

TST #169-A

Operator Guidelines for Concrete Sawing and Drilling

Prior to any sawing and drilling operations, operators shall conduct a jobsite hazard analysis (JHA). The completion of a JHA form allows an operator to identify job hazards, implement administrative controls and engineering controls, and don the correct personal protective equipment (PPE) for the task. It is very important to provide a safe work place for employees.

Minimum PPE required when operating sawing and drilling equipment includes, but is not limited to, a hard hat, safety glasses with side shields, hearing protection, safety-toed work boots, gloves and a Class II or Class III high visibility vest. Certain conditions may warrant the use of a respirator, fall protection and or di-electric PPE when administrative and engineering controls are not sufficient.

Never operate or allow someone to operate sawing and drilling equipment when under the influence of drugs, alcohol or medications which could impair alertness, reaction time or judgment.

An operator shall NOT operate any saw that is unsafe, and NEVER leave the machine running unattended.

When using electric equipment, make sure all cords and generators are in good operating condition and ground fault circuit interrupter or an assured grounding program is being utilized.

When using hydraulic equipment, make sure all lines and fittings are in good working order.

Operators should be allowed rest periods as necessary to avoid fatigue.

Flat Sawing

1. Check that the blade and arbor guards are installed and working properly. Ensure water ways are open to cool the blade and mitigate silica exposure.
2. Ensure the saw is working properly, that the blade is appropriate for the material being cut and that the saw matches the RPM requirements of the blade.
3. Inspect all blades before installation; if the blade is cracked, excessively worn, warped or out of round, if segments are missing or the arbor hole is worn or damaged, the blade is unsafe to use and should be turned in to management.
4. Shut off, disconnect and/or de-energize any utilities that may be cut/damaged by slab sawing. Cutting a live utility line could not only cause damage to the line but could also cause injury to the sawing operator.

Core Drilling

1. Secure the base of the unit/stand to prevent movement during coring operations.
2. When drilling large diameter holes through walls, it is recommended to add an additional drop in anchor for added strength to hold the drill in place. When double anchoring, set one anchor deeper than the other and position the two as far apart as possible to assure maximum holding strength.
3. When drilling suspended concrete slabs, make sure the area below is properly secured and or barricaded or there is a spotter in place to catch the cores.

Wall Sawing

1. Check both sides of the wall prior to setting up. Determine with the customer on which side of the wall he wants the sawed-out wall to fall.
2. Drill the anchor holes. All holes should be the same depth to facilitate the use of one size bolt or nut and should be drilled so the anchor will set below the surface of the concrete. The track shall be securely anchored or attached to the wall by hold-down plates or brackets. Track safety stops should be placed at each end of the track, as required.
3. After securing the track on to the wall and placing the saw and blade on the track; Check that the blade guard is installed correctly and working properly.
4. During and after cutting the opening, strap and wedge the wall to prevent premature movement.
5. When all is clear, unbolt the safety strap, knock out the wedges on the side to which contractor wishes the opening to drop

Wire Sawing

1. Set up pulleys and power units in proper alignment with the cut.
2. Areas near the drive wheel, pulleys and exposed moving wire sections should be protected or barricaded to prevent access by workers and prevent injuries.
3. Personnel should be limited access to twice the length of the longest piece of wire, meaning if the longest piece of wire is 10', personnel should not come within 20' of the wire saw.
4. When joining two ends of the diamond cable, it is the wire saw operator's responsibility to insure that the crimps are placed on the diamond cable properly and are pressed to the maximum pressure suggested by the wire manufacturer.

Hand Sawing

1. The operator should always keep both hands on the saw and his arms close to his body, never extending his arms while operating the saw. The saw shall be operated while being held securely between the shoulders and the hips of the operator.
2. Saws shall be kept in good working order and blade should be secured tightly and checked periodically for tightness. Blade guards should always be in place and cutting should be done in the direction, which minimizes the amount of cutting debris directed towards the operator.
3. Hand sawing should not be performed on a ladder.

Operator Guidelines for Concrete Sawing and Drilling Quiz

The following statements should be answered with "True" or "False." Answers below.

1. The customer is responsible for completing a JHA form.
2. An additional drop in anchor is recommended when drilling large diameter holes on a wall.
3. All cutting equipment must be operated with guards that have been correctly installed and operate properly.
4. Once an operator becomes experienced, spotters under floors or behind walls are no longer necessary.
5. If the customer does not say anything about possible obstructions in the concrete, then it is safe to proceed.

Employee Name: _____

Signature: _____ **Date:** _____

Answers:

1. False
2. True
3. True
4. False
5. False