

Compaction Analyzer

Quality Starts with you!

The process of compaction in pavement and subgrade material is a method of mechanically induced stress applied repetitiously to achieve a desired density to promote both short and long term performance. Compaction Analyzer refers to the compaction of road materials, such as soils, aggregate bases, or asphalt pavement materials, using modern vibratory rollers equipped with an integrated measurement system, an onboard computer reporting system, Global Positioning System (GPS) based mapping, and optional feedback control. CA rollers facilitate real-time compaction monitoring and timely adjustments to the compaction process by integrating measurement, documentation, and control systems. CA rollers also maintain a continuous record of color-coded plots, allowing the user to view plots of the precise location of the roller, the number of roller passes, and material stiffness



Assorted Features:

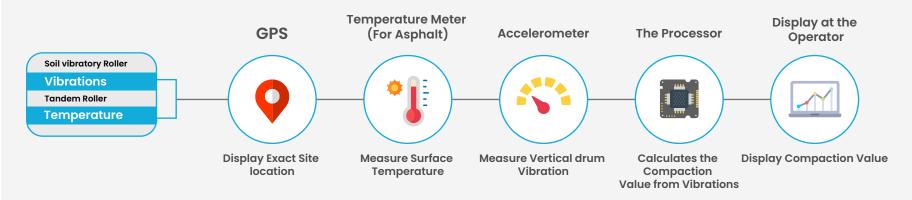
- Record the no. of forward & reverse passes with location, time,
 temperature, compaction details
- Measure and record rolling surface temperature by using server-based intelligent system(for tandem roller)
- Graphical display supported by software to monitor and record data onsite
- Analysis and storage of data received by compaction meter.

- Storage & analysis of compact meter data
- Adjustable resolution / brightness for display
- Report generation from the server in PDF format
- Detail analysis report of compaction with the server-based system
- · User and operator friendly display
- Simulator mode present in all types of rollers

Advantages:

- Comprehensive, homogenous compaction measurement
- Quick installation and ease of operation
- High compaction quality with increased productivity
- Analysis can be carried out even years later
- Multiple access to data through server based support
- Simple and secure data archiving

- Improved depth of compaction achieved by continuous record of material stiffness values
- Proper compaction achieved using report generated by compaction analyzer
- Reduction of highway repair costs & other costs due to avoidance of claims

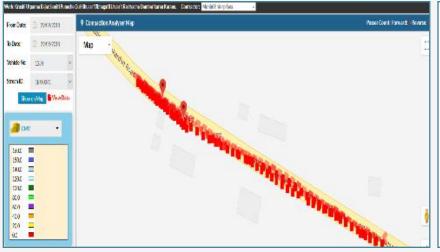


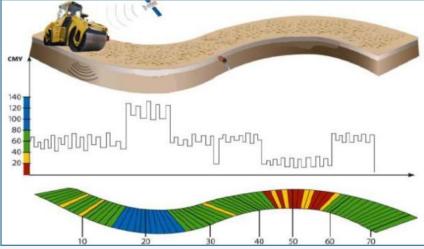
Compaction Analyzer Integration with SCADA for Quality and Efficiency:

Vasundhara Compaction Analyzer through its seamless integration with SCADA makes every pass of the roller count with compaction details. This makes compacting jobs to complete faster with more accuracy. Our SCADA system helps in measuring the compression measuring value (CMV) for

- High frequency, low frequency and amplitude
- Drum Accelerometer value
- Human machine interface

- Processing control unit
- ► GPS, GIS
- Number of passes and speed





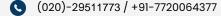
Why choose Vasundhara?

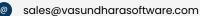
Compaction is one of the most crucial processes in roadway construction. It is imperative to have excellent quality &uniformity of road materials for ensuring long-lasting performance. The validation of performance of road materials depends on optimum densities that ensures ample amount of strength, stability and support. We are offering the best CA aids to achieve these densities uniformly throughout this process.





