

## Reactec



The HAVmeter is the size and shape of a pager. At the start of each shift, each operative signs out a HAVmeter from a base station with their personalised card which, can be programmed to take into account any existing HAVS problems. Tools fitted with Tool Tags connect magnetically with the HAVmeter and once attached, the HAVmeter provides a vibration exposure reading in real-time. The operative can then use the HAVmeter on as many tools as needed throughout the day and create a cumulative reading of their vibration exposure.

## Construction Part 1

CODE	EQUIPMENT	MANUFACTURERS DATA	HSE POINTS PER HOUR	TIME TO REACH EAV HOURS	TIME TO REACH EAV MINS	TIME TO REACH ELV HOURS	TIME TO REACH ELV MINS	SOUND PRESSURE
<b>PETROL BREAKERS</b>								
0527	Atlas Copco MK1 Cobra 2-stroke Breaker	4.6ms2 <span style="color: green;">■</span>	42	2	22	9	27	99 (dBA) <span style="color: red;">▲</span>
0529	Wacker BH24LV 2-stroke breaker	4.9ms2 <span style="color: green;">■</span>	48	2	5	8	20	102 (dBA) <span style="color: red;">▲</span>
	Wacker BH23 2-stroke Breaker	12.8ms2 <span style="color: red;">■</span>	328	-	18	1	13	-
<b>HYDRAULIC BREAKERS</b>								
0511	JCB Beaver HM25LV Breaker	3.2ms2 <span style="color: green;">■</span>	20	4	53	19	32	108 (dBA) <span style="color: red;">▲</span>
	JCB Beaver HM25 Breaker	4.0ms2 <span style="color: green;">■</span>	32	3	8	12	30	106 (dBA) <span style="color: red;">▲</span>
0513	JCB 'T' Handled Breaker	7.5ms2 <span style="color: orange;">■</span>	113	0	53	3	33	106 (dBA) <span style="color: red;">▲</span>
<b>ELECTRIC BREAKERS</b>								
0532	Bosch GSH 16-28 Vib Reduced Breaker	10.00ms2 <span style="color: red;">■</span>	200	0	30	2	0	92 (dBA) <span style="color: orange;">▲</span>
0509	Makita HM1810TR H/Duty AVT Breaker	9.0ms2 <span style="color: orange;">■</span>	162	0	37	2	28	84 (dBA) <span style="color: green;">▲</span>
	Bosch GSH27 Breaker	13.0ms2 <span style="color: red;">■</span>	338	0	18	1	11	91 (dBA) <span style="color: orange;">▲</span>
0526	Makita HM1214C AVT Breaker	8.0ms2 <span style="color: orange;">■</span>	128	0	47	3	8	78 (dBA) <span style="color: green;">▲</span>
	Hilti TE1000 AVR Breaker	6.5ms2 <span style="color: orange;">■</span>	85	1	11	4	44	87 (dBA) <span style="color: orange;">▲</span>
	Hilti TE905 Breaker	8.5ms2 <span style="color: orange;">■</span>	145	0	42	2	46	92 (dBA) <span style="color: green;">▲</span>
	Hilti 905AVR Breaker	8.5ms2 <span style="color: orange;">■</span>	145	0	42	2	46	92 (dBA) <span style="color: orange;">▲</span>
	Milwaukee Kango 900	11.0ms2 <span style="color: red;">■</span>	242	0	25	1	39	105 (dBA) <span style="color: red;">▲</span>
0501	Makita HM0871C AVT Demo Hammer	8.0ms2 <span style="color: orange;">■</span>	128	0	47	3	8	86 (dBA) <span style="color: orange;">▲</span>
0503	Makita HM1202C AVT Breaker	8.0ms2 <span style="color: orange;">■</span>	128	0	47	3	8	78 (dBA) <span style="color: green;">▲</span>
<b>AIR POWERED BREAKERS</b>								
1562	Oswald Sullair MK250 25kg Breaker	3.6ms2 <span style="color: green;">■</span>	26	3	51	15	26	93 (dBA) <span style="color: orange;">▲</span>
1556	Oswald Sullair SK8 9kg Demo pick	8.1ms2 <span style="color: orange;">■</span>	131	0	46	3	3	94 (dBA) <span style="color: orange;">▲</span>
1545	Oswald Sullair SK5 5.3kg Pick	5.0ms2 <span style="color: orange;">■</span>	50	2	0	8	0	94 (dBA) <span style="color: orange;">▲</span>
<b>CONCRETING SCREEDS</b>								
1028	Belle Porto Screed	4.88ms2 <span style="color: green;">■</span>	48	2	6	8	24	104 (dBA) <span style="color: red;">▲</span>
100B	Belle Easy Screed Pro	3.75ms2 <span style="color: green;">■</span>	28	3	33	14	13	99 (dBA) <span style="color: red;">▲</span>
	Magi-screed	9.9ms2 <span style="color: orange;">■</span>	196	0	31	2	2	80 (dBA) <span style="color: green;">▲</span>
