

Dust Control — Water, Extraction and Enclosure

Getting exposure down at the point it is created

Scope and limitations — read before use

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1. The order you must work in

Order	Control	In this trade
1	Eliminate	Do not accept work that requires dry processing. Order slabs cut to size. Template digitally so cut-outs are done on the machine, not by hand on site.
2	Substitute	Consider lower-silica materials. Some suppliers now offer reduced-silica engineered products, and porcelain and natural low-silica stones are alternatives.
3	Enclose	Fully enclosed CNC and bridge saws with interlocks. The operator is not in the dust at all.
4	Water suppression	The workhorse control. Adequate flow, delivered at the cutting interface, running for the whole cut.
5	Local exhaust ventilation	On-tool extraction with the correct shroud, M or H class unit, thoroughly examined at least every 14 months.
6	Ways of working	Segregate dusty work, limit who is present, rotate tasks, clean up wet.
7	RPE	Last line only. See STN-03.

2. Water suppression — doing it properly

- Water must reach the actual point of cut, not the general area. An on-tool feed, not a hose held nearby or a wet rag.
- Flow rate matters. A dribble does not suppress dust. Check the manufacturer's specified flow and confirm it is being achieved.
- Water must run for the whole cut, including the start and the finish. Most exposure happens in the seconds people run dry.
- Recirculated water must be managed — settled, filtered and topped up. Slurry-laden water suppresses less well.

- Wet does not mean safe forever. When slurry dries on the floor, on tools and on clothing it becomes airborne dust again. Clean it up wet.
- Water and electricity need managing together: RCD protection, correct IP-rated equipment, cables kept out of the slurry.

3. On-tool extraction

- Use the shroud designed for that tool and that disc size. A generic shroud leaks.
- The extraction unit must be M class as a minimum for silica; H class is better.
- Check the filter condition and the airflow indicator before every use.
- Empty and change filters using a safe procedure — this is a high-exposure moment. Wear RPE, bag the waste, do not shake anything out.
- LEV requires thorough examination by a competent person at least every 14 months, with records kept.
- Hoses kinked, split or blocked kill the airflow. Check them.

4. Housekeeping — where good firms still fail

Never	Instead
Dry sweeping	Wet methods, or an M/H class industrial vacuum
Compressed air to blow down benches, machines or clothing	Vacuum, or wet wipe down
Letting slurry dry on floors and walkways	Squeegee and remove while wet, keep floors clear
Brushing dust off overalls	Vacuum, or change into clean workwear
Taking workwear home to wash	Company laundering, or an industrial laundry service
Eating or drinking in the workshop	A separate clean area, wash hands and face first

5. Air monitoring

Personal air monitoring by a competent occupational hygienist is how you demonstrate your controls actually work. It is not always legally required, but where you rely on a judgement that exposure is below the limit, monitoring is the evidence. It is also the fastest way to prove to an inspector that you have this under control.

Date	Process monitored	Worker	Result (mg/m ³)	Below WEL? Y/ N	Action	Next due

6. Control equipment register and LEV examination

Equipment	Location / tool	Type (water, LEV, enclosure)	Last thorough examination	Next due (max 14 months)	Condition

Assessed by	Signature	Date	Review date