

Occupational Noise & Vibration

Exposure to Noise in the Workplace

Being subjected to loud noise may cause deafness and other types of hearing damage. An employer has a duty under the Control of Noise at Work Regulations 2005 to reduce the risk of damage to employees' hearing.

The main requirements apply to the employees' daily personal exposure to noise. This takes into account the noise levels in the workplace and the exposure duration over a working shift.

Noise levels [given in decibel units dB(A)]. The first action level is 80 dB(A) and a peak value of 112 Pa, the second action level is 85 dB(A) and 140 Pa, and there is a limit value of 87 dB(A) and 200 Pa. The limit value will take into account the reduction afforded by hearing protection.

Employers have to reduce risk of damage to employees' hearing and take specific actions where the noise exposure of their employees is likely to be at or above any of three 'action levels'. This includes:

- Carrying out noise assessments
- Reducing exposure
- Providing information and training for employees
- Issuing personal hearing protection

Hand Arm Vibration Management

Many Workers who are regularly exposed to high vibration magnitudes may suffer from several kinds of injury to the hands and arms, including impaired blood circulation and damage of the nerves and muscles. This is most likely when contact with a vibrating tool or work process is a regular part of an employees' job.

Under The Control of Vibration at Work Regulations 2005 an employer is required to prevent or adequately control employees' exposure to vibration and gives two action levels.

The Exposure Action Value, is a daily amount of vibration exposure, above which the employer is required to take action to control exposure. The EAV for hand-arm vibration is set at $2.5 \text{ m/s}^2 \text{ A}(8)$ The Exposure Limit Value, is the maximum amount of vibration an employee may be exposed to on any single day. The ELV for hand-arm vibration is set at $5.0 \text{ m/s}^2 \text{ A}(8)$ it represents a high risk above which employees should not be exposed.



Image: Courtesy Atlas Capco

How can REC help you?

REC experts can provide tailored surveys to assess and provide comprehensive reports detailing;

- Designation of hearing protection zones
- Measurement of personal noise exposure
- Calculation of assumed protection levels
- Octave band analysis
- Advice on the selection of suitable hearing protection
- Measurement of transmitted vibration and evaluation of selected hand held and hand guided power tools
- Site observations and advice on improvement in working practices.
- Advice on health surveillance, sufficient information, instruction and training
- Guidance on positive purchasing policies.

REC Office Locations

Manchester:

Osprey House, Pacific Quay, Broadway, Manchester M50 2UE
Tel 0161 868 1300, Fax 0161 868 1301

Birmingham:

Unit 19 Bordesley Trading Est, Bordesley Green Rd, Birmingham B8 1BZ
Tel: 0121 326 7007, Fax: 0121 328 1689

Glasgow:

11 Law Place, Nerston Mains, East Kilbride G74 4QL
Tel: 01355 574 160, Fax: 01355 574161

Edinburgh:

Suite 13 Bilston Glen Enterprise Centre, Dryden Rd, Loanhead, Edinburgh, EH20 9LZ
Tel: 0131 440 4562, Fax: 0131 440 3841

Braintree:

3 Crittall Drive, Springwood Industrial Estate, Braintree, Essex, CM7 3RT
Tel: 01376 554400, Fax: 01376 528980

Fareham:

Environment House, Segensworth Business Centre, Segensworth Rd, Fareham,
Hampshire PO15 5RQ
Tel: 01329 846824, Fax: 01329 845439

Port Talbot

Unit 19 Kenfig Industrial Estate, Margam, Port Talbot, SA13 2PE
Tel: 01656 749823, Fax: 01656 740824

Huddersfield:

Ellerslie House, Queens Rd, Edgerton, Huddersfield, HD2 2AG
Tel: 01484 428274, Fax: 01484 428276

Dundee:

Unit 1.7 Discovery House, Gemini Crescent, Dundee, DD2 1SW
Tel: 01382 561985, Fax: 01382 562839

Newcastle:

Metropolitan House, Longrigg Rd, Swalwell, Gateshead, NE16 3AS
Tel: 0191 495 6243, Fax: 0191 495 6160

N Ireland:

69A Killyman Street, Moy, Co. Tyrone, BT71 7EA
Tel: 028 8778 9599, Fax: 028 8778 9552

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UK Offices in Manchester, Birmingham, Braintree, Fareham, Huddersfield, Newcastle, Port Talbot
East Kilbride, Edinburgh, Dundee and N Ireland

REC Ltd Registered Office: Hadfield House, Hadfield Street, Old Trafford Manchester, M16 9FE

www.recltd.co.uk