HVManager™ Software

Vibration Exposure Assessment and Risk Management with the Larson Davis HVM100

Highlights

- Simplifies Management of Tool Use to Stay Within Legal Limits
- Creates a Tool-based Human Vibration Level Database
- Projects Tool Users' Cumulative Daily Exposure to Vibration
- Complete System With Analysis Software Available
- Generates Individual Data Sheets for Different Tools
- Presents Vibration Exposure Time History Graphs for X, Y, Z, and Sum
- Supports Compliance with EU Physical Agents Directive 2002/44/EC, ISO 2631, and ISO 5349

HVManager™ Software accepts data from the HVM100

HVManager™ displays and organizes hand/arm and whole body vibration measurement data that is acquired using the Larson Davis HVM100 Human Vibration Meter. The data is utilized by employers to limit exposure of their workers to harmful levels of vibration. The software specifically addresses the requirements of the European Community Directive 2002/44/EC, also known as the Physical Agents Directive. This Directive calls for employers to take an active role in complying with the legal exposure limits of hand/arm and whole body vibration.

Once vibration level databases are developed for the tools typically used, a daily task routine can be planned to limit worker's daily vibration exposure. This is done in the software by illustrating and managing worker's use of different vibrating tools over varying time periods. Using a "points system", whereby each time/tool/task combination generating short-term exposure is assessed a certain number of points based on duration and severity of the exposure, HVManager™ can easily assemble an individual work routine that ensures compliance with legal exposure limits.

For tool manufacturers, HVManager™ is ideal for creating vibration exposure level databases, useful for product development and end-of-line testing. Additionally, product test data sheets are easily created that can be shared with end users who need accurate vibration data to manage their own worker exposure projections.

As with all Larson Davis products, this software is complemented with toll-free applications assistance, 24-hour customer service, and is backed by a no-risk policy that guarantees satisfaction or your money refunded.

Specifications

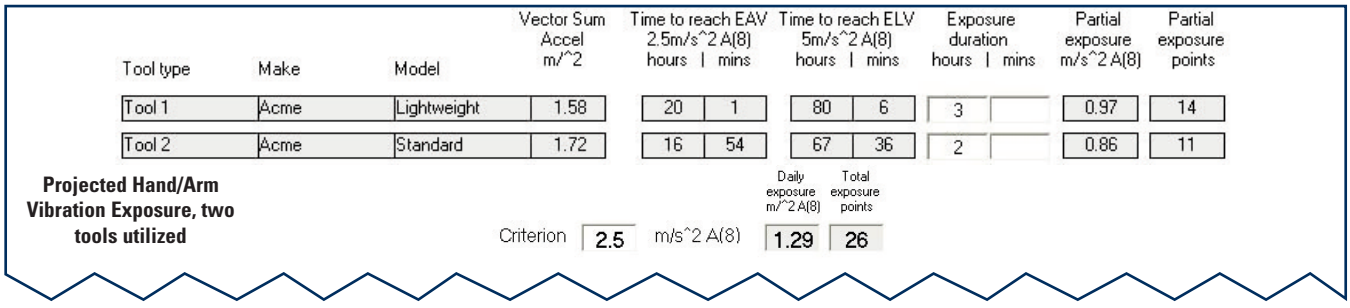
Vibration Database Records

	Hand/Arm		Whole Body
Number of Measurements	100, data for 15 sequential records displayed simultaneously		100, data for 15 sequential records displayed simultaneously
Units	m/s^2, cm/s^2, ft/s^2, in/s^2, g, dB (re 1x10-6 m/s^2)		m/s^2, $m/s^{1.75}$ (VDV)
Data Saved for Each Measurement	Aeq (X, Y, Z and Sum)		Aeq (X, Y, Z), VDV (X, Y, Z), Measurement Time
Averaged Data Calculated from User-selected Measurements	Aeq (X, Y, Z and Sum), Average Vector Sum, Dominant Axis Component, Standard Deviation		Vibration Magnitude, m/s^2, VDV, $m/s^{1.75}$, Measurement Time

