



Hand Arm Vibration Syndrome

How long can I use a tool for?

The amount of time you can safely use equipment varies depending on the type of tool, its condition, the materials you are working with and the job you are doing.

It is essential that you check carefully to ensure you are not facing the risk of developing a hand-arm vibration-related disease, such as 'vibration white finger'.

The points calculator below is based on Health & Security Executive (HSE) data and provides a useful guide to how long is safe.

Calculating Risk Limits

The length of exposure to hand-arm vibration is measured in metres per second squared (m/s^2). You are at greater risk if you use a tool rated above $2.5 m/s^2$ throughout an 8-hour working day.

Continuous use of a tool rated above $5.0 m/s^2$ represents a dangerously high risk. If using a variety of tools see the table below.

Vibration Risk Colour Coding

The Construction Confederation and Hire Association Europe in partnership with the HSE have developed a simple 'traffic light' system of colour coding to show the vibration risks associated with tools and equipment.

High Vibration Risk Equipment

Covers products over $5m/s^2$. Specific risk assessments will be required. Contact the HSS Health & Safety Helpdesk for guidance - 08705 28 28 28

Medium Vibration Risk Equipment

Covers equipment that may be used for two hours maximum each day without further assessment. Products at the low end of the amber range may be used for longer periods but must be justified by a risk assessment.

Low Vibration Risk Equipment

Covers equipment that may be used intermittently throughout an eight hour day with low risk of vibration injury.

Tool Vibration in $M/5^2$	25	315	625	1250						
	20	200	400	800						
	19	180	360	720	1450					
	18	160	325	650	1300					
	17	145	290	580	1150					
	16	130	255	510	1000					
	15	115	225	450	900	1350				
	14	98	195	390	785	1200				
	13	85	170	340	675	1000	1350			
	12	72	145	290	575	865	1150	1450		
	11	61	120	240	485	725	970	1200	1450	
	10	50	100	200	400	600	800	1000	1200	
	9	41	81	160	325	485	650	810	970	1300
	8	32	64	130	255	385	510	640	770	1000
	7	25	49	98	195	295	390	490	590	785
	6	18	36	72	145	215	290	360	430	575
	5.5	15	30	61	120	180	240	305	365	485
	5	13	25	50	100	150	200	250	300	400
	4.5	10	20	41	81	120	160	205	245	325
	4	8	16	32	64	96	130	160	190	255
	3.5	6	12	25	49	74	98	125	145	195
	3	5	9	18	36	54	72	90	110	145
	2.5	3	6	13	25	38	50	63	75	100
	2	2	4	8	16	24	32	40	48	64
	1.5	1	2	5	9	14	18	23	27	36
	1	1	1	2	4	6	8	10	16	20
		15 mins	30 mins	1 hour	2 hour	3 hour	4 hour	5 hour	6 hour	8 hour
Exposure Time										



Vibration Output Table

Code	Description	Vibration (m/s ²)
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Concreting / Surface Preparation

47616	Mini Vibrating Roller	7.4
47306	Trench Rammer 4-Stroke	10.2
47416	Light vibrating plate	3.5
47436	Medium Vibrating Plate	2.8
43236	Floorsaw 350 MM	4.5
43247	Floorsaw 450 MM	4.5
45116	Vibrating Screed	5.9
44216	Power Trowel	6.8
46545	Electric Poker Vibrator	2.5
46125	Vibrating poker 25 MM	5.6
46138	Vibrating poker 38 MM	5.6
46150	Vibrating poker 50 MM	8.6
46175	Vibrating poker 75 MM	10.0
30519	Air Pole Scabbler	5.0
30618	Multi Head Floor Scabbler	5.0
30319	Single Head Scabbler	7.0
30339	Triple Head Scabbler	9.0
30118	Air Needle Gun	25.0
02411	Light Duty Needle Scaler	11.5
06401	Concrete Scaler	3.5
43421	Electric Surface Scaler	9.8
43426	Petrol Surface Scaler	9.8
58511	Floor Scarifier	2.5
58411	Floor Tile Stripper	17.0
58421	Self Propelled Floor Tile Stripper	12.0

