LUDECA

BETAVIB

PRECISION BALANCER

VIBWORKS BALANCER GEN 5.0

Operating rotating machinery with an unbalanced condition poses significant risks, including excessive vibration that can lead to premature wear and tear on components, increased operational costs, and safety hazards such as flying debris and machine instability.

This can also cause structural damage to buildings and reduce machine efficiency and product quality.

Regular maintenance and proper balancing are essential to mitigate these risks and ensure safe, efficient operation.

In response to these challenges, the new generation of VibWorks Balancers has been developed to address these critical needs more effectively.

- **REPORTS**
- **USER INTERFACE**
- **MERGE WEIGHTS**
- **REAL TIME BALANCING**

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PRECISION AND RELIABILITY

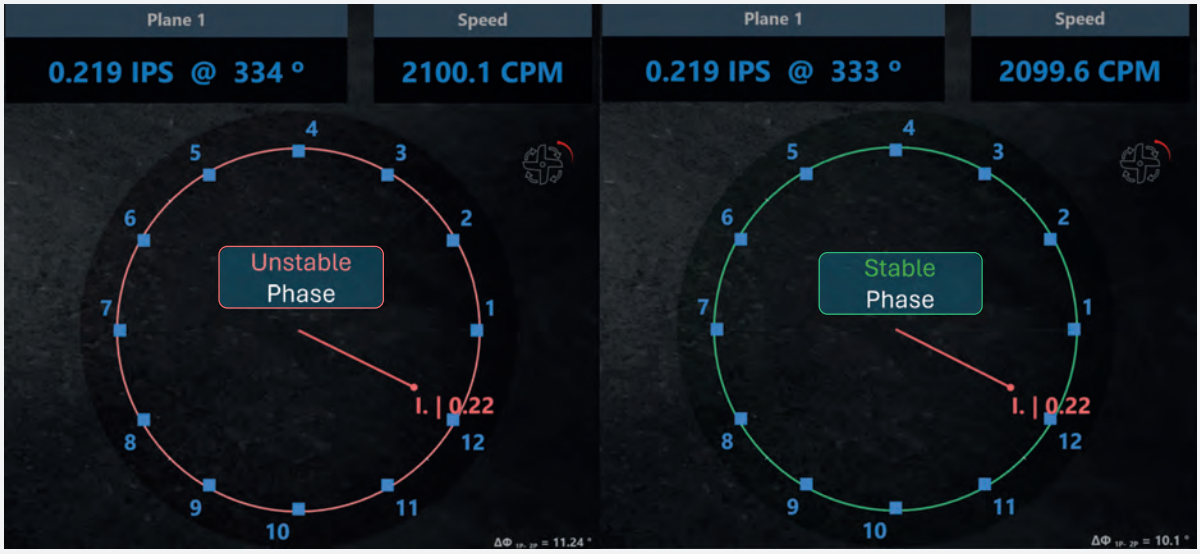
The VibWorks Balancer utilizes cross-phase correlation to compute amplitude and phase in real time, establishing itself as one of the most precise techniques for machinery balancing. This method involves measuring the time shift that maximizes the correlation between the reference signal and the measurement signal from the rotating equipment.

By determining this time shift, the VibWorks system can accurately calculate the phase difference and amplitude of the vibration at any given speed.

This approach is exceptionally precise because it directly captures the dynamic interaction between the reference and measured signals, thus providing high-resolution data that is crucial for effective balance adjustments.

The real-time processing capability ensures that measurements are continuously updated, allowing immediate responses to any changes in the machine's vibrational characteristics.

PHASE STABILITY INDICATOR



Moreover, incorporating a real-time stability indicator is critical in this process.
This feature assesses the consistency of the phase measurements over time.

If the phase is unstable, it often indicates the presence of other faults in the machinery, such as looseness, misalignment, resonance, or bearing defects, which must be addressed before proceeding with balancing.

Addressing these issues first ensures that the balancing process is not only effective but also that the corrections made are genuinely beneficial for the long-term operation of the equipment.

The phase stability is seamlessly embedded in the interface, your Polar chart Axis are Red when you start, and will turn Green as soon as you reach stable phase conditions (within plus and minus 1.5 dg in phase and plus and minus 1.5% in amplitude).

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SPLIT WEIGHT FEATURE

Reduced Stress on Bearings and Structure:

By distributing the correction mass, the stress on any single point, such as a bearing or mount, is reduced.

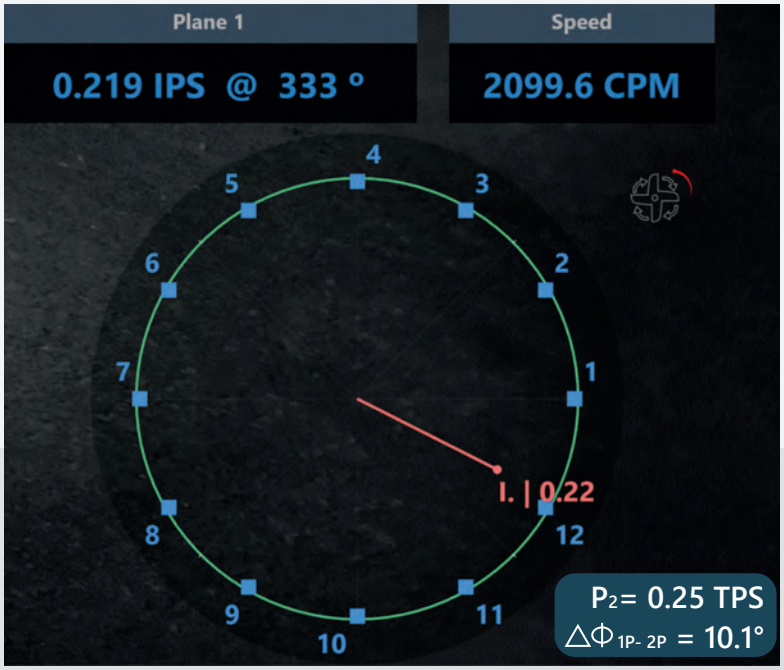
Flexibility in Placement :

Allows placement of weights in locations that are structurally convenient or accessible.

