STI Vibration Monitoring Inc.

Vibration Monitoring and Machine Protection Systems

1010 East Main Street, League City, TX 77573 Phone: 281.334.0766 Fax: 281.334.4255
www.stiweb.com / www.stiwebstore.com

Condition Monitoring Custom Products

Case History
Vertical Pumps in Hazardous Areas

Problem:

A refinery in the Far East wanted Vibration Monitoring for thirteen (13) Vertical Pumps installed in a Class 1, Division 1 Hazardous Area. They also required access to the buffered dynamic signals for their portable analyzer in a safe location. They specified traditional API-670 monitoring with OK, Alert and Danger Relays, 4-20 mA output and local display for Operators in engineering units.

Solution:

It was decided that three (3) IS rated Accelerometers would be mounted horizontally with one (1) at the motor upper bearing, one (1) at motor lower bearing and one (1) at pump upper bearing. IS Barriers would be used per accelerometer manufactures instructions. Space for a fourth channel was to be provided for future use.

CMCP530 Velocity Monitors were selected to integrate the acceleration signal to velocity and provide the local OK, Alert and Danger Alarms along with the required 4-20 mA signal. CMCP505 Bright Red LED Displays were selected for easy operator viewing. A CMCP515 Universal Power Supply was provided to supply the +24 VDC required by the CMCP530 Series Monitors.

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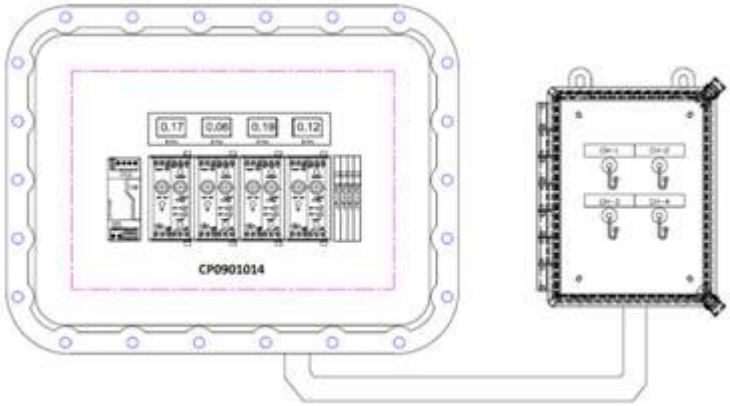
As the CMCP500 Series Monitors are rated Class 1 Division 2 the entire monitoring system was installed and integrated into a Class 1 Division 1 Explosion Proof Nema 4 Housing at STI's Houston, Texas facility. Drawings were provided to customer for approval and final assembly by STI staff.



If you would like a quotation or need to discuss your Vertical Pump Monitoring Project please contact us by phone or email.