The Radius Over-Bit Reamer is another step forward in our mission to create innovative, kick-ass HDD products and generally make your job easier. We hope it will become a trusted component of your tooling arsenal. In the same way that you depend on our tools to do your job (hopefully), we depend on your feedback and suggestions to do ours. All the revolutionary tools we’ve created over the years—including the Over-Bit Reamer—have been a direct result of listening to customers just like you. Thank you!

SAFETY

- Follow all safety guidelines from your drilling rig manufacturer.
- Prior to attaching any tool to your drill string, ensure the rig is locked out to prevent movement.
- Wear proper personal protective equipment at all times.
- Always follow proper lifting techniques when handling heavy tools.

USE

Once the pilot bore is complete, the Radius Over-Bit Reamer can be installed directly over a Radius Rock Bit.

The Over-Bit Reamer can be used with your sonde housing, allowing you to monitor your pull back.

CARE

- Always thoroughly clean your Over-Bit Reamer and Rock Bit after each use.
- After each bore, inspect the fit between the Over-Bit Reamer and Rock Bit for wear.
- Make sure the hinge-bolt and threads are clean before each use.

OPERATION

PULLBACK CAPACITY

The force on the pulling eye is not to exceed 5 tons or 10,000 lb. As with any reamer, we suggest pre-reaming before pulling.

FLOW

The suggested flow rate for the Over-Bit Reamer is 8-15 GPM at 40-60 RPM.

MUD

The Over-Bit Reamer is designed to redirect fluid through waterports and mating areas. It is not designed to be water tight.

30.2 seconds from drilling to reaming.
## INSTALLATION

<table>
<thead>
<tr>
<th>CLEAN</th>
<th>POSITION</th>
</tr>
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<tbody>
<tr>
<td>After pilot bore is complete, clean your Rock Bit to remove any mud or debris.</td>
<td>Position the Rock Bit at a 12 o’clock orientation, with the rounded side down and the pitched shoe side up.</td>
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<table>
<thead>
<tr>
<th>PLACEMENT</th>
<th>CLOSE</th>
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<tbody>
<tr>
<td>Place the Over-Bit Reamer onto the Rock Bit, matching the pitched shoe plates flush against each other.</td>
<td>Close the lower half of the Over-Bit Reamer around the underside of the Rock Bit.* Lock it closed by securely tightening the provided hex bolt.**</td>
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<tr>
<th>ATTACH</th>
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<tr>
<td>Attach the swivel and product to complete installation.</td>
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*The Over-Bit Reamer should close easily. Improper alignment or debris may prevent it from doing so. **DO NOT FORCE CLOSED. Instead, thoroughly clean both the Over-Bit Reamer and Rock Bit, then repeat the steps above.

** Bolt should insert easily; do not force.