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www.vasundharasoftware.com



Compression Testing Machine

Test Concrete Strength

The Compression Testing Machine is intended to meet requirements of consistent means to check concrete block for its compressive strength. Vasundhara is a leading company in the field of fully automatic CTM with enhanced digital display features. Different variants of CTM are calibrated as per NCB standardization. Deployed to test concrete cube, beam and cylindrical cubes, the machine plays an important role in identifying quality control for concrete. The compression testing machine also aids evaluation and implements concrete strength tests with good accuracy.



Principle of Operation of Compression Testing Machine:

Vasundhara's PLC based CTM has a three-phase induction motor controlled by PLC based circuitry. This facilitates

- Automatic pace rate control
- Data logging
- Data printing
- ► Load hold

Assorted Features:

- Inbuilt SCADA with user friendly or operator friendly operating software.
- Automatic test cycle with standard rapid approach.
- Load v/s time plot and instantaneous load rate Displayed on software screen.
- Advanced software for test control and report generation within seconds.
- Data Acquisition and Control System.
- Ergonomic Design & Self aligning platen

It consists of loading unit, an electrically operated hydraulic pump, and an intelligent pace rate control. The two-speed pump allows fast approach of platens, for daylight closure and allows automatic, precise control over the load application. The operation is user friendly with menu driven interface.

- Safety limit switch to provide a limit to forwarding stroke of RAM/Cylinder.
- Max pressure valve to avoid machine overloading.
- Software controlled maximum load value.
- Convenient display of parameter values (load, stroke, and elongations) through real time curves.
- User safety feature like metal door.
- Automatic pace-rate control.
- Loading Accuracy as high as ±1% F.S.V.

Additional Features:

- Accurately calibrated dial gauge
- CTM SCADA software to generate report on Site/Lab
- Server based support for testing report
- Precise display to eliminate human errors
- Uniform pace rate as per control knob



- Power Breakdown Protection for Motor and Other Components
- Current pressure and peak breaking pressure is displayed on digital display
- PLC based circuitry to control motors, which achieve precise pressure and accurate reports
- Auto / Manual Control and release valve operation

Advantages:

- Wider range of test force measurement
- Long term use
- High reliability
- Compact design
- Low maintenance
- Rust resistant
- Data Backup facility

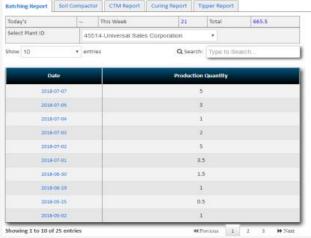




1000 kN 2000 kN 1500 kN

3000 kN

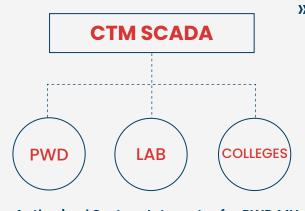
Capacities











Authorized System Integrator for PWD MH



Why choose Vasundhara?

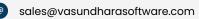
We manufacture a range of CTM machines for testing the strength of concrete cubes. We consider continuous self improvement and strive to help our customers to find the right solution for their problems and solve them effectively. We attract and retain our clients with our excellent services.





Contact Us

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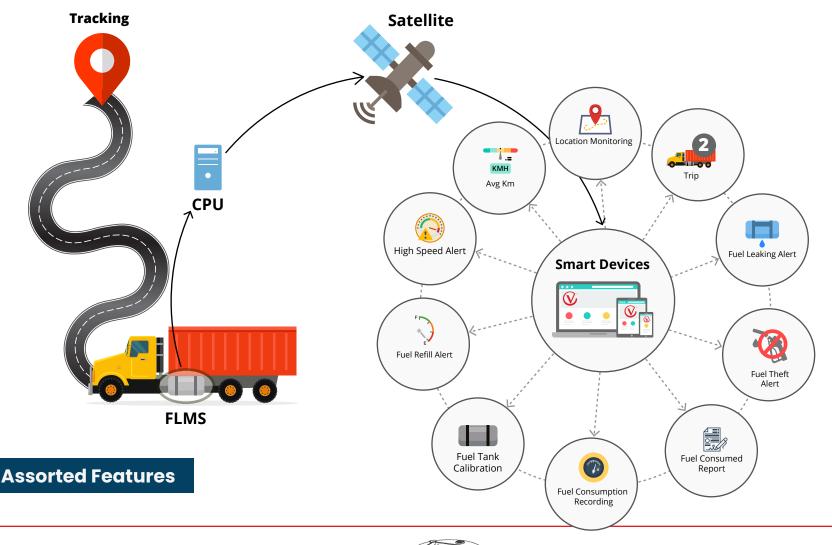




