



Product Sheet

Compass 6000 - Diagnostic Monitoring Software Introduction & Benefits

The Type 3160-02 Diagnostic Monitoring Software is a signal analysis tool with powerful, easy-to-use functions that assist the user to quickly and accurately detect, diagnose and interpret machine damage in the event of a fault or damage. This enables the operator to quickly identify the source of the damage and initiate a corrective response that reduces downtime and maintenance costs and boosts machine availability.

Benefits of Diagnostic Monitoring

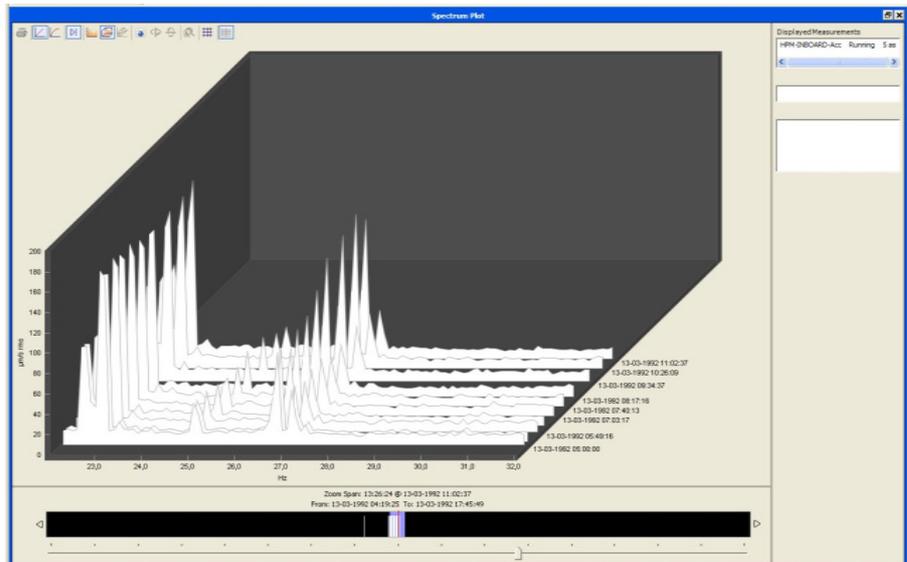
At the onset of a potential failure mode, the **Diagnostic Monitoring Software** accurately diagnoses faults and provides information to plan maintenance action to suit production schedules. Repair time and cost is minimised, only damaged parts need replacing, only necessary spares need to be ordered and machine uptime is resumed faster.

Compass 6000 System

The new generation of monitoring software is built on COMPASS Classic's proven monitoring methods. The Detection and Trending Software provides the basic platform for the **Diagnostic Monitoring Software**.

Diagnostic Monitoring Techniques

Diagnostic tools, e.g. autospectrum (FFT), envelope analysis (SED), vectors, etc. are provided to help identify different potential failure modes. The spectrum alarm functions provide fast detection and identification of specific machine faults. Use the software's analysis



expertise instead of the diagnostic technician's valuable time to quickly diagnose faults.

Adaptive Monitoring

The unrivalled COMPASS adaptive monitoring strategy automatically changes the monitoring strategy according to different machine (operating) states.

Profile Monitoring

Profile monitoring automatically monitors scalar values (e.g. overalls or vectors) vs. RPM, and allows an alarm envelope to be set around a parameter's "normal"

run-up profile. This simplifies detection of even small changes in machine behaviour, e.g. caused by changes in bearing parameters or rotor and machine properties like unbalance, cracks, resonance, changes in stiffness, etc.

Triggered Measurements

Used for machines that are monitored only at a specific point during a cycle, e.g. rod-drop monitoring of reciprocating compressors. The measurement is triggered at a user-defined crank-angle during rotation.

