately and at any stage of the manufacturing process.

One area, for instance, where Neff and Schwarz had quite a surprise was a large assembly system which remains idle over the weekend but continues to use a lot of electricity during that time. Thanks to the data recordings, it was possible to conduct some cost-benefit calculations which showed that there was no point in turning the system off. Taking account of additional staff expenses for switching the entire assembly system on and off, it turned out that it was better to leave some of the machines running.



Example of an energy report on a compressor in Rowenta's manufacturing system

In the future Rowenta will apply similar cost-benefit calculations to its plastic moulding systems. This will happen as soon as the volumes of compressed air and heat are being recorded and analysed via Efficio. After all, this place, in particular, requires a lot of energy for the cooling of injection moulds and machinery. Also, the company’s old meters will gradually be replaced by new ones. The meter at the switching station to the energy utility, for instance, still needs to be read manually once a month.

Simple record keeping for an energy audit

One important goal that was achieved was an improvement to the budgeting of the individual product lines. This is an area where Efficio provides detailed and transparent consumption analyses. Based on energy metrics (i.e. consumption per manufactured iron), it identifies and correctly maps the energy requirements of each iron that leaves Rowenta’s production halls. “These are important details” says Bodo Schwarz, “which help us to improve our costing for the following year.” Jürgen Neff describes a further benefit for the plant in Erbach: “The energy management system we now have also makes it easier for us to keep records for certification under ISO 50001 in spring 2016, so that we can be confident that our saving efforts are bearing fruit.” The two colleagues are very pleased with the monitoring software and also with the timely and helpful support that is continually provided by Berg GmbH. So Rowenta is now fully prepared for its energy audit. It can move “full steam ahead”, receive an ideal energy rating for its production and conduct optimum budgeting for the next few years.



Member of VIVAVIS