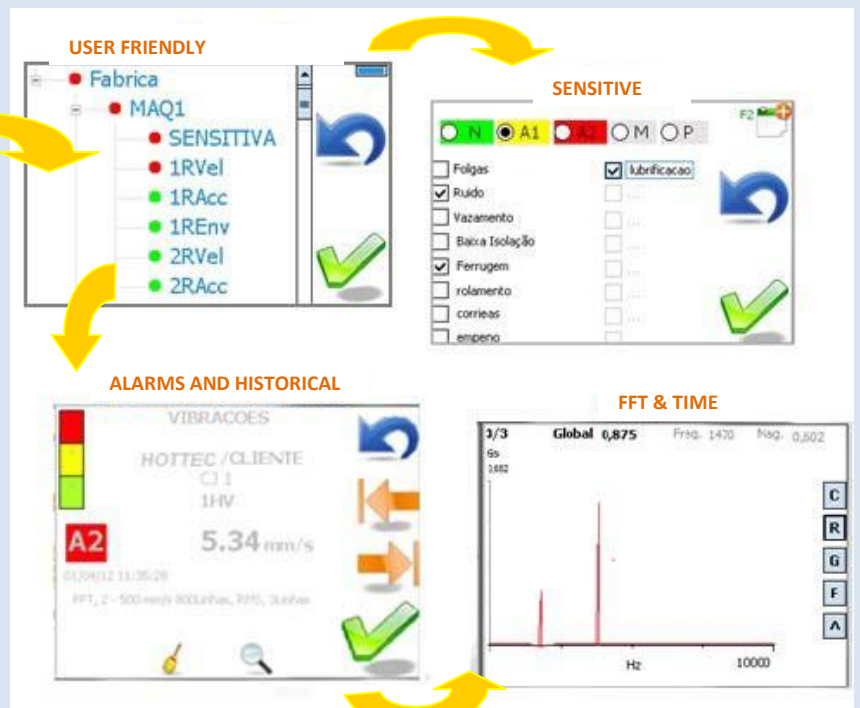


# VIBRATION ANALYZER

PORTABLE

## VIB Series



## VIB-100 Series

The complete and modular solution of Predictive Maintenance,

which aims to fill the gaps of conventional systems in the area of cost x benefit, integrating the techniques of:

- ✓ **Vibration Analysis**
- ✓ **Sensitive Inspection**
- ✓ **Process Data**
- ✓ **Balancing**
- ✓ **Thermometry**

## Available Versions:

- BASIC:** Global Levels (Velocity, Acceleration, Displacement and Envelope) & Sensitive
- ADVANCED:** BASIC Features + FFT 20 KHz, Time (up to 51.2 KHz), Graphical Features
- PROFESSIONAL:** ADVANCED Features + Balancing in 2 axis

## Main Technical Features:

- ✓ COLORED DISPLAY, 320 X 240 PIXELS (3,5") TOUCH SCREEN.
- ✓ TOUCH SCREEN AND MEMBRANE KEYBOARD (TWO-HANDED).
- ✓ SENSITIVE INSPECTION MODULE THAT ALLOWS THE ASSEMBLY OF TREND AND STATISTICAL HISTORY.
- ✓ NAVIGATION MODE IDENTICAL BETWEEN EQUIPMENT AND THE DATA TREE IN THE SOFTWARE.
- ✓ PROCESSOR 533 MHZ 32-BIT, SD CARD UP TO 8 GB.
- ✓ BATTERY TIME OPERATING UP TO 8 HOURS (INTENSE USE).
- ✓ LANGUAGE OF THE OPERATIONAL SYSTEM: PORTUGUESE;ENGLISH,SPANISH, AND ANY OTHER DESIRED
- ✓ AUTOMATIC PASSAGE OF POINTS AND PARAMETERS TO BE COLLECTED.
- ✓ SPECTRUM DISPLAY (FFT), PHASE, ENVELOPE AND TIME SIGNAL.
- ✓ DATA AND HISTORICAL CONSULTATIONS OF PREVIOUS MEASUREMENTS.
- ✓ DATA TRANSFER VIA USB.
- ✓ E-DATA FUNCTION (SOFTWARE NEEDLESS ROUTES, VIA INTERNET).
- ✓ OPERATING TEMPERATURE: -10°C TO 70°C.
- ✓ VIBRATION MEASUREMENTS:
  - VELOCITY (MM/S, M/S)
  - ACCELERATION (G'S, M/S<sup>2</sup>POL/S<sup>2</sup> )
  - DISPLACEMENT (UM, MIL)
  - DETECTION: RMS, PEAK AND PEAK TO PEAK
  - FFT RANGE: UP TO 20KHZ
  - TIME SIGNAL UP TO 51,2KHZ
  - AVERAGE VALUES: 1 A 999
  - ENVELOPE: PRE-DEFINED AND ADJUSTABLE RANGE
    - RESOLUTION: 100 TO 12.800 LINES
    - FREQUENCY UNITS: HZ OR CPM
    - WINDOWS: HANNING, UNIFORM, FLAT-TOP
    - ICP ACCELEROMETER (100 MV/G) – 80G'S PEAK
- ✓ EXTERNAL 5V TACHOMETER INPUT WITH MEASUREMENTS OF 10 TO 10.000 RPM
- ✓ IT IS POSSIBLE TO PERFORM ROUTE INSPECTIONS WITH MORE QUALITY AND ALSO UPDATING THE DATABASE EASILY AND FAST
- ✓ BALANCING ON 1 OR 2 AXIS VIA EXTERNAL SENSOR
- ✓ THE EQUIPMENT MAKES POSSIBLE TO UPGRADE TO HIGHER VERSIONS SIMPLY BY AMENDING THE LICENSE NUMBER.