Product Sheet – 3160-02 Diagnostic Software

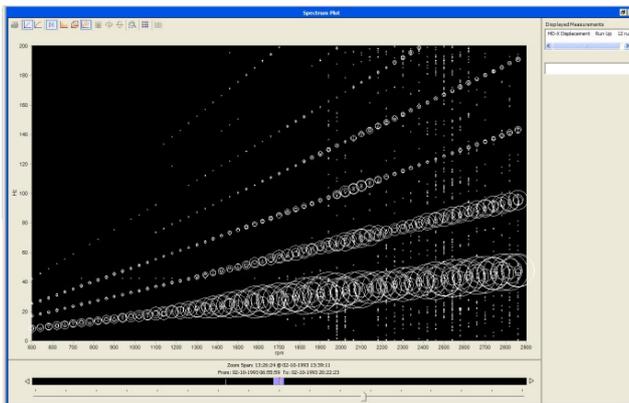
Diagnostic Software Plots

The sample of diagrams below illustrates some diagnostic plots obtainable with the **Diagnostic Monitoring Software**.

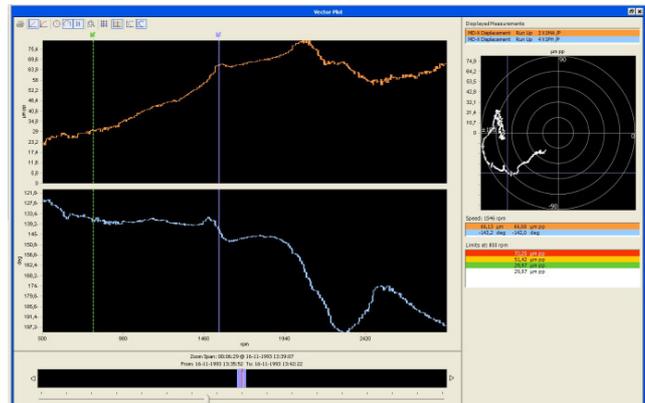
Accurate, easy-to-interpret plots such as 2-D spectrum and 3-D spectra plots, orbits, Bodé plots of transient behaviour, polar plots of harmonic amplitude and phase and static shaft position, and many others, with authoritative information that supports the

diagnostic and corrective action decision-making process.

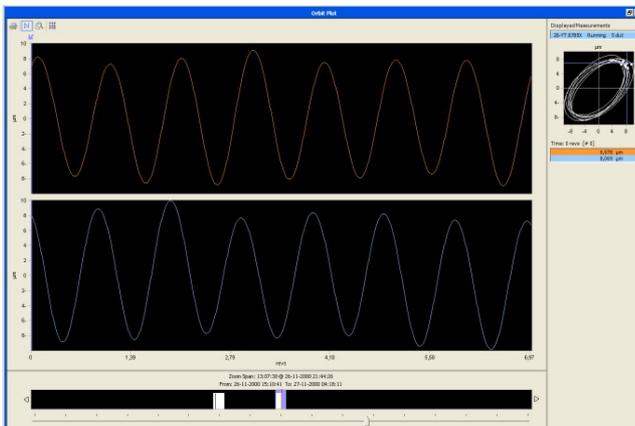
The 3160-00 Rack-based license is required for taking data from the VC-6000™ for processing in the 3160-02.



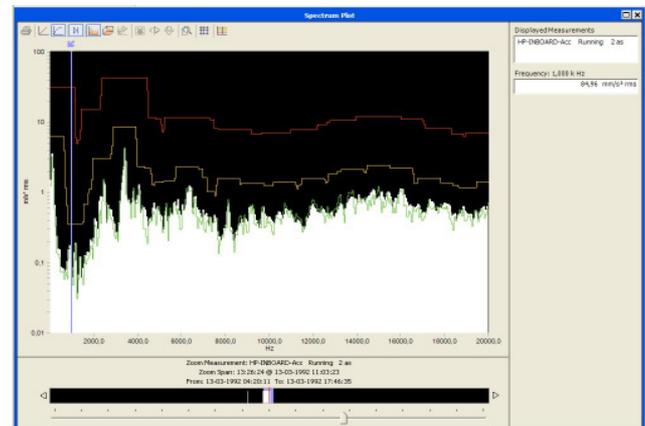
Campbell diagram



Bodé with Nyquist



X-Y time series with orbit



2D spectrum

Brüel & Kjær Vibro reserves the right to change specifications without notice

Brüel & Kjær Vibro A/S
2850 Nærum – Denmark
Tel.: +45 7741 2500
Fax: +45 4580 2937
E-mail: info@bkvibro.com

Brüel & Kjær Vibro GmbH
64293 Darmstadt – Germany
Tel.: +49 (0) 6151 428 1100
Fax: +49 (0) 6151 428 1200
E-mail: info@bkvibro.de