

UNLOCK MOBILITY, EMBRACE PRECISION

Precision Balancer : Vibworks Balancer Gen 5.0



INTRODUCTION

Operating rotating machinery that is unbalanced can pose significant risks, leading to excessive vibration, premature wear, and potential safety hazards. These challenges not only elevate operational costs but can also result in structural damage and diminished machine efficiency, ultimately impacting product quality. To address these concerns, regular maintenance and precise balancing are crucial.

Introducing the next generation of VibWorks Balancer :





A cutting-edge solution designed to tackle these issues head-on. Utilizing advanced algorithms, the VibWorks Balancer quickly identifies and corrects imbalance problems, enhancing performance and reducing wear. With its user-friendly interface and real-time monitoring capabilities, this innovative tool simplifies maintenance, ensuring machinery operates safely and efficiently.

DETAILS AND BENEFITS

Precision and reliability

The VibWorks Balancer uses cross-phase correlation for real-time amplitude and phase calculations, making it one of the most precise balancing methods available. This technique measures the time shift that maximizes correlation between the reference and measurement signals from rotating equipment. By identifying this time shift, the VibWorks system accurately calculates vibration phase difference and amplitude at any speed. Its precision comes from capturing the dynamic interaction between signals, providing high-resolution data essential for effective balance adjustments. Real-time processing ensures continuous updates, enabling immediate responses to changes in machine vibration.

ESSENTIAL FEATURES

-  Reports
-  Real-Time Balancing
-  Merge Weights
-  User-Friendly Interface

Split Weight Feature

The SPLIT WEIGHT FEATURE in the VibWorks balancer optimizes performance by distributing correction mass, reducing stress on bearings and mounts. This allows for flexible weight placement in structurally convenient locations and adapts to situations where a single large weight isn't feasible, ensuring effective balancing while maintaining equipment integrity.



Phase Stability Indicator

Incorporating a real-time stability indicator is essential for assessing phase measurement consistency. Unstable phases may signal faults like looseness, misalignment, or bearing defects that need addressing before balancing. This ensures effective corrections for long-term equipment operation. The interface features a Polar chart that starts red and turns green once stable phase conditions are reached ($\pm 1.5^\circ$ in phase and $\pm 1.5\%$ in amplitude).



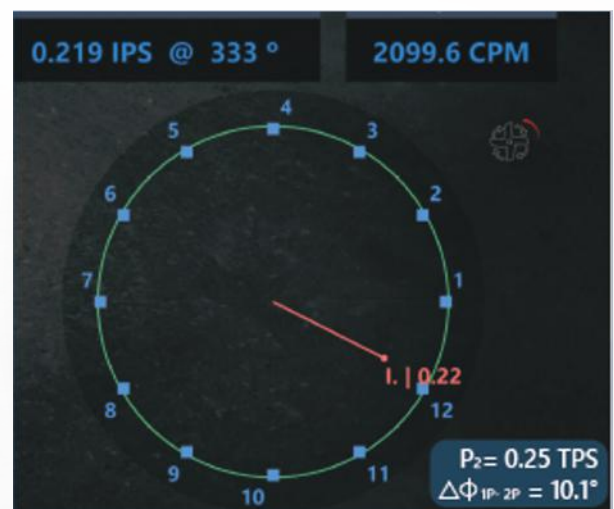
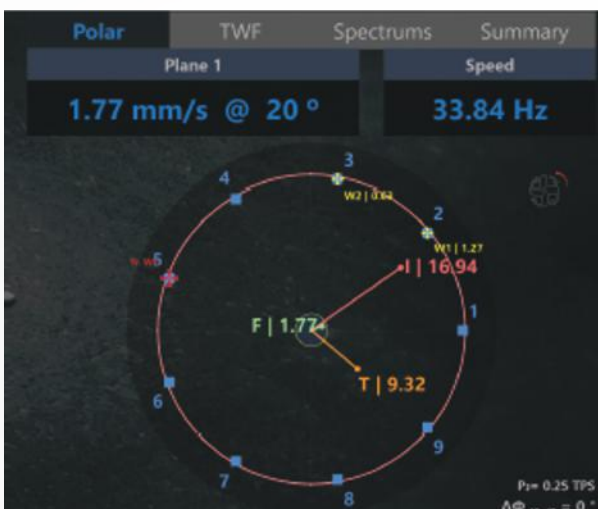
LATEST FEATURES

Fixed Location

The Fixed Location Feature in the VibWorks Balancer streamlines the balancing process, increasing speed and reducing complexity. Standardized placements cut costs by minimizing the need for special tools, while ensuring consistent application across similar machines for quality control. This predefined approach simplifies training and aids systematic maintenance planning, enhancing overall reliability.

