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A circular system for maximum sustainability

In the packaging industry especially, sustainability is a factor that is rapidly gaining in importance and is serving to define new requirements for everyone involved in the supply chain. Schütz has responded to these needs by developing a Green Lifecycle Management programme comprising a package of measures that deliver a supremely effective recycling system. The company is optimizing the entire life cycle of its packaging to achieve maximum eco-friendliness – and is actively encouraging customers to take part.

Schütz has been a pioneer in the production of industrial packaging systems for over 50 years. As early as the mid-1970s, with the introduction of the IBC, the company offered a modern packaging solution that focussed on efficient cycle management and recycling. Ever since, Schütz has been setting global benchmarks with uniform product standards and the highest quality, as well as taking responsibility for the reuse of empty packaging. For Schütz, progress means constantly reducing the carbon footprint of its packaging. As the next step, the company has launched the Green Lifecycle Management scheme. It is based on three pillars: the efficient use of scarce and increasingly expensive resources, the global collection and reconditioning of industrial packaging and the environmentally friendly recycling of plastics.

Small steps, big impact

Ambitious climate targets can only be achieved if sustainability is considered across all areas of operations and woven into the corporate philosophy. Schütz's deep commitment to protecting the environment by developing sustainable packaging solutions is expressed in the Group's continuous investment in state-of-the-art facilities and the most advanced production processes. Technical progress, research and process development are the key to developing efficient packaging solutions and optimising their carbon footprint. For example, every gramme of weight saved reduces emissions and helps to minimise the use of natural resources.

One of the best examples for this resource efficiency is Schütz's Ecobulk range, the most widely used IBC system in the world. Featuring an inner bottle made of HDPE, a steel grid and a pallet made of plastic or steel, the modular design makes it easy to replace components and recycle materials by type. Thanks to the high level of vertical integration and full in-house

production, Schütz can fine-tune the optimisation of each individual component. As a result, the weight of the IBC has been gradually reduced within the space of only a few years, while at the same time improving performance. By saving on raw materials alone, Schütz reduces its direct CO₂ emissions by 120,000 tonnes per year. With the Recobulk series, Schütz offers reconditioned IBCs that have the same quality and approval as a new IBC, thus saving up to 100 kg of CO₂ per cycle. Schütz has set its own standard in IBC reconditioning.

Cycle management: customers play a part – and benefit

The Schütz Ticket Service is an important element in the replacement and reconditioning of IBCs. The worldwide collection of emptied, used IBCs is simple, fast and usually free of charge. The industrial packaging manufacturer currently maintains a network of 60 production and service locations, ensuring that it is close to customers and emptiers around the world. Based on this principle of short distances and software-supported route optimisation, Schütz can guarantee low-CO₂ transport. And by returning IBCs through the Schütz Ticket Service, customers themselves are making an active contribution to environmental protection.

In a process developed by Schütz, the collected, used packaging is analysed using state-of-the-art AI and 3D scanning technology. The data gathered on the condition of the container and the filling product it contained is used to ensure that each container is optimally reconditioned. The AI application draws on an internal database of 400,000 different filling products. This pre-selection is used to determine which further process steps are necessary. The collected packaging then undergoes a complex reconditioning process: the inner bottle of the IBC is replaced, the steel grid and pallet are cleaned and repaired if necessary so that they can be reused for several more packaging cycles. Anything unsuitable for direct reuse is sent to the company headquarters in Selters for recycling.

In this way, Schütz always has full control over the quality of the packaging being recycled and can create a closed material cycle. The more empty packaging that is returned to Schütz, the greater the supply security. This emphasises how important it is for every IBC user to feed their empty packaging back into the cycle.

At the in-house recycling centre in Selters, the HDPE material is shredded, cleaned and then processed in a range of mechanical preliminary stages to produce high-quality, odourless and homogeneous recycled pellets. Thanks to pioneering technology, even heavily contaminated material can be processed. The packaging is reconditioned in compliance with the highest environmental and quality standards.

These regranulated pellets are reused to make new packaging components such as pallets, corner guards or components such as flaps or acid protectors. While the use of recycled material has a long tradition at Schütz, the proportion of recycled material has been taken to a new high in Schütz Green Layer packaging. The middle layers of the IBC inner bottles, jerrycans and plastic drums are made using 30% high-quality, natural-coloured

recyclate. The inner and outer layers are made from new HDPE, meaning that the environment and the filling product still only come into direct contact with virgin material. If a customer also opts for a pallet and plastic corner guards, this takes the volume of recycled material in a Green Layer IBC to as much as 70%. The use of recyclate enables additional CO₂ savings of 6.8 kg per IBC and up to 3.8 kg per drum. Schütz Green Layer packaging is suitable for a wide variety of applications. Like all packaging from Schütz, it is optionally available with hazardous goods approval.

Sustainability is in the corporate DNA

From new products to reconditioning, recycling and the waste reduction benefits this brings, Schütz offers a complete solution for uncompromising quality and makes a holistic contribution to a more sustainable circular economy. The concept of a circular economy is firmly anchored in the company's DNA. Furthermore, Schütz is committed to bringing all customers on board, as the principle of green lifecycle management can only be effective if all stakeholders in the packaging cycle play their part. By controlling the entire process chain itself, Schütz not only offers innovative packaging systems and a global service, but also sustainable future prospects for the company and its customers.

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Images and captions:



Caption: With the Schütz Ticket Service, Schütz offers a worldwide collection and reconditioning service for emptied packaging as well as giving customers the opportunity to contribute to environmental protection.

Photo: SCHÜTZ



Caption: At Schütz's recycling centre in Selters, used material is turned into regranulate which is reused for the production of new packaging components.

Photo: SCHÜTZ



Caption: The Schütz Green Layer product line uses high-quality recycled material to make IBC inner bottles, jerrycans and drum bodies.

Photo: SCHÜTZ



Caption: Schütz's plastic frame pallet is especially resource-friendly as it can be reused and is made using HDPE recyclate.

Photo: SCHÜTZ

About SCHÜTZ

Schütz GmbH & Co. KGaA is a leading international producer of high-quality transport packaging (Intermediate Bulk Containers, PE and steel drums, and jerrycans). The Group's headquarters are in Selters, Germany. Founded in 1958, SCHÜTZ employs over 7000 people at over 60 production and service sites around the world. The four SCHÜTZ business units, ENERGY SYSTEMS, PACKAGING SYSTEMS, INDUSTRIAL SERVICES and COMPOSITES, each hold leading positions in their respective markets. The Group's turnover in 2023 was 2.3 billion euros. The company offers its customers full system solutions that are tailored to their individual supply chain. With the SCHÜTZ TICKET SERVICE, a closed-loop cycle of speedy collection and reconditioning for used SCHÜTZ IBCs, Schütz provides all of the world's major industrial nations with a service that fully complies with the Group's sustainability philosophy.

For more information, please contact:

Schütz GmbH & Co. KGaA, Schützstraße 12, D-56242 Selters
Tel.: +49(0)2626/77-274, Fax: +49(0)2626/77-365, Email: melanie.ievolo@schuetz.net

additiv pr GmbH & Co. KG, Herzog-Adolf-Straße 3, 56410 Montabaur
Bastian Zimmer, Tel.: +49 2602 950 99-21, Email: schuetz@additiv-pr.de

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