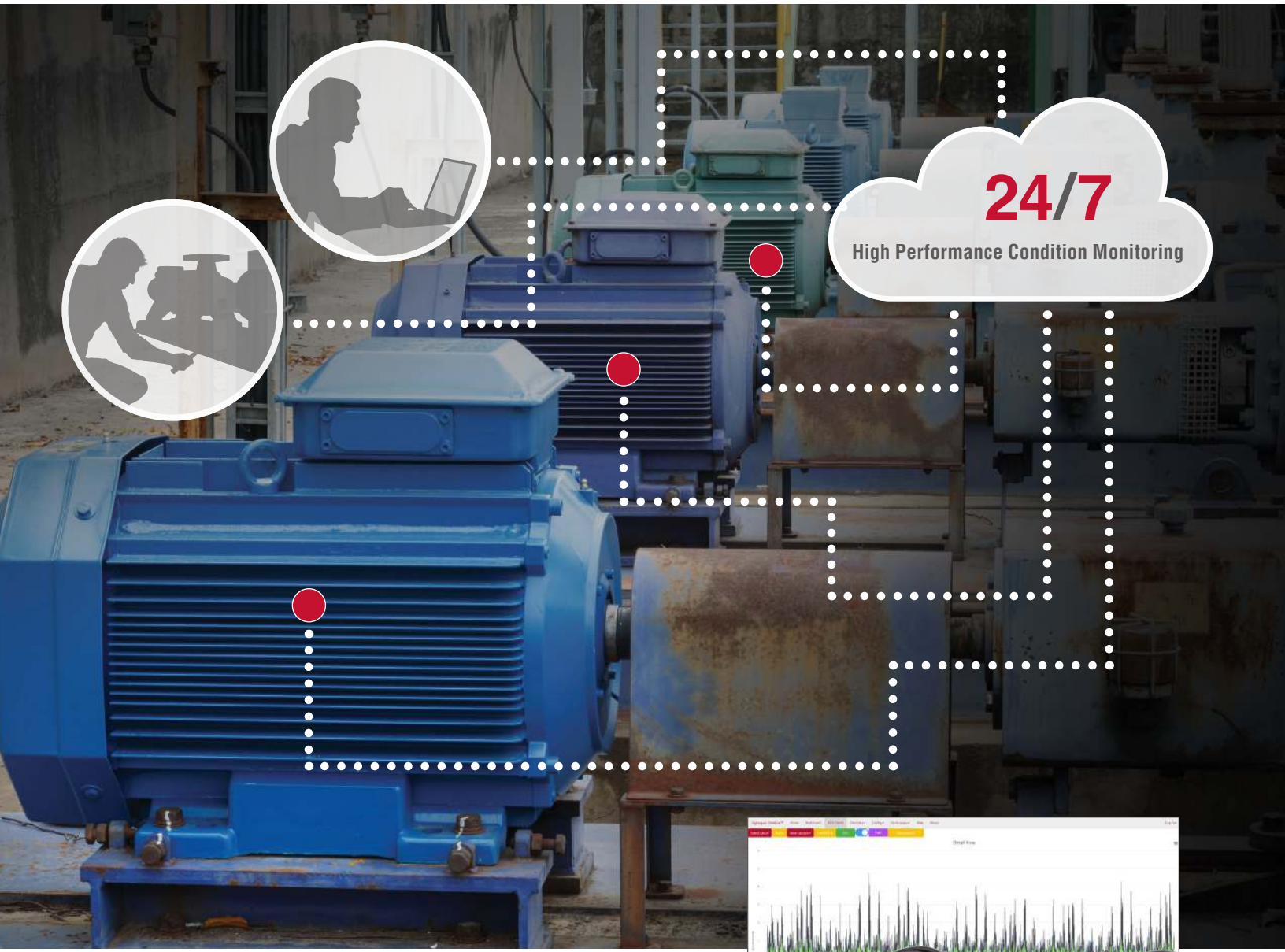




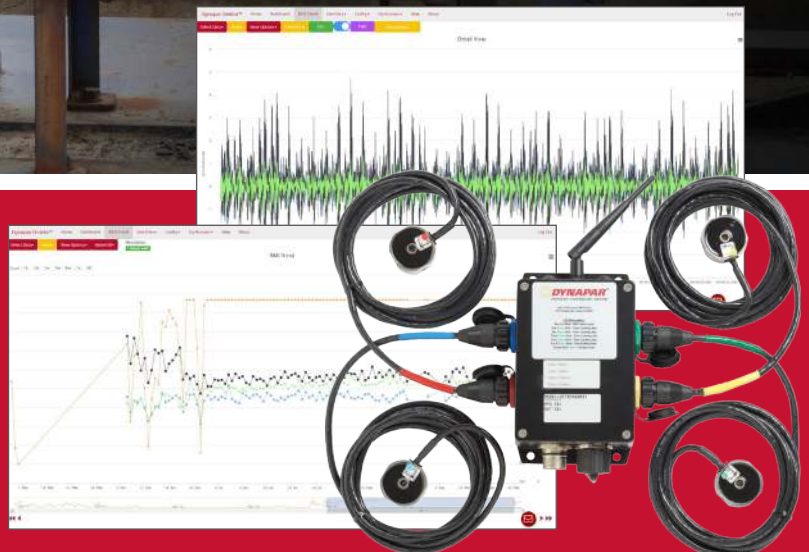
# Condition Monitoring Reinvented

Powerfully Insightful. Surprisingly Affordable



**24/7**  
High Performance Condition Monitoring

Reduce Downtime with  
Dynapar OnSite™ Condition  
Monitoring System



## Transform Your Operations

In these days of lean staffing, maintenance already has far too much to do. Continuous monitoring lets technicians reclaim the hours they would otherwise spend circling from asset to asset to record data that sometimes does not prove meaningful. Tracking condition remotely cuts risk by reducing the need to access equipment in hard-to-reach or dangerous locations. It increases operational equipment effectiveness (OEE) and allows engineers to focus on preventing and solving problems rather than just gathering data and firefighting.

### From...



- Broad route-based monitoring (milk runs)
- Over 50% of time wasted walking the plant and collecting data
- Breakdowns in-between routes—sometimes even right after
- Spiraling maintenance and downtime costs
- Online monitoring limited to only a few assets due to expense

### To...



- 24x7 condition monitoring with targeted route-based checks
- Less time spent gathering data and more time acting on it
- Catching problems before they happen assisted by continuous data trending and alarms
- Significant savings through reduced downtime and reduced manual data capture
- Affordable online condition monitoring applied to a broader set of assets

**“Continuous monitoring sounds good but...”**

*...it's expensive*

*...it's complicated*

*...it's not scalable*

*...it's IT intensive*