1094	Belle Roller Striker-Air	4.06ms2 <span style="color: green;">■</span>	33	3	2	12	8	
<b>CONCRETE POKERS</b>								
1098	Wacker Irfun H/F Vib Poker 38mm *	0.7ms2 <span style="color: green;">■</span>	1	>24	-	>24	-	79 (dBA) <span style="color: green;">▲</span>
1097	Wacker Irfun H/F Vib Poker 45mm *	1.7ms2 <span style="color: green;">■</span>	6	17	18	>24	-	79 (dBA) <span style="color: green;">▲</span>
1064	Wacker Irfun H/F Vib Poker 57mm *	2.2ms2 <span style="color: green;">■</span>	10	10	20	>24	-	79 (dBA) <span style="color: green;">▲</span>
1095	Wacker Irfun H/F Vib Poker 57mm x5m *	4.5ms2 <span style="color: green;">■</span>	41	2	28	9	53	83 (dBA) <span style="color: green;">▲</span>
<i>* Measured 2 metres from poker head.</i>								
1018	Nationwide VB26 25mm Poker *	9.88ms2 <span style="color: orange;">■</span>	195	0	31	2	3	83 (dBA) <span style="color: green;">▲</span>
1019	Nationwide VB40 38mm Poker *	9.58ms2 <span style="color: orange;">■</span>	184	0	33	2	11	83 (dBA) <span style="color: green;">▲</span>
1020	Nationwide VT50 50mm Poker *	19.10ms2 <span style="color: red;">■</span>	730	0	8	0	33	82 (dBA) <span style="color: green;">▲</span>
1021	Nationwide VT75 75mm Poker *	17.90ms2 <span style="color: red;">■</span>	641	0	9	0	37	82 (dBA) <span style="color: green;">▲</span>
<i>* Measured 1 metre from poker head.</i>								
1025	Fairport V675 75mm Air Powered Poker	2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	-
<b>POWER TROWELS</b>								
100P	Refina CPT60 24" Electric Power Float	2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	74 (dBA) <span style="color: green;">▲</span>
10EG	Belle Pro 600X 24" Power Float	4.63ms2 <span style="color: green;">■</span>	43	2	20	9	20	104 (dBA) <span style="color: red;">▲</span>
	Multiquip CA-4-4H 24" Power Float	3.85ms2 <span style="color: green;">■</span>	30	3	22	13	30	94 (dBA) <span style="color: orange;">▲</span>
1027	Wacker CT36A 36" Power Float	5.3ms2 <span style="color: orange;">■</span>	56	1	47	7	7	104 (dBA) <span style="color: red;">▲</span>
	Norton Clipper MTA36 Power Float	4.0ms2 <span style="color: green;">■</span>	32	3	8	12	30	85 (dBA) <span style="color: green;">▲</span>
100Y	Belle Pro-Tilt 1200 48" Power Trowel	11.68ms2 <span style="color: red;">■</span>	273	0	22	1	28	107 (dBA) <span style="color: red;">▲</span>
<b>PETROL CUT-OFF SAW</b>								
02AA	Stihl TS420 Cut-off saw 350mm	3.9ms2 <span style="color: green;">■</span>	30	3	17	13	9	98 (dBA) <span style="color: red;">▲</span>
0227	Stihl TS410 Cut-off saw 300mm	3.9ms2 <span style="color: green;">■</span>	30	3	17	13	9	98 (dBA) <span style="color: red;">▲</span>
	Stihl TS400 Cut-off saw 300mm	6.8ms2 <span style="color: orange;">■</span>	92	1	5	4	20	114 (dBA) <span style="color: red;">▲</span>
	Husqvarna K750	4.6ms2 <span style="color: green;">■</span>	42	2	22	9	27	97 (dBA) <span style="color: red;">▲</span>
	Makita DPC 6400	8.0ms2 <span style="color: orange;">■</span>	128	0	47	3	8	102 (dBA) <span style="color: red;">▲</span>
02CB	Husqvarna Cut-n-Break saw	3.0ms2 <span style="color: green;">■</span>	18	5	33	22	13	100 (dBA) <span style="color: red;">▲</span>
<b>FLOOR SAWS</b>								
1104	Norton Clipper C99 450mm Floor Saw	4.7ms2 <span style="color: green;">■</span>	44	2	16	9	3	88 (dBA) <span style="color: orange;">▲</span>
1105	Wacker BFS 1345AD 450mm Floor Saw	6.2ms2 <span style="color: orange;">■</span>	77	1	18	5	12	-
	Norton Clipper CS451 450mm Floor Saw	1.9ms2 <span style="color: green;">■</span>	7	13	51	>24	-	88 (dBA) <span style="color: orange;">▲</span>
1101	Norton Clipper CS1 D10 500mm Floor Saw	8.2ms2 <span style="color: orange;">■</span>	134	0	45	2	58	100 (dBA) <span style="color: red;">▲</span>

