MBDS
Just Distill…

T he recent increase in the production of high value-added, low volume specialty chemicals and biochemical has generated a renewed interest in batch processing technologies; particularly batch distillation

The chemical process industry has been employing various kinds of separation strategies, mostly led by distillation operation. Although the art and science of distillation is well understood, it is the complex phase behavior of multi-component streams, which makes it difficult to optimize the distillation operation. *The industry has even learnt to live with the classical trade-off between yield and purity.*
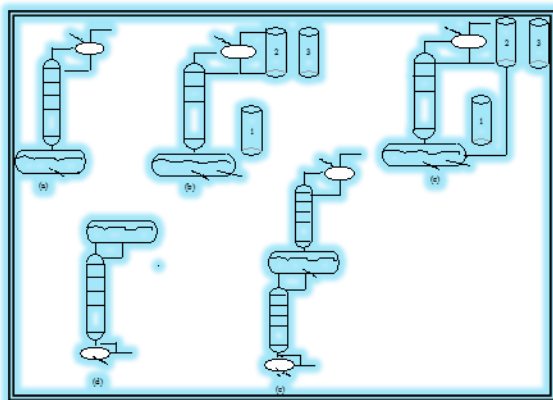

Fig 1: Supported Configurations

MultiBatchDS™

Challenge:
Design, Simulation and Optimization of multi-component batch distillation systems in chemicals, specialty chemicals, pharmaceuticals, food and beverage, and other industries

Solution:
MultiBatchDS™ Software, with an intuitive GUI, allows users to quickly design/ simulate/ optimize any batch column configuration easily and accurately.

Learning:
MultiBatchDS™, the complete science driven process for recovery maximization with right business processes & analytics is applicable, for all variants of batch distillation.

MultiBatchDS™ helps users overcome the constraint of purity on recovery. For example, one producer had been operating the plant at 85% recovery because of the solvent purity constraint of 99.0%. In past, whenever they had tried increasing the recovery (yield), they had to sacrifice on purity. Using **MultiBatchDS**™, clients came up with modifications in the operating conditions to take the recovery to 95%, without losing on the purity

Benefits:
- Capacity increase through reduced cycle times
- Reboiler energy savings
- Capital savings by avoiding over design

MultiBatchDS™ Features:

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Features		Availability
WINDOWS GUI		☑
DATABANKS		Links to Multiple Databanks
OPERATION		
Constant Reflux		☑
Variable Reflux		☑
Optimal Reflux		☑
MODELS		
Shortcut		☑
Semi Rigorous		☑
Reduced Order		☑
Rigorous		☑
OTHER OPTIONS		
Design Feasibility		☑
Optimization		☑
Reactive Distillation		With Certain Features
3 Phase Distillation		☑
Uncertainty Analysis		☑
COLUMN CONFIGURATIONS		
Semi Batch		☑
Recycle Waste Cut		☑
Batch Rectifier		☑
Stripper		☑
Middle Vessel		☑

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