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Sidel capitalises on over 40 years' experience in PET container production to launch Eco-Audit, a service for optimising the environmental footprint of its machines.



At a time when ecological issues have become a daily reality for manufacturers, Sidel is now helping its clients maximise their environmental performance thanks to Eco-Audit, a comprehensive approach to improve their PET container production processes. This service will soon apply to other equipment in Sidel's portfolio.

The service, which can be broken down into several phases, begins with an in-depth audit of the container production process to accurately assess its true environmental impact, then offers expert support to significantly and rapidly reduce the consumption associated with PET containers and blow moulding.

A pressing need to reduce consumption

Against the backdrop of the current ecological crisis, environmental regulations are becoming increasingly stringent for manufacturers. At the same time, consumers are increasingly aware of the carbon footprint of the products they purchase. For manufacturers, this duty to be sustainable, when considered as a means of improvement, represents a genuine competitive factor. Reducing material or energy consumption often translates into a significant drop in operating costs, and actively contributes to the creation of an enhanced brand image.

The carbon footprint of primary packaging is particularly significant. This is particularly true for manufacturers who package their products in PET. Indeed, although this material is convenient for consumers and is recyclable, the production of PET containers nevertheless represents at least 50% of the environmental impact and total cost of ownership of a packaging line, when considering both the preform material and the entire blow-moulding process. PET packaging and its production are therefore one of the first production parameters to be addressed when it comes to reducing carbon footprint and production costs.

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The value of manufacturer expertise

Determining the factors on which to work to reduce the environmental impact of PET bottle production often requires advanced knowledge of the plastics industry. Mathieu Druon, Eco-Audit Product Manager, explains: "The production process for PET containers is complex. Many factors come into play: the quantity of material and the design of the preform, heating and blowing technologies, and the technical configuration and operation of the machine, from production to maintenance. What's more, these factors vary greatly from one manufacturer to the next, depending in particular on their economic and strategic choices, their mastery of the blowing process, their knowledge of the latest technological innovations, and the compatibility of these innovations with each machine model".

This observation led Sidel to launch its Eco-Audit service. Mathieu Druon sums up: "Sidel is a pioneer in the development of stretch blow moulding technology, and in over 40 years of designing blow-moulding machines, we have developed proven expertise in all aspects of PET container production. So it was only natural that Sidel developed the Eco-Audit to help owners of Sidel blow-moulding machines better control and reduce their machines' consumption".

A comprehensive audit

The service offer developed by Sidel can be broken down into three phases to suit the exact needs and expectations of each manufacturer.

The first phase, called Eco-Assessment, is a comprehensive, in-depth audit of the production process and associated consumption, from the characteristics of the preform, to the machine's technical configuration and operating parameters. Once this thorough diagnosis is completed, a full report is given to the client, detailing actual consumption, its ecological and economic impact, and all potential avenues for further reductions.

The second phase of the offer, called Eco-Value, aims to implement all the simple adjustments needed to achieve quick savings in materials and energy. All aspects of the process are taken into account: recipe management, machine settings, from oven heating to the use of air in blowing and dedusting modules, or the detection and correction of potential air leaks.

Finally, the third phase, called Eco-Partner and based on the analysis of the Eco-Assessment and the results of the Eco-Value, consists of fully supporting the client in transforming their production facilities to fundamentally improve the energy performance of their PET container production. This work can take the form of installing custom parts or options to enable the machine to benefit from the latest technological innovations developed by Sidel. Depending on the case, Sidel experts can also recommend improvements to the container (neck, preform or bottle design) in order to reduce the quantity of material and blowing pressure, and assist clients in the subsequent modification of their line. The Eco-Partner then concludes with another complete audit of the line, along with a quantified report on the savings achieved and forecasts for future gains.

Fast, substantial gains

Regarding the potential savings from the Eco-Audit of PET blow-moulding machines, Mathieu Druon states: "It's hard to quantify because every industrial case is different. That's why our intervention always begins with a detailed

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audit under real conditions: it enables us to evaluate precisely and factually the savings we can generate for the client. And this is precisely what enables us to deliver the results we announce when we work on our clients' lines to implement our recommendations.

Nevertheless, I can mention the results of two test audits we carried out with clients: in one case, we achieved annual reductions in carbon footprint of 7 tonnes of CO₂ equivalent for over 80,000 Euro in savings, and in the second case, no less than 157 tonnes and over 180,000 Euro! And in both cases, the return on investment was barely a few months".

An offer poised for growth

To make its clients aware of the savings that can be made in PET container production, Sidel will be distributing an informative brochure in early October, via its social networks and website, outlining solutions for improving the energy performance of their blow-moulding machines. And to deploy its Eco-Audit offer worldwide, Sidel has an international network of experts in packaging and blow moulding. They will also be able to rely on Sidel's Evo-ON Eco, when installed on the line: this digital application, the result of Sidel's dual expertise in packaging and digital technology, enables detailed, real-time monitoring of the line's various consumption levels.

As for the other equipment in Sidel's portfolio, Mathieu Druon explains that "Sidel intends to broaden the scope of the Eco-Audit to its other equipment in the near future, starting with bottle washers and pasteurisers. Our long-term ambition is to enable our clients to have the most cost-effective production throughout their packaging line".



For more information, consumer insight and expertise in the transition to an inhouse packaging solution, beverage manufacturers can download the variety pack solutions whitepaper from the <u>Sidel website</u>.

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Contact:



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Sidel is a leading global provider of packaging solutions for beverage, food, home and personal care products in PET, can, glass and other materials.

Based on over 170 years of proven experience, we help shape the factory of tomorrow, through advanced systems and services, line engineering, eco-solutions, and other innovations. With over 40,000 machines installed in more than 190 countries, Sidel has 5,000+ employees worldwide who are passionate about providing equipment and service solutions that fulfil customer needs.

We continuously ensure we understand the evolving business and market challenges our customers face and commit to meeting their unique performance and sustainability goals. As a partner, we apply our solid technical knowledge, packaging expertise and smart data analytics to assure lifetime productivity at its full potential.

We call it **Performance through Understanding**.

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