Adaptability:

Useful in situations where the ideal placement for a single large weight is not feasible due to design constraints.

PHASE DIFFERENCE



We are excited to announce a new feature in our Balancer that significantly enhances the balancing process.

This feature involves monitoring the phase difference between two sensors, each positioned on a separate balancing plane of a machine.

This capability enables users to determine in real-time whether single-plane (1P) or dual-planes (2P) balancing is required, starting from the very first measurement.

With this innovative approach, users can evaluate the phase difference without the need to shut down the machine.

This real-time monitoring facilitates immediate adjustments based on the actual dynamic conditions of the machinery, moving away from obsolete and nebulous rule-of-thumb guidelines.

This will help you as an End-User avoid unnecessary equipment shutdowns and extended balancing operations, leading to potential downtime and associated costs.

This feature not only streamlines the balancing process but also enhances operational efficiency by minimizing interruptions and ensuring more accurate balancing decisions are made swiftly.

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FIXED LOCATION

Simplicity and Speed:

Fixed locations simplify the process, speeding up the balancing and reducing complexity.

Repeatability:

This method ensures consistent application across similar machines, crucial for quality control.

Cost Efficiency:

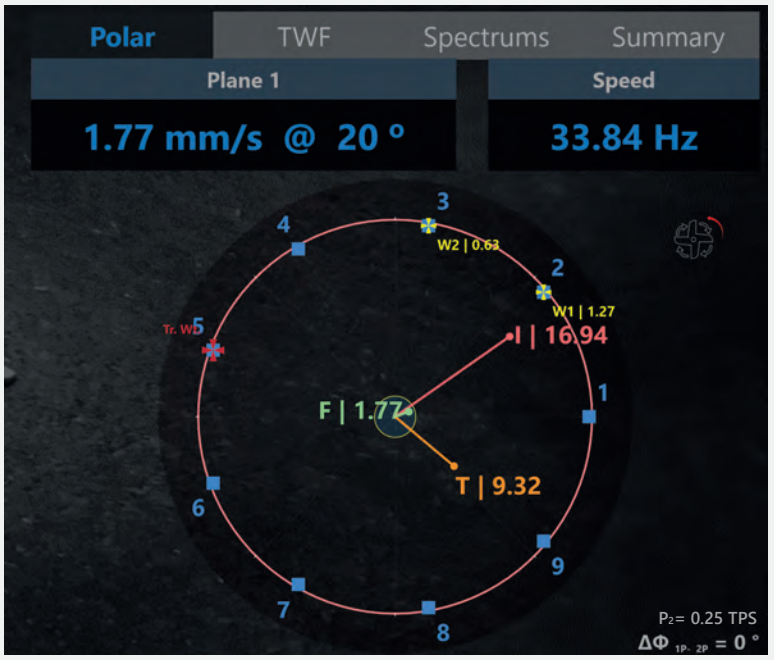
Standardized placements minimize the need for special tools or procedures, reducing costs.

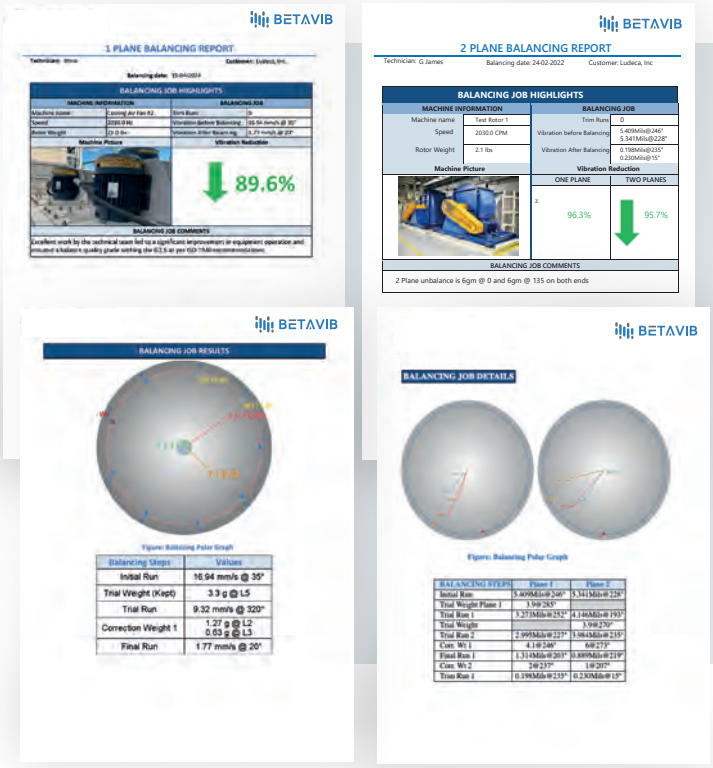
Ease of Training:

Training is streamlined since the placement points are predefined, reducing the learning curve.

Predictability in Maintenance:

Known weight locations helps in systematic maintenance planning, enhancing reliability.





REPORTS

Streamline your reporting process with our automated system, accessible with just ONE CLICK!

Enjoy unparalleled customization options, effortlessly incorporating your company logo, Technician contact information, customer details, and even machine pictures into professionally designed layouts, ready for printing with ease.

Our user-friendly interface ensures that tailoring your reports to meet your exact specifications is a breeze, saving you time and ensuring a polished presentation every time.

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