Breaking / Drilling

02151	Vibration Damped	8.5
02131	Demolition Hammer	13.9
02101	Heavy Duty Breaker	8.0
74116	Hydraulic Breaker	5.7
02116	Heavy Duty Petrol Breaker	2.5
21117	Medium Air Breaker	3.5
21127	Heavy Air Breaker	3.8
02161	Wall Tile Remover	16.5
02141	Electric Chipping Hammer	11.5
23137	Air Chipping Hammer	15.0
21107	Light Air Pick	13.0
02342	Heavy Duty Cordless Drill	12.0
02341	Cordless Drill	12.0
02361	Light Duty Drill	14.0
02311	Hammer Driller	16.0
02321	Heavy Duty Hammer Driller	15.5
02213	Heavy Duty Combi Hammer	15.0
01111	Percussion Drill	13.0
01323	Cordless Right Angle Drill	2.5
01121	Diamond Driller	10.0
01122	DD100 Diamond Driller	3.8
01611	Diamond Driller and Rig	14.0
01421	4 Speed Rotary Drill	2.5

Code	Description	Vibration (m/s ²)
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Sawing / Cutting

07411	230 MM Tile Saw Bench	2.5
07421	Tile Saw Bench	2.5
03122	Heavy Duty Reciprocating Saw	24.6
07211	Bench Top Cut-Off Saw	2.5
03461	TCT Metal Mitre Saw	2.5
03434	Alloy Cutting Mitre SAW	2.5
03251	Portable Steel Saw	3.9
07115	300 MM Cut Off Saw	4.5
07116	350 mm Cut Off Saw	7.0
06311	Mini Angle Grinder	2.5
06321	125 MM Angle Grinder	6.5
06331	230 MM Angle Grinder	7.5
07156	Concrete Ring Saw	7.5
08311	Light Duty Chasing Machine	4.0
08331	Heavy Duty Chasing Machine	3.5
08321	Dustless Concrete Cutter	5.0
07316	Petrol Masonry Saw Bench	4.5
07311	Electric Masonry Saw Bench	4.0
07432	180 MM Tile Saw Bench	2.8
03421	Double Bevel Mitre Saw	2.5
03431	Crosscut Mitre Saw	2.5
03411	Flipover Mitre Saw	2.5
03201	6" Circular Saw	2.5
03211	9" Circular Saw	2.5
03141	Door Trimming Saw	2.8
03151	Heavy Duty Saw	5.6
03111	Jig Saw	4.0
04111	Power Wood Plane	6.5
04221	Laminate Trimmer	2.5
04211	Router	2.5
03161	Biscuit Jointer	2.5
67661	Standard Nibbler	7.0
67663	Heavy Duty Nibbler	10.0
67621	Metal Shear	3.0
03121	Standard Reciprocating Saw	22.0

Sanders

05412	Floor Sander	2.5
05422	Edging Sander	2.7
05432	Re-Finish Sander	8.9
05218	Commercial Floor Finish	2.7
05342	Triangle Sander	3.0
05331	Random Orbital Sander	4.0
05321	Orbital Sander	3.0
05131	Belt Sander	2.5
05231	Dry Wall Sander	2.5
05211	Disc Sander	5.5
05312	Palm Sander	3.5
05241	Texture Surface Remover	2.5

Code	Description	Vibration (m/s ²)
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Fixing

52111	Drywall Screwdriver	2.5
52131	TEK Screwdriver	2.5
67311	13 MM Impact Wrench	16.5

Painting / Decorating

61211	Paddle Mixing Drill	2.5
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Plumbing / Pipework

68421	Electric Diestock	5.9
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Cleaning / Floorcare

59112	Mini Pressure Washer	2.5
59132	Power Washer	2.5
59226	High Pressure Washer	2.6
59321	Mini Hot Washer	2.6
59311	Super Hot Washer	2.6
58611	Floor Scrubber Polisher	2.5
58622	Floor Scrubber Dryer	2.5

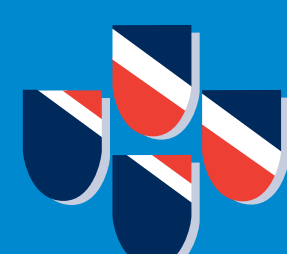
Gardening / Landscaping

62146	Power Scythe	6.3
62356	Turf Cutter	9.5
62506	Light Duty Tiller	2.5
62516	Power Digger	7.0
62526	Cultivator	2.5
03705	15" Chainsaw	7.6
03702	15" Electric Chainsaw	5.4
62412	Electric Hedge Trimmer	4.1
62415	Petrol Hedge Trimmer	7.0
62416	Long Handled Hedge Trimmer	2.5
62836	Stump Grinder	3.8
62116	Petrol Brush Cutter	2.5
62226	Rotary Lawn Mower	12.0
62316	Petrol Lawn Scarifier	6.2

Please Note

In most cases vibration figures for use in the Traffic Light System have been declared by the respective manufacturers and the values may not always reflect the vibration emission of the Tool in real life conditions. Please note that the vibration symbols should not be used as a substitute for your own risk assessment.

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