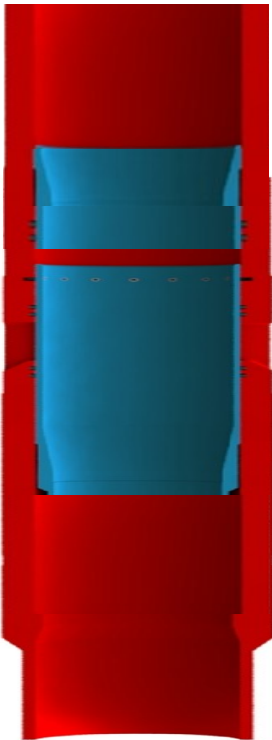


# Big Boy™ Stage Tool

Large diameter tubular cementing stage tool designed to overcome cement stage isolation failures

## Technical Specifications



The Big-Boy Stage Tool is designed to handle challenging cementing conditions where the isolation of the upper cement stage is compromised due to the high collapse and burst loads experienced by large diameter tubulars in high hydrostatic environments.

Big-Boy is opened by dropping a composite-aluminum mechanical dart, and allowing it to free fall and land on the lower seat. A patent-pending sealing mechanism is activated during the sleeve shift which can seal in high collapse loaded casing and tubulars experiencing ovality type non-conformances. Once the tool is opened the second stage cement program can be pumped.

The stage tool is closed by displacing a composite mechanical cement wiper dart and landing it on the landing seat in the upper shift sleeve and shifting the sleeve to a closed position. A patent-pending sealing mechanism is activated during the sleeve shift which can seal in high collapse loaded casing and tubulars experiencing ovality type non-conformances.

## Benefits

- Patent-pending sealing mechanism can overcome highly collapse-loaded casing.
- Patent-pending sealing mechanism does not use o-rings.
- Activation ball is torsionally-locked to moderate torque rating.
- Available in 9.625 to 30.000 inch casing.
- Composite dart and aluminum torsionally locked seats mill with PDC or tri-cone bits.
- Up to four cement stages can be pumped per well.