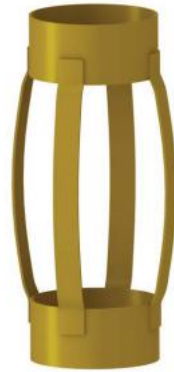


Bow Spring Centralizer

Bow spring centralizer is used to keep casing in the central place of wellbore in cementing process, making cement to be evenly distributed around casing string. It has high restoring capacity, which is determined by the shape and stiffness of its bows.

The following Bow Spring Centralizer are available:



Welded Bow Spring Centralizer Slip-On

Welded Bow Spring Centralizer Slip-On is suited for close tolerance well applications. The centralizer is manufactured to API RP 10D specification ensuring this centralizer consistently provides superior performance at the well site.

Features

Bow springs manufactured from high quality spring steel and heat treated to achieve minimum starting and running force and maximum restoring force

Starting and restoring force tests performed in our test facility ensure the centralizer consistently meets API Specification 10D

Options:

- Available in all common casing and hole size configurations.
- Available with set screws for integral stop.

Recommended For Use With:

- Stop Collar – Slip-On with Set Screws



Non-Weld Hinged Bow Spring Centralizer

Non-Weld Bow Spring Centralizer is suited for vertical and deviated applications.

Performance Features:

- Bow springs manufactured from high quality spring steel and heat treated to achieve minimum starting and running forces. The heattreated alloy provides flexibility while minimizing damage while moving downhole.
- Interlocking design between the end collar and bow spring makes for a strong, reliable centralizer.
- Integral hinges designed for maximum load capacity for optimum design strength.
- The centralizers are designed to be installed and latched on over stop collars or casing collars.

- Offers unique ability to ship unassembled providing savings in shipping and storage costs. Options:
- Manufactured in all common casing and hole size combinations.



Hinged Welded Bow Spring Centralizers

Hinged Welded Bow Spring Centralizer centers casing in the wellbore and provides uniform standoff in the annular space. Commonly used in vertical and slightly deviated wellbore sections, it is manufactured to API 10D specification ensuring this centralizer consistently provides superior performance.

Performance Features:

- Bow springs manufactured from high quality spring steel and heat treated to achieve minimum starting and running force and maximum restoring force.
- Integral hinge design allows for latch-on installation over stop collars or casing collars.

- Provides reinforcement to the cement column.
- Minimizes differential sticking.
- Allows for reciprocation or rotation (if not set screwed to casing) of casing.

Options:

- Available in common casing and hole size combinations.