Phase Difference

This feature continuously monitors the phase difference between two sensors on separate balancing planes, allowing users to determine in real-time whether single-plan (1P) or dual-plane (2P) balancing is needed from the first measurement, without shutting down the machine. By enabling immediate adjustments based on dynamic conditions, it reduces unnecessary downtime and costs, streamlining the balancing process and improving operational efficiency with timely, accurate decisions.



SOFTWARE

Windows® 11 Pro
Panasonic Utilities and Recovery Partition
Enterprise ready driver packages including
CDB files one-click bundles

PHYSICAL DIMENSIONS

Dimensions

10.8" (L) X 10.6" (W) X 2.3" (H)

Weight

2.5 lbs/(1.1 kg)

Operating Temperature

20°F to 140 °F (based on MIL-STD-810G)

Weight

MIL-STD-810G and Ip65 certified 6 foot drop chassis with shock-mounted flex connect hard drive fanless, sealed design reinforced locking port covers

DISPLAY

10.1" WUXGA 1920×1200

Capacitive gloved multi touch + digitizer

Anti-reflective(AR)screen treatment

Intel UHD Graphics

Direct bonding

Supports up to 5 monitors

2-1000 NIT

Concealed Mode; Day/Night Mode

STORAGE & MEMORY

Factory installed 16GB or 32GB RAM (DDR4) ³

512GB, 1TB or 2TB Quick-release 14 OPAL NVMe SSD with heater ³

BATTERY AND CHARGING

Li-Ion battery

18.5 hours– 10.8V, 6600mAh typical (6300mAh min)

Optional bridge battery

1 minute hot swap time

Channels

4 Channels, Simultaneous sampling software handled Accel. or Volt

Battery charging time

3 hours

AC Adapter

AC 100V-240V 50/60Hz, Auto Sensing/Switching worldwide power supply

CPU

Intel® Core™ i5-1245U i5-1245U vPro® processor

1.7GHz with Turbo Boost up to 4.4GHz, 12MB cache

CAMERAS

1080p webcam w/privacy cover &dual array mic

Infrared with Windows Hello support

8MP rear camera with autofocus with LED flash

Optional thermal camera (FLIR Lepton 3.5)4

AUDIO

Integrated dual array microphone

Integrated 88db speakers (front-facing)

Intel®High Definition

On-screen and button volume and mute controls

COMMUNICATION

Wireless

Intel®centrino® Advanced-(N 6205 802.11a/b/g/n Bluetooth®class 1)

Optional integrated 4G LTE mobile broadband Optional integrated 3G

Gobi TM mobile broadband, Optional GPS receiver

INPUT SIGNAL

Range

± 10V Standard

IEPE

Software Selectable On/Off,0mA or 4.1mA

Channels

4 Channels, Simultaneous sampling software handled Accel. or Volt

Accelerometer input

100g / (with a 100mV/g sensor)

Dynamic Signals

4 channels

CERTIFICATIONS & DURABILITY

MIL-STD-810H2

Solid state drive heater

MIL-STD-461G

Quick-release storage drive

IP65

Removable battery

Optional ANSI

Optional rotating hand strap hazardous location C1D2(class 1 div 2)

Reinforced locking port covers groups ABCD

Magnesium alloy chassis encased with ABS

Raised corner guards for LCD impact protection and elastomer edges

Built-in dual purpose handle & kickstand

Replaceable screen protector (on optional keyboard)

FREQUENCY ANALYSIS

A/D converter

24 Bits

Sampling Frequency

51.2 Khz and 102.4 Khz where applicable-

Frequency Units

Hz, CPM

Dynamic Range

-103 dB

Number of averages

Up to 10240

Resolution

200 lines to 208 400 lines

Fault Frequencies

Overlay fault frequencies cursors on spectra

Kinematics

Smart definition of transmissions, bearing frequencies,pulley belt

Customized Freq Event

Function of Rotational Speeds

Variable Speed

OneClick Kinematics Update of all frequencies for variable speed equipment

Cursors Spectrum

Unlimited harmonics and side bands cursors, Magnet cursors

High Pass Frequency

User defined from DC to 100Hz

Scaling

Linear/Logarithmic

Window Functions

14 embedded window Types

Location technology

Continuous angle or fixed locations

Speed

120 RPM to 300 000 RPM

Shaft Parameters

Sensitivity Calculation and Storage

Residual unbalance

According to ISO Weight calculation with trial

Indication

Real Time Polar Diagram with Vector Indication

ISO Standard

Embedded ISO 1940/2140

SOFTWARE DETAILS

Split Weights

3 to 48 Points

Balancing Report

Generated automatically with Email sending

Phase Stability

Visual Realtime indication of phase and Amplitude stability Directly on the polar chart

Plane Phase difference

Realtime display of the Phase difference between P1 and P2
