

Hand Arm Vibration (HAVS) Assessment of Risk

June 2019

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Exposure Limits

The exposure limit value (ELV) is the maximum amount of vibration an employee may be exposed to on any single day. For hand-arm vibration the ELV is a daily exposure of 5 m/s² A(8) or 200 points given in the Health & Safety Executive exposure calculator.

The action level where closer investigation into exposure reduction is set at 2.5 m/s² or 100 points.

Calculation of Exposure

The exposure of Technicians to the effects of using vibrating equipment is based on;

- a comprehensive survey of the daily use of each type of equipment,
- the use of normalised vibration accelerations values given by the HSE and
- the combined effect calculated using the HSE online tool.

Equipment	Vibration m/s ²	Daily Use Frequency x minutes	Daily Exposure m/s ² A(8)	Exposure Points Total	
Residential Crews					
110v hammer drill	7.0	4 x 5mins = 20mins	1.4	71	
Grinding disk	6.8	1 x 15mins = 15mins	1.2		
Cordless drill	3.9	5 x 5mins = 25mins	0.9		
Civils Crews					
Wacker Plate	8.2	2 x 15mins = 30mins	2.1	67	
Note: Crews work in two man teams. The Technician using the Wacker Plate is prohibited from using the Stihl Saw, Combi Drill or Elephants Foot tamper the same day					
Stihl Saw	3.9	2 x 10mins = 20mins	1.2	48	
Combi Drill	7.0	1 x 10mins = 10mins	1.0		
Elephants Foot Tamper	8.2	2 x 5mins = 10mins	0.8		

Conclusion

The limited exposure to vibrating equipment has been shown to be well below the action level. However, purchasing policy is that any replacement equipment will be selected with minimising vibration exposure as a priority.

Exposure calculations on pages 2-3



HAND-ARM VIBRATION EXPOSURE CALCULATOR

Version 5.6 June 2019

Company name / work area: MAP Group (UK) Ltd.

Employee ID and/or task name: Residential Crews

Tool or process name	Vibration magnitude m/s ²	Exposure points per hour	Time to reach EAV 2.5 m/s ² A (8)		Time to reach ELV 5 m/s ² A (8)		Exposure duration		Partial exposure m/s ² A (8)	Partial exposure points
			hours	minutes	hours	minutes	hours	minutes		
110V Hammer drill	7	98	1	1	4	5		20	1.4	33
Grinding / cutting disk	6.8	92	1	5	4	20		16	1.2	25
Cordless drill	3.9	30	3	17	13	9		25	0.9	13

Daily exposure m/s ² A (8)	Total exposure points
2.1	71

WARNING: Exposure potentially above 2.5m/s²A(8) EAV (100 points)

Exposure calculation by: Alan Wallis
Job role: Safety Advisor

Calculation date: 25 Oct 2019



HAND-ARM VIBRATION EXPOSURE CALCULATOR

Version 5.6 June 2019

Company name / work area: MAP Group (UK) Ltd.

Employee ID and/or task name: Civills Crews (tasksA)

Tool or process name	Vibration magnitude m/s ²	Exposure points per hour	Time to reach EAV 2.5 m/s ² A (8)		Time to reach ELV 5 m/s ² A (8)		Exposure duration		Partial exposure m/s ² A (8)	Partial exposure points
			hours	minutes	hours	minutes	hours	minutes		
Wacker Plare	8.2	134		45	2	58		30	2.1	67

Daily exposure m/s ² A (8)	Total exposure points
2.1	67

WARNING: Exposure potentially above 2.5m/s²A(8) EAV (100 points)

Exposure calculation by: Alan Wallis
Job role: Safety Advisor

Calculation date: 25 Oct 2019



HAND-ARM VIBRATION EXPOSURE CALCULATOR

Version 5.6 June 2019

Company name / work area: MAP Group (UK) Ltd.

Employee ID and/or task name: Civils Crews (tasks B)

Tool or process name	Vibration magnitude m/s ²	Exposure points per hour	Time to reach EAV 2.5 m/s ² A (8)		Time to reach ELV 5 m/s ² A (8)		Exposure duration		Partial exposure m/s ² A (8)	Partial exposure points
			hours	minutes	hours	minutes	hours	minutes		
Elephants Foot	8.2	134		45	2	58		10	1.2	22
Combi Drill	7	98	1	1	4	5		10	1.0	16
Stihl Saw	3.9	30	3	17	13	9		20	0.8	10

Daily exposure m/s ² A (8)	Total exposure points
1.7	48

Exposure likely to be below
2.5m/s²A(8) EAV (100 points)

Exposure calculation by: Alan Wallis

Job role: Safety Advisor

Calculation date: 25 Oct 2019

Review date	Carried out by:	Major Changes
25/10/2019	Lee Meek	Review of assessments using HSE vibration tool
25/04/2021	Lee Meek	Review of assessments to ensure still applicable and correct

Next review: 25/04/2022 (or if any new vibrating equipment is purchased)