Bristle Tech® Brush

ROTATIONAL BRUSH FOR REMOVAL OF RESIDUE AND SOLIDS

OVERVIEW
The CleanWell® Bristle Tech® brush tool is designed to mechanically assist in cleaning wellbore casings by polishing and removing mud film and other restrictive material from inner casing wall diameters.

The brush can be run as a standalone device for cleanout runs when clear fluid is present in the wellbore or can be integrated into a single-trip system in combination with other wellbore cleaning tools for typical mud displacements. The adaptable component design allows the Bristle Tech brush to be built to suit the intended application.

FEATURES
» Robust, rotational cleaning
» Casing friendly blade design - eliminates casing wear concerns
» Greater casing coverage without rotation
» Integral mandrel
  » Smooth inner bore
  » No internal connections or upsets
» Big bore design (large IDs)
» Spring-loaded brush inserts
  » Short, twisted and crimped wire
  » Superior ovality and radial contact
  » Independent brush cleaning action
» Fixed 25° blades
» 4145 or 4330 material construction
» Stress concentration management
» No external bolts
» Technical specifications validated though FEA modeling
Bristle Tech® Brush Specifications

<table>
<thead>
<tr>
<th>Casing Size (in)</th>
<th>Maximum Trip Speed (ft/min)</th>
<th>Max Rotating Speed in Tension (RPM)</th>
<th>Max Rotating Speed in Compression (RPM)</th>
<th>Max Compression While Rotating (klbs)</th>
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<tbody>
<tr>
<td>11 3/4 - 13 5/8</td>
<td>200</td>
<td>120</td>
<td>90</td>
<td>50</td>
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<td>9 5/8 - 10 3/4</td>
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For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com