

SULZER

GT-DWC™ Technology Licensing

Optimizing distillation processes with Dividing Wall Column technology



A distillation technique to achieve lowest capital and operating costs

Sulzer Chemtech's Dividing Wall Column (DWC) technology, GT-DWC, is an advanced process that utilizes a single distillation column with lower energy consumption to replace two columns.

With a smaller initial investment, GT-DWC technology provides the most comprehensive range of applications in refineries and petrochemical plants, delivering reduced energy consumption than conventional two-column systems or a significantly better separation efficiency than a regular side-draw column.

Understanding the technology

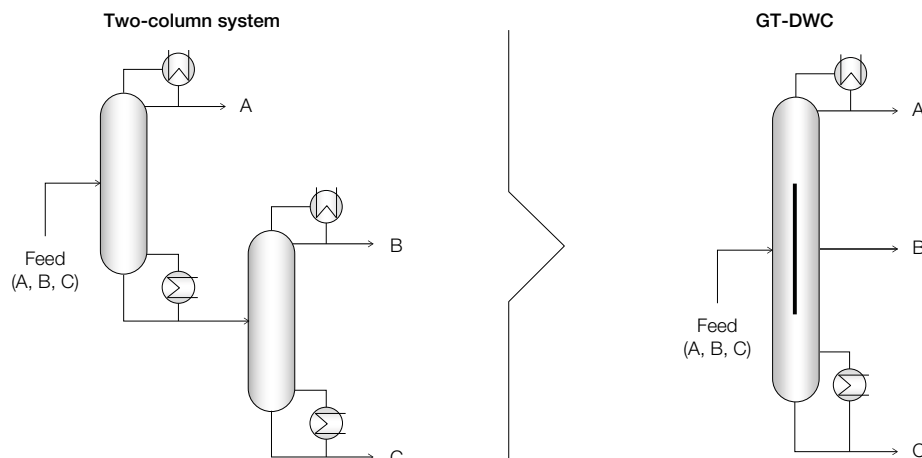
A typical type of GT-DWC is middle DWC, where a vertical wall is put in a column to divide the middle of the column into two sections. The feed goes to one side of the column called the pre-fractionation section. At this point, the light components travel up the column where they are purified while the heavy components travel down the column. The liquid from the column's top and the vapor from the bottom flows to their respective sides of the dividing wall.

On the opposite side of the wall, the side product is removed from the area where the middle boiling components are most concentrated. This arrangement can produce a much purer middle product than a conventional side-draw column of the same duty and at a higher flow rate.

GT-DWC requires substantially lower capital and operating costs for the same product specifications than a conventional two-column system. The technology is especially suited for removing a heartcut from a multi-component mixture, where the alternative is a series of fractionating towers.

A step further in your sustainability journey:
Reduce your carbon footprint with lower energy-intensive technologies.

GT-DWC versus conventional two-column system



Seamless solutions – Minimize costs by ordering the complete system from Sulzer

Process design and control scheme

- From conceptual design to basic engineering package of the dividing wall column, coupled with dynamic simulation modeling, ensures reliable process design and a solution that is optimized for your specific application.

Digitalization services

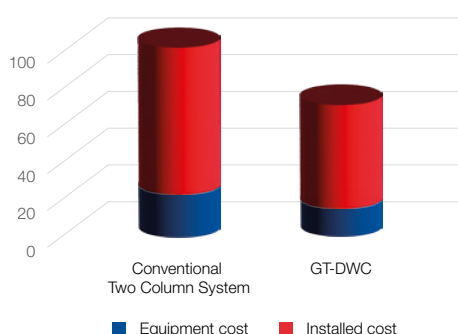
- Sulzer provides digital service products that helps DWC applications to have worry-free operation even with feedstock variation and to achieve its optimum efficiency.

DWC Internals

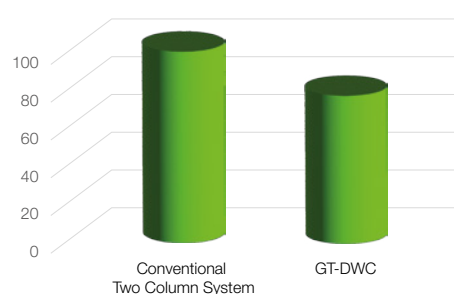
- Sulzer is a leading supplier for column internals of all types.
- Our integration of process and application knowledge results in innovative designs of DWC internals.
- Sulzer internals ensure correct pressure balance and arrangement along with internal distribution that adapt to variation of feed. This is the key to reliable, trouble-free operation of dividing wall columns.

Benefits of GT-DWC

GT-DWC CAPEX is lower by 20-30%



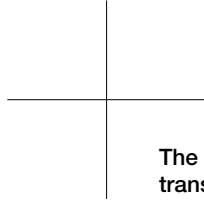
GT-DWC OPEX is lower by 20-30%



Equipment count and plot space

	Conventional two column system	GT-DWC
Column	2	1
Reboiler	2	1
Condenser	2	1
Pump	4	3
Plot space	100%	70%

Sulzer Chemtech is a leader in advanced separation technologies, with extensive expertise in process technology and equipment.



The Chemtech division is the global market leader in innovative mass transfer, static mixing and polymer solutions for petrochemicals, refining and LNG.

Chemtech is also leading the way in ecological solutions such as biopolymers as well as textile and plastic recycling, contributing to a circular economy. Our product offering ranges from technology licensing to process components all the way to complete separation process plants. Customer support ranges from engineering and field services to tray and packing installation, tower maintenance, welding and plant turnaround projects – ensuring minimal downtime.

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