The i-Opener is a toe initiation valve with a cyclic activation mechanism that allows the casing string to be pressure-tested multiple times before it initiates flow to the formation. This innovation makes pressure testing the casing independent of the activation of the opening sleeve. It allows three casing pressure cycles before initiation of flow.

i-Opener can be installed as part of a cemented or openhole completion and can be made up to any casing thread type.

Features
- Toe valve with a cyclic casing pressure testing mechanism
- Allows three pressure test cycles prior to establishing a flow rate
- Fully compatible with either cemented or openhole type completions
- Manufactured to match casing size, weight, material and connection type
- Design suitable for high-temperature and high-pressure applications

Benefits
- Decouples casing pressure test from flow initiation operation
- Eliminates costly intervention for activation or re-establishment of flow
- Provides numerous pressure test attempts
- Can be run as part of a variety of multistage fracturing systems
- A sliding sleeve exposes all nozzles to the formation at once
- Large flow area nozzles for increased pumping efficiency and the ability to perform a toe stage frac

Applications
- Cemented or open hole completions
- Wells in jurisdictions requiring casing integrity tests
- Wells in which flow initiation pressure cannot exceed test pressure

Technical Data

<table>
<thead>
<tr>
<th>i-Opener</th>
<th>Casing Size in. (mm)</th>
<th>Casing Weight(^1) lb/ft (kg/m)</th>
<th>OD in. (mm)</th>
<th>ID in. (mm)</th>
<th>Length ft. (m)</th>
<th>Operating Temperature °F (°C)</th>
<th>Absolute Load/Unload Pressure per Cycle(^2) psi (kPa)</th>
<th>Internal Yield(^3) psi (kPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>450</td>
<td>4.50 (114.30)</td>
<td>15.1 (22.47)</td>
<td>5.76 (146.30)</td>
<td>2.39 (60.70)</td>
<td>6.0 (1.84)</td>
<td>400 (204)</td>
<td>L: 13,500 (93,100)</td>
<td>U: 6,500 (44,800)</td>
</tr>
</tbody>
</table>

\(^1\) Additional weights available upon request
\(^2\) Additional settings available
\(^3\) Absolute pressure