Typically deployed in operations where there is a need to remove compacted debris in well-bores with a large difference in internal diameter between the tubing and the casing or liner.

The Dual Stage High Expansion Under-Reamer features two sets of cutting blades which are activated through increased flow rate. In order to minimise torque on the reaming blades the tool can be configured with a mill below to remove initial debri and create a pilot hole, the first set of flow activated blades act as an intermediate reamer the second set of blades open to full bore to remove the remaining debris.
**TOOL APPLICATIONS:**
- Removing scales & stubborn well-bore deposits and hole enlargement in wells with small diameter restrictions

**DESIGN FEATURES & BENEFITS:**
- Blades fully retained within tool OD
- Carbide dressed blades
- Dual Stage to minimise loading on blades
- Flo-activated
- Optional blade designs available
- Simple, robust design ensuring ease of operation for the end user
- Selected components QPQ treated
- Hexagonal flats for safe make-up & break out
- Connections to suit customer requirements

XXX - Last 3 digits of part number denotes connection type - Please refer to the connection code data sheet.
For additional sizes or further information please contact sales@limaroiltools.com

<table>
<thead>
<tr>
<th>Assembly Part No.</th>
<th>Actual OD</th>
<th>Range</th>
</tr>
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<tbody>
<tr>
<td>284-2125-XXX-RX</td>
<td>2.125&quot;</td>
<td>6.190&quot;</td>
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<tr>
<td>284-2875-XXX-RX</td>
<td>2.875&quot;</td>
<td>8.600&quot;</td>
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</tbody>
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