## Technical description of the available versions:

### **BASIC VERSION: GLOBAL LEVELS (SPEED, ACCELERATION, DISPLACEMENT AND ENVELOPE)**

**& SENSITIVE:** It will only measure and record the GLOBAL Levels of Vibration in SPEED, ACCELERATION and ENVELOPE (RMS, Peak to Peak or Peak) and SENSITIVE INSPECTION, e.g. it is not possible to view and save the spectral and time signals to make a more precise and detailed.

SIGPRED software for post processing, analysis, loading and unloading of routes and its interface with the VIB100 will function fully, where the structure of machines, routes, types of sensorial inspections and vibration parameters for each type of machine can be registered and created ( customization). Routes may be discharged in order to trace trends beyond entering historical and analysis / measurement observations. Datasheet information can be field fed directly into the VIB100 and later downloaded from SIGPRED.



### **ADVANCED VERSION:**

#### **ALL BASIC RESOURCES + FFT, TIME, ENVELOPE:**

In addition to all the features of the BASIC Version described above, it is possible to process the SPEED, ACCELERATION AND ENVELOPE (FFT and TIME) vibration signals, save and visualize with cursors (Harmonic, Single Band, etc.). The data can be downloaded in the SIGPRED Software, managing the trends and reviews (diagnostics and recommendations).

It is possible to register the bearings codes and to visualize in the FFT the defect frequencies of the bearing internal parts (external and internal track, cage, balls).

It will allow the generation of Operational Report (similar to a service order), with image (photo and / or sketch) and the respective spectra with the reviews and diagnostics.

The ENVELOPE technique will allow easy visualization of and bearing defects, and internal shocks.

### **PROFESSIONAL VERSION:**

#### **ALL ADVANCED RESOURCES + BALANCING IN 2 AXIS:**

In addition to all the features of the BASIC and ADVANCED Versions described above, there is a BALANCING module in the field with respective record of activities. It will be possible to carry out the routine vibration measurements and to detect an imbalance, which can be corrected in the sequence, without the need to change instrumentation, optimizing the work of the professionals involved. Balancing can be performed in up to 2 axis, it's allowed to add comments and recording of all steps (before, during and after) of the balancing. After the standard tests, you will be informed exactly the mass and angle for the correction, as well as resources such as mass division, test mass calculation, balancing quality calculation (G).



WATCH THE OPERATIONAL VIDEO OF THE **VIB 100** VIBRATION ANALYZER AND SIGPRED SOFTWARE.

Visit: <https://www.youtube.com/user/HotTecBrasil> or

VIB100 (video length: 2:09min) <https://youtu.be/WvOY5jNTTQ>

Software SIGPRED (video length: 1:45min) <https://youtu.be/UNAdx8VXIs8>



The **SIGPRED Software** operates in conjunction with the VIB 100 & VIB 200 Series VIBRATION ANALYZER, adding and transferring settings of vibration, sensitive, etc. SIGPRED provides all the necessary tools for a detailed analysis in your PC of the equipment inspected with predefined routes in database system, providing totally customized reports in the WORD software (there are other models of pre-defined templates available).

**ALL RESOURCES AVAILABLE IN SINGLE SOFTWARE:**

- ANALYSIS MODULE
- ROUTE MODULE
- DATABASE
- BEARING DATABASE WITH 40,000 REGISTERED MODELS



**TECHNICAL FEATURES:**

- Easy environmental software with friendly and intuitive navigation;
- Data Tree Structure View;
- Insert photos, sketches and auxiliary technical documentation;
- Software for management of the main predictive techniques, such as:
  - Vibration Analysis
  - Thermograms Storage
  - Oil Analysis Routines
  - Lubrication Routines
  - Sensitive Inspection
  - Process Data
  - Ultrasound
- Generate customizable reports on the software Microsoft Word;
- Analysis Management;
- Management and treatment of vibration signals;
- Sensitive Inspection Management;
- Data management:
  - Vibrations
  - Sensitive
  - Temperature (v1.2)
  - Oil (v1.2)
  - Thermography (v1.2)
  - Process (v1.04)
  - Ultrasound (v1.04);
- SQL, MySQL database;
- Automatic Backup System;
- Support for Windows XP, Vista, 7, 8 and 10; Can be used in network, shared folder topology with SIGPRED - Post-Processing, Management and Database Software for Vibration Analysis

