



Hyatt Industries Pocket VibrA Pro

New RFID Technology



Easy to use low cost condition based maintenance tool
Hand-Held Vibration and Inspection Data Collector

Reliability Problems?

High Maintenance Costs?

The Solution? PocketVibrA Pro

Features...

- Automatic measurement point recognition and data storage using RFID tags
- Full graphical trending of all vibration data with colour coded alarms and asset status
- Easy set-up Asset Wizard™ with built-in ISO vibration standard for motors, pumps & fans
- Diagnoses and displays out-of-balance, misalignment, looseness and bearing faults
- Automatic user-editable report generation
- Self-identifying “smart” accelerometer
- Easy navigation: simply point and click
- Display and trend important additional user-defined process information



Benefits...

- Reduced maintenance costs and downtime
- Improved equipment reliability

PocketVibrAPro

Scan RFID/Barcode...

Serial Number:
E0 04 01 00 1F A0 E5 DB

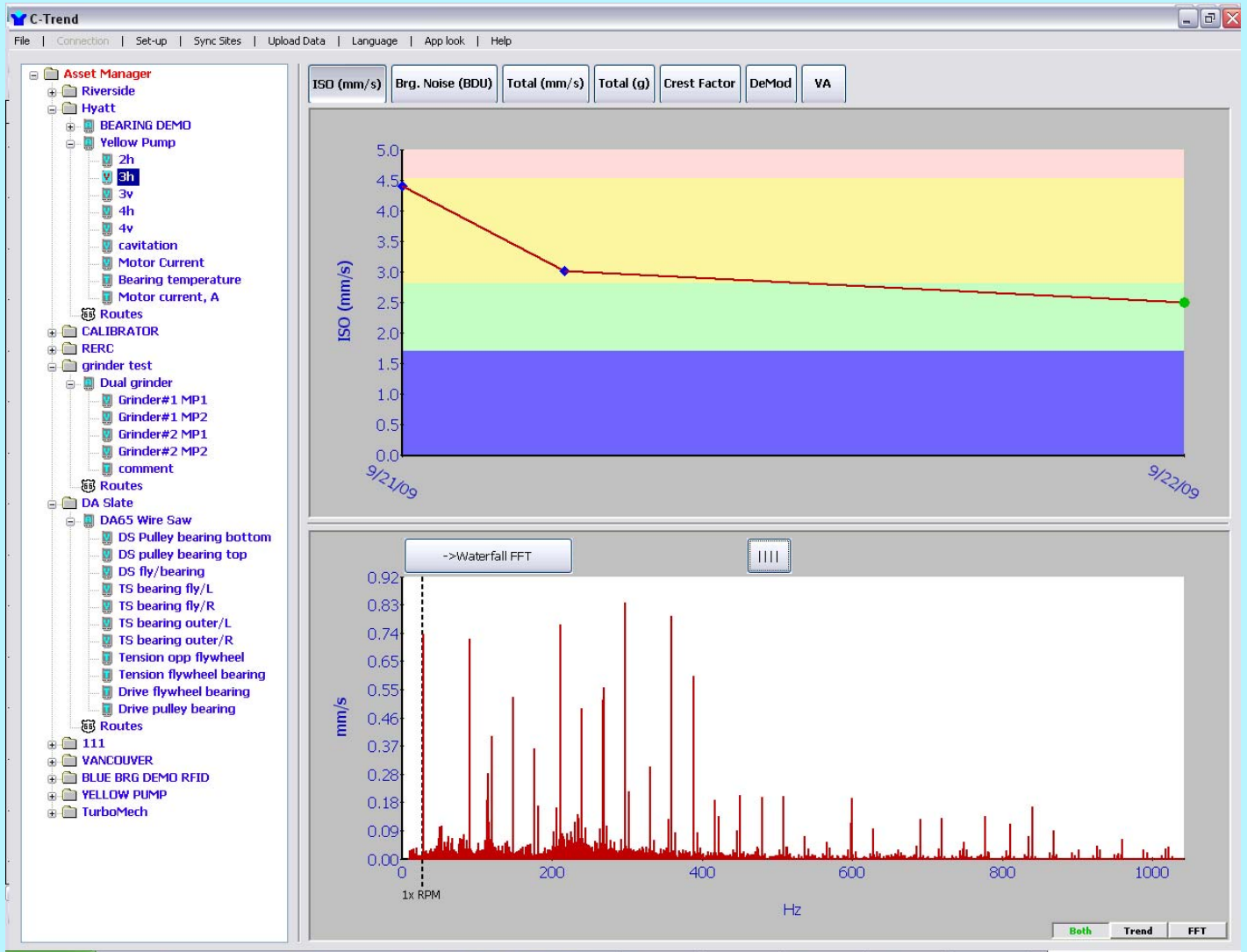
Assign to:
Asset ID:
Motor NDE
Point: 1
1h

Yes/No?

Yes No

Follow the C-Trend...

The key to successful condition monitoring is trending. A single reading will only tell you whether the machine is set up correctly, but by looking at the results over a period of time you will be able to predict failure before it happens.



