## **CASE STUDY**

Reference Märklin, Germany: Customized containers deliver greater flexibility

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## CUSTOMIZED CONTAINERS DELIVER GREATER FLEXIBILITY



Originally, Märklin specialized in dollhouse kitchens, and subsequently produced tin toys. The compnany grew from a small factory to become an internationally renowned manufacturer of high-quality metal toys and is now the market leader in Europe for model railways.

Although the brand maintains a touch of nostalgia, it continues to also be forward-thinking. It is committed to innovation and to developing new products for all major model railway patterns. Märklin's products are built to be an authentic, scaled-down reflection of reality when it comes to technology, appearance and materials. To fulfill this quality standard the company uses diverse metals and alloys, sheet metal, aluminium, high-quality plastics and wood. The key objective when making these products is excellent quality and lasting value.



"We chose to partner with SSI SCHAEFER to create a suitable solution. With this project, we wanted the support of a market leader - someone who takes our key objectives and challenges seriously, and who knows what they are doing."

Michael Ludwig, Head of Department, Gebr. Märklin & Cie. GmbH



Märklin recently purchased 38,000 plastic containers with 13 types of bespoke inserts for transferring parts within production. The companys diverse portfolio and the range of shapes and sizes of its products made it increasingly difficult to find suitable containers for transportation during manufacturing. In addition, protecting the delicate items against dust and dirt and ensuring they remained secure despite jarring movements was a complicated process.

Märklin required a container that could be used flexibly - something strong but at the same time lightweight and easy to modify in order to accommodate the broad range of products, which come in various shapes and sizes. In addition, the solution had to be compatible with the existing trolleys, able to support business growth, heat-resistant and user-friendly. The main concern was safe and secure transportation to the plant in Hungary. Other goals included minimizing the need for packing materials and repairs. Ideally, the solution would be future-proof – in other words, expandable and compatible with automation.

At the core of the project was a standard SSI SCHAEFER injection-moulded,14/6-2G stacking transport container. It was chosen for its outstanding strength and resistance to

temperature and most oils, acids and alkalis. In addition, it is ideal for automated processes.

The containers were modified to fullfil Märklin's specific challenges. The slits on the containers perform three vital functions. They ensure sufficient ventilation for the painted parts during transportation and allow water to drain away when the containers are cleaned.

The most important function however, is that they provide a versatile solution for securing the plastic inserts, which securely hold and protect the container's precious cargo. Depending on the product, the containers are equipped with two to four inserts, each with a row of trapezoidal mounts. The metal body of model locomotives and rolling stock can be placed on a pair of these mounts. This design ensures that nothing touches the delicate surfaces of the parts. Moreover, the inserts are secured to the slits in the container sides by means of nuts on the exterior. This means the position of the inserts can be adjusted to accommodate the varying lengths of Märklin's products.



#### **PROJECT OBJECTIVES**

- Protection of the model parts during the manufacturing process
- Optimal storage and transportation
- Reduced diversity in load carriers
- Development of a load carrier that suits many different model trains
- A very strong, flexible and light system that can easily be washed and is resistant to temperature
- Compatibility of the system with existing trolleys
- Reduced use of additional packaging

#### **OUR SCOPE OF SUPPLY AND PERFORMANCE**

- Consultancy and development of the container solution
- 14/6-2G plastic stacking transport container
- Bespoke slits were added to the sides of the containers
- Equipped with a row of plastic trapezoidal mounts



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#### • Efficiency:

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#### • Quality:

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#### • Reliability:

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#### • Know-how:

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