

Reactec Analytics Platform

The only practical system to realistically assess and support ongoing reduction of HAVS risk



REACTEC

INFORM : PROTECT : DEPLOY

Inform, protect & deploy resources and assets to effectively manage HAVS risks

Ground-breaking system to more easily and accurately assess and mitigate vibration risk.

The Reactec Analytics Platform integrates wearable & online technology to automate the monitoring and reporting of hand arm vibration (HAV) exposure risk. By providing a real-time assessment of risk and the source of risk, employers can now more easily and effectively identify, reduce and design out exposure risks.

Supports positive behavioural change towards HAV risks.

You choose how to monitor?

The HAVWEAR is a wearable wrist device and has the ability to calculate and display HAVs exposure points using either pre-defined tool vibration magnitude or the vibration magnitude sensed on the wearer's wrist.

Tool Exposure Points (TEP)

HAV risk exposure points are calculated using a tools pre-defined expected vibration magnitude and length of time the tool is in use.

Sensed Exposure Points (SEP)

The HAVwear has an ability to determine the vibration magnitude sensed at the point to which the HAVwear is attached to the wrist. The HAVwear uses the HSE methodology to calculate Sensed Exposure Points based on the length of time a tool is in use and the vibration level sensed by the HAVwear during use.

Whichever option you use, both TEP & SEP data are recorded by the HAVWEAR and stored in the Analytics online reporting platform to be reviewed and compared as required. This unique data helps determine the most appropriate risk assessment to drive controls.

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

*When used to support HAVS risk reduction activities.



HAVWEAR

Personal HAV protection

- Wrist mounted and tracks tool use with no impact on the comfort or productivity of the wearer.
- Realtime calculation and display of personal HAV risk exposure points.
- Personal & constant monitoring supports positive employee behavioural change towards HAV risks.
- Operator alerted when personal EAV and ELV exposure values are exceeded.
- Choose for the HAVWEAR to display TEP or SEP HAVs risk exposure.
- 15 minute daily charge or 1hr twice a week.

Improves worker protection

- Personal & constant exposure monitoring increases workforce awareness & safety.
- 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

Below action value

EAV exceeded
Split into 3 equal sections to indicate incremental exposure

ELV exceeded

2 sec. alert

5 sec. alert

10 sec. alert

20 sec. alert

Greater support of HSE regulations

- Supports behavioural change and helps involves all duty holders
- 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.



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

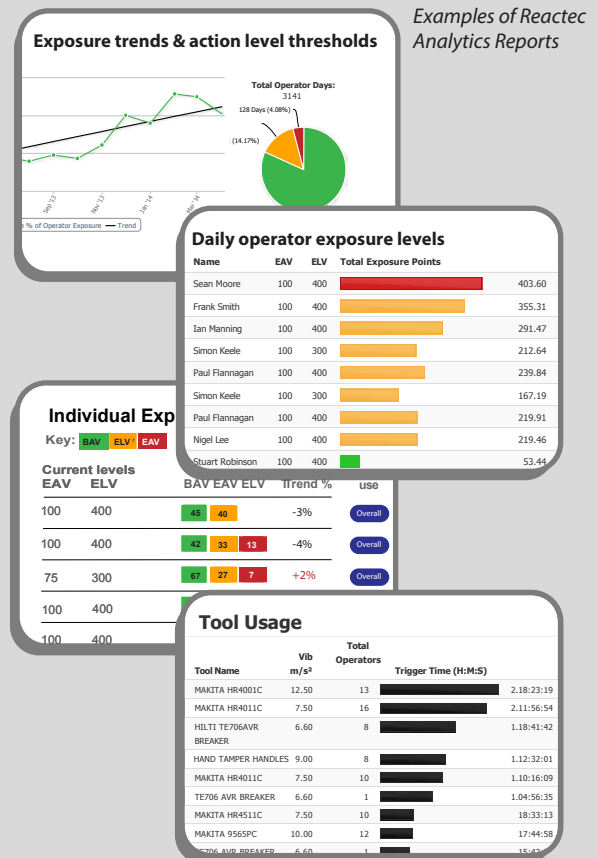
View how long tools have really been used. This can help maintenance scheduling, plan replacements and identify poor tool use. Also monitor actual tool vibration to predict tool failure or poor use.

Work schedules

A clearer understanding of tool use and related exposure identify's individuals over exposed and re-structure of work rotas 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.