Just one of the ways Pocket VibrA Pro has been designed to make life easier is the use of an optional Radio Frequency Identification/RFID/tags. Simply attach a rugged RFID tag next to the measurement point and let Pocket VibrA Pro do the rest. Every time you scan the RFID tag, Pocket VibrA Pro will automatically identify the measurement location and will prompt the operator to take a vibration reading. Data can be stored on the tag and compared with the previous reading.

The screenshot shows the PocketVibrAPro application interface. It displays two sections: 'RFID Tag (last reading)' and 'Current Reading'. Each section shows ISO, Brq. Noise, and Date Taken. A dialog box at the bottom asks 'Save Current Reading to RFID Tag?' with 'Yes' and 'No' buttons.

RFID Tag (last reading)	
ISO	1.6 mm/s
Brq. Noise	1.0 BDU
Date Taken	8/9/09 3:15:34 PM

Current Reading	
ISO	7.4 mm/s
Brq. Noise	1.0 BDU
Date Taken	9/9/09 3:19:54 PM

Save Current Reading to RFID Tag?

Yes No

Pocket VibrA Pro

Specifications

C-Trend software functionality:

Asset manager:

- Displays asset status (valid, warning or alarm) for ISO mm/s and bearing quality with date and time of reading.
- Assets can be Created, Edited, Deleted, Copied and Pasted into Sites.
- Sites (and their assets) can be selectively added to a sync list for downloading to Pocket VibrA Pro unit.
- Routes can be automatically set up and down loaded.
- Reports can be created on individual or groups of assets (selected via the Report Wizard) and produce editable Word files with embedded Excel graphs for trends and frequency plots.

Measurement point display:

- Total vibration (mm/s and G's), ISO mm/s (10 Hz-1 kHz), Bearing Quality, VA Bands (instability, balance, misalignment and looseness) **plus** any number of user defined parameters (text or numerical values).
- Individual readings (on any date) can be selected for frequency plot or waveform display (all axes are zoomable). Top ten peaks can be displayed and sorted by frequency or amplitude.

PocketVibrA software functionality:

Asset manager:

- Displays sites, assets and measurement dates and times as a "tree" structure.
- Stylus free navigation of route and measurement points and capture of readings using keypad.
- Assets can be Created, Edited, Copied and Pasted into Sites (password protected on PocketVibrA).
- Single and continuous reading "meter" mode with continuous FFT display.
- Options to "run asset" (take new readings) or "continue asset" (add to previous readings).
- Auto identification of measurement points using RFID tags or auto recognition of "smart" accelerometer via easy to use set up procedure.

"Run asset" display:

- Individual measurement points (MP) are numbered and described with text.
- MPs are colour coded to show if a reading has been taken (red) or not yet taken (green).
- Previously taken readings can be viewed or retaken.

Measurement point readings display:

- User selectable simultaneous display of any four from: ISO mm/s, Total RMS (mm/s or G's), Bearing quality, Peak (mm/s or G's) or Crest Factor.
- Time waveform and frequency plots (zoomable axes).

Size	220 mm x 95mm x 45mm
Weight	500 g (not including accelerometer)
Environmental	
Water:	MIL-STD-810F, Method 512.4 IP67 sealed against accidental immersion (1m for 30 min)
Drop:	MIL-STD-810F, Method 516.5, Procedure IV 26 drops from 1.22 m 6 additional drops at -20° 6 additional drops at 60°
Operating:	-30° to 65°
Storage:	-40° to 70°
Humidity:	MIL-STD-810F, Method 507.4
Sand & Dust:	IP67, MIL-STD-810F, Method 510.4, Procedures I & II
Battery life	Typically 8-20 hours operating time depending on backlight usage.
Maximum freq range	10 Hz to 15 kHz
Resolution	400, 800, 1600 or 3200 lines
Input range	+/- 50 G's with standard 25mV/G's C-Cubed accelerometer
Dynamic range	+/- 50 G's to +/- 0.0004 G's with standard accelerometer
VA Bands	4 user definable frequency ranges. User definable band descriptor names.
Auto set up of VA band limits (x = run speed)	Instability 10 Hz - 0.75x Unbalance 0.75x - 1.5x Alignment 1.5x - 2.5x Looseness 2.5x - 3.5x
Bearing Analysis	Envelope demodulation. Bearing quality in BDU (bearing damage units)
Accelerometer Connection	Standard 10 pin IP67 connected smart accelerometer with built-in ID and sensitivity calibration (nominally 25mV/G's) Optional IP67 BNC connected constant current accelerometer (nominal +20 V supply @ 1mA)
Alarms	User settable on any vibration parameter (acceleration, velocity, bearing quality etc)
Preset alarm levels (Velocity)	Valid data 0.1 mm/s Warning 2.8 mm/s Alarm 7.1 mm/s
Colour coded readings	Red: alarm Amber: warning Green: valid
Keypad operation	Stylus free collection of vibration data
Options	<ul style="list-style-type: none">• RFID SD card• Carrying case with neck strap• Extended End Cap with BNC connector and constant current accelerometer interface• Stylus lanyard

Tel: +(1) 604 7367301 • e-Mail: sales@hyatt-ind.com • Fax: +(1) 604 7367305

www.hyatt-ind.com