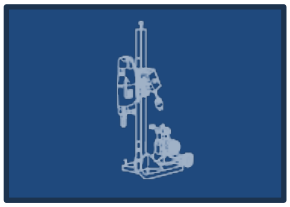
CORING RIGS AND MOTORS

Power tools require operator respect in specific ways. They must be used carefully and kept in safe operating condition, whether they are in the hands of a professional tradesman, an amateur do-it-yourselfer, or a vocational student. *The demands of safety apply to all*. The material presented here is a compilation of carefully selected safe use precautions as they relate to specific electric power tool CAUTIONS, WARNINGS and DANGERS. The purpose is to highlight the safe use of specific tools that have a potential of causing injury if ignored. The warnings and instructions on the power tool and in its operator's manual provide the best source of safety information for the tool. Read and understand the contents and follow the advisements of operator's manuals on each specific power tool and all related accessories. This is considered essential to the safe operation of any power tool. Review PTI's *Safety is Specific* publication for general power tool safety.



Portable coring rigs and motors, once considered a high-priced specialty tool, are becoming more economical and common on construction projects, as the demand for drilling larger-diameter holes through concrete, stone, asphalt, and other similar base materials has increased. Available in many sizes and capacities, these coring rigs typically use a diamond bit and are designed for either dry or wet use. Whenever water is used near an electrical tool, it is extremely important to follow the instructions provided in the tool's operator's manual.

Good Personal Safety is a Must

Following good safety practices when using power tools is a must. Make a habit of including safety in all your activities.

- When coring with water, wear insulated boots and gloves.
- Know what is behind a workpiece before you do the job. Do not core into existing walls or other blind areas where electrical wiring may exist. If this situation is unavoidable, disconnect all fuses or circuit breakers feeding this work site.

Choose the Right Tool and Bit

Choosing the correct tool and the proper accessory for your application can help to reduce the risk of serious injury. When used according to the manufacturer's instructions, the proper tool and accessory will make the job safer and faster. Use only the size and type of coring bits recommended for your tool in the operator's manual or on the tool.

Know your Workpiece

Take time to review your work and make sure that all necessary precautions have been taken before coring.

Securing Motor Base:

- Make sure the rig motor base is secured properly to the workpiece. An insecure rig can rotate and cause serious personal injury.
- When securing the rig base to concrete using anchors, check the operator's manual for the right size and type of anchor.
- When securing the coring rig using the vacuum pad attachment, make sure the work surface is clean and free from contaminants so a good seal is created; and verify that a minimum recommended vacuum (typically measured in "psi") is developed before coring. Check the operator's manual for any special requirements whenever using a vacuum pad.
- Do not use the vacuum for horizontal (wall) or overhead coring jobs.
- In damp locations, only plug your tool into a Ground Fault Circuit Interrupter (GFCI). If the work area does not have a permanent GFCI on the outlet, use a plug-in GFCI. Wear rubber gloves and footwear.

Before Coring...

Before coring with a coring rig and motor, make sure the tool and its accessories are in proper working order.

Failure to do so may increase your risk of injury and may result in tool damage.

- Never core through a floor without first making sure the area below is clear of people, and that a falling core will not cause damage.
- Do not core through steel reinforcement without first consulting the project engineer to ensure that the integrity of the structure will not be damaged. Never core through tensioning cables.
- Always turn the tool off and unplug or remove battery before removing a core from the bit. Make sure the carriage

assembly is securely locked in place before placing your hands under the core bit.

- Before coring, compare the data on the tool nameplate with the voltage source and be sure that the voltage and frequency are compatible.
- Be sure the tool switch works properly. Do not use a tool if the switch does not turn it off when returned to the off position.

While Coring …

- Make sure the motor base is secured properly with either anchors or a vacuum base, depending on the type of job.
- Always keep firm footing when using coring rigs. Water may make the work area slippery. Use a collection device to keep the work area dry.
- In a binding situation, the tool will react in the opposite direction of the turning bit. When coring into the workpiece (clockwise), the rig will try to spin counterclockwise.
- Don't force the tool – Apply enough pressure to keep the bit coring smoothly. If the motor slows down, relieve the pressure. Too much pressure can damage the bit and cause you to lose control of the tool. Light pressure slows down coring and dulls the bit.
- If the bit binds in the workpiece, release the on/ off switch immediately. Unplug the tool or remove the battery, then free the bit from the workpiece. Do not use a lock-on button in warped, pitched, knotty, or imbedded materials where binding may be more common. Do not try to free a jammed bit by starting and stopping the tool.
- If the rig shifts (moves) at all during coring, turn off the motor immediately and reposition the base of the rig.
- As you get close to breaking through the workpiece, reduce pressure and allow the bit to pass through the hole more easily.

When Done...

Unplug or remove the battery, clean and store the tool in a safe, dry place after use