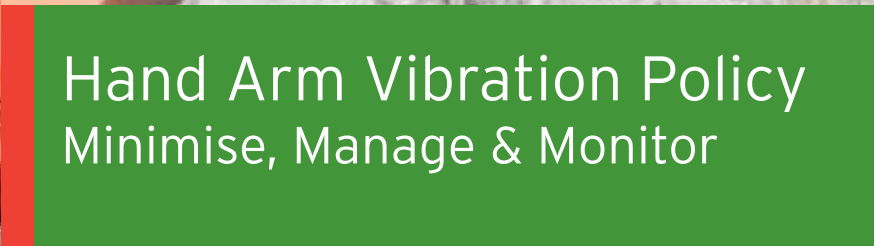




hire station

www.hirestation.co.uk



Hand Arm Vibration Policy
Minimise, Manage & Monitor



What is hand arm vibration?

Hand Arm Vibration Syndrome (HAVS) can affect anyone who is exposed to any working machinery that vibrates. The most commonly known form is called vibration white finger, but other forms can damage blood vessels in the fingers, reducing the supply of blood. It can also damage nerves, leading to a loss of feeling in the fingers and hands, reducing the sufferer's ability to grip, coupled with extreme pain.



How to minimise the risks

The Control of Vibration at Work Regulations 2005 introduced statutory limits on exposure of workers to vibration. Employers are required to assess and manage the risk to their workforce's health and provide suitable equipment that is designed to limit the exposure level of vibration. Guidelines for minimising the risk of vibration include:

- Seek alternatives to using equipment which vibrates
- Do not exert too much grip pressure when holding the tool
- Ensure the equipment is maintained and in good working order, with a valid test certificate
- Make sure the tool you select is suitable for the task it is used for
- Look out for specially designed low-vibration equipment
- Keep all attachments sharp, including drill bits, points and chisels
- Use protective clothing, especially on the hands to keep them warm
- Ensure that regular breaks are taken, and that the employees exercise their fingers.

How to manage the risks

The vibration magnitude of a tool can be measured by taking the sum of the vibration in 3 axes, and is represented by a value in metres per second squared. The most accurate figures are those produced from 'real-life' testing by establishments such as OPERC. Established at Loughborough University, OPERC is a non-profit making independent body dedicated to sharing information gained from research. OPERC also exists to assist in the promotion of plant and equipment science. Please see back page for OPERC test results.

A simple indicator of the vibration risk from hand tools is the traffic light system of colour coding, designed to give guidance to distinguish low, medium and high risk products, as follows...

GREEN	(low risk)	0 - 5m/s ²	Tools can be used up to 8 hours
AMBER	(medium risk)	5 - 10 m/s ²	2 hours max. daily usage without risk assessment
RED	(high risk)	over 10m/s ²	Specific risk assessment required

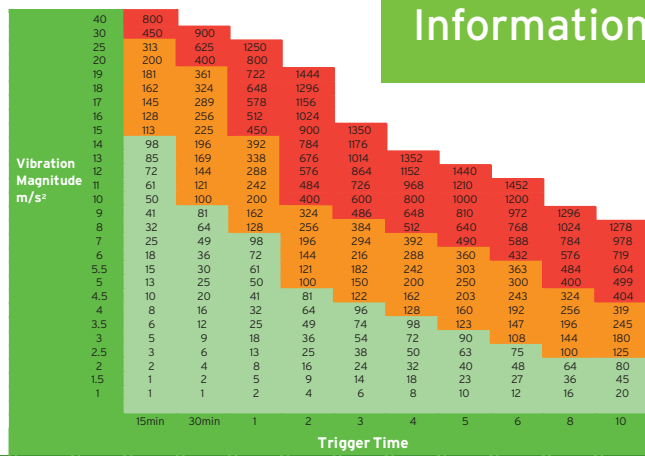
However, Hire Station recommends the use of the points system introduced by the Health & Safety Executive (HSE). The vibration calculator on HSE's web-site @ www.hse.gov.uk/vibration enables you to keep a tally of the points an operator has amassed during any working day, using a variety of tools. This will enable operators and supervisors to quickly know how many points they have amassed, (see example on facing page). The HSE recommends that the Exposure Action Value (EAV) should not exceed 100 points in any one day; the Exposure Limit Value (ELV) must not exceed 400 points in a day, but steps should be taken to remove operators from jobs if they exceed 100 points regularly.

