

# Condenser Automation



# YUTECH

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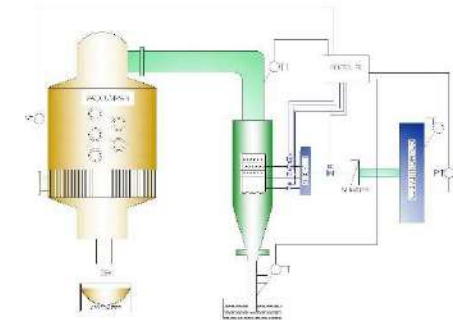
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**Servicing the Sugar Industry since  
1978**

# Need for Automation



Energy savings by improved throughput, gain in performance and efficiency



Achieve the minimum cost of operations by streamlining operations and increasing Throughput



Save costs and money by optimising the resources like Steam, Fuel, Power and water.

# The Purpose of Condenser Automation



- Save Electricity
- Save Water
- Increase Work Efficiency
- Reduce Human Errors
- Reduce Production Costs

# The Principle and Purpose of Condenser Automation



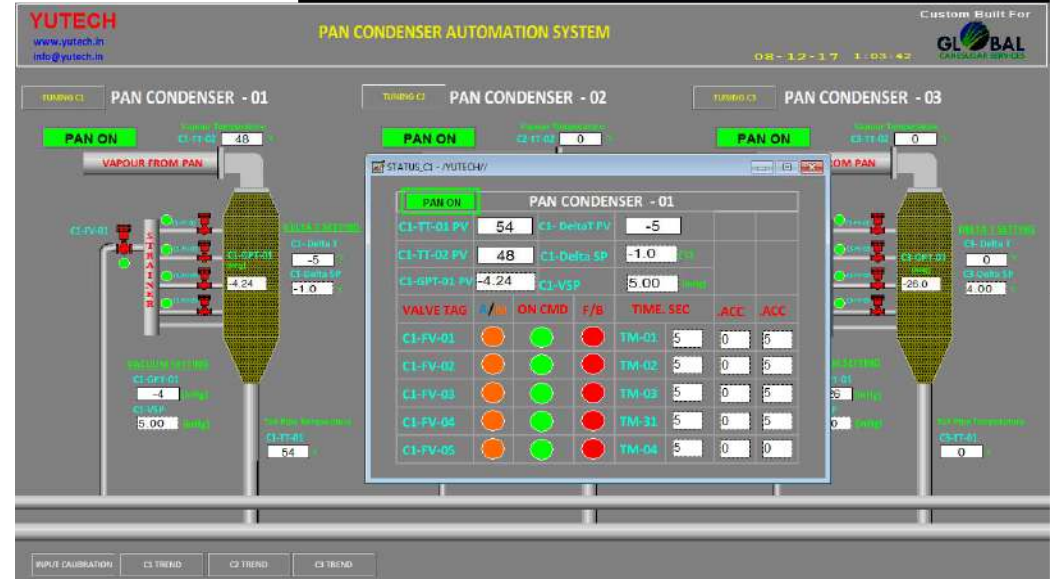
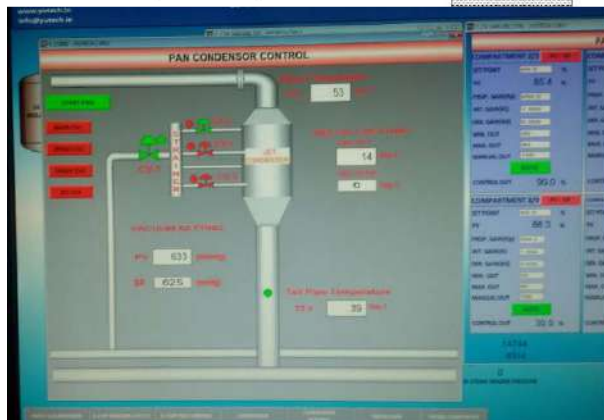
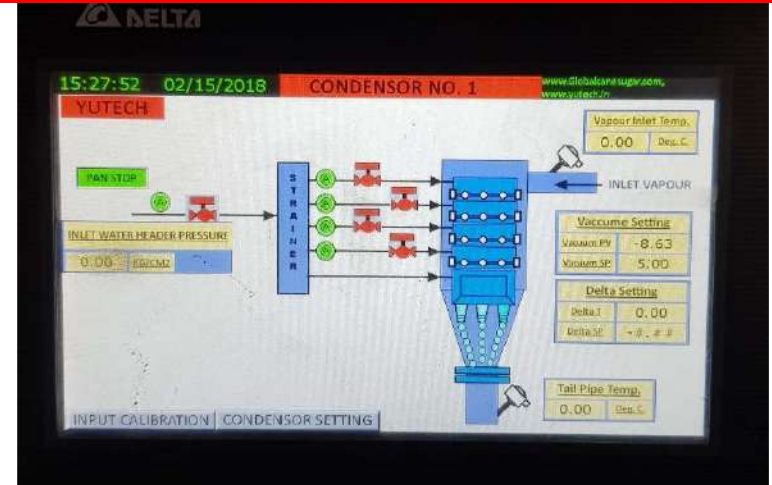
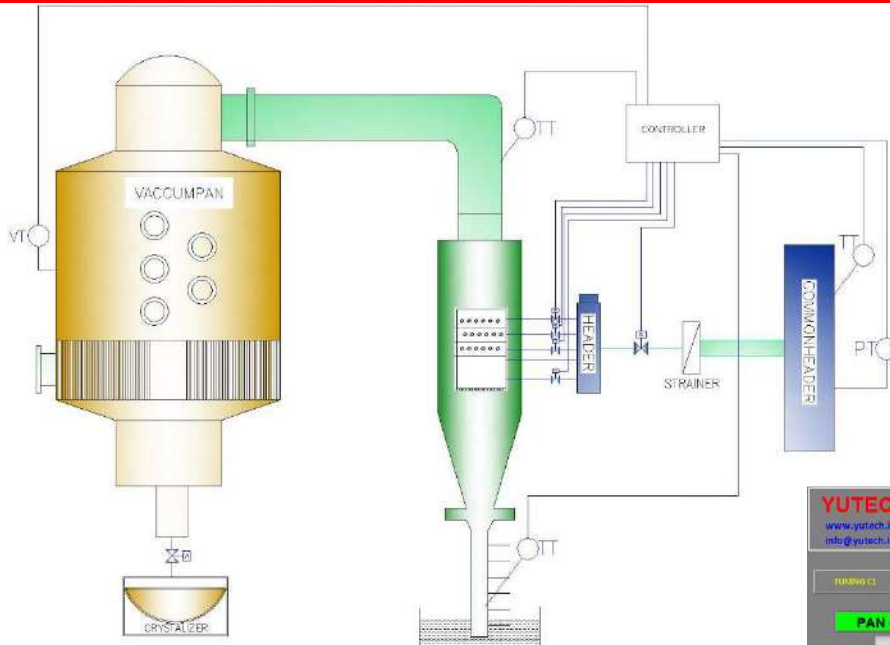
## Principle:

- As Masecuite Level in Pan rises, Rate of Evaporation Reduces and therefore Water Quantity required to create Vacuum also reduces. Thus any Extra Water used after this point is a Wastage.
- Condenser Automation facilitates Required Vacuum Generation using just Optimum Water and Power, thus reducing Wastage of Excess Energy and Water.
- Temperature difference between Vapour and Vapour-Condensate also affects Vacuum Generation and so does the Injection Water Temperature which varies as per Ambient.

## Purpose:

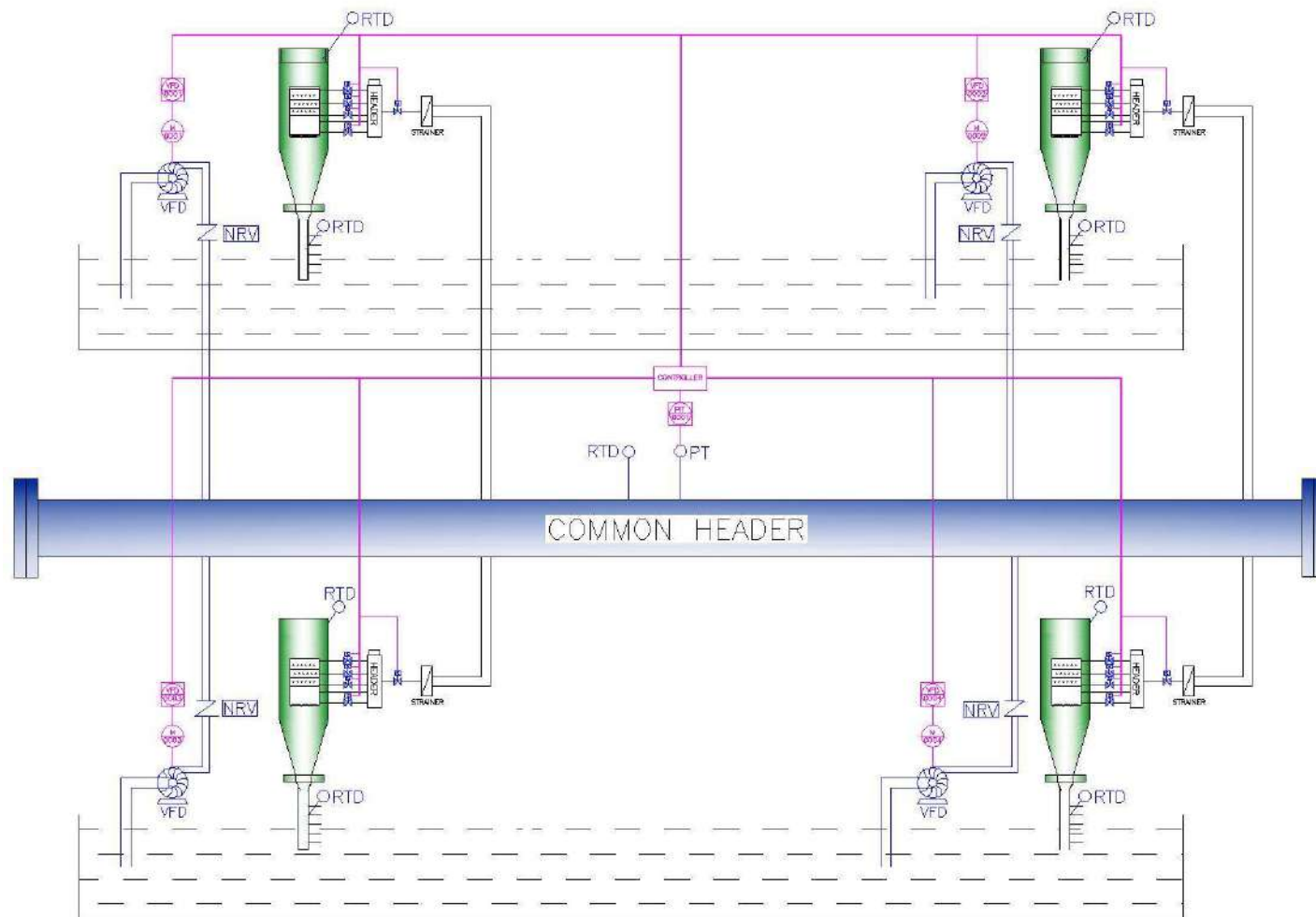
- Huge Power and Water Saving due to Controlled intake of Water.
- Facilitate Optimum Capacity Utilization.

# Condenser Automation Schematic, Actual SCADA Screenshot, HMI Picture



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# Condenser Automation Overall Schematic



# Condenser Box and it's Automation



- Multiple Entry Condenser Box.
- Separate Water Entry for Different Sets of Spray Nozzles and Spray Jet and Water Quantity is Automatically Controlled to by ON/OFF Valve for Respective Nozzle Set Valve wrt Vacuum.
- Number of Jets & Nozzles and Jet & Nozzle Diameters designed as per Condenser Capacity.
- Complete Stainless Steel Construction, Strainer provided for each Condenser Header.
- Water Pressure in the Common Injection Header maintained by Controlling Injection Pump VFD.
- Jet Compartment Controlled by Separate Valve.
- Vapour and Tail Pipe Temperature Measured.

# Why invest in YUTECH Products

- **Experience of over 30 years with Expertise of a very highly qualified Engineering Team.**
- **In-house Control System Design, Engineering, Manufacturing and Software Development.**
- **In-house Sensor and Instruments Design and Manufacture.**
- **Superior Technical Support**
- **Excellent Quality Workmanship**
- **Extensive Warranty Coverage**
- **Highly accurate calibration facilities with traceability certifications.**
- **Feature Rich State of the Art Technology developed and matured in the Sugar Environment**



**THANK YOU!**  
**For your Time and Presence**



**SAVE FUEL**  
**REDUCE CARBON FOOTPRINT**  
**MAKE THE WORLD GREENER**  
  
**AND YET, MAKE MONEY**