Every trip counts

The Mechanical Thruster

Designed to increase reliability in your BHA components, The Mechanical Thruster provides more consistent drilling parameters from ROP, to WOB and DIFF.

The Mechanical Thruster provides a consistent force to the bit by balancing hydraulics (back pressure below tool) and mechanics (weight on bit). This balance provides smooth energy transfer to the bit—even in erratic situations.

Unplanned trips are expensive and burden your AFE. The Mechanical Thruster is proven to reduce excess trips and associated costs.

BHAs Used Per Well
*Eagleford Shale - LaSalle Co., TX

<table>
<thead>
<tr>
<th></th>
<th>F 7H with Thruster</th>
<th>F 8H</th>
<th>F 6H with Thruster</th>
<th>F 9H</th>
<th>F 5H</th>
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### Specifications

<table>
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<tr>
<th>MT3</th>
<th>Max Stroke Length (mm)</th>
<th>OAL (m)</th>
<th>OD (mm)</th>
<th>ID (mm)</th>
<th>Dry Weight (kg)</th>
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<tr>
<td>500 - 127 mm</td>
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<td>610</td>
<td>7.32</td>
<td>127</td>
<td>57.15</td>
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<td>650 - 165 mm</td>
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<td>610</td>
<td>6.40</td>
<td>166</td>
<td>63.50</td>
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<tr>
<td>800 - 203 mm</td>
<td>N/A</td>
<td>610</td>
<td>6.86</td>
<td>204</td>
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</table>

<table>
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<th>MT6</th>
<th>Max Stroke Length (mm)</th>
<th>OAL (m)</th>
<th>OD (mm)</th>
<th>ID (mm)</th>
<th>Dry Weight (kg)</th>
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</thead>
<tbody>
<tr>
<td>650 - 165 mm</td>
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<td>204</td>
<td>6.04</td>
<td>166</td>
<td>63.50</td>
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<tr>
<td>800 - 203 mm</td>
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<td>305</td>
<td>6.86</td>
<td>204</td>
<td>76.20</td>
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</tbody>
</table>

**MT6-650 Mechanical Thruster Optimization Example**

Mechanical Thruster performance optimizations are tailored per job and based on well and BHA specifics.

**Back Pressure Below Tool (kPa)**
-13789 -11031 -8273 -5515 -2757 0 2757 5515 8273 11031 13789

**W.O.B. (KdaN)**
-22 -18 -13 -9 -4 0 4 9 13 18 22 27 31 36 40 45

- Optimal
- Non-optimal
- Not Functional
- User Parameters

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