



CASE STUDY

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# Improving recovery and capacity of an evaporation process for a petrochemical major



# Using Thin Film Evaporator with conventional distillation to get improved recovery and capacity

## Case Study | Petrochemical Industry

A customer was losing a substantial portion of glycol with residue during conventional distillation. The residue, having precipitated salts, would foul the column packings and reboiler tubes. The pressure drop in the distillation column resulted in higher boiling temperature in the reboiler.

The customer approached Technoforce to find a solution so that the plant could be operated uninterrupted and to get enhanced capacity.

Technoforce proposed an **Agitated Thin Film Evaporator (ATFE)** of a configuration which can handle viscous residues. Trials in the **Technoforce Pilot Plant** revealed that 99 % of the glycol can be recovered. The existing distillation column would work trouble free in absence of salts bearing residue and would separate some impurities getting distilled along with the glycol.

*"By separating residue in the first step itself from the feed stream the existing equipment gave additional capacity. It is a brilliant solution."* was the reaction of the Managing Director.

The customer ended up installing two setups, the first one is in operation for 16 years and the second one for 10 years.

[www.technoforce.net](http://www.technoforce.net)

### Our Expertise

Evaporation

Drying

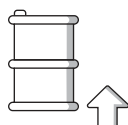
High Vacuum Distillation

Extraction

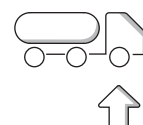
Crystallization

Zero Discharge Systems

**TECHNOFORCE™**



**12 %**  
More recovery



**30 %**  
Enhanced Capacity