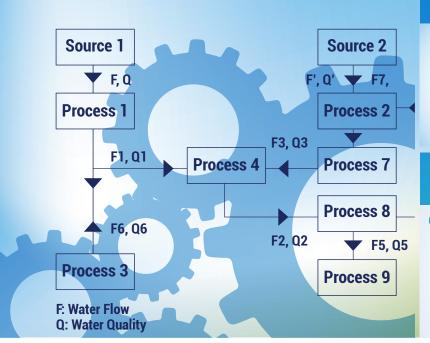




Water Pinch: A Process Integration Tool

for monetary gains through enhanced wastewater reuse & salt management



Unique Features

- √ Helps industry proactively move beyond compliance
- Reduces capital-intensive activities for wastewater management
- √ Property-based water allocation network
- √ Helps optimize salt loads and accumulation

CII has Extensive Experience of Conducting Water Pinch Studies

- Water Pinch study at a Pharmaceutical unit identified
 - Freshwater reduction: 33%
 - Wastewater reduction: 54%

 - Enhanced salt loads at MEE leading to reduction in steam requirement

Water Pinch

- · A world-class optimization technique
- Enhances water reuse through integration of water-using activities
- · Eliminates overload of flow and salt at the ETP

Integrating Triple Bottom Line Approach



ECONOMIC

Minimize CAPEX



ENVIRONMENTAL

Reduction in Freshwater, Wastewater and Salt



SOCIAL

Enhancing Ownership

