



# Hand-Arm Vibration Dosimeter

Personal Exposure Monitoring and Risk Assessment Made Easy!

## Highlights

- Hand-mounted, rugged self-contained dosimeter
- Triaxial measurement with HA Filter curve per ISO5349
- 1 second continuous data logging for entire work shift
- Intrinsically Safe\*
- Part of a complete exposure management system with assignable datalogging units
- System Includes HAVSDock™ Docking Station, Blaze® s/w
- Meets ISO 8041-2005

\* Pending



VibTrack HAV™ worn underneath the work glove

## Applications

- Prevent / reduce risk of HAVS
- Regulatory compliance for workplace exposure
- EU directive and ACGIH TLV safety requirements
- Tool condition monitoring
- Anti-vibration glove tests



VibTrack HAV™ Dosimeter  
(Actual Size)

The risk of personal injury from exposure to high levels of vibration is well documented. In particular, high levels of hand-arm vibration from powered hand tools are known to cause Hand-Arm Vibration Syndrome (HAVS), otherwise known as Vibration White Finger (VWF) disease or Reynaud's Syndrome of Occupational Origin. Left unchecked and untreated, serious compensable injury including amputation of the fingertips could result.

Various means for measuring the vibration of tools used in Construction, Manufacturing, Mining and other industrial operations have been tried, but all have required the use of cable-mounted sensors being placed on the tool, often in close proximity to rotating or reciprocating parts—a possible safety hazard in and of itself! Too often, this approach only allows for short sample times, and also affects the work being performed, skewing the results. Now, with VibTrack HAV™ Personal Vibration Dosimeters, you can easily obtain accurate vibration exposure data, throughout the workday on many workers, reliably and conveniently, with minimal disruption to the subject under test.

VibTrack HAV™ is part of a system that gives complete control over dosimeter deployment, sampling and reporting processes, including who will be tested on any given day, and generates management-ready reports and analysis. VibTrack HAV™ is the key to reducing liability from HAVS.

**VibTrack HAV™ Dosimeter**

Measurement	Acceleration along 3 orthogonal axes (m/sec <sup>2</sup> )
Measurement Range (Amplitude)	0-12.7g Arms (125 m/s <sup>2</sup> )
Measurement Range (Frequency)	8 Hz – 1250 Hz
Hand-arm Frequency Filter	HA as defined by ISO 8041:2005
Measurement results	Calculation of daily vibration exposure A (8)
Data recorded	Time History logging of Arms 1/sec
User Identification	On-board (programmed from Docking Station / PC)
Indication of normal operation	LED: 1 flash every 4 seconds
Indication of A(8) reaching action level	LED: 1 flash per second
Indication of A(8) reaching limit level	LED: 4 flashes per second
Indication of overload	LED: 3 flashes in rapid succession
Interface to Docking Station	RS232
Battery Re-Charging time (in docking station)	3 hours
Battery life during normal use	At least 8 hours when fully charged
Temperature range in normal use	- 10 to + 50 °C
Temperature range while charging	- 10 to + 50 °C
ATEX certification for use in zone 0, expected	EEx ia I M1 (mining)
Intrinsic Safety	EEx ia IIc T4 1G
Electrical safety	Full compliance with EU & international standards.
Weight	1 oz 28 gm
Size - Head (W x D x H)	1.75 x .95 x .39 in. 45 x 24 x 10 mm
Size - Foot (W x D x H)	1.38 x .35 in. 35 x 9 mm
Size - Overall (W x D x H) (height varies by size chosen)	1.75 x .95 x ~ 1.75 in. 45 x 24 x ~ 45 mm
Shock limit, expected	1000 g 9810 m/s <sup>2</sup>
Product useful life	5 years minimum

**VibTrack™ Docking Station**

Capacity	5 VibTrack HAV™ dosimeters
Indicators for each dosimeter port	LED: charging/charged LED: activated/inactive LED: available
LCD screen & keypad	User identification
Download data available to PC	Yes
Interface to Dosimeters	RS232
Interface to PC	USB or Ethernet
Power	AC 110 - 250 to DC 30 V. Multi-plugs supplied.
Temperature range in normal use	0 to +50 °C
Electrical safety	Full compliance with EU & international stds.
Weight	4.4 lbs. 2 kg
Size (W x D x H)	8.9 x 8.3 x 4.9 in. 225 x 210 x 125 mm

 **LARSON DAVIS**  
A PCB PIEZOTRONICS DIV.

3425 Walden Avenue, Depew, NY 14043-2495 USA

**Phone** 716-926-8243

**Toll-Free in USA** 888-258-3222

**Fax** 716-926-8215 **E-mail** sales@larsondavis.com

**Web Site** www.larsondavis.com

ISO 9001 CERTIFIED

© 2009 PCB Group, Inc. In the interest of constant product improvement, specifications are subject to change without notice. PCB, and ICP are registered trademarks of PCB Group Inc., SoundFrac LXT, Spark and Blaze are registered trademarks of PCB Piezotronics, Inc. HV Manager is a trademark of PCB Piezotronics, Inc. All other trademarks are properties of their respective owners.

LD-VibTrackHAV-0609

Printed in U.S.A.



**VibTrack HAV™ Dosimeter**  
(Actual size)



**VibTrack™**  
Docking Station

For environmental noise monitoring and building acoustics, **Larson Davis** offers a full line of instruments, accessories and software. For personal noise and vibration exposure monitoring, Larson Davis complements this with sound level meters, personal noise dosimeters, human vibration meters, audiometric calibration systems and hearing conservation programs.

Visit [www.larsondavis.com](http://www.larsondavis.com) to locate  
your nearest sales office