*...it's time-consuming*

*...it's not secure*

## Rethink Condition Monitoring

Cut costs and boost productivity with a condition monitoring tool designed for ease of use and scalability. The Dynapar OnSite™ system is a powerful predictive maintenance system targeted at preventing failures before they occur. It can slash unscheduled downtime, improve efficiency of route-based vibration analysis, and provide real-time analytics and trending to warn of possible machine failures.

**Dynapar OnSite™  
Condition  
Monitoring System  
from Dynapar**

Feature-rich  
performance at an  
entry-level price

### Dynapar OnSite™ Sensor Hub



- Affordable, 24/7 condition monitoring
- Easy to deploy and easy to use by anyone
- No custom gateway and no large upfront investment required
- Easy to expand, scale and redeploy to other assets
- Tough enough to survive the harshest conditions
- Setup in minutes, no need to wire into control architecture
- Triaxial accelerometer sensors collect integrated vibration, temperature and speed data (with optional encoder input)

### Dynapar OnSite™ Analytics



- Pre-programmed with configurable dashboards
- Alarms based on threshold values for FFT, RMS, temperature and speed
- Cloud-based, access from any device
- Built-in tools including FFT plots, waterfall plots, harmonic cursors, RMS trend and more
- Designed for multi-stakeholder access
- Supports both vibration analysis experts and non-experts
- Customizable filters prevent errant alarm triggering

**What if everything you think you know is wrong?**

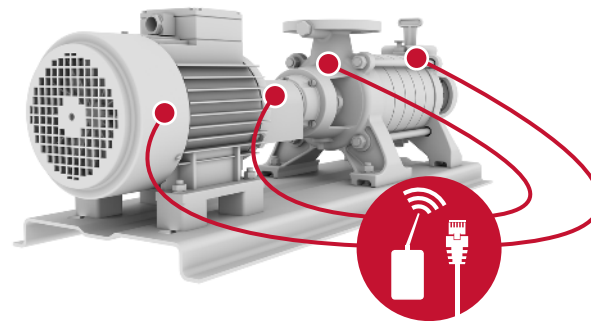
## Collect real time data

Deploy in minutes and collect:

