Protech CRB™ Centralizers
Engineered Casing Solutions for the Life of the Well.

To help achieve long-term production and reduce the risk of failure and the time for running and landing casing to total depth, Halliburton’s Protech CRB™ Centralizers are the field-proven, cost-effective alternative to conventional centralizer subs.
Protech CRB™ Centralizers

Protech CRB™
(Casing Resin Blend) Centralizers

Addressing a Wide Range of Customer Challenges.
Whatever your wellbore challenge, Halliburton’s Protech CRB™ Centralizers have an engineered solution to overcome that challenge.

- Centralization in slimhole environments
- Close tolerance drift diameters from bi-centered holes
- Centralizers that will not hang up on casing windows and liner tops
- Friction reduction in extended reach laterals to help prevent casing buckling
- Uninterrupted flow of fluids along the annulus to reduce ECDs (equivalent circulation densities)

From Friction to Sticking, Slimholes to Multilaterals, Protech CRB Centralizer Technology Is Unique to the Industry and Delivers Unequaled Performance.

In deep, hot and highly deviated or horizontal well sections, casing sticking and wear are just some of the complications operators face every day. Add to that such emerging applications as slimhole, multi-lateral and abrasive environments, and the need for versatile and robust casing attachments is more essential than ever. Halliburton’s Protech CRB casing attachments are engineered for reliability with a unique solution that utilizes the latest resin, carbon fiber and ceramic technologies to fashion wear resistant and/or flow enhancing centralizers, deflectors and protectors.

Sandblasting to prep surface for Protech CRB Centralizer application
Filling plastic mold with Protech CRB Centralizer carbon fiber composite
Finished Protech CRB Centralizer just after mold removal
Applied Directly to Customer Tubulars, This Technology Delivers Outstanding Value.

Halliburton’s Protech CRB casing resin blend centralizers are solid-types, mechanically formed and chemically bonded directly to the customer’s pipe surface. Our proprietary bonding process uses a carbon fiber ceramic composite material, a material so versatile and resilient, it can also be used for additional applications such as wear bands, deflection wedges, cuttings bed cleaners, screen protection devices and general friction reduction applications.

With very high adhesion values to substrate, superior impact resistance, extraordinarily toughness, flexibility and lower cost than centralizer subs, field-proven Protech CRB casing resin blend centralizers have been deployed in deepwater, extended reach and slimhole wells around the world – with outstanding results.

Benefits

- Greater flow area than standard centralizers helps prevent “packing-off” while allowing for more even cement distribution to enhance both mud removal and the long-term integrity of zonal isolation
- Will not slip or move
- More economical than centralizer subs
- Will not cause casing stiffness
- Non metallic composite means no galvanic corrosion on CRA (corrosive resistant alloy) pipe - which helps increase the life of the well for long-term production
- Extensive history in close tolerance casing designs (7 5/8” x 8 ½”; 5 ½” x 6 ¼”; 13 ¾” x 16”; 5 ½” x 5 7/8”; etc)
- Fast delivery helps eliminate the need for the overhead associated with maintaining as inventory of centralized subs

Features

- Carbon fiber ceramic material molded onto customer’s casing
- Designed to precisely match specific well applications
- Can be installed on any grade of pipe including CRAs
- Patented bonding process engineered and tested to help ensure a strong mechanical bond
- Provides centralization option for close tolerance wellbores
- Provides smooth, uninterrupted flow during circulation due to the absence of any banded product placed around the casing
- Composite material exhibits extreme abrasion and impact resistance
- Ideal for deviated sections of borehole as material provides a low coefficient of friction
- Field proven technology
- Material is CO₂ and H₂S resistant
- High thermal degradation temperature and excellent impact resistance at -25°F
- Composite centralizers successfully used in both conventional and slim profile wells
- Helps enable homogeneous cement slurry distribution
- Product applications are usually performed in customer’s pipe yard. Field location installations are available
Tested to Meet Customers’ Toughest Challenges, Protech CRB Centralizer Technology Has Excellled in Deepwater, Extended Reach and Slimhole Wells Around the World.

This large-scale test simulated stuck pipe that was pulled to the point of blade detachment. First, friction plates were made to grip the Protech CRB centralizer blades, with torque then applied. After 180,000 lbs of pull, the friction plates finally slipped. While material was removed by the friction plate, the blades themselves remained intact to the pipe.

This open hole wear test addressed a customer’s concern about how much wear would occur while running Protech CRB centralizer blades to TD—and if this would affect his standoff profile. Protech CRB centralizer blades were subsequently installed on casing and run to the targeted TD (16,115 feet). The results: wear was minimal (0.016 inch of total wear) and the customer’s standoff profile was not compromised.

Protech CRB Centralizers Are Available Globally.

Protech CRB centralizers are deployed worldwide via three full-service facilities strategically located for global reach: Ravenna, Italy; Aberdeen, Scotland; and Houston, Texas.

For more information about Halliburton Protech CRB centralizers, please contact your local Halliburton representative, or email us at protech@halliburton.com.

Eni S.p.A. is the owner of Patent Applications and Patents regarding the technologies of the process of centralization of OCTG utilizing composite ceramic centralizers. Halliburton is the exclusive licensee world wide regarding the technologies of the aforementioned process.

Sales of Halliburton products and services will be in accord solely with the terms and conditions contained in the contract between Halliburton and the customer that is applicable to the sale.