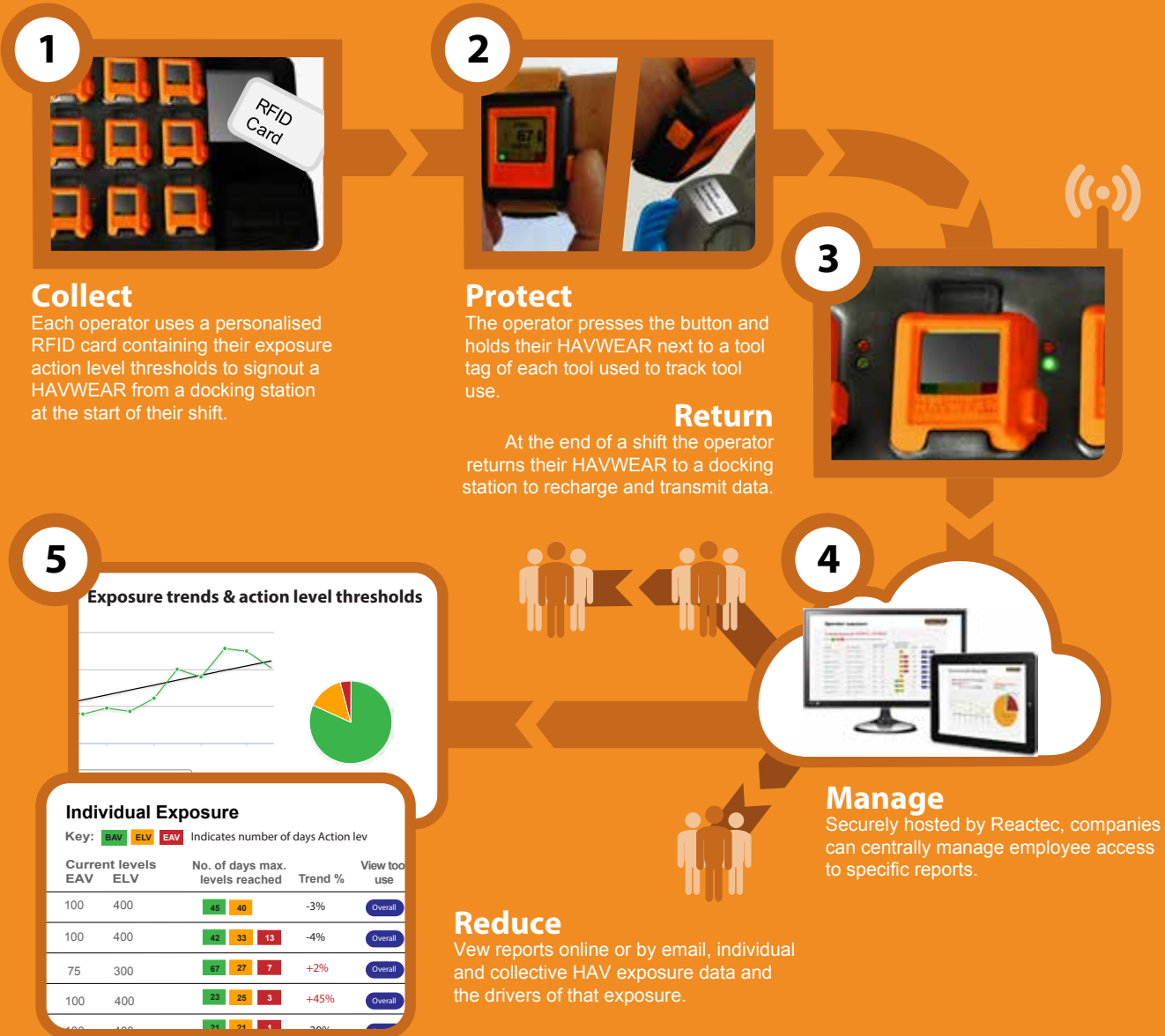


Robust defence against litigation

- 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

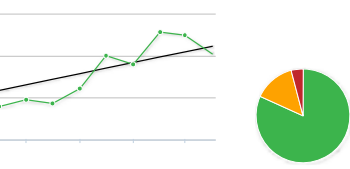


Return

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

5

Exposure trends & action level thresholds



Individual Exposure

Key: BAV ELV EAV Indicates number of days Action lev

Current levels	No. of days max. levels reached	Trend %	View tool use
EAV ELV			
100 400	45 40	-3%	Overall
100 400	42 33 13	-4%	Overall
75 300	67 27 7	+2%	Overall
100 400	23 25 3	+45%	Overall

4



Manage

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

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



**HAVS victim
interview**

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

REACTEC

INFORM : PROTECT : DEPLOY

Reactec Ltd, Vantage Point,
3 Cultins Road,
Edinburgh EH11 4DF

Tel: 0131 221 0930
Email: info@reactec.com
Web: www.reactec.com