

Control and management of noise risks in CONCRETE AND CEMENT PRODUCTS

Table 1. Established noise control methods for high-risk activities

Product	Process	Example noise levels, dB*	Established noise control methods	Further information (links)
Flat products (e.g. slabs, fence posts, panels). Reinforced concrete products (e.g. beams, steps)	Mould filling, demoulding and stacking using vibrating tables or conveyors	Steel tables: 95 - 110 Tables/conveyors with rubber covering: 86 – 93	Use self-compacting concrete (see below) Use resilient material (e.g. rubber) on tables Clamp mould to table Fit tunnels or enclosures over conveyors Enclose undersides of conveyors and tables Maintenance of enclosures, skirts, etc. Maintenance of vibrator motors and mountings Use wood, fibreglass or rubber moulds instead of metal to reduce impact noise	Noise control in the concrete products industry: General information (<i>see HSE noise web pages</i>) SIM 03/2002/51 Noise in the manufacture of Concrete Products - http://www.hse.gov.uk/foi/internalops/sectors/manuf/3_02_51.pdf HSE Specialist Inspector Report No. 33. The Control of Noise in the Concrete Industry
	Use of self-compacting concrete (SCC)	Relatively quiet process: no vibration required	SCC (concrete to which chemical plasticisers are added) is increasing in popularity in the UK. Its use has the potential to eliminate the main source of noise (vibration). SCC should be discussed at visits to raise the profile and encourage innovation.	European guidelines for self-compacting concrete - http://www.britishprecast.org/publications/documents/scc_guidelines_may_2005_final.pdf (See chapter 12 for information on pre-cast products)

* Sample L_{Aeq} . The noise levels are indicative only and will vary depending on equipment type and conditions of use.

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Blocks, tiles, slabs	Vibratory presses	No noise reducing features: 96 - 110 Outside press enclosure: 84 - 93 Unloading stations: 86 - 88 Inside control rooms: 71 – 79	Fit enclosure (all controls outside) or provide separate control room (noise refuge) Isolate vibrating parts from floor and enclosure Maintenance of vibrator motors and mountings Silencers for compressed air exhaust Secure all parts and fittings to prevent rattling Use resilient material (e.g. rubber) for stops	Example: use of plastic components in a block-making machine - http://www.hse.gov.uk/noise/soundsolutions/ss6.htm
	Rumblers/ Tumblers,	84 – 95	Line barrel of tumbler with rubber lining Isolate plant from other processes and/or use plastic curtains to separate from employees	
	Saws	81 – 96	Use noise-reduced saw blades	Example: reduced stone cutting noise (HSG138 #52) (see HSE noise web pages)
Extruded tiles	Extrusion plant Pallet /mould conveyors	86 – 93	Extrusion plant: <ul style="list-style-type: none"> • use noise-reduced blow-off jets/air knives • use silencers on compressed air exhausts Conveyors: <ul style="list-style-type: none"> • control speed to minimise collisions between pallets (may require training) • use an impact absorbing material (e.g. polyurethane) on conveyor guide rails etc. 	

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General	Chutes and skips		Provide chutes and skips with rubber lining Minimise dropping distances for waste material	Avoiding impacts (see <i>HSE noise web pages</i>) - (from paragraphs 207 – 208 of L108 “Controlling noise at work”, ISBN 0-7176-6164-4, available from HSE Books at www.hsebooks.co.uk) Example: Reducing noise in gravel chutes (HSG138 #1) (see <i>HSE noise web pages</i>)
	Mixing machines		Noise havens containing all control consoles	
	Cleaning equipment	Chipping hammers: can be > 120 dB Ultra high pressure water jetting: up to 105	Avoid or minimise the need for use of noisy equipment by washing down before the ‘mix’ goes off. For water jetting, locate compressor in acoustic housing, restrict operating pressure	
	Materials handling		Where heavy quarry type vehicles are employed, use acoustic cabs.	Example: Reducing noise in trucks/cabs HSG138 #24 and #26 (see <i>HSE noise web pages</i>)

See also Table 2. Management of noise risks

PLEASE FAX COMPLETED FORM TO: 020 7717 6681
Noise control methods in Concrete and Cement products – Feedback Form

Your views are important to us so that we can improve the way we communicate information on noise control methods. We would be grateful if you could spare a couple of minutes to fill in this form and fax it back to us at the above number. Any information you provide will be treated in confidence and will only be used for research purposes. You do not have to give your contact details.

Please rate the following statements by ticking the box which most closely represents your level of agreement or disagreement with each statement.

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
The activities/processes listed include those that I was concerned with					
The information given was useful in helping my organisation decide whether it should be taking action					
I was able to understand the information on noise control methods					
I found the control methods were relevant/realistic					
The information in the linked references and related guidance was helpful					
My organisation intends to take action to apply the control methods					

If you have any comments you would like to make, please do so in the space below:

About you:

What is your role/job in your organisation?

Employee Supervisor/Foreman Self employed	Middle Manager Health & Safety Professional Other <i>Please specify</i>	Senior Manager Union representative
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How many people work in your organisation?

Less than 50 employees Between 501 and 1000	Between 51 and 250 More than 1000	Between 251 and 500
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Thank you very much for your feedback. Please fax this to the number given at the top of the page

HSE are always looking for new ideas and solutions to noise problems. If you are willing to share your experience with others please give your details below so that we can discuss this with you.

Name: **Company:**

Telephone number:..... **Email:**