

GOOD PRACTICES FOR CUTTING AND POLISHING CERAMIC AND STONE MATERIALS

This activity relates to the cutting of ceramic materials which may generate large quantities of airborne dust.

ACCESS

Restrict access to the work area to authorised personnel only.

DESIGN AND EQUIPMENT

- Dust control can be achieved by using wet cutting methods, which prevent fine dust from becoming airborne by trapping it in water.
- Ensure that water supplies are adequate and that they are maintained. Take precautions during cold weather against freezing.
- Take precautions to ensure the control of legionella and other biological agents. If the water used for wet cutting is recirculated, ensure that it is checked regularly with respect to pH value and contamination with micro organisms.
- The provision of appropriate drainage systems is essential when using water sprays and hoses.
- Ensure that electrical systems etc. have adequate protection against the hazards present in the working environment, including water and silica dust.
- Use cutting and polishing tools containing no crystalline silica.



MAINTENANCE

- Maintain the equipment as advised by the supplier, in efficient working order and good repair.

EXAMINATION AND TESTING

- Visually check the equipment for signs of damage at least once per week or, if it is in constant use, check it more frequently. If used infrequently, then check it before each use.
- Keep records of inspections for a suitable period of time which complies with national laws (minimum five years).
- Put in place measures to control the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated.

CLEANING AND HOUSEKEEPING

- Clean the equipment regularly.
- Use vacuum or wet cleaning methods.
- **DO NOT clean up with a dry brush or using compressed air.**
- **DO NOT allow deposits of dust/debris to dry out before cleaning up.**

TRAINING

- Give your employees information on the health effects associated with respirable crystalline silica dust.
- Provide employees with training on: dust exposure prevention; checking controls are working and using them; when and how to use any respiratory protective equipment provided and what to do if something goes wrong. Refer to task guidance sheet **2.3.4** and part 1 of the Good Practice Guide.

SUPERVISION

- Have a system to check that control measures are in place and that they are being followed. Refer to task guidance sheet **2.3.3**.
- Employers should make sure that employees have all the means to perform the checklist given below.

PERSONAL PROTECTIVE EQUIPMENT

- Refer to task guidance sheet **2.1.15** dedicated to Personal Protective Equipment.
- Indicate areas where personal protective equipment must be worn.
- Provide storage facilities to keep personal protective equipment clean when not in use.
- Replace respiratory protective equipment at intervals recommended by its suppliers.
- Risk assessment could be carried out to determine whether existing controls are appropriate.

EMPLOYEE CHECKLIST

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| <input type="checkbox"/> Ensure that you follow your employer's safe working procedures. | <input type="checkbox"/> Look for signs damage, wear or poor operation of any of the equipment used. If you find any problems, tell your supervisor. | <input type="checkbox"/> Clean using vacuum or wet cleaning method. | <input type="checkbox"/> Check and implement the measures to control the risk of bacterial growth within water sources used across site, focusing most on systems where water droplets will be generated. |
| | <input type="checkbox"/> Clean up the equipment after use. | <input type="checkbox"/> Use, maintain and store any respiratory protective equipment provided in accordance with instructions. | |

This guidance sheet is aimed at employers to help them comply with the requirements of workplace health and safety legislation, by controlling exposure to respirable crystalline silica. Specifically, this sheet provides advice on the cutting and polishing of refractory materials.

Following the key points of this task guidance sheet will help reduce exposure.

Depending on the specific circumstances of each case, it may not be necessary to apply all of the control measures identified in this sheet in order to minimise exposure

to respirable crystalline silica. i.e. to apply appropriate protection and prevention measures. This document should also be made available to persons who may be exposed to respirable crystalline silica in the workplace, in order that they may make the best use of the control measures which are implemented.

This sheet forms part of the Good Practices Guide on silica dust prevention, which is aimed specifically at the control of personal exposure to respirable crystalline silica dust in the workplace.