

Abrasive Wheels — Risk Assessment

Site-specific. Complete, sign and review. Delete rows that do not apply to you.

Assessment carried out by: _____ Site: _____ Date: _____ Review due: _____

Hazards and controls

Hazard	Who is harmed and how	Controls required	Further action	Done
Wheel bursting in use	Operator and anyone nearby. Fragments leave at very high speed and cause fatal and life-changing injuries	Only authorised mounters change wheels. Max operating speed on the wheel must be equal to or greater than the spindle speed. Correct matched flanges with blotters. Ring test vitrified wheels before mounting. Run new wheels for one minute before use with everyone standing clear of the line of the wheel		
Contact with the rotating wheel	Operator. Severe abrasion, degloving, amputation	Guards correctly fitted and adjusted at all times. Never remove or wedge a guard. Two hands on the machine. Wheel allowed to stop on its own, never braked by hand or against the work		
Ejected particles and sparks	Operator and passers-by. Eye injury, burns	Impact rated eye protection to BS EN 166 for everyone in the area, plus a face shield for the operator. Screens or a designated cutting area to protect others		
Kickback and loss of control	Operator. Cuts to hand, face, thigh	Correct disc for the material. Never jam or twist the disc in the cut. Workpiece clamped, never hand held. Correct body position, never in line with the wheel		
Entanglement	Operator. Degloving, drawing in	No gloves where entanglement risk exists on fixed machines, no loose clothing, long hair tied back, no jewellery, no lanyards		
Hand arm vibration	Regular users. HAVS, vibration white finger, permanent nerve and circulatory damage	Exposure calculated and limited. Low vibration tools. Job rotation. Health surveillance where exposure exceeds the action value. See the trigger time note below		

ABRASIVE WHEELS

Dust, including respirable crystalline silica	Operator and bystanders. Silicosis, COPD, lung cancer. Irreversible and often fatal	Cutting concrete, stone, brick, tile or screed releases silica. On-tool extraction to M or H class, or water suppression. RPE with face fit testing where needed. Never dry cut indoors		
Noise	Operator and others nearby. Permanent hearing loss, tinnitus	Cutting and grinding routinely exceed 85 dB(A). Hearing protection provided, worn, and suitable for the level		
Fire and explosion from sparks	Everyone on site. Burns, structural fire	No hot work near flammables, fuel, solvents or dust. Fire watch during and after. Permit to work where appropriate		
Damaged or out of date wheels	Operator. Wheel burst	Wheels stored dry, racked and supported. Damp, frost and impact damage a wheel. Resin bonded discs carry an expiry date and must be discarded after it		
Wrong wheel on the machine	Operator. Wheel burst, loss of control	Cutting discs must not be used for side grinding and grinding wheels must not be used for cutting. Bore size correct, never bored out or forced on		
Manual handling	Operator. Back and limb injury	Larger machines and stone saws lifted correctly or mechanically		

Vibration note

An angle grinder can reach the daily exposure action value in a short working time. Calculate exposure using the manufacturer's declared vibration figure and actual trigger time, not a guess. Where the action value is exceeded, health surveillance is required, and the exposure limit value must not be exceeded at all.

Assessor	Reviewed by	Date	Review due

Scope and limitations — read before use

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