



SMART PRODUCTS FOR SMART PEOPLE

VibLyze® Software



The VibLyze® Software for Vibration Analysis and Condition Monitoring is an advanced solution designed to optimize machinery health and reliability. By leveraging cutting-edge analytics to process vibration data, it enables early anomaly detection, precise fault diagnosis, and predictive maintenance. With intuitive dashboards, VibLyze® helps minimize downtime, lower maintenance costs, and boost operational efficiency. Tailored for industries like manufacturing, energy, and oil and gas, it delivers actionable insights to maintain peak asset performance.

Product of SWEDEN
VMI INTERNATIONAL AB
Gottorpsgatan 5
582 73 Linköping, Sweden

Authorised Distributor in INDIA:
VIBROTECH TRAINERS & CONSULTANTS PVT LTD.,
(An ISO 9001:2015, ISO 45001:2018 Certified Company)
B2B, BBCL Sukhin, H – 29/30, South Avenue, Kamaraj Nagar, Thiruvannmiyur, Chennai -600041, INDIA
Phone: 044 – 24486363 Mobile : +91 94440 43414
E-Mail : services@vibrotech.co.in, vibrotechchennai@yahoo.com
Web site: www.vibrotech.co.in

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Database and Configuration Tools

1. Database Design:

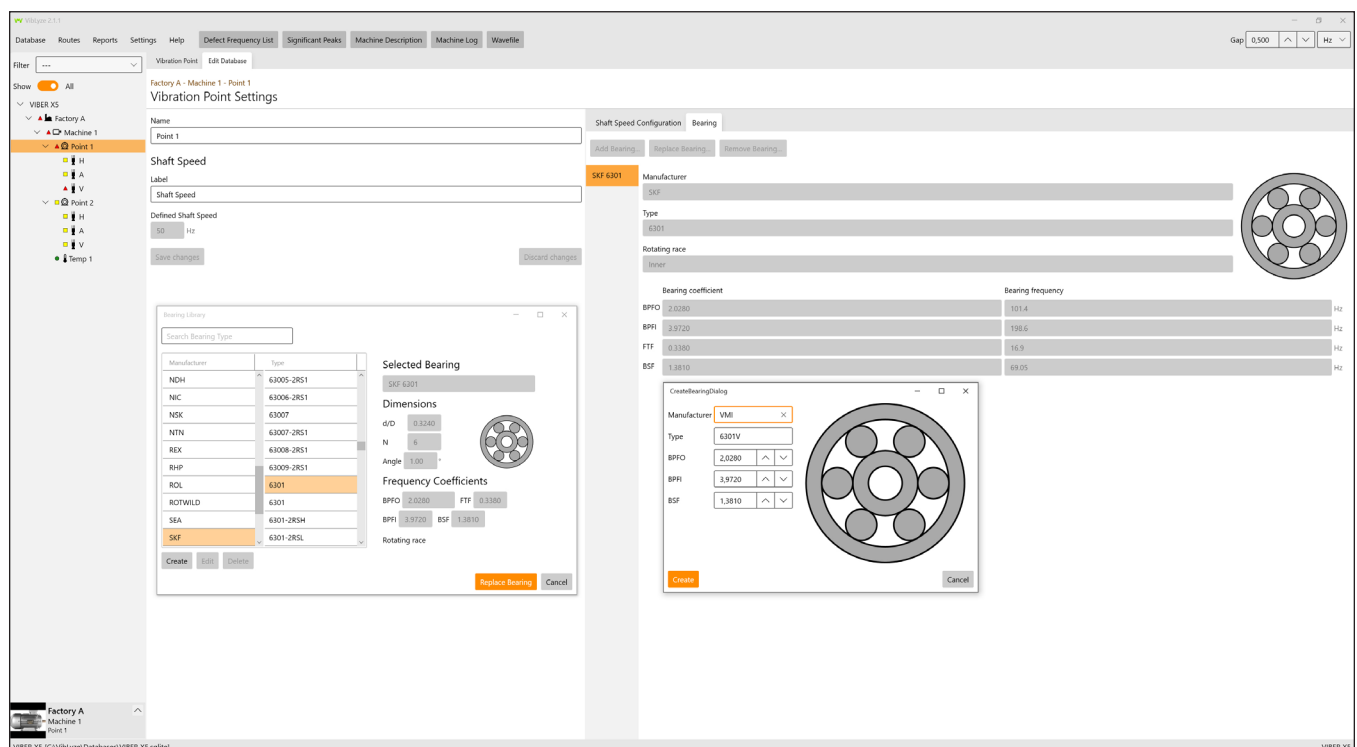
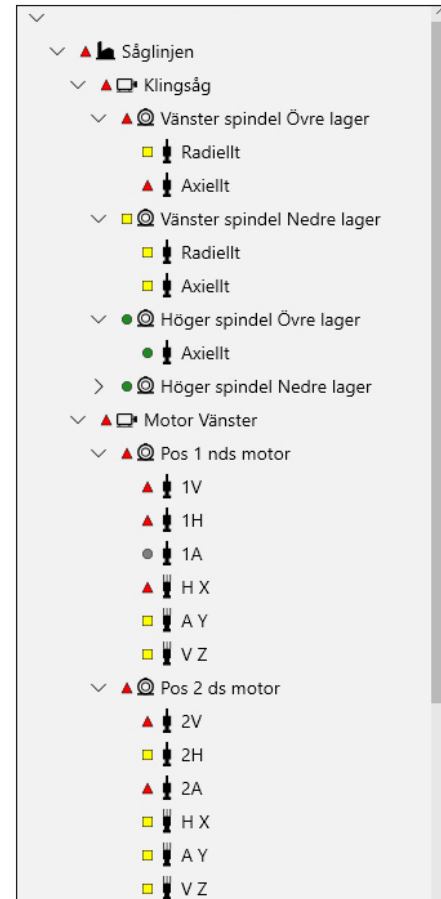
- Easy setup using templates.
- Capability to include machine pictures for clarity.
- Hierarchical database tree with alarm indicators for quick fault identification.