- Vibration
- Temperature
- Speed (with encoder option)



No custom gateway required



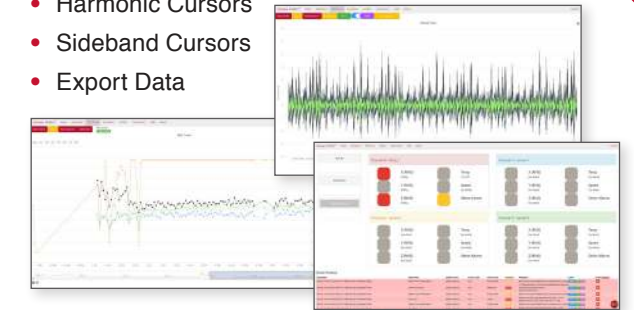
## Store data and access anywhere

- Cloud-based, not wired into control architecture/software
- Alarms based on thresholds for RMS, FFT and more
- Access from any device
- Data timestamped and API to OPC UA compatible systems available
- Data encrypted with AES 256 and transmitted securely via TLS 1.2 protocol

## Analyze and trend data

Analyze with built-in tools:

- Overall Trend Plot
- Full Waveform Plot
- FFT Plot
- Waterfall Plots
- Status Dashboards
- Harmonic Cursors
- Sideband Cursors
- Export Data



# Reduce Downtime and Increase Productivity by Changing How You Work

## Share, collaborate and act on data

Vibration and temperature issue on motor 3.



Yes I see the problem, looks like an alignment issue.



Let's dispatch a team.



Problem fixed. The Dynapar OnSite™ System verified machine startup.



Good catch! Glad we fixed this without going down.



### Reliability

- Become situationally aware of critical assets, even those in remote locations and view data in real time
- Share data across multiple teams internal or external to collaborate and quickly make decisions to prevent downtime and improve overall plant reliability
- Schedule maintenance more strategically and be more efficient with route-based monitoring

### Vibration Technician

- Easily identify at-risk assets through continuous 24/7 monitoring
- Reduce exposure to harsh or hazardous environments when taking readings in remote locations
- Spend more time solving problems and less time taking meaningless readings
- Offer customers new services by offering an affordable solution to continuous 24/7 condition monitoring

### Operations

- Receive real time alarms when equipment condition changes beyond set levels without needing to analyze raw data
- Share machine condition data with 3rd parties via a secure cloud not mixed with other critical control data (contact us to discuss integration via API)
- Shrink cost of operations and repair by avoiding unnecessary monitoring or early replacement of assets

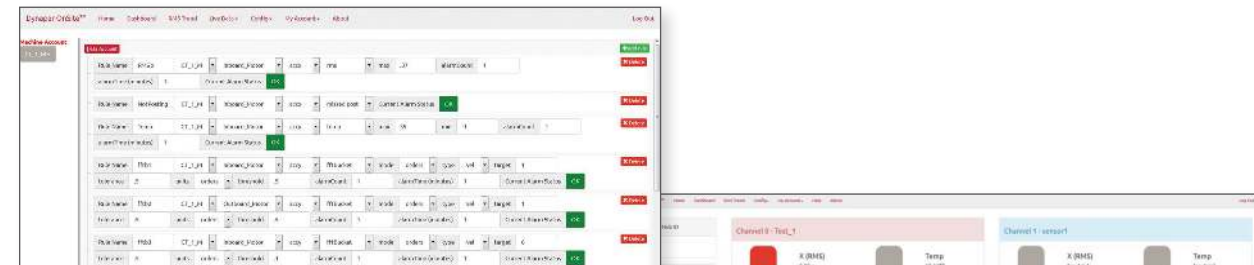
### Maintenance

- Monitor critical equipment remotely from any device and receive alerts when machine condition changes beyond set levels
- Identify troubled equipment before it fails and place troubled assets on watch for continuous monitoring
- Schedule downtime more efficiently and avoid premature asset repair or replacement
- Improve commissioning and restarts by comparing to baseline data stored in the cloud

