

Angle Grinder Cutting and Grinding

COMPANY

PROJECT / LOCATION

DATE

PREPARED BY

Use a guarded angle grinder to cut and grind metal and masonry on construction sites. Covers setup, wheel mounting, operation, and cleanup.

Protective equipment

- Safety glasses with side shields; use prescription safety glasses or suitable over-glasses if needed.
- Face shield over safety glasses for flying fragments and sparks.
- Respirator for masonry work when the silica dust control plan calls for one.
- Hearing protection, such as earplugs or earmuffs.
- Work gloves that protect against cuts and hot metal.

Before you start

- Inspect the grinder, guard, and guard fastenings; do not use damaged equipment.
- Pick a wheel made for the material, the job and the grinder's speed. Before mounting, look it over closely and ring-test it (tap it lightly; a cracked wheel sounds dull).
- Before cutting or grinding masonry, confirm how silica dust will be controlled: the dust controls, water and respirator OSHA's silica rule lists for this task (Table 1), or the employer's own exposure measurements and controls.
- Check that safety glasses and face shield fit snugly, are not damaged and meet ANSI Z87.1.

#	JOB STEP	HAZARDS	CONTROLS
1	Set up the work area and support the material.	Sparks and flying fragments can strike nearby workers or ignite combustible material. Moving material can pinch the wheel and cause kickback or cuts.	- Remove combustible material from the spark path. - Use screens to contain sparks and fragments. - Keep other workers out of the cutting and grinding area. - Clamp and support the material so it cannot shift. - Support the cut so it does not close on the wheel.

2 Mount the wheel and adjust the guard.	Unexpected startup or a damaged, poorly mounted wheel can cause cuts or flying fragments.	- Disconnect power before mounting the wheel or adjusting the guard. - Reject wheels with cracks or other defects. - Slide the wheel onto the spindle without forcing it, and tighten the nut only enough to hold it in place. - Fasten the guard so it stays lined up with the wheel and sits between you and the wheel.
3 Set up dust controls before cutting or grinding masonry.	Masonry dust containing crystalline silica can be inhaled and damage the lungs.	- Attach the water feed or dust shroud and vacuum called for in the silica control plan. - With water controls, use enough water flow to keep visible dust to a minimum. - Indoors or in enclosed areas, set up exhaust ventilation as needed so visible dust does not build up in the air. - Wear the respirator the silica control plan calls for.
4 Cut or grind the material.	A binding or misused wheel can kick back, break, or cut the operator.	- Keep the guard installed and correctly aligned throughout the work. - Hold the grinder securely with both hands and keep your body out of the wheel's path. - Do not force the tool or use the side of a cutting wheel for grinding.
	Flying chips, sparks, and wheel fragments can injure the eyes and face.	- Direct sparks and fragments away from people. - Wear safety glasses with side shields and a face shield.
5 Shut down the grinder and clean the area.	A coasting wheel can catch clothing or cut someone when the tool is set down.	- Keep control of the grinder until the wheel stops completely. - Disconnect power before changing wheels or storing the tool.
	Cleaning settled masonry dust can put silica back into the air.	- Clean up with water or a vacuum with a high-efficiency (HEPA) filter, not by dry sweeping. - Do not use compressed air to blow silica dust off clothing or surfaces.

Stop work and call the supervisor if

- Stop and call the supervisor if the wheel is cracked, loose, binding, or vibrating abnormally.
- Stop and call the supervisor if the guard is missing, damaged, or cannot stay properly aligned.
- Stop and call the supervisor if the water or dust vacuum stops working or a visible dust cloud forms.
- Stop and call the supervisor if sparks reach combustible material or people enter the fragment path.

Sources: 29 CFR 1926.303, Abrasive wheels and tools; 29 CFR 1926.1153, Respirable crystalline silica; 29 CFR 1926.102, Eye and face protection

Drafted with AI for review by a competent person. Clever Rook writes from the official regulation text it cites, but it doesn't know your site. Check it against your conditions and your company's safety program before use.
Not legal advice.

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REVIEWED BY (COMPETENT PERSON)

REVIEW DATE

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