### Deployment Enhancement Systems

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<td>NaviSHOE</td>
<td>Improves the probability of casings and liners reaching TD when rotation cannot be applied</td>
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The NaviGATOR series NaviSHOE is run as a replacement for your standard float or guide shoe.

The NaviSHOE tool converts simple casing reciprocation into an indexing rotation at the tool allowing it to orientate the nose over or past obstructions anywhere in the well.

The NaviSHOE offers the flexibility to run on cemented or un-cemented casing strings, completions, liners and sand control screens.

The tool can be provided with slick or reaming guide bodies and a variety of other customizable features.

### Applications
- Lower sand screen completions
- Liners (cemented or un-cemented)
- Floated casings
- All casing strings
- Slotted or pre-perforated liners
- Gravel pack installations
- TTRD completions
- Multi-lateral completions
- Casing exits

### Features
- Available in most standard casing/liner versus open-hole combinations
- Drill out ID matches casing being run
- Flow by areas have been maximised for circulation and cementation
- Strength to suit casing specifications
- Supplied with customer specified casing connections
- Continuous ratchet with higher strength than connection
- Can be provided with either a SLICK body or a REAMING body

### Customer Benefits
- Increases probability of casings, liners and other open hole deployed systems reaching planned TD
- Provides end of string rotation where the full string cannot be rotated
- Rides over ledges or orients to path of least resistance
- Provides improvement in operational efficiency
- Low cost Insurance
- Fast drill out - tool has no components to drill out other than the eccentric aluminium nose, therefore reducing drilling inside casing time, thus protecting BHA
- Simple to install and use, no operator required

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**MAKING IT BETTER**

Rubicon’s NaviGATOR series tools play a crucial role in rotating the end of casings and liners and avoiding obstructions; dramatically improving the probability of casings and liners reaching planned TD when rotation cannot be applied.

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