

# BLADERUNNER®

## Ultimate Friction Reducing Centralizer

### Product

The BladeRunner ultimate friction reduction Spir-O-Lizer® is designed to reduce cased hole running drag and maximize open hole standoff efficiency. Low friction blade inserts will reduce as the liner is run through the previous casing string to expose the Spir-O-Lizer 360° blade form to aid running as the liner enters open hole. Low friction bands in the bore of the centralizer ensure extremely low start up torque when the liner is rotated during the cementing process.

### Features

- Low friction bearings in bore ensure extremely low start-up torque
- Low friction blade inserts substantially reduce drag
- Maximize torque & drag reduction
- Solid single piece construction, no moving parts eliminate potential junk in the wellbore
- All Spir-O-Lizer design features are incorporated

### Options

- BladeRunner 'BR', 'LD' & 'LT' available
- Centralizer placement / T&D analysis available
- Fully machinable allowing for custom ODs
- Size range from 2-7/8" – 13-5/8"