Hire Station has produced a generic information chart, incorporating both the traffic light and HSE points systems, giving you a quick reference point, no matter which system you are using, (see top of facing page).





Information Chart



Hand-arm vibration exposure calculator	Vibration Magnitude m/s ² r.m.s	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		
Tool or process 1	2	8	12	30	>24			15	0.4	2
Tool or process 2	6	72	1	23	5	33		30	1.5	36
Tool or process 3	3.5	25	4	5	16	20		90	1.5	37
Tool or process 4										
Tool or process 5										
Tool or process 6										

Instructions for use:

Enter vibration magnitudes and exposure durations in the white areas. To calculate, press the Enter key, or move the cursor to a different cell. The results are displayed in the yellow areas. For more information, go to www.hse.gov.uk/vibration.

Daily exposure m/s ² A(8)	Total exposure points
2.2	75

How to monitor the risks

When managing vibration risks, it is imperative to keep records of all exposure in order to protect both the employee and employer. A simple log sheet can be maintained for each employee, showing their daily exposure levels in points. This very quickly builds up into a personal record that both parties can keep, and will provide an exposure history for all employees, which will stay with them wherever they go in the future.

SUGGESTED EXAMPLE OF OPERATORS LOG SHEET

OPERATORS NAME		WORKS No.								
OPERATORS DAILY LOG SHEET		DAY				DATE				
NO-SAFE VPT18 SERIAL No		JOB 1	JOB 2	JOB 3	JOB 4	JOB 5	JOB 6	JOB 7	JOB 8	JOB 9
EXPOSURE POINTS PREVIOUS 8 HOURS										
NO-SAFE PROJECTED EXPOSURE POINTS (PREVIOUS & THIS JOB)										
NO-SAFE ACTUAL EXPOSURE POINTS TO NEXT JOB										

Hire Station can supply a vibration monitor and limiter, such as the HAV-SAFE™ unit. This can calculate the amount of points the user is amassing during a working day whilst using a variety of tools, and will actually switch off the tool if the Exposure Limit



Value for the operator is ever reached. One advantage of the HAV-SAFE is that it provides on the job figures, so a worker can predict and plan his jobs for a day, aiming to keep below 100 points on all occasions. Another advantage of this unit is that, as it is based purely on trigger time, as opposed to estimated time, productivity can be greatly increased. This ensures, with good monitoring, that no one will be regularly exposed to dangerous levels of vibration.

Hire Station Policy

Hire Station recognises its responsibility in helping to reduce the vibration magnitude and noise levels experienced by our customers. In the first instance, we will always seek alternatives to using equipment that vibrates. If this is not possible, we aim to provide items for hire whose manufacturers have taken active steps to reduce the exposure risk to the user.

It is our policy to ensure that the tools you hire from us are supplied

- Fit for purpose, in that we ensure that you use the right tool for the right job;
- In good working order and regularly maintained;
- With relevant information to assist you when assessing vibration and noise risks;
- With reduced risk of contracting HAVS, through responsible equipment sourcing and supply;
- Able to be measured and limited by specialist equipment, as part of an ongoing management process

Hire Station and You

Health and Safety is the No. 1 priority for us, and we aim to keep you fully informed and up-to-date on all information relating to vibration and other safety matters. We are heavily involved in ensuring that the vibration figures for tools within our fleet are accurate, and we are insisting that all such tools are independently tested, in order to provide transparent, non-biased readings.

Hire Station is here to work with you on any area of safety that you are tackling. We believe that creating partnerships with our customers is the only way forward, where we can share and solve any problems together. We have already shown that we are actively seeking low vibration solutions at every stage of the supply chain, so please ask us to help you with...

Minimising, Managing and Monitoring your risk.