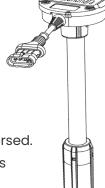
Fuel Level Monitoring

We Save Fuel Fuel Save Earth!

The most difficult task is to keep an eye on fuel consumption and cost. Fuel saving is important for smooth running of business as fuel is one of the most dominant raw materials in many industries. Fuel monitoring system helps to keep check on consumption of fuel and generating reports. A significant requirement in successful fleet operation is fuel theft. In most vehicle operations, fuel expenses accounts for at least 32% of operational cost, hence installing Vasundhara fuel level monitoring system is the logical place to start in order to reach fuel efficiency. Additionally, get covered for fuel theft, leakage and Tracking



- Accurate & Remote Fuel Level Monitoring
- Fuel Theft Detection & Refilling Alert
- Vehicle Location & Speed Monitoring
- Engine Temperature Monitoring on Demand
- The device can detect amount of stolen fuel.
- It can easily track unnecessary stop over and detours.
- It can analyze fuel consumption versus distance traversed.
- The device helps in determining unexpected variations in fuel consumption.



- Automated Fuel Filling Accounting and Reporting
- Fuel Consumption Recording
- Leak detection alert
- Trip Assignment Settings (Geo Tagging)
- · Vehicle Health Monitoring on Demand
- Vehicle Speed and Location related SMS alerts
- Remote Data Accessibility from Anywhere
- User Friendly Accessibility through Mobile App
- Driver Performance Optimization











Importance of Fuel Level Monitoring System:

Vasundhara's Fuel Level Monitoring System is designed to help fleet Management in efficient utilization of fuel consumption and reducing fuel cost. Accuracy can be ensured with usage of Fuel Level monitoring system as it generates accurate reports for fuel refills against consumption. The sensor in the device reads the consumption of fuel directly from the fuel tank providing consumption data with 98% accuracy. The real time reports can be generated in a printable format by linking device to your computer or mobile.

The Vasundhara's FLMS software saves time and eliminates human errors by allowing you to safely and remotely monitor fuel inventory. The key benefits of the software are:





Vehicle Tracking

Software **Features**

Monitorina

Alert Services

Get alerts for Fuel Theft, High Engine Temp, Over Speed, Fuel Leakage, Fuel Feeling, Trip Completion, and Wrong Root.

Monitor all aspects of vehicle with Real

Time Digital View in mobile app and

with Graph and Satellite Count with Graph

Report Generation

Advantages:

Easy to use: Suits any type of fuel tanks.

Generate different reports like Statistical, Day

Wise Summary, Fuel level with Graph, Vehicle

Trips, Temperature Level with Graph, Speed

Simple to Install: Compact and light weight models. **Alert:** Alerts on refuel & drain by SMS/ Mobile/ e-mail

Economical: Control the fuel use and its consumption using

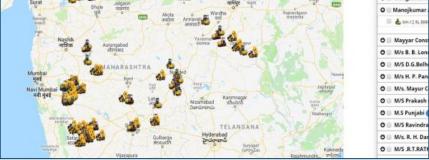
FLMS saves money

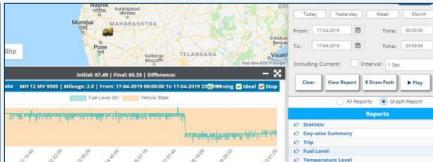
User Friendly: User friendly interactive software design with mobile app & laptop view

Convenient: Online access enables inventory monitoring and maintenance through comprehensive reporting

Upgradation: With simple upgradation process, FLMS can grow with your operations.

