

Chemical Systems Technologies

Started in 1986, Chemical Systems Technologies is a technology driven Company catering specifically to the Sugar industry offering specialty process chemicals and various process technologies for sugar manufacturing.

CST is the largest sugar processing chemical manufacturer and supplier in India, having two production units. We have strategic alliance with LANXESS (BAYER) and GEA WESTFALIA, Germany for their special products for sugar manufacturing.

CST has a large portfolio of process technologies related to CLARIFICATION, PURIFICATION & DECOLOURISATION.

We also provide consultancy and turn-key supply of complete sugar plants, even for a size as small as 300 TCD and as large as 25000 TCD. Our very qualified team of process engineers can quickly develop custom-made design for a sugar factory, in the most cost-effective manner.

We are providing re-engineering of old & sick sugar mills to make them profitable. To our credit, five such sugar mills have already been commissioned successfully and one more mill is under execution.

Achievements

- ▬ Membrane based process for one-step refinery grade sugar production
- ▬ Low cost brine recovery systems
- ▬ Unique system for filtrate clarification, without recycling to mixed juice
- ▬ Patents for sugar manufacturing processes

Installations

Refineries (100-2500 TPD) : **70**

- Phosphoflotation : 63

- Carbonation ; 07

Clarification systems (Filtrate/Syrup/Melt) : **173**

Short retention time clarifiers : **18**

Rinse and Brine recovery systems : **58**

Mud removal systems : **14**

Bio Energy Plants : **3**



Brine Recovery System

- ▬ Value addition to resin decolourisation process
- ▬ Spent brine discharge problem minimised
- ▬ Recovers water & salt > 90%, across system
- ▬ Saves water, recycles
- ▬ Solves effluent treatment problem
- ▬ Low cost, low maintenance

Bio Energy

- ▬ Bio mass Feed Preparation
- ▬ Bio Gas purification
- ▬ Turnkey CBG Plants

Process Technologies

- ▬ Short retention time clarifiers
- ▬ Mud removal systems
- ▬ Filtrate clarification systems
- ▬ Syrup / Melt clarification systems
- ▬ Multibed / Deep Bed Filters
- ▬ IX system – Cocurrent / Countercurrent / Continuous
- ▬ Raw & refined sugar manufacture
- ▬ Brine recovery systems
- ▬ Membrane systems: Distillery / Condensate / Juice clarification
- ▬ Steam efficiency, < 32% on cane

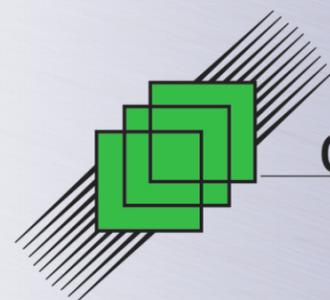
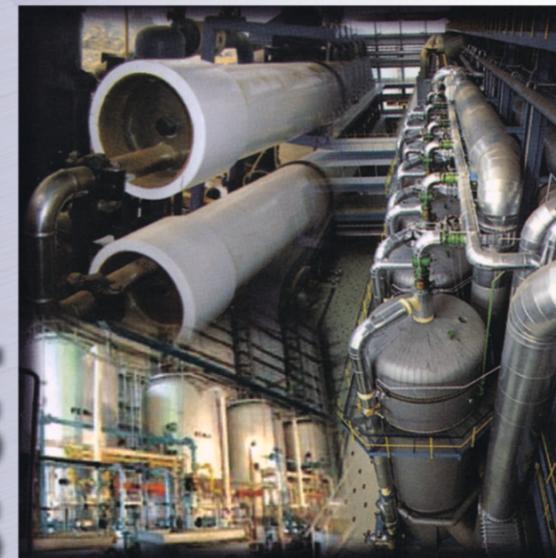
Process Chemicals

- ▬ Biocides
- ▬ Flocculants
- ▬ Antiscalants / Descalants
- ▬ Viscosity reducers
- ▬ Colour precipitants
- ▬ Flotation flocculants
- ▬ Ion exchange resins
- ▬ Enzymes
- ▬ Algicides
- ▬ Membrane
- ▬ Specialities
- ▬ BRS Chemicals

Mud Removal System

- ▬ No bagacillo added
- ▬ Steam saving upto 2% on cane
- ▬ Power consumption lower by 40%
- ▬ Mud cake pol loss minimized
- ▬ Simplified, continuous operation
- ▬ No colour development due to bagacillo recycling
- ▬ Low floor footprint / Low structure cost
- ▬ Extremely short pay-back period

CHEMICAL SYSTEMS TECHNOLOGIES



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