



FLOOR GRINDING

Potential Hazards

1. flying objects
2. hearing loss (noise)
3. exposure to chemicals
4. respiratory disease

Personal Protective Equipment Required

- | | | |
|-----------------|--------------------|-----------------|
| Hard hat | CSA Boots | Eye protection |
| Hand protection | Hearing protection | Skin protection |
| Respirator/mask | Face protection | (clothing) |

PRELIMINARY ACTIVITIES

Where multiple trade activity is scheduled, the general contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete their scope of work. Prior to any work commencing supervisors must conduct a hazard assessment of all applicable work areas. Any hazards that are found during the hazard assessment must be addressed prior to any work commencing.

DO'S:

1. Wear goggles for all grinding machine operations.
2. Check grinding wheels for cracks before mounting.
3. Use proper wheel guards on all grinding machines.
4. Barrier or enclosure systems are required to restrict access to the work area.
5. Local exhaust ventilation (LEV)—use concrete grinders with HEPA vacuum attachments.

DON'Ts:

1. Never adjust the machine while it is operating.
2. Never operate grinding wheels at speeds in excess of the recommended speed.
3. Do not exceed recommended depth of cut for the grinding wheel or machine.

SAFE WORK PROCEDURE

Grinding concrete surfaces generates high levels of silica-containing dust. Breathing in this fine dust can cause a serious and irreversible lung disease called silicosis.

PRE-OPERATIONAL INSPECTION

Inspect equipment and ensure:

- Electrical lead/plug undamaged, tested/tagged and be supplied with RCD protection.
- Electrical lead not placed in areas where it may be damaged or pose a tripping hazard.
- Floor grinder:
 - Operating labels undamaged and legible
 - Handles clear of grease, oil, dirt.
 - Head locks/shear pins are tight and secured
 - All guards/motor housing undamaged Suitable grinding wheels as instructed by manufacturer
 - Each grinding head has same diamond type, number of diamonds and height.
 - Emergency stop in place, undamaged and functional.
 - Shroud undamaged and joining at front. Adjusted to ensure good seal with floor.
 - Shroud totally encloses exhaust entry point for hose.
 - Hoses undamaged and adequately secured

Once the above planning is achieved by the General Contractor, then:

1. Establish a barrier around your work area to restrict unprotected workers from entering.
2. Proper eye protection and personal protection equipment must be used.
3. Evaluate the area for hazards and the impact on other workers in the floor grinding area. Where a worker, other than the concrete finisher, is exposed to concrete dust, the area should be restricted by the use of caution tape.
4. Signage must indicate that floor grinding is in progress and that respiratory protection is required.
5. Each worker performing floor grinding is to be assigned a respirator for his sole use.



6. The respirator is to be fitted correctly by a qualified person. A record of assigned safety equipment is to be kept on site.
7. Provide adequate lighting.
8. Clean and sanitize the respirator face piece and clean remaining components of air respirators before and after each use.
9. Only authorized and trained personnel with an assigned respirator are to perform floor grinding.
10. Electrical or gas powered floor grinders should be used according to the manufacturers recommendations and specifications.
11. All floor grinding done in enclosed spaces to be completed with electric floor grinders with dust control i.e. hepa filters.
12. Check to make sure that the vacuum system you are assigned is approved for use with silica dust, and is operating properly.
13. All floor grinding done in open-air spaces to be completed with water suppressant.
14. Inspect the floor grinder before turning on the power.
15. Test floor grinder for proper operation.
16. Work area to be clean, dry, and unobstructed.
17. Commence all floor grinding.
18. Report problems to your supervisor
19. Disconnect the floor grinder from the power source when making equipment adjustments to the floor grinder.
20. When the work is completed, vacuum settled dust from floors and other surfaces. Do not use compressed air to blow dust from your clothing or your equipment.
21. All workers who are exposed to fall above 10 feet will use fall protection (arrest or restraint) in accordance with the site specific fall protection plan.

FIT TEST

NEGATIVE PRESSURE SEALING TEST

Block the inlet tube to prevent the passage of air. Inhale gently, taking care not to distort the face piece, and hold your breath for 10 seconds. If the face piece collapses slightly and no infiltration of air into the face piece is detected, it is considered that the fit of the respirator is satisfactory for the wearer.

POSITIVE PRESSURE SEALING TEST

Close off outlet valves and exhale gently. The fit is considered adequate if a slight pressure can be built up inside the face piece without detection of any outward leakage of air between the sealing surface and the wearer's face.

MAINTENANCE

Each respirator wearer shall clean and sanitize his respirator face piece and clean remaining components of air respirators after each use. The respirator is to be stored in a clean dry area, sealed in a plastic bag.