

Concrete Drilling: Verify the Hole and Breakthrough

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Why this matters

A drill can contact a concealed service, twist in the operator's hands or release a core onto someone below. Establish the hole, support and breakthrough plan before the bit turns.

Objective: Confirm the authorized hole and verify tool support, dust control and far-side protection.

Key hazards or failure points

Concealed services or post-tensioning; torque reaction; loose drill stand; falling core; breakthrough debris; silica; water and electricity.

Practical controls

- Resolve services and structural restrictions for the hole location, depth and any stand-anchor holes. Obtain required technical authorization; do not treat a clear scan as permission to drill blindly.
- Use the correct drill, bit, handles and fastening arrangement. Set up stable control of a hand-held tool or the approved stand support for rig-mounted work.
- Protect the far side and area below. Plan core control before breakthrough, and use the silica and water/electrical arrangements for the actual drilling method.

Verify It in the Field

Match the hole and depth to the release information and confirm the far side is controlled. Identify who maintains that protection while work proceeds.

In the prescribed safe state, inspect bit retention, handles and support. For a stand, verify fastening, substrate suitability and any required vacuum indication or backup against its instructions.

Confirm the applicable dust or water system works by its prescribed check. Record the source, actual result, checker and time; do not use a person to catch a falling core.

Stop and reassess

Hold for an unknown target, changed hole, uncontrolled far side, loose stand, deteriorating vacuum, jammed bit or failed dust/water protection. Switch off safely for binding; follow the isolation and recovery procedure rather than forcing a restart.

Ask the crew

1. What evidence covers this hole and any anchor holes?
2. How is the core or breakthrough area controlled?
3. What confirms this support and dust-control setup is ready?

Use the task plan and required specialist decisions before exposure.

Sources: OSHA 1926.1153, .416 and .404; actual drill and stand instructions.

Free next step: [JHA/JSA planning & field-verification worksheet](#)

Expanded guidance and separate forms: toddjeromejenkins.com/toolbox-talks/concrete-core-hammer-drilling-safety