

PLC based supervisory control and Data Acquisition system for Monitoring and Recording process parameters for Margarine Process Plant uses an Allen Bradley/ Siemens PLC on a DLR Network using Ethernet IP/ Profinet IP protocols to automate the complete plant in which all the VFD's and motors start/stop command, temperature, pressure monitoring and control as well as monitoring of the status of all the motor and the level switch will be through the SCADA.

The SCADA system supplied by SIPEPL shall comprise of complete Load cell based **Batching Software** in which over 300 recipes can be stored. SIPEPL's batching logic uses the Pneumatic Valves and Pumps to prepare the batch as per the pre-defined recipe upon a click of a button. Recipes thus created using the Batching Logic is stored for up to 6 months for review and tracking.



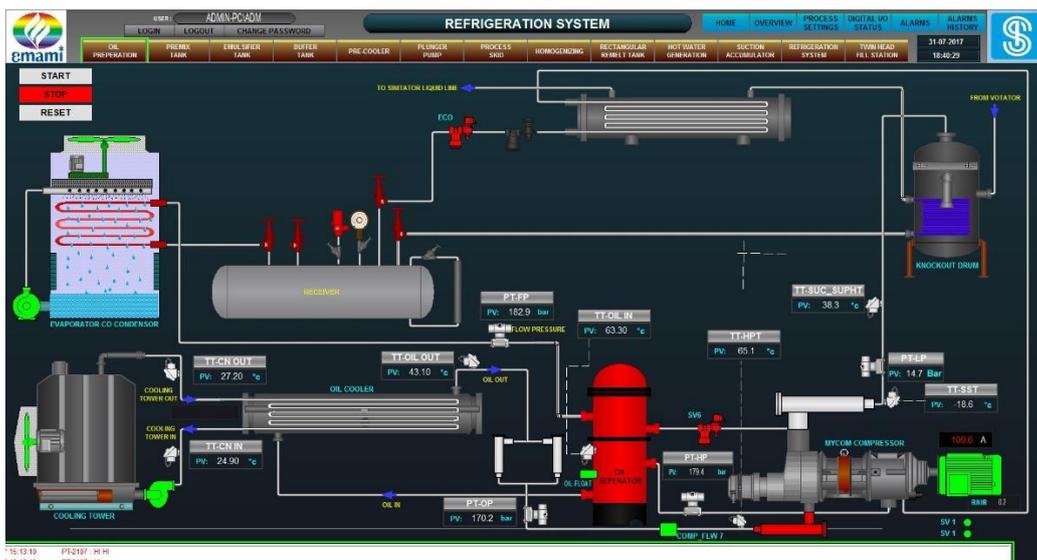
The Logic for **processing** enables the user to enter the parameters under which the specialty fat can be packed and be stored for a particular product and automatically diverts the product back to the Buffer tank in the event that any of the parameters are not within the range specified in the recipe. The temperatures of the Sinitators are provided with logic to either control the temperature of the product or the suction of the refrigerant to ensure repeatability.



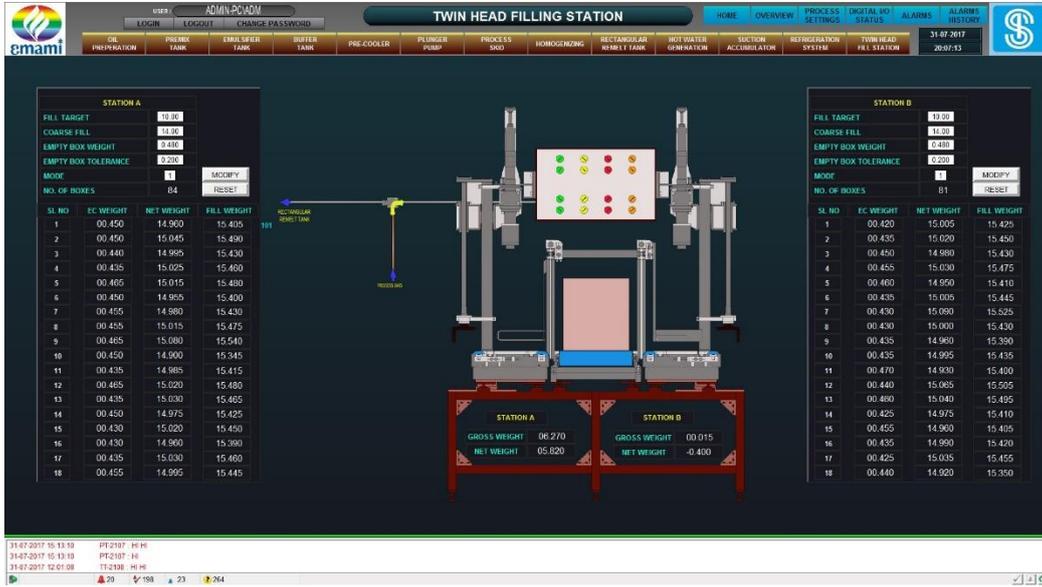
The PLC Logic for control of all refrigerant parameters by controlling the motorized valves provided in the liquid and suction lines of the Sinitators control the levels to ensure the inner tubes are always flooded which is a basic requirement to maintain the quality of the Specialty fat and confirm by replicating the same on SCADA.



The **Refrigeration System** is integrated into the network enabling the operator to monitor the Refrigeration system and modify parameters from the central SCADA system by integrating the maintenance schedules for various equipment in the plant and notifying the operator times at which certain maintenance activities to be performed.



All the **Packaging Machines** supplied by SIPEPL are integrated in the central SCADA system enabling the operator to monitor the weights of the packed boxes at all times.



The SCADA shall be fully automated to include the following:

- Graphic User Interface & Report Formats
- Mimic Diagram
- On-line Data Displaying & Data Recording (Real Time Trending)
- Historical Trending
- Alarm & Trip History
- Reports

