Sidewall Coring

Xaminer™ Coring Tool

The Halliburton Xaminer™ Coring Tool drills large diameter cores perpendicular to the borehole wall while continuously monitoring the coring process. After gamma ray depth positioning, a backup shoe is extended to decentralize and hold the tool securely against the formation. A rotating diamond bit cuts a 1.5-in. OD, by 2.3-in. long sample from the formation. Surface control of weight-on-bit optimizes drilling for each core.

After the sample has been cut, the bit tilts slightly to break the core from the formation. The bit containing the sample is then rotated into the tool where the sample is measured for length and integrity before being placed in the receiver tube. The entire process can be monitored in real-time remotely, so the customer can be involved in every aspect of the process, just like being at the wellsite. The customer has a real-time table of coring results to allow rapid changes in the coring operation for maximum efficiency and recovery.

The Xaminer Coring Tool is often used in harder formations where percussion core guns may not provide the best recovery. Additionally, the tool can be configured to enhance performance in unconsolidated or extremely hard formations to optimize recovery.

Features
- Standard recovery of 60 cores per descent with core separators
- Enhanced recovery of over 80 cores per descent
- Downhole verification of core recovery and core length enables a customer to make adjustments to the coring program in real-time
- Drills the highest quality cores in the industry—1.5-in. core samples are comparable to cutting laboratory core plugs

Applications
- Formations. Originally designed to recover cores in hard-rock formations inaccessible with percussion tools, the Xaminer Coring Tool can also be used successfully in soft-rock formations.
- Useful in Formation Damage Assessment. Enables evaluation of pre-existing formation damage by providing core samples free of the distortions typically caused by percussion tools.
Rotary Core Applications
Rotary core samples collected by the Xaminer™ Coring Tool can be used to provide:

- More accurate readings of porosity and permeability that reduce reservoir analysis variables. Microfractures in core samples taken with percussion tools can cause false readings of porosity and permeability
- Information useful in fine-tuning magnetic-resonance imaging (MRIL®) tool data
- Reliable triaxial stress data for rock mechanical analysis necessary for hydraulic fracturing design, wellbore stability analysis, and sand-potential prediction

Health, Safety, and Environmental Benefits
The Xaminer Coring Tool can enhance safety by eliminating the need to use explosives.

Xaminer™ Coring Tool Specifications

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<thead>
<tr>
<th></th>
<th>Length ft (m)</th>
<th>Diameter in. (mm)</th>
<th>Maximum Pressure psi (MPa)</th>
<th>Maximum Temperature °F (°C)</th>
<th>Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32.9 (10.0)</td>
<td>6.0 (152.4)</td>
<td>35,000 (241.3)</td>
<td>400 (204)</td>
<td>960 (435.4)</td>
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For more information, contact your local Halliburton representative.