

# VibVue®

Rapid Vibration Analysis Using  
High-Speed Video and Motion Magnification



Diagnose vibration and dynamic problems that cost you time and money



**Mechanical  
Solutions, Inc.**

Test ■ Analyze ■ Solve ■ Design ■ Products

## Address

Mechanical Solutions, Inc.  
11 Apollo Drive  
Whippany, NJ 07981 USA

## Contact

+01 (973) 326-9920  
[www.mechsol.com](http://www.mechsol.com)  
[info@mechsol.com](mailto:info@mechsol.com)

## About VibVue®

VibVue® is a powerful high-speed video tool to help engineers and technicians identify and solve critical vibration issues.



### Advanced Technology

VibVue® implements Motion Magnification technology licensed from a major university in a combined software and hardware solution.

*Patents Pending*



### Fast and Easy

VibVue® is fast, easy to implement, and less likely to miss critical issues, so problems can be diagnosed more quickly, and with more certainty.



### Proven Record

MSI's 25-year track record for solving difficult rotating machine vibration and dynamics problems is part of the video review Support Package.



### Support Expertise

Receive training, software support, video review, consulting, or optional hands-on troubleshooting for help identifying and solving vibration issues.

## VibVue® Enables Reliability and Maintenance Engineers to:



**Pinpoint Problems & Root Causes**



**Reduce Vibration Problem Resolution Time**



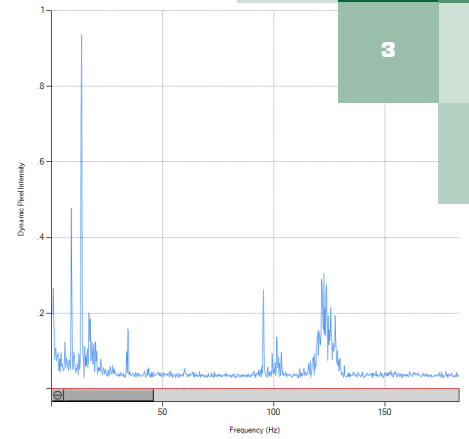
**Lower Maintenance Costs with Magnified Video**



**Reduce Machine or Plant Downtime**

# How VibVue® Works

VibVue® combines Motion Magnification technology with high-speed video capability and streamlined, intuitive software to help engineers precisely and easily acquire, visualize and analyze the data needed to quickly pinpoint root causes of vibration problems. Using VibVue® will result in reduced problem resolution time, lower maintenance costs, and decreased machine or plant downtime.



## High-Speed Video

Comprehensive pixels-are-sensors data allows you to easily see, measure, analyze and understand vibration for entire systems.

## Vibration Analysis

Find the problem root cause quickly and intuitively, avoiding a costly chronic trial and error approach.

## Motion Magnification

Implements high resolution Motion Magnification technology licensed from a major university.

## Problem Diagnosis

Sophisticated analysis results to measure problems, validate computer models, and effectively communicate to decision-makers.

VibVue® detects and displays vibration well under the ISO 10816 acceptance limits for comprehensive understanding even with high frequency, but low displacement.

“ The VibVue system is the best tool we have to get funds approved to fix the right thing at the right time. With VibVue, management gets a clear, precise, visual understanding of vibration issues in a system. ”

- GARY ADAMS, RELIABILITY SOLUTIONS GROUP, JOHN H CARTER



# VibVue® Key Features:

4

## VibVue® Standard Software Package

- Two (2) Licenses VibVue® Software
- Rapid Video Processing
- Frequency & Time Domain Video Analysis
- FFT & Time Waveform Displacement
- Color Enhanced Data Image Maps
- Motion Magnification Up to 1000x
- Digital Image Stabilization
- Two (2) Days Hands-on Training, Including Videography, Software Usage and Vibration Basics by Troubleshooting Professionals for One (1) Trainee at MSI or Certified Trainer Facility

## VibVue® Pro Software Package Also Includes:

- Triggered Averaging
- Relative Phase Map
- ISO Chart Background
- Automated Reporting
- Up to Four (4) Trainees at MSI or Certified Trainer Facility

## Accessories

- Two (2) Hard Side Travel Cases
- Removable Backpack for Transporting
- Pistol Grip Professional Tripod with Quick Connect Camera Adapter Plate
- Four (4) 5MP Lenses: 6mm, 12.5mm, 25mm, 50mm
- Vibration Dampening Pads
- Distance Meter
- Necessary Cables



## Computer

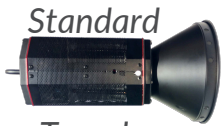
- High Performance Laptop
- Windows 10 Pro
- 32 GB RAM, 512 GB SSD
- 3-cell 56 Wh Battery
- Tripod Stand and Sun Hood

## Support & Maintenance (First Year Included)

- Updates to VibVue® Software
- Software Support (Business Hours)
- Expert Review of VibVue® Data by Industry-leading Vibration Troubleshooting Engineers

## Standard Lighting Kit:

- Two (2) LED Lights, 16,000 lux at 1m, 1,700 lux at 3m
- Two (2) Tripod Stands



## Optional Upgrades:

### Traveler Lights

- Two (2) Compact, Lightweight LED lights, 22,000 lux at 1m, 2,200 lux at 3m



## Triggering Kits (VibVue® Pro Only)

- Camera-specific Trigger Interface Kit
- Impact Hammer and/or Tachometer

## Training

- Additional Trainees
- Customer-site Training

## High-Speed, High Resolution Cameras

	VibVue® Mono   Color*	VibVue® High-Frequency
Minimum Displacement & Motion Magnification	0.1 mils p-p	0.2 mils p-p
Detection Threshold at 3m FOV, 10 Second Recording	<15% error	<20% error
Default Upper Frequency at Resolution	156 Hz @ 1920x600	640 Hz @ 1280x720
Maximum Frequency at Resolution	429 Hz @ 1920x200	26112 Hz @ 1280x8
Maximum Resolution at Frequency	1920x1200 @ 78 Hz	1280x1024 @ 454 Hz



**Mechanical Solutions, Inc.**

Test ■ Analyze ■ Solve ■ Design ■ Products

www.mechsol.com



Patents Pending



\*VibVue® Color Camera is for Magnification only

