# Case Study sodawin-cf & rockwin-sq



## **Background**

A Sugar Mill customer located in Maharashtra (India) wanted to improve cleaning of two sets of heavily scaled Falling Film Evaporators (FFE) to achieve improved cleaning thereby increase production rates. A total of Four (4) FFE bodies with stainless 304 steel tubes (9 meter length) needed to be cleaned with Heating Surface Areas (HSA) provided below. Manual cleaning of tubes was not possible due to the long tube lengths.

Heating Surface Area (m²)			
FFE Set 1 Bodies		FFE Set 2 Bodies	
2600 m <sup>2</sup>	1200 m <sup>2</sup>	2000 m <sup>2</sup>	1600 m <sup>2</sup>

# (F) Feed Liquid Distributors (H) Steam + (V) Vapor Vapor Body + (H) Condensate (C) Concentrate

### **Scale Type**

The scale, as determined by the Sugar Mill was calcium carbonate, calcium sulfate and hard silica-type.

# **Cleaning Parameters**

Alkaline scale softening & cleaning with only SODAWIN-CF at 100°C followed by an acidic scale removal with ROCKWIN-SQ at 70°C was performed to remove heavy scale build up in the FFE Bodies. No addition of caustic soda or soda ash was done.

### Results

Alkaline scale treatment with SODAWIN-CF resulted in considerable softening of the hard scale deposits. Thereafter, the scales were completely removed with ROCKWIN-SQ.

# **Falling Film Evaporator**



- \* Brand Names: SODAWIN™-CF & ROCKWIN™-SQ is sold by King Win Polymers in South East Asia.
- © Specialty Products of America 12/2021. © King Win Polymers 12/2021.



