

SOLUTION OVERVIEW

TARGET AUDIENCE

International beet and cane sugar factories, refineries, engineering firms, and equipment

CUSTOMER SITUATION

Model sugar processes to make improvements and evaluate investment decisions

SCENARIO AND SOLUTION

Sugar companies are under pressure to reduce their energy consumption, carbon footprint (Co2), and increase their efficiency. Modeling the process and making changes to the model is the quickest and most efficient way to evaluate changes and make Improvements.

CUSTOMER SATISFACTION

Comments from users of Sugars Include:

- "...there is no substitute for the ease of use and accurateness of the Sugars[™] program at such a reasonable cost."
- "Sugars[™] helps us avoid those unforeseen problems that can occur with a new project."
- "...we were able to model a unique approach to processing. The factory was modified according to the model and it exactly produced the results predicted by Sugars[™].
- "Developing models now is as easy as drag and drop. We developed a model of our whole factory and refinery, starting with milling and going through the refined sugar driers."
- "...we use it for our daily operations. It gives us an opportunity to test possibilities prior to implementing them. The model is built so that it mirrors our factory conditions almost
- "In our opinion, Sugars™ is one of the most useful tools for simulation, calculation, and teaching that we have ever used, in the works for improvement of our facilities.'
- "A great added value of Sugars™ is that you can learn with it."

INDUSTRY PERSPECTIVE

- Engineering
- Chemical
- Industrial Equipment
- Consulting
- **Energy and Sustainability**

Sugars[™] is a process modeling and simulation software program for the international sugar industry.

SINCE 1986, the Sugars[™] program has been utilized by sugar companies, engineering firms, and equipment suppliers to enhance their factories, devise new ones, and assess process equipment. The software program uses Microsoft Visio to create models with a graphical interface and simulate the process to determine the financial benefits of various improvements. The program is user-friendly and efficient, allowing users to drag and drop station shapes and route flow streams using a mouse. Performance data for each station in the model is entered on displayed dialogs. Once the model is completed, the balance calculations simulate actual results, providing material, energy, and color balances. The generated results can display revenue, sugar yield, steam consumption, molasses properties, color, and other engineering data for each flow stream in the model.

Sugars™ offers a program that enables swift evaluation of process changes before implementing them in the factory. For instance, one can alter the imbibition water in milling to observe the corresponding change in sugar yield, sucrose content in bagasse, and exhaust steam consumption. Similarly, changing the vapor to a pan or heat exchanger offers a glimpse into the impact on the exhaust steam consumption by the multiple effect evaporators. The program also incorporates molasses desugarization with chromatographic separation for evaluating the economics of generating more sugar against the additional process expenses. Additionally, the program evaluates various boiling schemes to identify the most efficient one and assesses the separation efficiency of centrifugal stations. The model can simulate changes in beet or cane characteristics and suggest alterations to the process to enhance efficiency. SugarsTM offers endless possibilities and can quickly identify the most promising improvements that can enhance factory performance and profitability.

SugarsTM is a powerful software program to analyze and improve sugar factories and refineries and to evaluate the performance of equipment used in the process.

OUR CUSTOMERS

Companies in more than 40 countries have purchased Sugars™ including: Amalgamated Sugar Company, American Crystal Sugar Company, APRO Polska Sp. z o.o., Audubon Sugar Institute, AB Azucarera Ileria, S.L.U., Booker Tate Ltd., British Sugar plc, Cosun Food Technology Center, ESCON GmbH, Illovo Sugar Ltd., Imperial Sugar Co., Industrieprojekt (IPRO) GmbH, ISGEC Heavy Equipment Ltd., Michigan Sugar Company, Nordic Sugar A/S, Pantaleon S.A., Queensland University of Technology,,, SiVEST SA (Pty) Ltd., Sucros Ltd., Sugar Knowledge International Ltd. (SKIL), Sugar Milling Research Institute, The Western Sugar Company, Wilmar International, Ltd., Tereos France, DCM Shriram, EnProCo Berlin, GmbH, Finasucre, and many others.

Together We Model Excellence



CONTACT US

To cater to our customers' unique needs, we have designed several licensing options. If you are interested to learn how you and your organization can take advantage of the powerful features of Sugars $^{\mathsf{TM}}$, the licensing options, and the ease of access offered with our license server we are here to help. Contact us to see how Sugars™ flexible licensing easily integrates into your existing business structure. We will be happy to provide a personalized quote.

We can't wait to partner with you!