

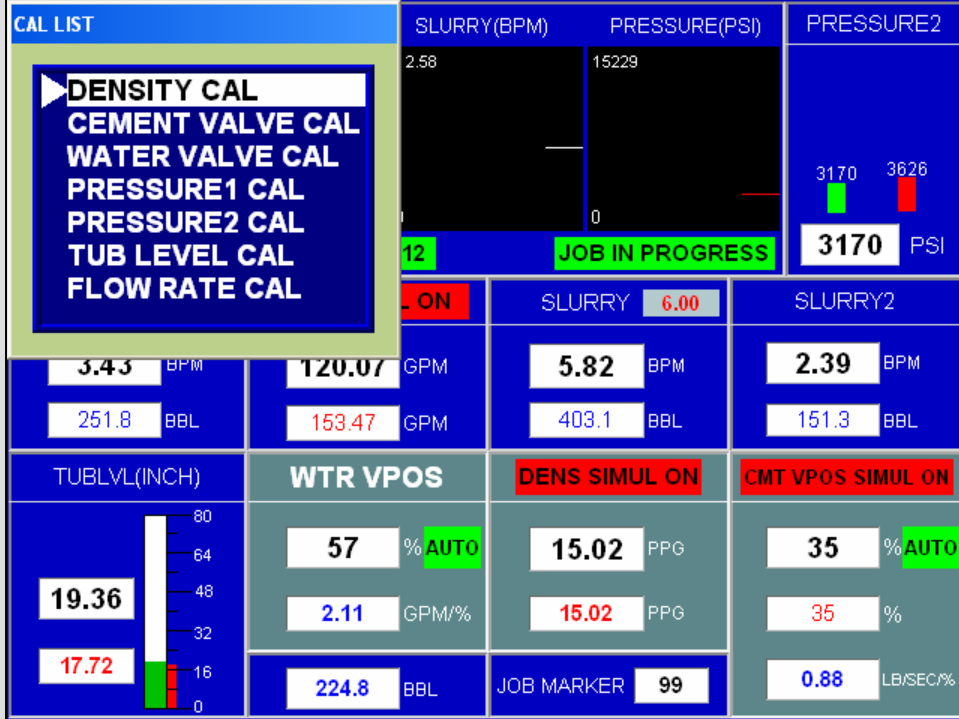


SERVAacm®-V Automatic Control Mixing Slurry System

The SERVAacm®-V Total Automatically Control Mixing Slurry System is the latest computer control system for the Serva High Energy Recirculating Mixing system.

This system is developed based on ACM®-III and ACM®-IV. Besides the functions that ACM®-III and ACM®-IV have, ACM®-V includes a new important Job Procedure Auto Control function. This function makes it available for the control system to auto start/stop the water pump, recirculation pump and cement-metering valve, etc. It can also automatically set the manual/auto mode of the density control and the tub level control. The Job Procedure Auto Control function makes the operation much easier during the cementing job.

In ACM®-V system, absolute density value is measured & calculated to make the density control more precisely. Communicating through MODBUS, the computer acquires the values from two sets of densitometer, and then calculates the absolute density. In addition, the system provides an optional function for users to transmit their job data to data acquisition software by wireless transmission.



SERVAacm®-V Automatic Control Mixing Slurry System

Included Parts

- Density Auto Control System
- Tub Level Auto Control System
- Job Procedure Auto Control System
- Absolute Density Measurement & Calculation
- Wireless Data Transmission

Required Components for New Functions

- Electric Engine
- Electric Controlled Transmission
- Electric Controlled Valves
- Densitometer Output Pressures Feedback
- Water Pumps Control Set
- Recirculation Pump Control Set
- Transfer Pump Control Set
- Wireless Network Set

New Features

- Job Procedure Auto Control
- Pre-store 20 slurry designs
- 5 stages (flush, spacer, lead, tail and displacement) tracking
- Density, rate and pressure charts
- Absolute density measurement & calculation
- Engine and transmission data acquisition
- Triplex operation limits (based on gear ratio & engine hp)

Options

- Displacement tank level gauges
- Remote control of high pressure valves
- Wireless data transmission

Operating Principles

The operator inputs the preset job parameters, then presses the "AUTO START" key, the control system will auto start/stop the water pump, the recirculation pump, auto open/close, watermetering valve and cement-metering valve, at the same time, auto set the mode of density control and tub level control to auto mode. The processor calculates absolute density from two densitometers, and the control system will read engine data and transmission data in network communication. The user can choose to download their job data to our data acquisition system through wireless communication set.