Hire Station has produced a table showing vibration magnitude levels for a range of tools tested by OPERC. This is also available in A3 wall chart size, suitable for quick reference in site offices etc. For more information, and free access to OPERC's database, visit them at www.operc.com



MANUFACTURER	MODEL NO.	DESCRIPTION	Vibration Magnitude in m/s ² *	Max time to reach EAV 2.5 m/s ² A(8) hours/mins	Max time to reach ELV 5 m/s ² A(8) hours/mins	HSE points per hour
BELLE ENGINEERING	BREAKER 2021X U/D	HYDRAULIC BREAKER GUN	8.6	0.41	2.44	147
BELLE ENGINEERING	BREAKER 2025X PAN	HYDRAULIC BREAKER GUN	8.4	0.43	2.52	140
BELLE ENGINEERING	CFS 450 YANMAR	FLOOR SAW	2.9	5.54	23.36	17
BELLE ENGINEERING	COMPACTX	FLOOR SAW	2.8	6.31	>24.00	15
BELLE ENGINEERING	PCX350	COMPACTOR PLATE	1.6	18.43	>24.00	5
BELLE ENGINEERING	PCX400	COMPACTOR PLATE	2.1	11.33	>24.00	9
BELLE ENGINEERING	PCX450	COMPACTOR PLATE	1.9	13.35	>24.00	7
BELLE ENGINEERING	PCX500	COMPACTOR PLATE	2	12.04	>24.00	8
DEWALT	D25404K	COMBINATION HAMMER	11.4	0.23	1.33	259
DEWALT	D25701K	COMBINATION HAMMER	10.1	0.29	1.58	204
DEWALT	D25730K	COMBINATION HAMMER	12.7	0.19	1.14	322
DEWALT	D25840K	DEMOLITION HAMMER	14	0.15	1.01	393
DEWALT	D25900K	DEMOLITION HAMMER	12.9	0.18	1.12	324
DEWALT	D25940K	DEMOLITION HAMMER	11.9	0.21	1.24	284
DEWALT	D28113	ANGLE GRINDER 115mm	11.2	0.24	1.36	251
DEWALT	D28117	ANGLE GRINDER 115mm	8.3	0.44	2.56	136
DEWALT	D28415	ANGLE GRINDER 230mm	6.6	1.08	4.34	88
DEWALT	DC212N	ROTARY HAMMER DRILL CORDLESS	7.9	0.48	3.12	125
DEWALT	DC224KA	ROTARY HAMMER DRILL CORDLESS	7.3	0.57	3.48	105
DEWALT	DC234KL	ROTARY HAMMER DRILL CORDLESS	8	0.47	3.08	128
DIMAS - PARTNER	K1250	PETROL POWERED RAIL SAW	9.2	0.36	2.23	168
DIMAS - PARTNER	K2500	CUT OFF SAW	4.6	2.22	9.28	42
DIMAS - PARTNER	K750	CUT OFF SAW	4.4	2.38	10.31	38
DIMAS - PARTNER	K950	CUT OFF SAW	8.9	0.38	2.32	158
HILTI	AG125-S	ANGLE GRINDER 125mm	5.4	3.08	12.34	32
HILTI	AG230-S	ANGLE GRINDER 230mm	8.7	0.40	2.39	151
HILTI	AG125-S	ANGLE GRINDER 125mm	7.1	0.59	3.57	101
HILTI	DC230	ANGLE GRINDER 230mm	6.6	1.09	4.35	87
HILTI	DD100	DIAMOND CORE DRILL (RIG HELD)	4.6	2.20	9.21	43
HILTI	DD100	DIAMOND CORE DRILL (HAND HELD)	9.4	0.34	2.17	175
HILTI	DD130	DIAMOND CORE DRILL (RIG STAND)	2.2	10.20	>24.00	10
HILTI	DD130	DIAMOND CORE DRILL (HAND HELD)	7.1	0.59	3.57	101
HILTI	DD200	DIAMOND CORE DRILL	5.8	1.30	6.00	67
HILTI	SF151-A (NiMH)	DRILL / SCREWDRIVER	2.7	6.50	>24.00	15
HILTI	SFH151-A (NiMH)	ROTARY HAMMER DRILL CORDLESS	12.5	0.19	1.16	315