2. Machine Fault Frequency Calculation:

- Integration with a bearing database for fault frequency reference.
- Calculations tailored to various machine types and conditions.

3. Shaft Speed Tools:

- Speed inputs include:
- Speed set in the database.
- Calculated speed based on machine parameters.
- Measured speed from sensors.
- Selected speed for specific analysis needs.



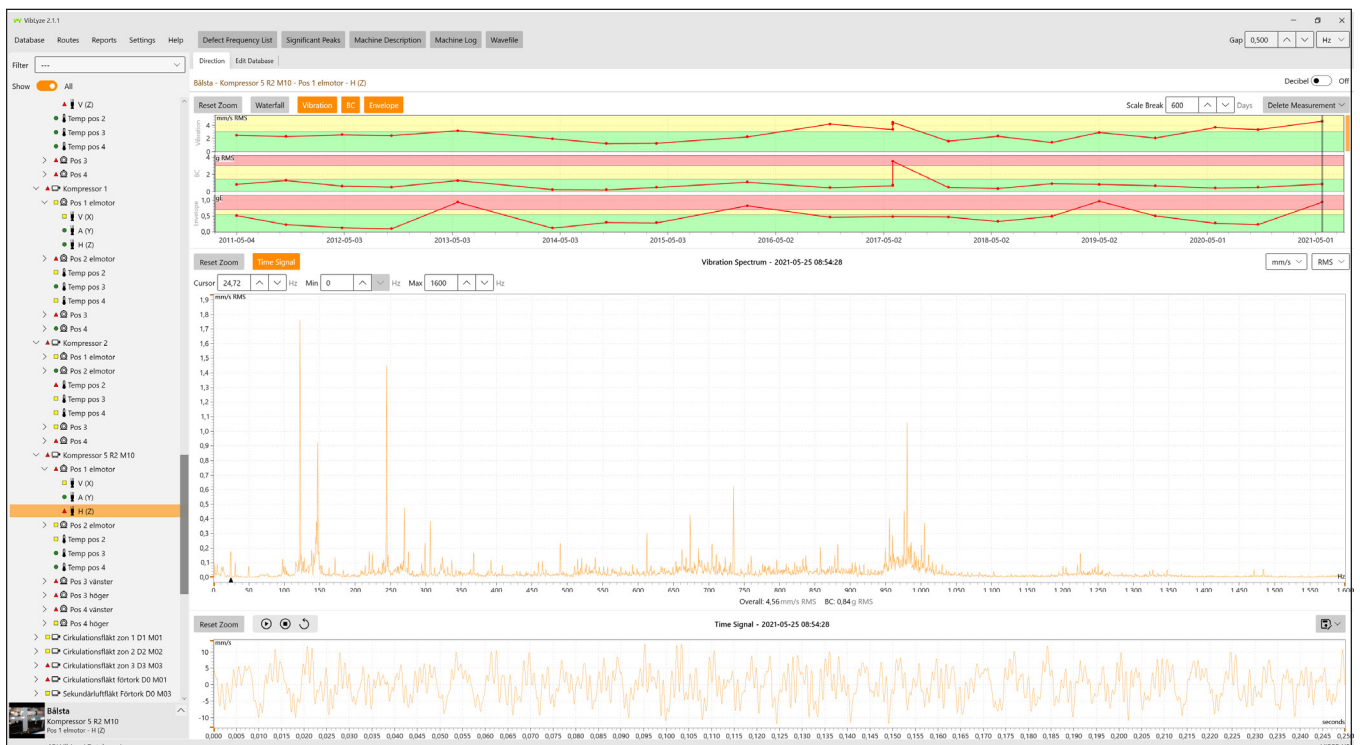
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4. Spectrum View Options:

- Quick access to different spectral data:
- Full machine spectra.
- Selected individual spectra.
- Trending data for overall and bearing-specific condition levels.

