

# INTELLIGENT ENGINEERING SOLUTIONS



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Excellence to the Core



# EVERY MINUTE ON A RIG MEANS MONEY

THERE IS NO LONGER ANY EASY, CHEAP OIL. OPERATORS ARE CONSTANTLY PUSHING THE BOUNDARIES OF WHERE OIL AND GAS CAN BE FOUND AND EXTRACTED.

From land to ultra-deep water, Centek outperforms the competition by finding solutions to maximize efficiency, and save time and costs. Centek products create optimum standoff, cementation and flexibility down hole for faster runs and improved cementation results.

### SAVE TIME

In today's volatile drilling environment time is the only thing left to cut. Centek centralizers frequently save hours of rig time.

### LOWER RISK

Our centralizers are proven to lower the risk of delays, leaks and channeling.

### CONTROL COSTS

Save money and control costs by using the world's premier centralizer range. Reliable, dependable, durable and available when you need it, our extensive range means we have the right centralizer for most casing running scenarios.

### IMPROVE RESULTS

We've got over 17 years' experience of use in the field with our best-in-class products and a proven track record of value for money.

For case studies which demonstrate the exceptional performance of our products, go to [centekgroup.com/case-studies](http://centekgroup.com/case-studies).

# SIMPLY SMARTER BOW SPRING CENTRALIZERS

## Zero start and running forces

Centek bow spring centralizers are designed to perform with zero start and running forces with exceptional restoring force.

## Flexibility

During compression, through under-gauge conditions, Centek bow spring centralizers will withstand increased loads without damage or permanent deformation. Once a restriction has been negotiated Centek centralizers will expand back to the OH diameter for superior standoff.

## Strength

Centek bow spring centralizers are robust, ultra-high-strength and of a one-piece construction, with no weak points and with the flexibility and restoring force to absorb both axial and radial loads.

## Improved zonal isolation

Centek centralizers have been proved to significantly improve zonal isolation by providing excellent standoff.

## Flow by area

Displacement is improved by Centek bow spring centralizers due to the increased flow by area between the bows, which can have a significant impact on primary cementing operations.

## Pipe rotation

Due to their extremely low coefficient of friction Centek bow spring centralizers allow the casing to rotate inside the centralizer. The casing can then be agitated, enhancing cement displacement efficiency, improving mud removal and providing a good cement bond and long term zonal isolation.

# AWARD WINNING INNOVATION

OUR AWARD WINNING BOW SPRING PRODUCT RANGE IS DESIGNED TO GIVE EXCELLENT STANDOFF IN EVEN THE MOST CHALLENGING WELL FORMATIONS AND CONDITIONS.

### S2®

The S2 is a robust, ultra-high-strength, one-piece construction centralizer with no weak points and the flexibility and restoring force to absorb both axial and radial loads. It is manufactured to gauge and provides maximum standoff, eliminating cement channeling. This patented, unique bow spring design allows for flexibility when encountering tight spots, yet does not compromise on performance integrity.



### TUR

The TUR centralizer has the versatility to be used in the most challenging under-ream applications. It is proven to give good cementation in tight casing and close tolerance applications or known wash out formations, during the casing running phase.



### UROS®

The UROS is a unique, radically designed, offset bow spring centralizer offering reduced drag on RIH in under reamed wells and washed out sections, where the main consideration is passage through previous set casings and expansion to nominal ODs. The UROS shows significant reduction on initial insertion forces as well as substantially reduced running forces through the previous set casing. Once through this compressed stage the unit will expand back to the OH diameter for superior standoff.



### Close Tolerance Centralizers

The UROS-CT and TUR-CT are engineered with a tightly toleranced ID that gives a precise sliding fit onto API specification casing. By manufacturing these centralizers in this way the standoff performance can be significantly improved, especially in tight annular applications where every millimeter counts.

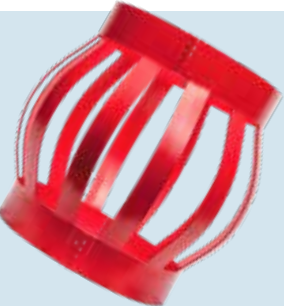


### Stop Collars

With high axial load capability, heat treatment to improve tensile strength and high tensile set screws to match the low profile characteristics of the product, Centek stop collars provide a vastly superior axial holding force when compared to other stop collars.



More product information and case studies can be found on the Centek website [www.centekgroup.com](http://www.centekgroup.com)

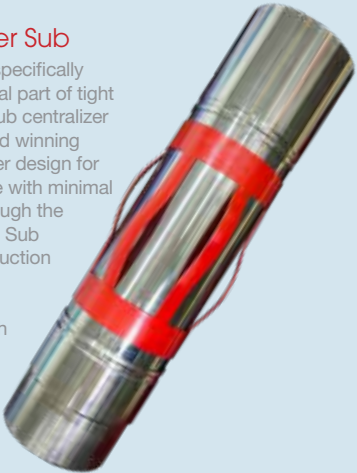


### S2 Hinged

The Centek two piece hinged centralizer gives the strength of a single piece centralizer and can be used on pipe with over-sized casing connectors, which preclude the use of slip-on centralizers. It has a joint strength unparalleled in the industry and can withstand exceptionally high forces.

### The Centek Centralizer Sub

The Centek Centralizer Sub is specifically designed to be run as an integral part of tight tolerance casing strings. The Sub centralizer is available with either our award winning UROS-CT or TUR-CT centralizer design for optimum restoring performance with minimal starting and running forces through the very tightest of restrictions. The Sub centralizer's single piece construction eliminates the risk of failure associated with inferior welded bow designs. This, coupled with precise manufacturing, enables the centralizer sub to rotate with minimal torque.