## HAVi



The Havi is simple and effective device that attaches to any powered vibratory tool. The operator keys in the known vibration magnitude (m/s<sup>2</sup>), and when the tool is operated, the actual exposure to vibration (Trigger Time) and exposure points are displayed. When 100 points are reached (Exposure Action Value) an amber light flashes, and when 400 points (Exposure Limit Value) is reached a red light flashes. The operator records the exposure points for each tool used during a working shift to give their daily exposure total.

## ToolMinder



Every Brandon Hire branch has immediate access to our Toolminder database containing vibration and noise data, along with details of recommended Personal Protective Equipment (PPE), for virtually every tool and product we hire. Data can be downloaded on request including both manufacturer's data to EN 67405 and independent field test data (as recommended by the HSE) to enable accurate risk assessments to be made.

## Brandon Hire HAV Champions

To provide quality support and guidance for its customers, Brandon Hire has created a nationwide network of highly trained HAV Champions. These specialist advisors are able to assist every sector of the UK construction industry by advising on the right technical solutions, providing tool box talks and the knowledge, skills and support that are vital for successfully managing Hand Arm Vibration. To contact your regional Brandon Hire HAV Champion simply:-

Call your local branch on **0870 514 3391**  
Email: [targetrisk@brandonhire.co.uk](mailto:targetrisk@brandonhire.co.uk)  
Telephone: **01179 718527**

### Using this information

#### Hand Arm Vibration Symbols

- GREEN - Low Risk
- AMBER - Medium Risk
- RED - High Risk

#### Noise Value Symbols

- ▲ GREEN - PPE Advised
- ▲ AMBER - PPE Mandatory
- ▲ RED - CAUTION High Quality PPE Vital

Manufacturers data is derived from the following EN standards

EN 5349: is the standard for measuring tri-axial vibration exposure to workers using vibrating tools at the actual place of work. Results for a particular tool will vary according to different working environments. This data is not suitable for tool comparison unless the exact same working conditions are applied to each test.

EN 60745: uses the measuring methods of EN 5349 but includes reproducible test conditions to allow for tool comparison and for making an initial risk assessment. However, this laboratory test method may not represent the way tools perform at work where vibration levels may be much higher. For accurate risk assessments you need data that is representative of your real-use tool vibration.