HILTI	SF 180-A	ROTARY HAMMER DRILL CORDLESS	4.1	2.59	11.57	33
HILTI	TE104	BREAKER & SCALER	8.6	0.41	2.42	148
HILTI	TE16	ROTARY HAMMER DRILL	13.3	0.17	1.08	354
HILTI	TE16-C	ROTARY HAMMER DRILL	11.4	0.23	1.32	260
HILTI	TE2	ROTARY HAMMER DRILL	13	0.18	1.11	338
HILTI	TE2-A	ROTARY HAMMER DRILL CORDLESS	9.6	0.33	2.10	184
HILTI	TE2-M	ROTARY HAMMER DRILL	10.2	0.29	1.55	208
HILTI	TE35	COMBINATION HAMMER	10.3	0.28	1.53	212
HILTI	TE505	BREAKER	12.9	0.18	1.12	333
HILTI	TE56-ATC	COMBINATION HAMMER	10	0.30	1.59	202
HILTI	TE6-A	ROTARY HAMMER DRILL CORDLESS	8.4	0.43	2.50	141
HILTI	TE6-S	ROTARY HAMMER DRILL	11.3	0.24	1.34	255
HILTI	TE706AVR	BREAKER	6.6	1.09	4.35	87
HILTI	TE76P-ATC	COMBINATION HAMMER	11.9	0.21	1.24	285
HILTI	TE905AVR	BREAKER	9.3	0.35	2.19	173
HIRE TECHNICIANS GROUP LTD	HT7-2	FLOOR EDGING SANDER	3.1	5.12	20.49	19
HIRE TECHNICIANS GROUP LTD	HT8-1	FLOOR SANDER	1.8	15.26	>24.00	6
HIRE TECHNICIANS GROUP LTD	HTF-2	FLOOR REFINISHING SANDER	9	0.37	2.28	162
JCB	HM22	MEDIUM HYDRAULIC BREAKER GUN BEAVER	4.6	2.22	9.27	42
JCB	HM25	HEAVY DUTY HYDRAULIC BREAKER GUN BEAVER	7	1.01	4.05	98
MACDONALD AIR TOOLS	15PVR	LIGHT BREAKER 18KG	5	2.00	8.02	50
MACDONALD AIR TOOLS	17PVR	LIGHT BREAKER 21KG	3.8	3.27	13.47	29
MACDONALD AIR TOOLS	19TVR	LIGHT BREAKER 25.5KG	5.6	1.34	6.17	64
MACDONALD AIR TOOLS	1UFVR	POLE SCABBLER	7.8	0.49	3.16	122
MACDONALD AIR TOOLS	23TVR	BREAKER 26.5KG	7.2	0.58	3.51	104
MACDONALD AIR TOOLS	28S-VRT	MEDIUM WEIGHT PAVING BREAKER	4.6	2.21	9.22	43
MACDONALD AIR TOOLS	344VRS	HEAVY WEIGHT PAVING BREAKER 36KG	6.5	1.11	4.42	85
MACDONALD AIR TOOLS	CH4VRS	LIGHT WEIGHT CHIPPING HAMMER 6.5KG	4.2	2.49	11.17	35
MACDONALD AIR TOOLS	DM11VRS	HEAVY WEIGHT DEMOLITION PICK 13.5KG	5.2	1.50	7.19	55
MACDONALD AIR TOOLS	DM12VRS	HEAVY WEIGHT DEMOLITION PICK 16.5KG	4.2	2.48	11.14	36
MACDONALD AIR TOOLS	DR4VRS	LIGHT WEIGHT ROCK DRILL 7KG	5.3	1.48	7.10	56
MACDONALD AIR TOOLS	MSG3VR	3- HEAD HAND SCABBLER	4.9	2.08	8.30	47
MACDONALD AIR TOOLS	S1VR	1- HEAD HAND SCABBLER	3.8	3.28	13.51	29
MACDONALD AIR TOOLS	MH202032	HYDRAULIC BREAKER GUN	7.9	0.48	3.11	126
MACDONALD AIR TOOLS	UV3R	3- HEAD TROLLEY SCABBLER	3.6	3.54	15.36	26
MACDONALD AIR TOOLS	UV5R	5- HEAD TROLLEY SCABBLER	3.9	3.21	13.25	30
MAKITA	4112HS	ELECTRIC STONE CUTTER	7.2	0.59	3.54	103
MAKITA	8444DWFE	ROTARY HAMMER DRILL CORDLESS	15.3	0.09	0.51	471
MAKITA	9015B	ANGLE GRINDER 125mm	7.2	0.57	3.50	105
MAKITA	9069	ANGLE GRINDER 230mm	6.1	1.21	5.25	74
MAKITA	9404	BELT SANDER 100mm	2.8	6.20	>24.00	16
