

June 16, 2025 Nagase & Co., Ltd. Daicel Corporation

Nagase & Co. and Daicel Begin Collaboration on DX for Mixing and Agitation Processes in Manufacturing

—Supporting Adoption of CAE by Designers with the Fluid Analysis Software Mixing Concierge™

As part of an initiative to support the adoption of computer aided engineering (CAE)* by designers for mixing and agitation processes in manufacturing, Nagase & Co., Ltd. (Head Office: Chiyoda-ku, Tokyo; Representative Director, President and CEO: Hiroyuki Ueshima) and Daicel Corporation (Head Office: Kita-ku, Osaka City, Osaka Prefecture; President and CEO: Yasuhiro Sakaki) began collaborating in June, introducing the Mixing Concierge™ fluid analysis software developed by Nagase & Co. to Daicel Group manufacturing centers.

*Computer aided engineering (CAE) uses computers to simulate the behavior of structures and fluids when designing and developing products and manufacturing processes, to analyze and optimize them.

CAE for designers is an initiative for designers developing products to carry out computer simulations themselves and use CAE at an early stage in the design process to predict the properties of a product without the need for repeated prototyping, making it possible to identify necessary areas for improvement, reduce development times, and lower costs.

Previously, Daicel's in-house fluid analysis specialist department handled technical issues and questions from the Daicel Group's manufacturing centers. However, with their manufacturing centers having spread throughout Japan, the burden on the specialist department grew as each factory faced its own unique issues and needs for design support. To respond to these issues, it became necessary to build a structure enabling employees at each factory to utilize CAE themselves.

Mixing Concierge™, which Daicel is now using, is fluid analysis software specialized for mixing and agitation processes, designed in-house by Nagase & Co. Compared to general-purpose fluid analysis software, it is simple to operate and is less of a burden to adopt. The software includes shape models used in manufacturing, and engineers can understand how to operate it even without specialized knowledge of analysis. This allows on-site designers and manufacturing leads to use CAE themselves, enabling designs and improvements fitting their workplace.

Daicel, with multiple manufacturing centers throughout Japan, decided to adopt Mixing Concierge™ due to it supporting factory employees implementing CAE and analysis by themselves, as well as making it possible to flexibly and rapidly respond to the unique issues facing each manufacturing center.



First Mixing Concierge™ will be adopted for new development proposals at the Otake and Arai plants, with plans to later use it for the production of Daicel's core products of cellulose derivatives and functional polymers.

Nagase & Co. will also consult on optimizing manufacturing processes based on analysis results, promoting manufacturing efficiency and DX for manufacturing processes as a whole.

Based on the success of this adoption, both companies will proceed with initiatives looking at expanding domains for use and enhancing analysis functions, contributing to DX in manufacturing.

■Concrete Details of Initiative

- Support for fluid analysis of mixing and agitation processes at early stages of process design for functional resins and cellulose derivatives
- Promotion of designers independently using CAE
- 流体解析 トレーサー追跡 液液拡散 液液拡散 道体に投入した集材の動き 2液の拡散状態(インクの事例)
- · Reduction of number of prototypes and shortening development lead time
- · Stabilization of product quality and optimization of processes

What Is Mixing Concierge™?

Fluid analysis software specialized for mixing and agitation processes. Nagase & Co. also provide consulting support for analysis results, providing full support for everything from adoption to use.

Website: Software Service Specialized for

Mixing and Agitation Processes

Mixing Concierge™



Mixing Concierge analysis

■Nagase & Co. Profile

- · Company Name: Nagase & Co., Ltd.
- Head Office: Chiyoda-ku, Tokyo
- Representative: Representative Director, President and CEO Hiroyuki Ueshima
- Business Overview: Import/export and domestic sales of chemicals, plastics, electronics materials, cosmetics and health foods
- URL: https://www.nagase.co.jp/english/



■Daicel Profile

- · Company Name: Daicel Corporation
- · Head Office: Kita-ku, Osaka City, Osaka Prefecture
- · Representative: President and CEO Yasuhiro Sakaki
- Business Overview: Manufacture and sales of various chemical products based on core technologies in cellulose, organic compounds, synthetic resins, and pyrotechnics
- URL: https://www.daicel.com/en/

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