



## Fully Automatic CAUSTIC RECOVERY PLANT



**Anjani INDUSTRIES**  
THE DYEING MACHINE COMPANY

# Caustic Recovery Plant

## Understanding Mercerizing in Textile Mills

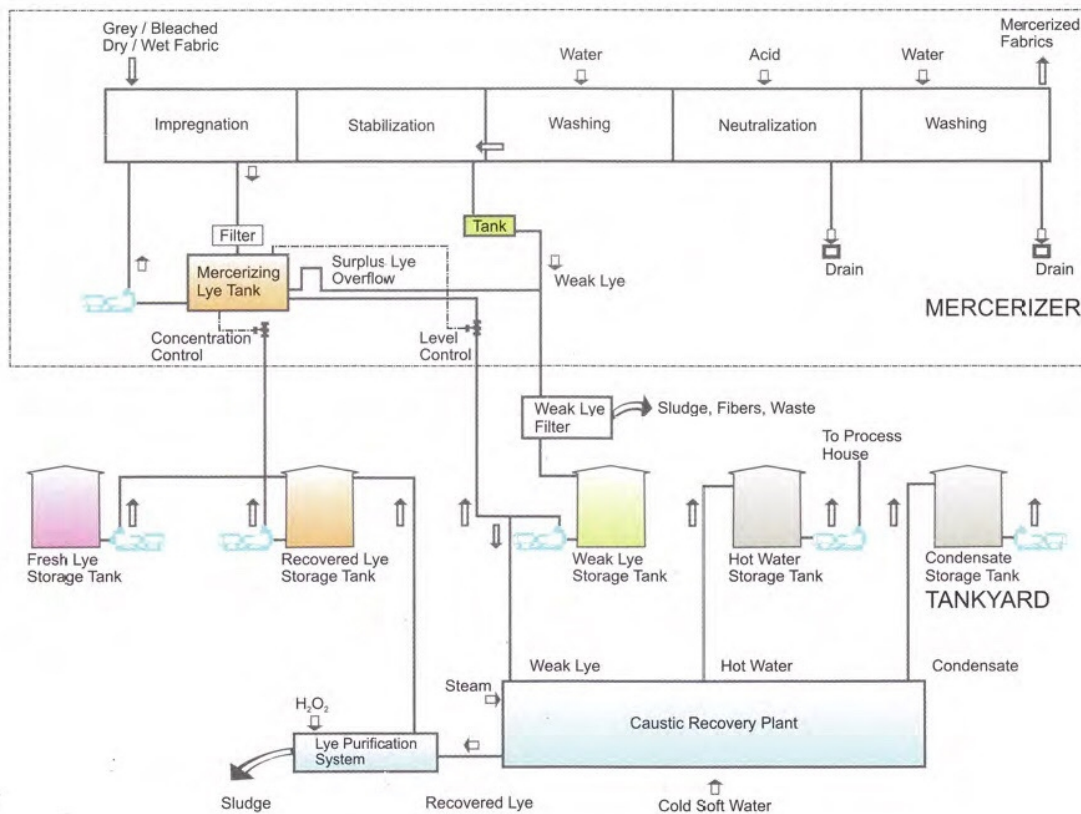
Mercerizers generate substantial quantity of dilute caustic wash liquor 20 to 60 GPL, containing impurities of various natures.

## The need for Caustic Recovery Plant

If the wash liquor is drained to effluent treatment plant, it results substantial loss of caustic and increases cost of treatment. By CRP we can recover this caustic upto 90% and can reuse in mercerizer giving huge relief towards the total caustic requirement of the plant per day.

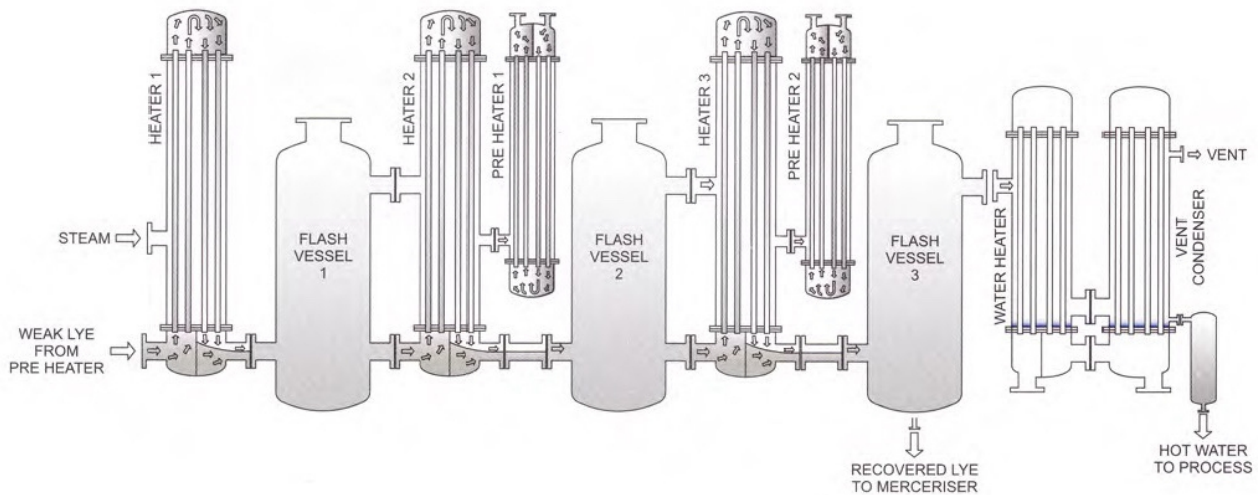
CRP results in substantial reduction in the size of effluent treatment systems (ETP, RO, Evaporators) which results savings in capital investments and expenditures of the process.

## Your first steps towards zero effluent discharge



CONTINUOUS MERCERIZATION & CAUSTIC HANDLING





### How Recovery is Done

Unitop offers a unique design for the recovery of the caustic from wash liquor based on the principles of heat transfer.

The process consists of weak liquor containing caustic at low concentration heating to its boiling point with the help of heat source like Steam or Thermic Oil.

Boiling liquid flashing at lower pressure vessels and the vapors so generated are re-used in the next stage.

By repeating this process in multiple stages, water from weak liquor is evaporated to achieve product with caustic concentration at 250 to 350 GPL in case of dry cloth mercerizer or 400 to 450 GPL in case of wet cloth mercerizer.



### Sample Calculation

#### Mercerizing

Mercerized Fabric	: 20 Tons/day
Wash Water	: 140 Tons/day
Caustic Flakes	: 5 Tons/day

#### CRP

#### Utility Requirement

Steam	: 35Tons/day
Power	: 300 kw/day

#### Recovery

Recovered Caustic	: 4.5 Tons/day
Hot Condensate	: 161 Tons/day
Hot Water	: 400 Tones/day

*Total saving without even considering costs involved with ETP, RO, Evaporator, Chemicals and Acids will result payback period of around 6 Months.*





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