

### ERA TUFF - CWD AND REAMING CENTRALISERS

Single Piece Rigid Centralizers are manufactured by advanced hydroforming technology. They are designed specifically for harsh and challenging applications. Whether you are drilling with casing, reaming to hit TD or running casing in ERD & horizontal wells. ERA TUFF is designed to exceed.

The Centralizer is precision formed using hydraulic pressure and the resultant high strength body is suitable to withstand extremely high torque & drag forces in drilling, reaming & completion operations.

The smooth geometry improves drilling fluid flow and solids removal and result in uniform cement distribution across the annulus. The Spiral Blades are designed to provide maximum standoff making these Centralizers suitable for deviated and horizontal wells.

The vane angles and flow area are improved and designed for high turbulence and effective mud removal.

The single piece construction provides the strength and rigidity to withstand dynamic downhole loads while maintaining standoff under large side force without being crushed.

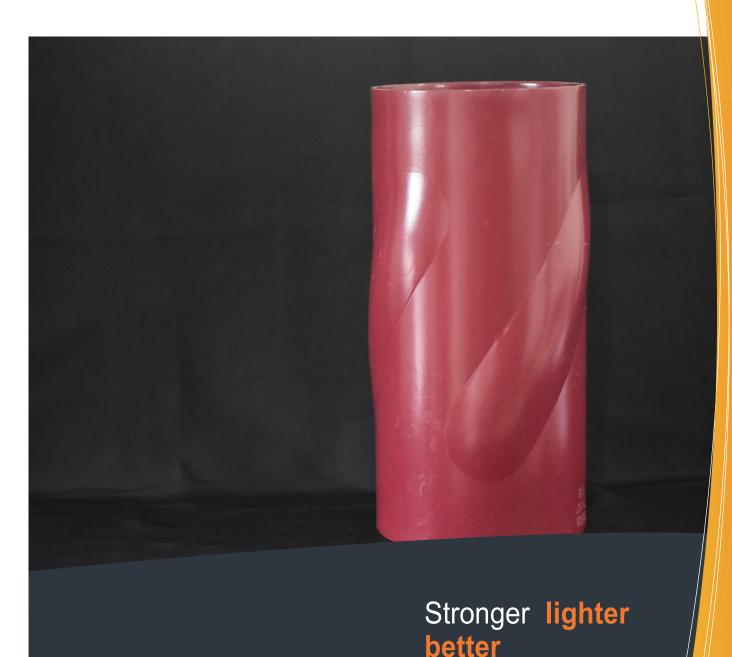
There is no risk of sticking and breakage of any component of the Centralizer downhole.

These Centralizers are recommended for Casing While Drilling(CwD) operations. They also provide a proven alternative to conventional Centralizers in challenging hole sections where pipe rotation may be required to reach total depth and/or during cementing operations. Available in sizes ranging from 4 ½" to 13 3/8".

### ERA Oilfield Services

ERA TUFF

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## ERA TUFF at work for you

#### DESIGN AND PERFORMANCE FEATURES

- Cost effective
- Withstand 50,000 lbf axial force
- Withstand 32,000 lbf as per API10 TR5
- Hydroformed from Single Piece Pipe
- Seamless Pipe as raw material
- Designed to reduce circulation pressures
- Designed to improve flow by area
- Vane design no hard angular faces
- Designed to achieve high stand off

Finding the right centralizer that provides you with full confidence in the harshest of applications is often difficult. ERA TUFF is specifically designed for CWD, , REAMING, ERD, HORIZONTAL applications.

In fact with its single piece, hydroformed design it is demonstrably stronger and lighter than competitors. Our raw materials use seamless pipe and form unique vane designs with no hard edges thereby allowing maximum flow by area, better hole cleaning and excellent standoff.

### MORE ERA SOLUTIONS

- ERA TORQ CASING RINGS
- ERA MINERAL DRILLING LUBRICANTS
- ERA INDUSTRIAL LUBRICANTS
- ERA TRS AND HYDRAULIC SYSTEMS
- ERA ESP CABLES AND ACCESSORIES
- ERA FISHING TOOLS
- ERA WBCU TOOLS

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# ERA TUFF solutions for TECHNOLOGY PRODUCTION your well construction A TOTAL END TO END SOLUTION. needs

### Stronger, Lighter, Better

- Single piece, seamless pipe construction means
- Lighter than traditional competitors
- Fully API compliant
- Easy slip on installation
- Free floating and Crimpable
- Organic helical rib design reduces torque and
- Helical rib design creates rotational annular flow pattern without the hard angle faces against which solids can build up
- Reduced hard angle faces reduce the effects of cuttings being pushed down the hole, or along horizontal sections
- Available in 4.5" 13 3/8" casing sizes

### PRODUCTION PARTNERS

- ENEROIL DRILLING PTY LTD
- DESIGNED BY ERA PRODUCED BY **ENEROIL**

### PRODUCTION CAPACITY

Our partnership with one of the worlds leading producers of primary cementation products means that we have the capacity to produce tens of thousands of our ERA TUFF range products across all sizes and ensure quality in every product produced.

Meeting full API 10 TR5 production processes and testing requirements Eneroil and ERA are able to exceed every customers demands in every harsh application environment.



**CUSTOM SOLUTIONS EXTENDED REACH** HORIZONTAL HARSH APPLICATIONS LIGHTWEIGHT SEAMLESS NON WELDED **STRONGER** HYDROFORMED



### CONTACT US

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