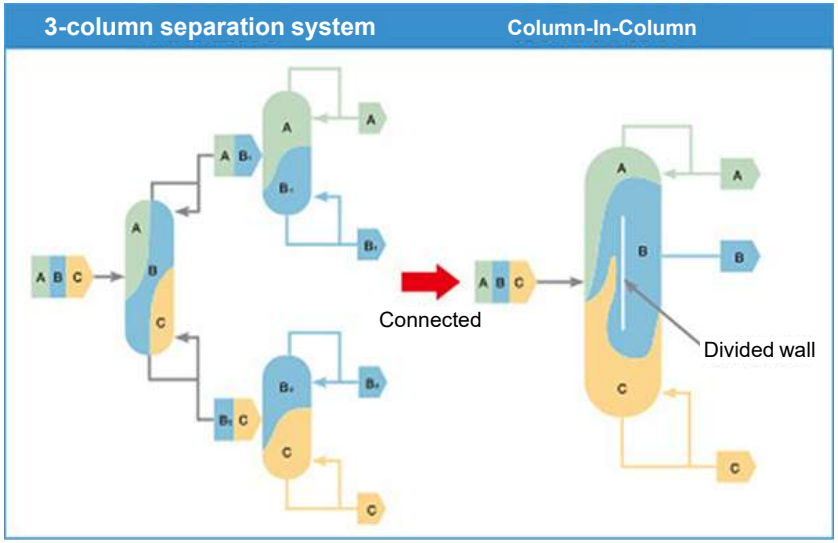
For the Chemical Industry
Integrated-Flow Energy-Saving Distillation System

R&D | FS/Demo | **Product/ Service**

Sumitomo Heavy Industries Process Equipment Co., Ltd.

- Our "**Column-In-Column**" **integrates the functions of three distillation columns into one**, achieving **approximately a 40% reduction in CO_2** emissions during operation.
- Distillation is a process that separates desired components based on their different boiling points. It involves repeated heating and cooling, which accounts for 40 to 50% of energy consumption in the chemical industry, making it energy-intensive. In particular, separating three or more components requires multiple distillation columns, which increases the need for energy conservation. Column-In-Column has a divided wall inside a distillation column, effectively simulating the operation of three distillation columns. Therefore, **multiple components can be separated with one column, reducing the number of heating and cooling processes and achieving energy conservation.**



Carbon Neutral Contribution points

✓ Reducing CO_2 emissions by 40% during multi-component separation process

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