

### Bowspring Centralizer

#### Application

The Bowspring Centralizer is a mechanical device used to centralize the tool string while it is ran in and out of a cased or tubed well. Keeping the tool string centralized helps to prevent it from getting stuck downhole. The centralizer's four springs connect to retaining arms that apply even force against the inner wall of the wellbore to stabilize the tool string. It can be positioned anywhere on the tool string except below the Pressure Temperature Flow (PTF) tool. Often, two Bowspring Centralizers are used in a string, one at the top and one near the bottom, to further increase the strings stability.

#### Features

- Centers Tool String as it Moves In and Out of Well
- Arms Expand and Contract to Fit Casing or Tubing
- Single Pin Version also Available
- Pass-Through Wire

#### Benefits

The Bowspring Centralizer provides electrical contact for all 15 points of contact in a Lee Production Logging String and is quick and easy to service.



Bowspring Centralizer	
Type	Part No.
Single Pin Standard Service	AM011WA0004
Single Pin H2S Service	AM011WB0004
Multi Pin Standard Service	AM011WA0006
Multi Pin H2S Service	AM011WB0006

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#### Spare Parts and Accessories

Type	Number of Parts	Part No.
Seal Kit		AM011RK0006
Bow Spring	4	PM011SA0037
Dowel Pin 1/8"x5/8"	8	PM940SD0005
Undercut Phillips Screw 8-32x0.3125"	16	PFU8-32SB031
Socket Cap Screw 4-40x0.1875"	8	SCC4-40SB0188
Set Screw #10-32x0.25	4	101127
Accessories		
Spring Wear Gauge		PM005SA0062

#### Specifications

	Details
OD (collapsed)	1.375 in. (3.5 cm)
OD (expanded)	7 in. (17.8 cm)
Length	32.3 in. (82 cm)
Weight	11 lb (5 kg)
Temperature Rating	350°F (177°C)
Pressure Rating	15,000 psi (103.5 MPa)