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## Construction Part 2

CODE	EQUIPMENT	MANUFACTURERS DATA	HSE POINTS PER HOUR	TIME TO REACH EAV		TIME TO REACH ELV		SOUND PRESSURE
				HOURS	MINS	HOURS	MINS	
<b>COMPACTOR PLATES</b>								
1085	Belle PCLX320 Compactor Plate	3.25ms2 <span style="color: green;">■</span>	21	4	44	18	54	101 (dBA) <span style="color: red;">▲</span>
	Wacker VP1135A Compactor Plate	4.5ms2 <span style="color: green;">■</span>	4.5	2	28	9	53	93 (dBA) <span style="color: orange;">▲</span>
1015	Wacker WP1540A Compactor Plate	10.8ms2 <span style="color: red;">■</span>	233	0	27	1	43	93 (dBA) <span style="color: orange;">▲</span>
	Belle PCX13/40 Compactor Plate	2.80ms2 <span style="color: green;">■</span>	16	6	23	>24	-	103 (dBA) <span style="color: red;">▲</span>
<b>REVERSIBLE PLATES</b>								
1039	Wacker DPU2540 Rev/Compactor Plate	10.0ms2 <span style="color: red;">■</span>	200	0	30	2	0	94 (dBA) <span style="color: orange;">▲</span>
	Belle RPC 30/40D Rev/Compactor Plate	7.80ms2 <span style="color: orange;">■</span>	122	0	49	3	17	108 (dBA) <span style="color: red;">▲</span>
<b>TRENCH RAMMERS</b>								
1037	Wacker BS50-2 2-Stroke Trench Rammer	9.8ms2 <span style="color: orange;">■</span>	192	0	31	2	5	95 (dBA) <span style="color: orange;">▲</span>
10AF	Belle RT65 4-Stroke Rammer	9.9ms2 <span style="color: orange;">■</span>	196	0	31	2	2	108 (dBA) <span style="color: red;">▲</span>
<b>SURFACE PREPARATION</b>								
<b>HAND OPERATED TOOLS</b>								
0262	Refina EPO 180H Rotary Scabbler	7.9ms2 <span style="color: orange;">■</span>	125	0	48	3	12	79 (dBA) <span style="color: green;">▲</span>
0293	Refina Power Stripper	7.9ms2 <span style="color: orange;">■</span>	196	0	31	2	2	79 (dBA) <span style="color: green;">▲</span>
0289	Refina Surface Blaster	2.9ms2 <span style="color: green;">■</span>	17	5	57	23	47	272 (dBA) <span style="color: green;">▲</span>
1044	Makita PC1100 Concrete Planer	5.5ms2 <span style="color: orange;">■</span>	61	1	39	6	37	-
1061	Refina LPG150 Brick Cleaner	6.5ms2 <span style="color: orange;">■</span>	85	1	11	4	44	79 (dBA) <span style="color: green;">▲</span>
1730	Refina MM30 Mega Mixer	1.7ms2 <span style="color: green;">■</span>	6	17	18	>24	-	-
<b>FLOOR PREP &amp; GRINDING</b>								
1058	SPE MS230 Multi Stripper	13.5ms2 <span style="color: red;">■</span>	365	0	16	1	6	80 (dBA) <span style="color: green;">▲</span>
1067	SPE MS330 Tile Lifter	9.4ms2 <span style="color: orange;">■</span>	177	0	34	2	16	90 (dBA) <span style="color: orange;">▲</span>
1011	Marcris FR200-Petrol Engine	8.8ms2 <span style="color: orange;">■</span>	155	0	39	2	35	103 (dBA) <span style="color: red;">▲</span>
1012	Marcris FR200-110V	4.2ms2 <span style="color: green;">■</span>	35	2	50	11	20	103 (dBA) <span style="color: red;">▲</span>
	Trelawney TFP200	10.3ms2 <span style="color: red;">■</span>	212	0	28	1	53	92 (dBA) <span style="color: orange;">▲</span>
100W	Refina PD23 Alpha Floor Grinder	6.5ms2 <span style="color: orange;">■</span>	85	1	4	4	44	79 (dBA) <span style="color: green;">▲</span>
100N	Refina PD250 Floor Grinder	7.5ms2 <span style="color: orange;">■</span>	113	0	53	3	33	82 (dBA) <span style="color: green;">▲</span>
2332	SPE STR 701 - Using TCT Disc	1.0ms2 <span style="color: green;">■</span>	2	>24	-	>24	-	92 (dBA) <span style="color: orange;">▲</span>
	SPE STR 701 - Silicon Carbide Disc	1.2ms2 <span style="color: green;">■</span>	2	>24	-	>24	-	93 (dBA) <span style="color: orange;">▲</span>
<b>AIR POWERED TOOLS</b>								
1558	Trelawney VL303 Needle Gun	4.14ms2 <span style="color: green;">■</span>	34	2	55	11	40	77 (dBA) <span style="color: green;">▲</span>