Vibration Exposure Calculations

Vibration Type	Hand/Arm		Whole Body
Basis for Calculation	Vector Sum Acceleration	Dominant Axis Acceleration	N/A
Data for Each Tool or Vibration Source	Time to Daily EAV = 2.5 m/s^2 Time to Daily ELV = 5.0 m/s^2 Partial Exposure Partial Exposure Points	Time to Reach A(8) = 2.8 m/s^2 Partial Exposure Partial Exposure Points	Time to Daily EAV, VDV = 9.1 $m/s^{1.75}$ Time to Daily EAV, A(8) = 0.5 m/s^2 Time to Daily ELV, A(8) = 1.15 m/s^2 Partial Exposure Partial Exposure Points
Averaged Data	Daily Exposure A(8) Daily Exposure Points	Daily Exposure A(8) Daily Exposure Points	Total VDV, $m/s^{1.75}$ Total Exposure, m/s^2

Sample Data from Screen Shot



Tool type	Make	Model	Vector Sum Accel m/^2	Time to reach EAV 2.5m/s^2 A(8) hours	mins	Time to reach ELV 5m/s^2 A(8) hours	mins	Exposure duration hours	mins	Partial exposure m/s^2 A(8)	Partial exposure points
Tool 1	Acme	Lightweight	1.58	20	1	80	6	3		0.97	14
Tool 2	Acme	Standard	1.72	16	54	67	36	2		0.86	11

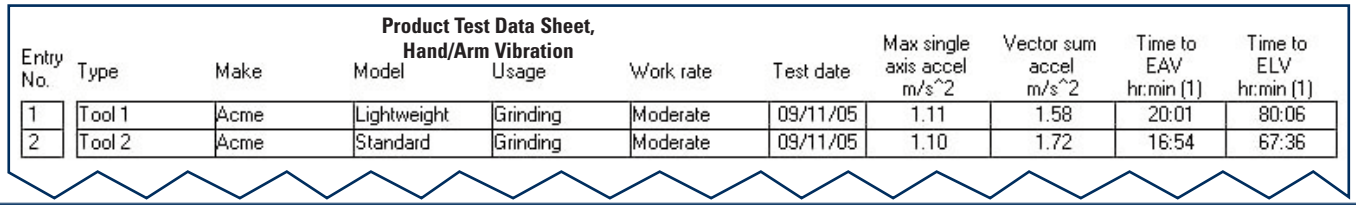
Projected Hand/Arm Vibration Exposure, two tools utilized

			Daily exposure m/^2 A(8)	Total exposure points
Criterion	2.5	m/s^2 A(8)	1.29	26

Product Test Data Sheets

Vibration Type	Hand/Arm		Whole Body
Data Provided	Maximum Single Axis Acceleration, m/s^2 Vector Sum Acceleration, m/s^2 Time to EAV, vector sum basis, A(8) = 2.5 m/s^2 Time to ELV, vector sum basis, A(8) = 5.0 m/s^2		Vibration Magnitude, m/s^2 VDV Level, $m/s^{1.75}$ Time to EAV, vector sum basis, A(8) = 0.5 m/s^2 Time to ELV, vector sum basis, A(8) = 1.15 m/s^2
Search Parameters	Company, Type, Brand and Model		
Data Export	To Microsoft Excel® (.csv format)		

Sample Data from Screen Shot



Product Test Data Sheet, Hand/Arm Vibration

Entry No.	Type	Make	Model	Usage	Work rate	Test date	Max single axis accel m/s^2	Vector sum accel m/s^2	Time to EAV hr:min (1)	Time to ELV hr:min (1)
1	Tool 1	Acme	Lightweight	Grinding	Moderate	09/11/05	1.11	1.58	20:01	80:06
2	Tool 2	Acme	Standard	Grinding	Moderate	09/11/05	1.10	1.72	16:54	67:36

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

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