HAVWEAR
Personal HAV protection

HAVS monitoring just got personal

Inform, protect & deploy resources and assets to effectively manage HAVS risks
HAVWEAR
Personal HAV protection

Simple to use and low cost for every-day worker protection.

The HAVWEAR is wrist mounted to provide a truly personal monitoring experience. It calculates and displays in real-time HSE exposure points to inform the wearer of their exposure to vibration. Sound and vibration alerts also inform the wearer of incremental increases in exposure and action thresholds exceeded.

You choose how to monitor?

The HAVWEAR is ground breaking due to its dual ability to calculate HAVs exposure points using either pre-defined tool vibration magnitude or the wearers wrist vibration.

- **Tool exposure**
  HSE exposure points are calculated using a tools pre-defined average vibration magnitude.

- **Personal exposure**
  Real time wrist vibration experienced by the wearer is used to calculate personal exposure points.

Whichever option you chose to calculate exposure points, tool usage can be tracked by simply pushing the HAVWEAR button before placing the HAVWEAR next to a tool tag before use. A stick-on tool tag is programmed with tool information and communicates with the HAVWEAR to share tool information.

HAVWEAR redefines what is “reasonably practical” when lowering HAVS risks.

*When used to support HAVS risk reduction activities.

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Improves worker protection

- Continuous exposure monitoring to keep operators safe.
- Greater accuracy of exposure monitoring supports long-term health management.
- Vibration trend to highlight increases in exposure risk due to poor tool use or performance.
- Supervisor rapid intervention support with automated emailed reports & alerts.
HAVWEAR display & alerts

Latest tool used
Last 4 characters of tool model number.

HSE points
Vibration exposure points

Operator initials
First name initial and first three characters of last name

Exposure action values
Indicates exposure thresholds reached

The HAVWEAR beeps and vibrates to alert the operator

<table>
<thead>
<tr>
<th>Below action value</th>
<th>EAV exceeded</th>
<th>ELV exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 sec. alert</td>
<td>5 sec. alert</td>
<td>10 sec. alert</td>
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Greater support of HSE regulations

- Measure the effectiveness of controls to aid design changes
- More accurate assessment of exposure.
- Unique information to help deploy the most effective measure of controls.
- Supports behavioural change and involves all duty holders
Reactec Analytics Reports

Without accurate knowledge of operator daily exposure, the likelihood of safely applying controls to keep HAVs exposure below required levels is extremely low due to the unpredictability of most work processes across sectors from landscaping to engineering.

It is also widely accepted that manual assessments of exposure in the workplace, following regulations, will have a high level of uncertainty. This can influence actions to reduce risk as well as assessing their effectiveness at a later date. Hence digital monitoring is critical to reduce this significant uncertainty on true exposure and help expedite the mitigation of HAVS risks.

HAVWEAR is part of the Reactec Analytics Platform system which automates the whole process from calculating HSE exposure points in the field to viewing online reports. The reports include individual worker exposure and related tool use to pinpoint exposure hot spots. Also over the longer term the Reactec Analytics Platform to be used to manage the exposure of the whole works force and so impact positively on health management.

Reactec Analytics Reports support risk reduction activity

Alternative work methods
The reports more accurately identify areas of risk and where to look for alternative work methods to design out risks.

Equipment selection
Tool usage reports highlight the most suitable equipment for tasks. Compare tool vibration magnitudes in the field to help select the lowest vibration tools that are suitable and can do the work efficiently.

Maintenance & purchasing policy for replacing old plant
View how long tools have really been used. This can help maintenance scheduling, plan replacements and identify poor tool use. Also monitor actual tool vibration to predict tool failure or poor use.

Work schedules
A clearer understanding of tool use and related exposure identify’s individuals over exposed and re-structure of work rota’s across projects, departments and working groups.

Measure effectiveness of controls
Accurate and continuous monitoring is imperative to risk assess, deploy and measure the effectiveness of controls.

Robust defence against litigation

- Continuous monitoring provides conclusive exposure records.
- 1 click download of reports reduces preparation time and paper work.
- Auditable, accurate & tamper data provides a more robust defence.
- Reduced risk helps secure lowest insurance premiums.
How it works

1. Collect
   Each operator uses a personalised RFID card containing their exposure action level thresholds to signout a HAVWEAR from a docking station at the start of their shift.

2. Protect
   The operator presses the button and holds their HAVWEAR next to a tool tag of each tool used to track tool use.

3. Return
   At the end of a shift the operator returns their HAVWEAR to a docking station to recharge and transmit data.

4. Manage
   Securely hosted by Reactec, companies can centrally manage employee access to specific reports.

5. Reduce
   View reports online or by email, individual and collective HAV exposure data and the drivers of that exposure.

10% of workers

Hand Arm Vibration Syndrome (HAVS)

Dose-response data indicates that "10% of individuals will have finger blanching symptoms after 12 years if exposed at the action value of 2.5m2 A(8) [100 HSE exposure points] or after 6 years if exposed at the limit value of 5m2 A(8) [400 HSE exposure points]."

“Exposure below the Action Value cannot be considered safe...” (HSE)

Any level of vibration exposure is unsafe so deploying controls as robustly as possible no matter the level of risk is essential. The Reactec Analytics Platform will support reduction activity to make what was once difficult or inaccurate, reasonable and practical.
The Reactec Analytics Platform includes

**HAVWEAR**  **HAVMETER**

**Reactec videos on youtube.com**

*Watch how the Reactec Analytics Platform works at www.reactec.com*