# RIGHT TECHNOLOGY, RIGHT APPLICATION

WELL INTEGRITY BEGINS WITH THE CEMENTING PROCESS. TO ACHIEVE A HIGH-QUALITY CEMENT JOB AT A LOWER COST, CENTEK HAS INTRODUCED OPTIMUS - A RANGE OF TIER 2 AND TIER 3 CENTRALIZERS THAT ARE FOCUSED ON CENTERING CASING FOR CORRECT CEMENT PLACEMENT.

We offer a range of different centralizer types that enable you to choose the right product technology for your application, giving optimal standoff and centralization at an economical price. The range is designed for use in less demanding conditions, both offshore and onshore.



### Single Piece, Bow Spring Centralizer

The Optimus single piece, bow spring centralizer has been developed as a solution for markets that don't currently benefit from Centek technology. The unit is decreased in height when compared to the Centek S2 model, but maintains restoring force to meet the needs of less demanding wells, while the blade strength retains excellent standoff.



### Rigid Centralizer

Optimus spiral rigid centralizers induce swirl which, in turn, increases the displacement efficiency. These centralizers are made from solid steel so they function as bearings during pipe rotation and reduce torque requirements. The spiral blades overlap the 360-degree circumference and give reduced flow area between them. They also decrease casing drag and plow effect.



The Optimus range is further complimented by a straight blade rigid centralizer option. This is tested to API compression standards and suitable for all well designs.

### Non-Weld Hinged Bow Spring Centralizer

The Optimus non-weld hinged, bow spring centralizer is designed for vertical or deviated wells. Features include enhanced restoring force combined with low starting force ensuring good zonal isolation.

High performance characteristics are combined with easy field assembly and lower delivery costs. Bow springs are manufactured from high quality alloy steel, hot bent to shape using dies and then heat treated under controlled temperature and time cycles for consistent spring characteristics. 5 different bow profiles are provided to meet all open hole configurations.



## OUR MISSION

WE HAVE BUILT A GLOBAL REPUTATION ON THE WORLD-LEADING PERFORMANCE OF OUR UNIQUE CENTRALIZER TECHNOLOGY

Now, we're on a mission: to build on this leadership through intelligent engineering solutions that enable safer and more productive access to energy one well at a time.

### Company highlights:

- Operating globally, throughout Europe, the Americas, Asia-Pacific and the Middle-East, working with major oil companies such as Shell, BP, ExxonMobil, Maersk, and all national oil companies.
- The largest centralizer manufacturing capacity in the world.
- Expert, highly trained and dedicated global customer support team, with a combined field experience of over 100 years.
- Engineers work in the field with customers to provide optimum solutions.
- Manufacturing and quality control carried out in house with testing through the supply chain and full product traceability.
- Well simulations can be provided using our advanced, proprietary software.
- Wide range of quality centralizers for most well types.

# THE PRODUCT OF CHOICE FOR YOUR APPLICATIONS

WHATEVER THE CASING RUNNING CHALLENGE, CENTEK HAS THE PRODUCT TO MEET IT.

Application	Premium Range										Optimus Range								
	Centralizers					Stop Collars					Centralizers			Stop Collars					
	Sub	Centface	UROS-CT	TUR CT	UROS	TUR	S2 HD	S2	Hinged	OOSO	HDSO	HDHN	MASO	Rigid - Straight	Rigid - Spiral	BS - Hinged Non-Weld	BS - Single Piece	Collar - Latch On	Collar - Slip On
Vertical Sections	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Deviated Sections	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Horizontal Sections	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Highly Deviated Sections or Dog Leg Sections	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
ERD Sections							•	•		•	•		•	•					•
Open Hole	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Cased Hole	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Under-reamed Sections	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•
Wash Out Sections	•	•	•	•	•	•				•	•	•	•	•	•	•	•	•	•
HTHP Wells	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Geothermal Wells							•	•		•	•	•	•	•	•	•	•	•	•
Uncemented Completions	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Gravel Pack / Screens							•	•		•	•	•	•	•	•	•	•	•	•
Deep Water	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•
Tight Tolerance Strings	•	•	•	•								•	•	•	•	•	•	•	•
Rotating Strings	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
S & J Type Wells		•					•	•	•	•	•	•	•	•	•	•	•	•	•

## PRODUCT SELECTOR TOOL

Want to quickly identify the right product for your well? Use our Product Selector Tool to search through our extensive range of award-winning products to quickly narrow down your options and to explore how you can achieve the best possible standoff.

Register at [www.centekgroup.com/product-selector-tool](http://www.centekgroup.com/product-selector-tool)



# OFTEN IMITATED, NEVER REPLICATED

BRINGING THE BEST TO THE BUSINESS WAS HARD, STAYING THERE IS TOUGH BUT BEING AN INDUSTRY LEADER IS FAR MORE REWARDING THAN REPLICATING OTHERS.

As sector forerunners we've changed perceptions, standards and quality; set benchmarks and created a new category of centralizers, constantly enhancing our reputation as leaders in our field.

If you want the best, Choose Quality,  
Choose Reliability, Choose Centek.

AVAILABLE SIZING:

Premium Range Sizing	
S2	2 7/8" to 22"
TUR	3 1/2" to 18"
S2 Hinged	18" to 22"
UROS	5" to 20"
UROS - CT / TUR	5" to 17 7/8"
Centralizer Sub	5 1/2" through 18"
Stop Collars	2 7/8" to 22"
Optimus Range Sizing	
Single Piece, Bow Spring Centralizer	4 1/2" to 20"
Non-Weld Hinged Bow Spring Centralizer	4 1/2" to 24"
Rigid Centralizer	2 7/8" to 26"
Stop Collars	2 7/8" to 26"

Our aim is to work with operators and develop new opportunities together. Talk to our global sales team about your next challenge.

