

Stone, Silica and Worktop Fabrication

Implementation guide · stonemasonry, engineered stone and worktop fabrication and installation

This pack is for anybody who cuts, grinds, polishes, drills or dresses stone: monumental and architectural masons, kitchen and bathroom worktop fabricators, installers, and stone restoration trades. The hazard is respirable crystalline silica, and in this trade it is not a background risk. It is the main event.

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1. Why this pack exists right now

Fact	What it means for you
HSE is carrying out a programme of more than 1,000 fabricator inspections across Great Britain through the 2026/27 period.	Inspectors are actively coming to businesses like yours. This is not a theoretical risk of enforcement.
HSE has already ordered fabricators to stop working with engineered stone where they failed to protect workers from silica dust.	Prohibition notices stop the business trading, immediately. That is worse than a fine.
HSE has made clear that dry cutting of stone worktops must stop.	If you dry cut, you are the target of this campaign.
Engineered stone can contain up to 95% crystalline silica, against roughly 30% or less for many natural stones.	The same cut produces far more of the dangerous dust.
At least four people in the UK have died from artificial stone silicosis and more than 50 have been diagnosed since 2023. One man died at 28.	This disease is now appearing in young workers, not just retired ones.
With engineered stone, silicosis has appeared within months or years rather than decades.	Accelerated silicosis. Permanent lung damage can be done before any symptom appears.
HSE research found dry fabrication typically gives RCS exposure five to ten times higher than wet methods with equivalent tools.	Water is not a nicety. It is the control.
Australia banned engineered stone outright from 1 July 2024. The UK has chosen tighter enforcement of controls instead of a ban.	The UK route puts MORE responsibility on each fabricator, not less.

If you take one thing from this pack: dry cutting engineered stone is the single fastest way to give a young worker an incurable lung disease and to have your business stopped by a prohibition notice.

2. The exposure limit and what it means at the tool

Item	Figure
Workplace exposure limit for respirable crystalline silica	0.1 mg/m ³ as an 8-hour time-weighted average (HSE EH40)
Silica content, engineered or artificial stone	Up to about 95%
Silica content, granite	Typically around 25–40%
Silica content, sandstone	Can exceed 70%
Silica content, limestone and marble	Usually low, but check the supplier data
Dry versus wet fabrication	Dry typically 5 to 10 times higher RCS exposure

0.1 mg/m³ is a tiny quantity — roughly what would sit on a small coin, spread through everything you breathe across a whole shift. Minutes of dry cutting engineered stone can exceed it many times over.

3. What is in this pack

Ref	Document	Purpose
STN-00	Implementation guide	This document
STN-01	Silica risk assessment and COSHH	The assessment for every process you run
STN-02	Dust control — water, extraction and enclosure	How to actually get exposure down
STN-03	RPE and face-fit testing	The area where most firms fail an inspection
STN-04	Health surveillance for silica	Mandatory, and the records last 40 years
STN-05	Toolbox talks and forms	Briefings, records, inspection checklist

4. What an inspector will ask to see

- Your COSHH assessment covering each process — cutting, edge profiling, polishing, drilling, mitring, dry finishing and installation.
- Evidence that you have eliminated dry processing, or a very good justification with equivalent control where a process cannot be done wet.
- Water suppression that works: adequate flow, at the point of cut, running throughout.
- LEV where used, with a thorough examination at least every 14 months and records.
- Face-fit test records for every wearer of tight-fitting RPE, and a clean-shaven policy.
- RPE maintenance, cleaning and filter change records.
- Health surveillance records, including lung function testing.
- Training records showing operatives understand the risk.
- Housekeeping arrangements that do not involve dry sweeping or compressed air.
- Air monitoring results if you rely on them to justify your controls.

If you cannot produce these, assume enforcement. If you dry cut engineered stone, expect a prohibition notice.