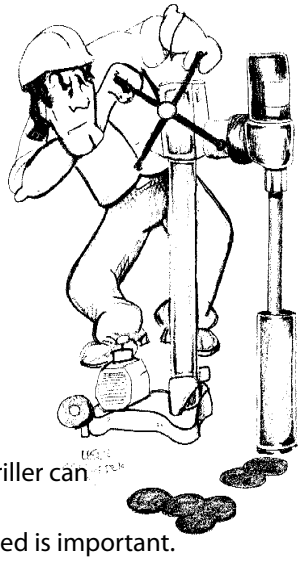
CORE DRILLING

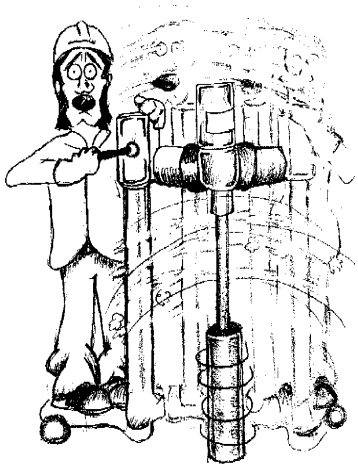
As there are more variables in core drilling than in any other type of cutting, being competent in core drilling is the foundation of a good cutter.



Factors that affect bit performance and company profit:

Speed (RPM) -If the speed is too high the bit will polish. If the speed is too low the job will take too long.

Power is necessary to maintain the proper cutting speed. Efficient cutting means keeping the bit at the right speed.



Water - Not too little and not too much-The right amount removes slurry and keeps the cut clean.

Aggregate - You can't see it until you're done, but a good driller can feel the right speed and pressure to cut varying types.

Steel - slows the cutting process. Maintaining drill motor speed is important. DON'T PUSH THE BIT TOO HARD !- MAINTAIN SPEED !

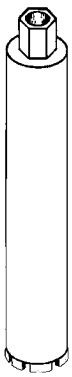
Bond Specs - Too hard and it takes too long. Too soft and it costs too much.

Proper Alignment - is necessary for good bit life. This means the rig must be properly anchored. A rig can be anchored with concrete anchors, vacuum or a post jack.

STANDING ON THE RIG IS DANGEROUS AND NOT ACCEPTABLE !

Core Rig Maintenance -performance, speed and bit life will mean little if your rig has bad shims, bearings and hold down devices.

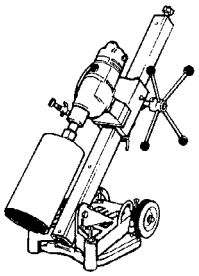
RECOMMENDED HORSE POWER BY BIT DIAMETER



Bit Diameter	Min. AMPS	Min. HP	GPM
1"-4"	13	1-2	-
5"	15	2	-
6"	15	2	-
7"	15	2-3	-
8"	15	2-3	-
10"	18	2-3	-
12"	18	3	-
14"	20	3	-
16"	*		-
18"	*		8-10 @ 1500 PSI
20"	*		8-10 @ 1500 PSI
24"	-		8-10 @ 1500 PSI
26"	-		8-10 @ 1500 PSI
30"	-		12-15 @ 2000 PSI
32"	-		12-15 @ 2000 PSI
34"	-		12-15 @ 2000 PSI
36"	-		15-20 @ 2500 PSI
40"	-		15-20 @ 2500 PSI
42"	-		15-20 @ 2500 PSI

* Not recommended for 120 Volt Use 220V 0r Hi-Cycle machine

RECOMMENDED CORE DRILLING SPEEDS



Bit Diameter	Minimum RPM	IDEAL RPM	Maximum RPM
1"	2400	3200	4000
2"	1200	1600	2000
3"	800	1050	1300
4"	600	800	1000
5"	475	640	800
6"	400	530	665
7"	340	450	600
8"	300	400	500
10"	240	320	400
12"	200	265	330
14"	170	225	285
16"	150	200	250
18"	130	175	220
20"	120	160	200
24"	100	130	165
26"	90	125	150
30"	80	105	130
32"	75	100	125
34"	70	95	120
36"	65	85	110
40"	60	80	100
42"	55	75	95