1559	Trelawney 5095 Vib-Lo Single Scabbler	4.5ms2 <span style="color: green;">■</span>	41	2	28	9	53	93 (dBA) <span style="color: orange;">▲</span>
1561	Trelawney LRS55 Vib-Lo Pole Scabbler	4.2ms2 <span style="color: green;">■</span>	35	2	50	11	20	98 (dBA) <span style="color: red;">▲</span>
1560	McDonald MSV3R Triple Head Scabbler	4.8ms2 <span style="color: green;">■</span>	46	2	10	8	41	102 (dBA) <span style="color: red;">▲</span>
<b>FIXING TOOLS</b>								
0424	Paslode IM90 Cordless Brad Nailer	8.3ms2 <span style="color: orange;">■</span>	138	0	44	2	54	-
0422	Paslode IM350 Cordless Nailer	9.0ms2 <span style="color: orange;">■</span>	162	0	37	2	28	-
0427	Spit Pulsa 700E Masonry/Steel Fixing Tool	8.1ms2 <span style="color: orange;">■</span>	131	0	46	3	3	-
0428	DX460 Cartridge Fixing Tool *	-	-	1300 EAV	5200 ELV	Green Cartridge	-	67 (dBA) <span style="color: green;">▲</span>
	* Based on No. of cartridges fired to reach:	-	-	1000 EAV	4000 ELV	Yellow Cartridge	-	67 (dBA) <span style="color: green;">▲</span>
	EAV-Exposure Action Value	-	-	1000 EAV	4000 ELV	Red Cartridge	-	67 (dBA) <span style="color: green;">▲</span>
	ELV-Exposure Limit Value	-	-	600 EAV	2400 ELV	Black Cartridge	-	67 (dBA) <span style="color: green;">▲</span>
<b>MASONRY SAWS</b>								
0258	Arbortech Masonry Saw	9.3ms2 <span style="color: orange;">■</span>	173	0	35	2	19	-
1122	Norton Clipper SC 180 Wall Chaser	4.1ms2 <span style="color: green;">■</span>	34	2	58	11	54	97 (dBA) <span style="color: red;">▲</span>
1112	Norton Clipper CM 501 Saw bench	<2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	93 (dBA) <span style="color: orange;">▲</span>
1113	Norton Clipper CGW1 Saw bench	<2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	80 (dBA) <span style="color: green;">▲</span>
1110	Norton Clipper CST100 Saw bench	<2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	73 (dBA) <span style="color: green;">▲</span>
<b>ANGLE GRINDERS</b>								
0221	Makita GA5021 125mm	13.5ms2 <span style="color: red;">■</span>	145	0	42	2	46	90 (dBA) <span style="color: orange;">▲</span>
	Bosch GWS10-125 125mm	5.0ms2 <span style="color: orange;">■</span>	50	2	0	8	0	86 (dBA) <span style="color: orange;">▲</span>
0223	Bosch GWS23-230 230mm	5.5ms2 <span style="color: orange;">■</span>	61	1	39	6	37	92 (dBA) <span style="color: orange;">▲</span>
	Makita GA9020 230mm	5.5ms2 <span style="color: orange;">■</span>	61	1	39	6	37	89 (dBA) <span style="color: orange;">▲</span>
	Makita GA9096 230mm	3.0ms2 <span style="color: green;">■</span>	18	5	33	22	13	89 (dBA) <span style="color: orange;">▲</span>
0225	Bosch GSW24-30 300mm	5.5ms2 <span style="color: orange;">■</span>	61	1	39	6	37	94 (dBA) <span style="color: orange;">▲</span>
	Hitachi CM12Y 300mm	7.5ms2 <span style="color: orange;">■</span>	113	0	53	3	33	106 (dBA) <span style="color: red;">▲</span>
<b>CIRCULAR SAWS</b>								
0201	Bosch GKS65 190mm	3.5ms2 <span style="color: green;">■</span>	25	4	5	16	20	90 (dBA) <span style="color: orange;">▲</span>
	Makita 5703R 190mm	3.0ms2 <span style="color: green;">■</span>	18	5	33	22	13	93 (dBA) <span style="color: orange;">▲</span>
	Hitachi C7U 190mm	<2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	108 (dBA) <span style="color: red;">▲</span>
0203	Makita 5903R 230mm	3.0ms2 <span style="color: green;">■</span>	18	5	33	22	13	95 (dBA) <span style="color: orange;">▲</span>
	Bosch GKS85S 230mm	3.5ms2 <span style="color: green;">■</span>	25	4	5	16	20	90 (dBA) <span style="color: orange;">▲</span>
	Hitachi C9U 230mm	<2.5ms2 <span style="color: green;">■</span>	13	8	0	>24	-	110 (dBA) <span style="color: red;">▲</span>

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