

Title of Training	Core Drill Safety Training	
Equipment Info.	Make/Type/Size/Model	Milwaukee Core Drill
Material Needed	Operators Manual	Hard Hats-Safety Glasses-Steel Toed/Composite Work Shoes/Work Gloves/Hearing Protection

It is always necessary for the Brieser Construction drilling operations to follow strict safety procedures while performing core drilling. Some of the safety precautions for the drilling operators are as follows:

It is a must for the operators to understand the *user guide* or *operating manual* and safety requirements of all drilling equipment. During the core drilling operation, the drilling operators must wear protective equipment recommended by Brieser PPE Matrix. The core drilling operators and those involved in the drilling operation must wear proper safety equipment that include safety goggles, safety footwear, snug fitting clothes, hearing protection, head protection.

Before starting the drilling operation at our sites, make sure that all the drilling equipment, especially the electrical equipment are in good operating condition. You must not wear loose-fitting clothes and jewelry while operating the drilling equipment. You must keep your hands and clothes away from all the moving parts of the machine.



THE 20 AMP MILWAUKEE ELECTRIC MOTOR, 115 VOLT ARE SINGLE PHASE WITH A TWO SPEED SELECTOR SWITCH.

BIT INSTALLATION

1. VERIFY UNIT IS NOT PLUGGED IN.
2. USING A WRENCH TO FIRMLY HOLD THE OUTPUT SHAFT, SCREW THE CORE BIT INTO THE SPINDLE UNTIL SNUG.
3. PLACING ONE WRENCH ON THE MACHINED FLATS OF THE OUTPUT SHAFT AND ONE WRENCH ON THE ADAPTER OF THE CORE BIT TIGHTEN THE BIT INTO THE SPINDLE. **NOTE: ATTEMPTING TO TURN THE BIT BY THE BARREL RATHER THAN BY THE ADAPTER NUT MAY BREAK THE WELD BETWEEN THE ADAPTOR NUT PLATE AND THE BARREL.**

IT IS IMPORTANT WHEN WET DRILLING TO MAINTAIN AN ADEQUATE SUPPLY OF CLEAN WATER TO THE DIAMOND DRILL BITS. THE HOSE INPUT ADAPTOR ON THE WATER SWIVEL AT THE BASE OF THE CORE DRILL MOTOR IS USED TO CONNECT THE WATER SUPPLY HOSE TO THE CORE DRILLING UNIT.

Trainee Name (print)		Signature of Trainee	
Instructor Name		Date of Training	
Scan To:	Safety/Training/Milwaukee Core Drill Training/YYYY-MM-DD		
Revision # 002-15			Page 1 of 4

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OPERATION

A. CORE DRILL POSITIONS

TO POSITION THE CORE DRILL

1. ROLL THE DRILL SO THAT THE SPINDLE IS POSITIONED OVER THE DESIRED DRILLING LOCATION.
2. USING THE LEVELING SCREWS LOCATED ON THE FOUR CORNERS OF THE BASE, LEVEL THE CORE DRILL TO INSURE THAT THE BIT WILL DRILL A STRAIGHT, VERTICAL HOLE.

***ANCHOR BOLTING** – IS A METHOD USED QUITE OFTEN IN BOTH HORIZONTAL AND VERTICAL DRILLING. THE ANCHOR IS SECURED IN THE WORK SURFACE AND THE CORE DRILL IS PLACED OVER THE ANCHOR BOLT SO THAT THE BOLT GOES THROUGH THE HOLE IN THE CENTER OF THE DRILL BASE. A NUT AND WASHER IS THEN USED TO PULL THE BASE DOWN AS THE NUT IS SCREWED ONTO THE ANCHOR BOLT.

B. DRILLING TECHNIQUE:

THE PERFORMANCE OF ANY DIAMOND CORE BIT DEPENDS HEAVILY ON THE PROPER DRILLING TECHNIQUE. ALTHOUGH DRILLING CONDITIONS AND MATERIALS MAY VARY, FOLLOWING SPECIFIC GUIDELINES INSURES FASTER DRILLING SPEEDS AND LONGER BIT LIFE.

1. SECURE THE CORE DRILL TO THE WORK SURFACE SO THAT THERE IS NO MOVEMENT IN THE DRILL THAT WOULD CAUSE THE CORE BIT TO BIND IN THE HOLE.
2. INSURE THAT THE HOLE IS CONSTANTLY FLUSHED OF ABRASIVE FINES BY SUPPLYING A SUFFICIENT FLOW OF WATER.
3. SLOWLY LOWER THE BIT INTO THE HOLE SO THAT THERE IS NO SKIDDING OR LATERAL MOVEMENT OF THE DRILL. THE ENTIRE CIRCUMFERENCE OF THE CORE BIT SHOULD PENETRATE THE DRILLING SURFACE BEFORE ADDITIONAL PRESSURE IS APPLIED TO THE HANDLE.
4. EXERT STEADY DOWNWARD PRESSURE WHILE DRILLING. NEVER FORCE THE BIT INTO THE MATERIAL.
5. DO NOT STOP THE FLOW OF WATER OR ROTATION OF THE BIT WHILE THE CORE BIT IS DRILLING.
6. CHECK THE CORE BIT IF THE DRILLING RATE DECREASES NOTICEABLY. THE SLOWING PENETRATION RATE GENERALLY INDICATES THAT THE BIT IS IN NEED OF RECONDITIONING.

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Scan To:	Safety/Training/Milwaukee Core Drill Training/YYYY-MM-DD		
Revision # 002-15			Page 2 of 4

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A. SAFETY PRECAUTIONS

1. IN MOST CASES, CORE DRILLING REQUIRESTHE USE OF WATER, PROPERLY GROUND THE CORE DRILL AS THE USE OF ANY ELECTRICAL TOOLS IN WET AREAS CAN BE HAZARDOUS, USE GFCI PROTECTION.
2. THE THREE PRONGED PLUG ON THE POWER CORD OF THE MOTOR OR THE EXTENSION CORD OF THE SAME MUST BE PLUGGED INTO A GROUNDED ELECTRICAL OUTLET OF THE SAME APPROPRIATE VOLTAGE.
3. THE CORE DRILL MUST BE SECURELY FASTENED TO THE INTENDED WORK SURFACE (WALL, DECK, ETC.).
4. **USE EXTREME CAUTION WHEN DRILLING THROUGH FLOORS. CHECK FOR ELECTRICAL CONDUIT THAT MAY BE IN THE FLOOR.**
5. PROVIDE PROTECTION FOR ALL PERSONNEL AND MATERIALS BELOW THE AREA BEING DRILLED.
6. WHEN DRILLING, ALWAYS WEAR SAFETY GLASSES AND HEARING PROTECTION.
7. WHEN FINISHED DRILLING UNPLUG THE CORE DRILL. PROPERLY REMOVE THE CORE BIT, CLEAN AND STORE IT AWAY IN A SAFE AND SECURE PLACE.

Important Notice

This Safety Training Topic (STT) does not necessarily cover all possible hazards associated with this equipment and should be used in conjunction with equipment manual. It is designed as a guide to be used to compliment training in the field at Brieser Construction and as a reminder to users prior to equipment use.

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Scan To:	Safety/Training/Milwaukee Core Drill Training/YYYY-MM-DD		
Revision # 002-15	Page 3 of 4		

Title of Training	Core Drill Safety Training	
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EMPLOYEE NAME (Print or Type)	EMPLOYEE SIGNATURE	TRADE	JOB TITLE
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Scan To:	Safety/Training/Milwaukee Core Drill Training/YYYY-MM-DD		
Revision # 002-15	Page 4 of 4		