5. Spectrum Analysis:

- Tools for precise fault identification:
- Harmonic and sideband cursors.
- Calculated fault frequencies for bearings and other components.
- Reference spectra for comparison.
- Online lists highlighting the highest vibration levels.



6. Waveform

Waveform Signal Analysis with Live Spectrum and Spectrogram involves real-time monitoring and analysis of time-domain signals and their frequency content. This technique is widely used in applications like vibration analysis, acoustics, and signal processing to identify patterns, anomalies, and system behaviors.

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- **Waveform Signal:**

Represents the raw time-domain data collected from sensors (e.g., accelerometers, microphones).

Shows signal amplitude over time, useful for detecting transient events like impacts or spikes.

- **Live Spectrum:**

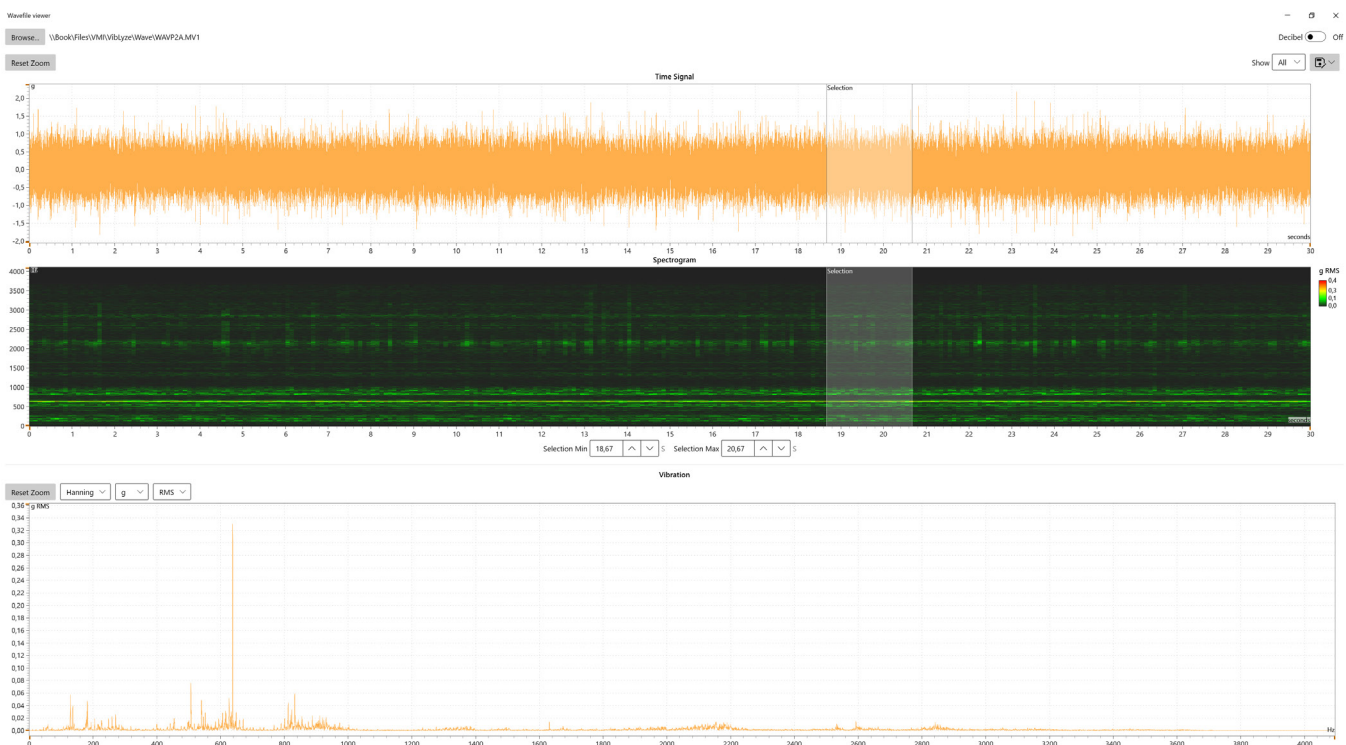
Displays the frequency-domain representation of the signal using techniques like Fast Fourier Transform (FFT).

Highlights dominant frequencies, harmonics, and sidebands, aiding in identifying faults like imbalance, misalignment, or bearing defects.

- **Spectrogram:**

A time-frequency representation that shows how the signal's frequency content evolves over time.

Useful for visualizing transient phenomena, modulations, or periodic changes in system behavior.



7. Thermal Imaging:

This facility enables non-contact temperature imaging, to detect overheating, electrical faults, misalignment, wear, insulation failures, leaks, and other developing equipment issues. Widely used for electrical systems, rotating machinery, and pipelines, thermal imaging complements vibration analysis and acoustic monitoring for comprehensive condition monitoring.

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