🔆 Asahi Diamond Industrial Australia Pty. Ltd.

Diamond Core Bit Drilling Tips

- Always secure the drill rig either with a mechanical anchor, vacuum system, or by use of the jack screw.
- NEVER stand on the base and drill without anchoring.
- Level the drill rig by use of the base leveling screws, and a level this procedure will ensure a perpendicular hole.
- Never let the Bit spin in the hole without applied pressure this will cause the Diamonds to round off and the Bit segments will heat and glaze over.
- Turn on the water before starting the drill motor, otherwise the water jacket seals will heat up and become brittle resulting in a loss of water.
- When your Bit encounters steel (Rebar), relax the pressure about 1/3 and allow the Bit to cut at its own rate.
- DO NOT PUSH THE BIT.
- Some operators turn the water down after exiting the steel to sharpen the Bit. If you engage in this practice don't forget to turn the water back up once the Bit is sharpened.
- When drilling high MPA concrete or concrete with very hard aggregate (i.e. river rock, flint rock etc) the Bit will sometimes glaze over. To open or redress the Bit, do one of the following:
- Decrease water by about 1/2 for a few minutes and as the Bit starts to increase speed gradually increase the water until the flow is back to the original state.
- Pour masonry sand into the cut and then follow the directions above.
- Drill into a cement block, soft vitrified grinding wheel, sandstone or cinder block. Repeat the procedure until the Bit is open again.
- When you have finished drilling turn the water down very low and back the core bit out of the hole with the motor running.





Diamond Core Bit Drilling Tips ctd.

Symptom	Cause	Remedy
Loss of segment	Bit too hard for the material it is drilling, causing it to pound and fatigue	Use a softer bond if possible or decrease motor rpm if possible
	Overheating due to insufficient water for cooling and flushing	Increase water flow to where slurry is milky and flows easily
	Machine setup is not rigid or loose material is in the cut and the bit segment hangs	Tighten anchor, check vacuum system for proper vacuum pressure
	Shooting cable, when drilling prestress	Use a bit with more segments
Segment cracking	Bit is too hard for the material being drilled	Use a softer bit if possible or decrease motor rpm
	Machine setup is not rigid	Tighten anchor, check vacuum system
Barrel cracking	Too much feed pressure	Back off the feed pressure
	Segment too hard for material being drilled	Use bit with softer segment
Belled barrel	Too much feed pressure	Back off the feed pressure

Recommended Drill Speeds

Always use the closest drill motor speed to that recommended for the TWB diameter.

TWB Diameter (mm)	Drill Speed (RPM)
8 – 29	3,000
30 – 45	1,500
46 - 65	1,200
66 – 89	900
90 – 125	600
126 – 200	450
201 – 400	300
400 up	150



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