



Improved material efficiency for packaging

Every gram counts

The amount of waste produced in the manufacture of a single unit of tin packaging is no more than a few grams. However, when multiplying this by millions of units, it amounts to a considerable volume of valuable metal. Huber Packaging Group and Festo Didactic together managed to significantly improve material efficiency by conducting detailed material flow analyses.

Lever lid cans or canisters are rarely regarded as valuable objects. They are mostly just a means to an end, such as for transporting and storing products. Once the paint, oil, cheese, beer or pickles have been used up, the packaging has fulfilled its purpose and is recycled. However, it should be remembered that behind every item of metal packaging lies an extensive and complex production process, which demands the highest levels of quality and efficiency.

Millions of euros worth of materials

In order to be better able to meet demands for greater material efficiency, Huber Packaging Group GmbH participated in the VerMat programme of the German Materials Efficiency Agency

(demea) at two of its plants. The aim of the “Analysis of start-up and quality losses in component manufacturing” project was to identify potential for more economical use of tin and chrome plate and thus to make the company’s business processes more efficient. It proved to be an extremely worthwhile exercise. Huber Packaging Group processes tens of thousands of tonnes of tin plate to create metal packaging every year. This corresponds to a material value of tens of millions of euros.

Putting processes to the test

The manufacture of tin packaging produces a certain amount of waste from cuttings and rejects. To reduce these losses, Huber Packaging Group under-

took a detailed analysis of its production processes with Festo Didactic GmbH & Co. KG Denkendorf. Every lid, every base, every ring that did not meet the strict quality requirements was analysed. Were quality characteristics not met? If so, which ones? What were the reasons for poor quality and how could the problem be rectified?

Over 100 tonnes saved

Material flow analyses on selected production systems provided the basis for a sustainable improvement in efficiency. These analyses recorded the input material, the quantities and the weight of the good parts as well as the waste produced. The latter was further quantified to produce a summary in which



“We were surprised at just how much material we were able to save.”

Wolfgang Merkle, Head of INDUSTRIAL,
Huber Packaging Group

the roots of the errors and their effects were evaluated. This detailed approach proved to be extremely successful in the case of Huber Packaging Group, as the material losses had many different causes. Potential savings of well over 100 tonnes of tin and chrome plate per year were identified on the basis of rela-

tively low levels of investment. For Huber Packaging Group, the decision to work with Festo Didactic has really paid off. All these small improvement measures have together helped the company to make significant changes. ■

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Area of business:
Manufacture of tin plate metal packaging for chemical products, dyes, paint, foodstuffs and party kegs for the beverage industry