MAKITA	9555NB	ANGLE GRINDER 125mm	7.4	0.54	3.37	111
MAKITA	9557NB	ANGLE GRINDER 115mm	6.4	1.14	4.57	81
MAKITA	9564CV	ANGLE GRINDER 115mm	5.5	1.31	6.03	66
MAKITA	9565CV	ANGLE GRINDER 125mm	7.7	0.51	3.22	119
MAKITA	BRH200	ROTARY HAMMER DRILL CORDLESS	10.1	0.29	1.57	205
MAKITA	DPC6410	CUT OFF SAW	7.4	0.55	3.39	110
MAKITA	GA9020	ANGLE GRINDER 230mm	9.6	0.32	2.10	185
MAKITA	GA9040	ANGLE GRINDER 230mm	9.7	0.32	2.07	190
MAKITA	HM0860C	DEMOLITION HAMMER	18.2	0.09	0.36	662
MAKITA	HM1202C	DEMOLITION HAMMER	15.7	0.12	0.49	493
MAKITA	HM1810	DEMOLITION HAMMER	10.5	0.27	1.48	222
MAKITA	HP2071F	PURCUSSION DRILL	15.3	0.13	0.51	468
MAKITA	HR1830	ROTARY HAMMER DRILL	11.1	0.24	1.37	248
MAKITA	HR2020	ROTARY HAMMER DRILL	11.2	0.24	1.37	249
MAKITA	HR2440	ROTARY HAMMER DRILL	14	0.15	1.02	389
MAKITA	HR2450T	ROTARY HAMMER DRILL	12.4	0.19	1.18	309
MAKITA	HR3000C	ROTARY HAMMER DRILL 4KG	13.1	0.18	1.10	341
MAKITA	HR4011C	ROTARY HAMMER DRILL 6KG	9.3	0.35	2.19	172
MAKITA	HR4500C	ROTARY HAMMER DRILL 8KG	15.9	0.12	0.47	508
MAKITA	HR5001C	ROTARY HAMMER DRILL 10KG	20.4	0.07	0.29	833
MAKITA	JR3070CT	RECIPROCATING SAW	12.5	0.19	1.17	313
MILWAUKEE	AGV 16-125 QXC	ANGLE GRINDER 125mm	5.4	1.42	6.48	59
MILWAUKEE	LOKTOR P 18 TXC	ROTARY HAMMER DRILL CORDLESS	5.9	1.27	5.49	69
MILWAUKEE	PHE 40 SQ	ROTARY HAMMER DRILL	17.1	0.10	0.41	584
MILWAUKEE	PSH 18	RECIPROCATING SAW CORDLESS	13.3	0.17	1.08	354
MILWAUKEE	V28 CS	CIRCULAR SAW 165mm CORDLESS	1.3	>24.00	>24.00	3
MILWAUKEE	V28 HX	ROTARY HAMMER DRILL CORDLESS	18.4	0.09	0.35	676
MILWAUKEE	V28 PD	ROTARY HAMMER DRILL CORDLESS	11.4	0.23	1.33	259
SPE	BEF 200-1	MULTIPLANE ELECTRIC	4.4	2.32	10.08	40
SPE	BEF 200-4	MULTIPLANE PETROL	8.2	0.44	2.58	135
SPE	BEF275-1	MULTIPLANE ELECTRIC	5.3	1.46	7.02	57
SPE	DFG250-2	DIAMOND FLOOR GRINDER PETROL	4.9	2.07	8.28	47
SPE	DFG400-4	DIAMOND FLOOR GRINDER PETROL	5.6	1.36	6.25	62
SPE	DFG400-5	DIAMOND FLOOR GRINDER ELECTRIC	1.2	>24.00	>24.00	3
SPE	MS230-1	FLOOR TILE LIFTER ELECTRIC	13.5	0.16	1.05	367
SPE	MS330-1	FLOOR TILE LIFTER ELECTRIC	9.4	0.34	2.17	176
SPE	STR701-1	MULTIPURPOSE PREPARATION SYSTEM ELECTRIC	1.2	>24.00	>24.00	3
STIHL	TS400	CUT OFF SAW	5.7	1.31	6.03	66
TAYLOR CONSTRUCTION PLANT	HI-C40	ROCK CRUSHER	6.3	1.15	4.59	80
TAYLOR CONSTRUCTION PLANT	HI-T500	MINI DUMPER	3.5	3.59	15.57	25

* Vibration magnitude values used in this chart are often an average figure taken from more than one test carried out by OPERC. For more job-specific readings for any tool, please visit www.operc.com

Exposure Action Value
Exposure Limit Value