### Plant Manager

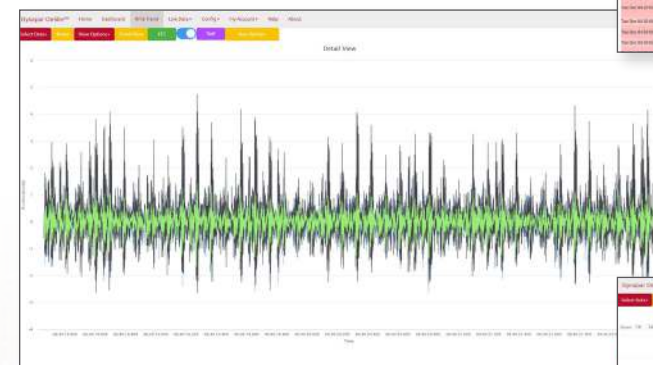
- Run your plant more efficiently by optimizing throughput and productivity with data and scheduling maintenance more strategically
- Keep an eye on your most critical assets and receive alerts when machine conditions exceed pre-established thresholds
- Easily view condition of equipment in hard-to-reach areas that may pose safety risks for route-based monitoring

The Dynapar OnSite™ system is a hardware and software solution that combines flexibility with fast results. The hardware hub collects vibration, temperature and speed (with an encoder present) and transmits it via a Wi-Fi or Cellular network. There is no need to download software—the application resides in the cloud. Setup in minutes by attaching the sensors, turn on the power and the Dynapar OnSite™ System does the rest. Built-in software tools allow alarms to be set and real time data to be analyzed.



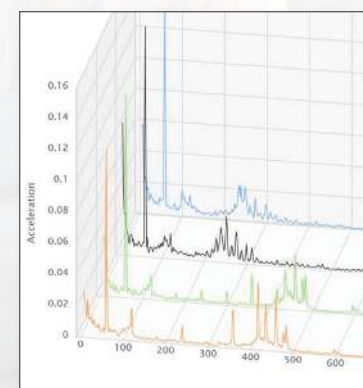
### Alarms

Customizable alarms based on user established thresholds for RMS, FFT frequency, dynamic FFT orders, peak G's, speed, temperature, missed post and local data request



### FFT and Time Waveform

View raw vibration data, analyze FFT plots and compare to historical readings. Peak threshold filter removes unrelated noise to prevent false alarms



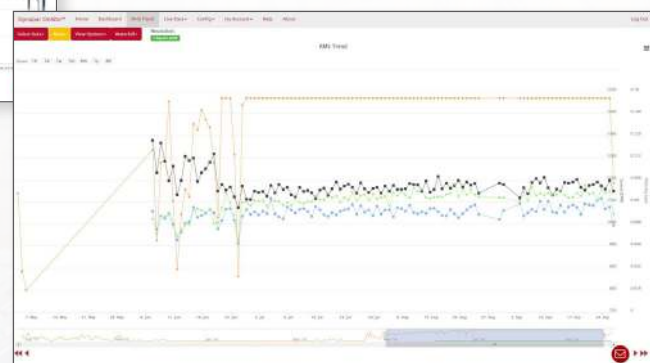
### Waterfall Plot

Advanced analytic tools are built in for any stakeholder to root cause critical issues



### Dashboard

Quickly identify troubled assets at a glance, view event history and quickly link to the actual data that triggered the alarm



### Overall RMS with Speed Data

Combine vibration data with speed and temperature to achieve complete situational awareness

### Sensor Hub

Easily installs in minutes with multiple mounting options. Rated at IP65 and 80°C (176°F) max for rugged environments.

### Wi-Fi or Cellular Communication

Compatible with existing infrastructure (no proprietary gateway). 300m (984ft) line of site max range. Hardwired ethernet cable option also available.

### Sensors

4 sensors per node with multiple mounting options. Each contain triaxial accelerometers and temperature sensors. Each sensor is rated IP68 and 105°C (221°F) max for rugged environments. Two sensor options with measurement range ±8G or ±40G.

### Sensor Cables

Up to 30ft (9.1m) sensor cable for hard to reach locations

### Optional Encoder Input

Connect encoder for speed data allowing full situational awareness of machine condition

### Optional LAN Connection

Hardwired ethernet cable connection option for situations where wireless connection is not possible

### Onboard Storage

Onboard storage saves data if internet connection is lost. Device posts data once reconnected.

### Encoder Speed Input

Add any incremental encoder with quadrature output to allow for smart alarms to be set in orders based on running speed



### Edge Trigger Data Collector

Push button for instantaneous data reading



### QR Code

Scan for quick access to analytics and commissioning portal

### Asset Status Indicator

Multifunction LED to visually confirm device status

### Multiple Data Capture Methods

The OnSite System can be configured to take data based on intervals or events:

- Time interval based bursts
- Edge trigger button initiated bursts
- Event based triggered bursts (Configurable based on speed, acceleration and RMS values)