Smart: Web based tools enable remote accessibility and smart reporting





Product Functioning

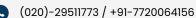
Vasundhara's Fuel Sensor is designed to monitor the fuel levels in vehicle tanks and stationary installations.

- These probe type fuel level sensors are mounted on the fuel tank and integrated with advanced processing unit
- The probe is mounted in an exact vertical position so that it forms a capacitor structure with the metallic wall of the container surrounding it
- When the tank is empty, initial capacitance exists between electrode and metal wall
- When fuel covers the probe the capacitance will change as per fuel level
- This change in the capacitance value is measured and further converted digitized output signal
- Using advanced processing unit, these signals are sent to server and then the software of FLMS for generating the view of fuel level & vehicle view





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SCADA/RTM

Unvarying Quality, Diversified Services!

SCADA allows an organization to carefully study and anticipate the optimal response to measured conditions and execute those responses automatically every time. Relying on precise machine control for monitoring equipment and processes virtually eliminates human error. In order to maintain efficiency in any organization, SCADA systems are vital for processing of data for making smarter decisions. SCADA helps in the following below

- Monitoring and gathering real time data
- Controlling industrial processes

- Recording events into a log file
- Interacting with devices such as sensors through Human Machine Interface software



Roller SCADA:

- Records the number of roller passes and measures material stiffness
- real time quality check of the roller work
- The pre-defined asphalt temperature for specific passes is maintained & send real time data to server.

Paver SCADA:

- Prevent paving failures and improve project management
- The thickness of the layer of asphalt can be monitored
- The speed of the paver can be monitored & send real time data to server.

Drum Mix SCADA & Batch Mix SCADA

Production of material takes place as per exact specifications. SCADA offers monitoring of the temperature & aggregate etc. software stores all the data in its database server, for future reference & it is automated, improves the quality to high standards & send real time data to server.









RMC SCADA

provides turnkey solutions for Batch mix control panel and SCADA to remotely monitor the strength and quality of ready-mix-concrete at all plant locations. Batch sheet linking to respective work. Aggregate (10mm, 20mm, RS, CS), Water, Cement, Fillers. Etc & send real time data to server.

BOUZER / SPRAYER SCADA:

Bouzer/Sprayer SCADA monitors temperature of Bitumen at the SCADA system can show the exact amount of water used for time of spraying as well as speed of vehicle, location of vehicle curing purpose & send real time data to server. and send real time data to server.

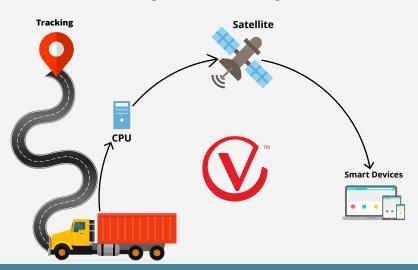
RDM / SLM SCADA

Vasundhara's SCADA monitors the exact proportion and best quality of all involved components for creating a perfect enduring concrete mix, Perfect composition of materials can be obtained every time & send real time data to server.

Water Curing SCADA:



Compaction Analyzer



CTM SCADA

VTS (Vehicle Tracking System):

Our GPS tracking is a Fleet Management Solution that focuses on fleet monitoring and tracking. It can be effectively used for remote monitoring from any device.

- **Geo-fencing**: Alert pre-defined areas
- Route Violation: Wrong routes alert
- Minute-by-minute updates
- **Speed Management**: Monitor vehicle speed
- **ON/OFF Status**: Ignition / AC status

Why Choose Vasundhara's IT?

Vasundhara's IT has been working productively for their satisfying their clients since 2001. We are well-recognized automation solution providers for various industries like hospitality, education & training, health-care, Banking, Financial services and Insurance (BFSI), road constructions and measurements. We comply with quality standards and deliver quality solutions for our customers after understanding customer requirements.





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