



H&S

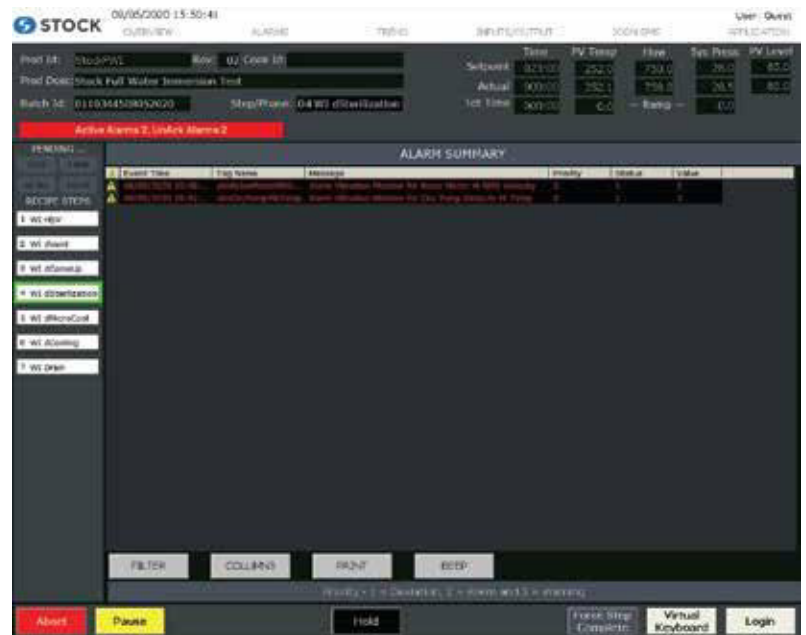
HANDLING & STERILIZING

STOCK ICON-VM VIBRATION MONITORING MODULE

The STOCK™ Vibration Monitoring module is available with the STOCK ICON SCADA control system. Vibration monitoring components and software are integrated with the retort control system to provide notification of common conditions such as impact, fatigue, and friction allowing for predictable scheduling of maintenance, before major damage, failure, or production downtime occur.

Alarms are configured based on thresholds and are reported visually on the HMI and available in report form from the ICON SCADA control system.

Monitoring points are provided for the retort Rotor Motor, Bull-gear bearings (2), Circulation & Cold Water Pumps, Left & Right Trunnion Rollers.



VIBRATION MONITORING PROVIDES THE FOLLOWING DATA:

- v-RMS (effective value of the vibration velocity): Measures the total load of a rotating machine. The most frequent types of overload (unbalance, alignment errors, etc.) are reflected in the v-RMS. Over extended periods, increased load can damage the machine (fatigue, fatigue strength).
- a-Peak: Monitors the maximum value of the acceleration. Shocks in the acceleration can occur periodically, such as in a crash that results in bearing damage. a-Peak is a measure for the forces occurring on the machine.
- a-RMS (effective value of the acceleration): Detects mechanical contact of machine components. Contact typically occurring in the case of wear (faulty bearing, worn out gear teeth Etc.) or problems with lubricants (contaminated grease, water in oil Etc.).
- Temperature: -30 – 80 C
- Crest: Defined as the ratio of maximum value to effective value (peak/RMS). This value is used for evaluation of bearing condition. High-frequency signals with short pulse duration generate higher peak values in relation to the effective value.
- Device status: ✓ Ok ✓ Maintenance Required ✓ Out of Specification ✓ Functional Check ✓ Failure