

Controls for common high-risk tasks

Task	Eliminate or limit the dust by:	Control the dust by using:
Cutting concrete kerbs, blocks and paving with a cut-off saw	■ Limiting the number of cuts during design/layout ■ Using lower energy equipment like block splitters ■ Getting material cut off site and delivered	■ Water suppression and ■ RPE* with an APF of 20
Chasing concrete and raking mortar	■ Limiting the need for chasing at the design/layout stage ■ Using a work method that limits/does not need chasing, like over-covering cables	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20 – consider powered RPE for longer duration work
Cutting roofing tiles with a cut-off saw	■ Hand cutting natural/fibre cement slates and other tiles where possible ■ Using ½ and 1½ tiles ■ Correct setting out/design ■ Minimising valleys/using dry valleys	■ Water suppression and ■ A dedicated cutting area with scaffold board protection and ■ RPE* with an APF of 20
Scabbling or grinding with hand-held tools	■ Specifying architectural finishes that do not need scabbling ■ Using (ultra) high-pressure water jetting ■ Using chemical retarders and pressure washing ■ Casting in proprietary joint formers, eg mesh formwork	■ Where possible use on-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Short-duration drilling totalling 15–30 minutes with hand-held rotary power tools	■ Limiting the number of holes during design/planning ■ Using direct fastening or screws	■ Where possible use equipment that stops dust getting into the air. The larger the holes the better this needs to be. Options range from: – drilling through a dust 'collector' or using cordless extraction attached to the drill (for smaller drill bits) or – on-tool extraction using an H or M Class extraction unit ■ Otherwise use RPE* with an APF of 20
Drilling holes with hand-held rotary power tools as a 'main activity'	■ Limiting the number of holes during design/planning ■ Using direct fastening or screws	■ Where possible on-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20
Dry coring	■ Limiting the number of holes during design/planning	■ On-tool extraction using an H or M Class extraction unit ■ Longer duration work (ie over 15–30 minutes accumulated time over the day) will also need RPE.* Use an APF of 20
Wet coring	■ Limiting the number of holes during design/planning	■ Water suppression ■ Long periods of wet coring in enclosed spaces will also need RPE.* Use an APF of 20
Using a hand-held breaker in enclosed spaces with limited ventilation	■ Limiting the amount of breaking during design/planning stage ■ Bursting, crushing, cutting, sawing or other techniques ■ Remote controlled demolition ■ Hydrodemolition	■ On-tool extraction using an H or M Class extraction unit and ■ RPE* with an APF of 20

Task	Eliminate or limit the dust by:	Control the dust by using:
Abrasive pressure blasting	■ Using a different method of work like (ultra) high-pressure water jetting ■ Using 'silica free' abrasive material	■ Wet or vacuum blasting and ■ RPE* will depend on silica content of building materials, blasting equipment and length of work: – In most instances use RPE with an APF of 40 – Use RPE with an APF of 20 for lower risk work (including the 'potman' nearby) ■ Shrouds or screens to contain the flying abrasive ■ Certain restricted/enclosed working places may also need general mechanical ventilation
Soft strip demolition	■ Carefully planning the work ■ Limiting the number of people that need to be in the work area ■ Screening off areas to prevent dust spreading	■ Use water suppression or on-tool extraction for those tasks where it is possible and ■ RPE* with an APF of 20 – consider powered RPE for longer duration work ■ Enclosed spaces may also need general mechanical ventilation to remove dusty air
Removing small rubble, dust and debris	■ Limiting waste materials during design/ planning ■ Considering where waste material is created and how frequently it needs removing ■ Using the correct dust controls when making rubble/debris	■ Damping down and using a brush, shovel and bucket for minor/small 'one-off' amounts Or for regular removal/site cleaning: ■ Water spray for damping down ■ Rake, shovel and bucket/wheelbarrow to remove larger pieces ■ Covered chutes and skips where needed ■ Vacuum attachments fitted to an H or M Class extraction unit ■ RPE* with an APF of 20 depending upon location, duration and type of work
Cutting wood with power tools	■ Using a less toxic wood[†] ■ Ordering pre-cut materials ■ Using dedicated cutting areas to minimise spread	■ On-tool extraction using an H or M Class extraction unit ■ Longer duration work (ie over 15–30 minutes accumulated time over the day) will also need RPE† suitable for the wood dust – particularly in enclosed spaces
Sanding wood with power tools	■ Using a less toxic wood[†] ■ Using 'pre-finished' materials	■ On-tool extraction using an H or M Class extraction unit and ■ RPE† suitable for the wood dust in most situations
Sanding plasterboard jointing	■ Using other finishes/systems	■ On-tool extraction using an H, M, or L Class extraction unit

* **Table 2** Common RPE types for construction dust

APF	Common RPE types for construction dust
10	■ FFP2 disposable mask or half mask with P2 filter
20	■ FFP3 disposable mask or half mask with P3 filter Or for longer duration work: ■ Powered RPE such as a TH2 powered hood/helmet
40	■ Abrasive blasting helmet with constant flow airline

† RPE for wood dust

The risk from wood dust is specific to different types (species) of wood.[†] Knowing the species is important in establishing the right RPE to use. In general RPE with an APF of 20 is appropriate; particularly for higher residual dust levels, such as when sanding, and for all work with more toxic woods such as hardwoods, western red cedar and MDF. RPE with an APF of 10 is suitable for work with less residual dust and when the wood is lower risk (eg pine).