RISK ASSESSMENT FOR EXPOSURE TO HAND ARM VIBRATION (HAV)

Record of findings of the assessment of risk due to exposure to vibration, made in pursuance of Regulation 5 of the Control of Vibration at Work Regulations 2005.
This form can only be used where a reasonably reliable estimate of the exposure to vibration can be made. If reliable estimates cannot be made, measurement of the vibration levels is necessary.

COMPANY:	**SITE:**
DATE:	**REF:**

Who is exposed (individuals and consider employee trades)	**How many in each group**

Are any of the above particularly at risk? (consider any pre-existing health conditions, any previous circulatory problems, pregnant women, young persons or smokers)

Who	**Why**	**Extra controls needed for those particularly at risk (alternative work equipment, reduced exposure times, additional health surveillance)**

Is health surveillance of the employees carried out?	**Yes**		**No**	**X**
Has it identified any new or worsening cases of Hand Arm Vibration Syndrome (HAVS) relating to this work?	**Yes**		**No**	

HAV control measures in place

Vibration levels – Include all significant sources of HAV that the worker is exposed to in the working day (exposure times used should be 'trigger times' which is the amount of time the tool is handled whilst under load (trigger operated). The vibration calculator at the HSE web site can also be used if available.				
Source of vibration	**How is the vibration level (magnitude) estimated?** **1. Manufacturers data with equipment under load** **2. Manufacturers equipment manual (double the figure if from this source)** **3. Appendix 2 example** **4. Technical measurement**	**Estimated vibration magnitude** m/s^2	**Total length of exposure (Trigger time) during working day**	**Point value from table 1**
The drilling of holes is split into two operations (1) through timber and (2) through brickwork:				
(1) timber:				
DeWalt 24volt battery drill -	Manufacturers data	8.00	0.25	32
DC213KB				
Makita 24volt battery drill -	Manufacturers data	2.50	0.25	3
BHR200SJE				
Makita 18volt battery drill -	Manufacturers data	2.50	0.25	3
6347DWAE				
Makita 18volt battery drill -	Manufacturers data	2.50	0.25	3
BDF451RFE				
Makita 110volt drill - 8419B	Manufacturers data	2.50	0.25	3
				44 - total for task
(2) brickwork:				
Makita 110volt SDS drill -	Manufacturers data	12.00	0.25	72
HR2410X				
Makita 110volt breaker - HR3520	Manufacturers data	12.50	0.25	78
				150 - total for task
Total point value				**See Above**

The exposure action value (2.5 m/s2 A(8)) is equal to a total point value of 100.
The exposure limit value (5 m/s2 A(8)) is equal to a total point value of 400.

Additional control measures required to reduce the points value to as low as reasonably practicable.
If the exposure limit value is exceeded, immediate steps must be taken to reduce the exposure before further work continues.

Where the point value for the task is above 100 the exposure action value will be exceeded, therefore for these tasks the use of job rotation to share exposure between electricians is required. Ensure the use of tools is intermittent throughout the day and allow ample breaks to allow normal circulation to return. Operatives are to ensure the hands are exercised and kept warm to aid circulation between tool usages.

Authorised Signature:
Print Name:
Position:
Date:
Reviewing Procedures: Should any of our standard working practices change significantly and/or new regulations and legislation come into force then this document will be reviewed and altered accordingly to take into account those changes.

Table 1 (Exposure point values)										
Estimated vibration magnitude m/s^2	Total length of exposure (Trigger time) during working day									
	15 min	30 min	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	8 hours	10 hours
40	800									
30	450	900								
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	1200
7	25	49	98	195	295	390	490	690	785	865
6	18	36	72	145	215	290	360	430	575	720
5.5	15	30	61	120	180	240	305	365	485	605
5	13	25	50	100	150	200	250	300	400	500
4.5	10	20	41	81	120	160	205	245	325	405
4	8	16	32	64	96	130	160	190	255	320
3.5	6	12	25	49	74	98	125	145	195	245
3	5	9	18	36	54	72	90	110	145	180
2.5	3	6	13	25	38	50	63	75	100	125
2	2	4	8	16	24	32	40	48	64	80
1.5	1	2	5	9	14	18	23	27	36	45
1	1	1	2	4	6	8	10	12	16	20

Key

= Above limit Value

= Likely to be above limit value

= Above action value

= Likely to be above action value

= Below action value

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EXPOSURE POINTS WORKED EXAMPLE

An employee has the following typical work pattern:

1. One hour using a breaker in good conditions estimated at 5 m/s^2 from appendix 2;
2. Four hours using a tool for which the manufacturer has declared 3 m/s^2 in comparable conditions to your use;
3. 45 minutes using a tool for which the handbook states 2 m/s^2 (from this source double the figure to 4 m/s^2).

Vibration level m/s^2	Duration	Notes	Exposure points
5	1 hour	Direct from table	50
3	4 Hrs	Directly from table	72
4	45 Mins	No column for 45 minutes, so add together values from 30 and 15 minute columns in row corresponding to 4 m/s^2	16 + 8 = 24
		Total exposure points	146

146 points does not exceed the exposure limit (400 points) but does exceed the action value (100 points) so further controls are required to reduce the figure to as low as reasonably practicable.

Table 1 (Exposure point values)

Estimated vibration magnitude *m/s^2*	Total length of exposure (Trigger time) during working day									
	15 min	30 min	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	8 hours	10 hours
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	
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6	18	36	72	145	215	290	360	430	575	720
5.5	15	30	61	120	180	240	305	365	485	605
5	13	25	**50**	100	150	200	250	300	400	500
4.5	10	20	41	81	120	160	205	245	325	405
4	**8**	**16**	32	64	96	130	160	190	255	320
3.5	6	12	25	49	74	98	125	145	195	245
3	5	9	18	36	54	**72**	90	110	145	180
2.5	3	6	13	25	38	50	63	75	100	125
2	2	4	8	16	24	32	40	48	64	80
1.5	1	2	5	9	14	18	23	27	36	45
1	1	1	2	4	6	8	10	12	16	20