



# DUTCH NORTH SEA, NETHERLANDS

CEN TEK AND HALLIBURTON SOLVE CUSTOMER'S CENTRALIZATION CHALLENGES, ON TIME, WITH PRODUCTS FOR A UNIQUE WELL BORE DESIGN

**Region:** Europe  
**Location:** Dutch North Sea

**Country:** Netherlands

## THE CHALLENGE

Customers today face unique challenges with complicated well designs and getting the largest well bore possible at TD for advanced completion technologies to be installed. Today all well designs are not the same and sometimes these designs get changed during the actual drilling process. This leaves the operator with short deadlines to find the needed equipment from quality service companies that can react in time for their critical unplanned cementing job.

While making a decision to maximize hydrocarbon recovery in the chalk reservoir in the Dutch North Sea, an operator chose to make a change during drilling operations and the reservoir was now to be drilled with 12 1/4" open hole. The casing to be used was 7". This is an untypical design for 7" casing and open hole combination.

The operator looked at what was available on the market and found no centralizers for 7" casing in a 12 1/4" hole with the desired properties readily available, that could meet the needs in time. Good centralization and cementation of the 7" production casing in the 12 1/4" hole was essential to avoid migration of hydrocarbons and problems with the frac treatment in the later stages of well completion.

### About the well:

Depth of 1,545m MD with the build inclination to 30 degrees, and a hole size at TD of 12 1/4".



## S2® Award Winning Innovation

- Designed for well applications and geometries for vertical, horizontal ERD, close tolerance, or under reamed well conditions
- API Rated
- Non-welded smooth bow profile overall
- Integral bow design for increased strength and performance
- Zero weak points
- Zero start and running force with exceptional restoring force
- Low friction coefficient
- Minimum rotational torque losses
- Minimize stall out effect
- Enhanced rotation due to optimized centralization

## THE SOLUTION

The operator contacted Centek and Halliburton for a solution. Working with Centek's proprietary centralization placement program; LatLoad, and Halliburton's proprietary cementing placement program; ICem, a solution was reached based on the operator's directional program and well bore design.

Working from the S2 centralizer design concept, Centek manufactured and tested, under API 10D specifications, a 7" casing by 12 1/4" hole centralizer within 8 weeks.

## THE RESULT

Using the data from the LatLoad and ICEM modelling programs, the operator received;

- The proper quantity of centralizers needed, as recommended by the modelling program.
- A quality centralizer with the needed performance required for the untypical well design.
- Delivery of the centralizers within the agreed timescales.

Customer was able to run the 7" casing without any issues. There was no restrictions observed, and no sticking problems to get the casing in the ground to total depth. There were also no problems during the cement job. During the completion phase of the well, the CBL log showed good cemented casing.

“ It was a good decision to use the Centeks! Due to the special development costs and special testing, we had to invest more money, but the job went well and the investment was worth it. ”

Customer testimonial



Centek centralizers on casing in yard

For information on Centek products or more case studies go to:  
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EXCELLENCE TO THE CORE