



## CONCRETE CHIPPING & JACK HAMMERING

### Potential Hazards

1. Noise/vibration
2. cuts/laceration
3. hearing loss
4. eye injury
5. electrical shock
6. lung damage
7. bruising
8. MSI

### Personal Protective Equipment Required

- |                 |                    |                 |
|-----------------|--------------------|-----------------|
| Hard hat        | CSA Boots          | Goggles         |
| Hand protection | Hearing protection | Skin protection |
| Mask/respirator |                    | (clothing)      |

## SAFE WORK PROCEDURE

### 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.

### PROCEDURES FOR WORKING SAFELY

Where multiple trade activity is scheduled, General Contractor is to review in advance the priority of work and schedule the appropriate time frame to allow each trade to complete the scope of work requested.

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

1. Evaluate the area for hazards and the impact on other workers in the Chipping area. Where a worker, other than the user, is exposed to concrete dust, the area must be restricted by the use of caution tape, signage, and when working in stair case, a poly cover must be installed at each entrance to prevent the dust from accumulating. Always keep one staircase per floor available for access/egress.
2. Inspect all dust control equipment and tools to make sure they are in good working order. Use and maintain all tools and equipment as specified by the manufacturer
3. Ensure that workers inspect their respirators before start-up. Respirator will be fit tested if required. The respirator is to be fitted correctly by a trained person. A record of Fit Test must be kept by the employer.
4. The respirator wearer is to perform the two fit tests (positive and negative) each time he places the mask over his face.
5. Persons who are required to wear a respirator will not wear contact lenses.
6. Respirators will be used, cleaned, and stored in accordance with the respiratory protection program.
7. Workers will wear approved safety goggles and hearing protection when chipping or jack hammering concrete. This equipment will not interfere with the fit of the worker's respirator.
8. Workers will wear washable work coveralls that do not retain dust. These coveralls will be laundered and changed regularly, and workers will not wear them outside the work area. For example, workers must remove coveralls before eating lunch.
9. Chipping machines, guns and jack hammers, must only be used for what the manufacturers intended them for. Maintenance and good working order of all components in the Chipping process must be maintained.
10. Adequate ventilation must be maintained when required.
11. Check for chipping gun/jack hammer handles are in place and properly adjusted.
12. Inspect the chipping bit to ensure that it is secure before turning on the power. Do not use bits that are broken or cracked.
13. Work area to be clean, dry, and unobstructed.
14. Provide adequate lighting.
15. When Chipping use the operating face of the bit only.
16. Before putting down a chipping gun/jack hammer, the bit movement must be stopped.



17. A chipping gun/jack hammer is to be put down, laying completely on a flat secured surface.
18. Start working from the outside and move inwards. Press the switch or trigger and let the equipment do the work. Don't lean over the equipment or try to force it down or try lifting it around. It will be able to penetrate and break up the surface without much help from you.
19. You will let it lean at a slight angle. The trigger is usually located on the right handle.
20. Once you have reached a point that is deep enough, turn off the jackhammer: do not pull it out.
21. Keep the chipper/jackhammer in the ground and angle it. This way you can use the chipper/jackhammer as leverage and loosen up the piece that has been broken.
22. Clean up the area that you have broken down. This allows the chipper/jackhammer a chance to rest and cool down.
23. Disconnect the chipping machine from the power source when making equipment adjustments or bit changes.
24. Store equipment and respirators in clean dry area.
25. Clean and sanitize the respirator face piece and clean remaining components of air respirators after each use.
26. Cleanup and disposal of concrete debris/Silica dust must be done in a controlled manner ensuring that there is no accidental release of the dust. The following points must be adhered to;
  - All concrete debris is to be collected and place into a bucket/container for posterior disposal
  - Buckets/containers containing concrete debris will be transported to ground level on their own (i.e. not with other garbage types such as scrap wood).
  - Buckets/containers containing concrete debris should, as much as is possible, be removed from the site for disposal in separate concrete containers.
  - Dry sweeping and the use of compressed air are prohibited for removing dust and debris containing silica. Dry sweeping should not be done unless used in conjunction with a dust suppressant.
  - Work areas and equipment covered by dust will be cleaned at the end of every shift using a HEPA filter vacuum.
  - Wet cleanup may also be used to remove dust.
27. 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.

### DO'S

1. Bend straight down at the knees and use legs to lift, not the back.
2. Select the appropriate bit for the job.
  - a. Chisel points are utilized for concrete work; spade points and rock points are used for asphalt and rock surfaces.
  - b. The wide "blade" type tip spreads the load, while the "pointed" tip concentrates it.
3. Always lift the jackhammer by the handle that the trigger is not on.
4. The top of the jackhammer should be close but not resting on your waist area.
5. Always let the jackhammer do the work for you.
6. Take a break when needed. If your muscles fatigue to a point where your control is comprised, so is your safety.
7. Follow the manufacturer's written guidelines and instructions.

### DO NOT:

1. Do not operate a chipping gun/jackhammer with one hand.
2. Do not try to do a big section at a time.
3. Do not use a bit that doesn't click into the chipping gun/jackhammer bit holder.
4. Do not over reach when operating chipping guns/jack hammers.
5. Do not try to go too fast.
6. Do not go too deep with the hammer.
7. Do not break the material up too fine. Bigger pieces are easier to remove.