



Water Treatment Solutions for the Textile Industry

Effluents generated by the textile industry can be broadly classified into three categories based on their contributing processes:

- ▶ Pre-Treatment (scouring, desizing)
- ▶ Dyeing and washing
- ▶ Finishing (softeners)

Over the years Rochem has mastered the application of direct recovery of >85% of RO permeate from the dyeing and washing streams without any conventional ETP treatment and the treatment of pre and post dyeing with primary treatment.

Due to this, the majority volume can be treated without ETP and also sludge generation from ETP reduced.

Features

- Higher recovery rate
- Application on raw equalized effluent helps avoid high costs of chemicals and energy associated with conventional ETPs
- Capacity is enhanced as the need to upgrade the existing ETP structure is avoided and saves investment in land and civil costs
- RO rejects can be further reduced, thereby reducing the volume for evaporation, resulting in further savings



101, Dheeraj Arma, Anant Kanekar Marg, Bandra (E),
Mumbai - 400 051. Tel : 6704 9000 Fax: 6704 9010
E-mail: rochem@rochemindia.com www.rochemindia.com

CASE STUDY

Textile Unit, Rajasthan - India

Background : A factory expansion resulted in higher effluent generation which needed a compact treatment scheme to achieve zero discharge.

Plant Installed : Two Stage Rochem PT-RO System (Microprocessor controlled, fully fail safe and unattended operation)

Input : 800 cum/day of raw untreated wastewater as input.

Recovery Rate : 1st Stage – 75%
2nd Stage – 65%
Total Recovery – 88%

Plant Performance

Parameter	Unit	Effluent (Input to RO)	RO Output
Flow	cum/day	800	600
Total Dissolved Solids	ppm	< 7500	< 250
Chemical Oxygen Demand	ppm	< 2000	< 100

Salient Features

The system was commissioned for direct intake of compatible stream to recover 88% of the effluents as RO permeate for reuse within the dyeing process. The small volume of non compatible streams like pre and post treatment are being treated after ETP treatment.

The installation was considerably reduced the ETP footprint which would have otherwise been required for treatment of the total volume of 1600M³

The total capacity is currently under expansion to handle the total effluent generated of 1600M³/Day.