# **DwC<sup>™</sup> Nonrotating Centralizer**

Reduces torque and casing wear by optimizing fluid displacement and cuttings removal in vertical, inclined, and horizontal wells

## **Applications**

- · Drilling with casing
- Drilling with liner
- · Reaming with casing or liner
- · Vertical, inclined, and horizontal wells
- · Extended-reach and extreme-dogleg wells

## **Features and Benefits**

- In addition to centralizing casing, the drilling-with-casing (DwC) nonrotating centralizer provides a bearing surface that lowers frictional forces by 68% compared to products without elastomer lining. Lubricity from mud further reduces the coefficient of friction by an additional 3% to 71%.
- The DwC centralizer requires less rotational torque than conventional centralizers, which results in increased rotation and running efficiency.
- The internal elastomer bearing serves as a protective lining to eliminate casing damage caused by high rotational speeds.
- The nonaggressive, spiral-blade design provides 360° borehole coverage, which enables smoother rotation and passage through rugged surfaces and ledges.
- The large flow-by area of the system facilitates cuttings removal and reduces the equivalent circulating density.

# **Tool Description**

The Weatherford DwC nonrotating centralizer reduces torque and casing wear and tear using a durable elastomer lining between the centralizer body and casing. The lining is fluted to the internal surface to facilitate evacuation of debris. Vent holes on the lower edges of the body purge any trapped pressure to avoid jamming the centralizer.

The casing rotates inside the centralizer because the centralizer is nonrotating relative to the wellbore. The robust one-piece solid steel blades resist wear and collapse caused by hostile formations and forces from casing rotation. The junk slot area is optimized for cuttings removal without sacrificing excessive blade materials.

Double-row screw stop collars secure the centralizer at its intended position. The centralizer can be run between casing couplings to free-float or with specially designed stop collars. The centralizer is recommended for high side loads, long rotating hours, and abrasive drilling and reaming environments.



The robust DwC nonrotating centralizer maintains the intended casing standoff and also reduces string torque and casing wear for more efficient casing rotation and running.



# $\mathbf{DwC}^{^{\mathrm{TM}}}$ Nonrotating Centralizer

#### **Specifications**

Nominal size	7 × 8-1/4 in.	7 × 8-1/2 in.	7-5/8 × 8-3/8 in.	9-5/8 × 12 in.	9-7/8 × 11-3/4 in.	13-3/8 × 16-3/4 in.
Part number centralizer	1113217	909975	2190143	903520	1966007	1123744
Part number stop collar assembly	1171101	1171101	2190142	1171100	2022148	1171099
Part number set screw	777084	777084	1588131	777409	777409	777409
Casing size	7 in. (177.80 mm)		7-5/8 in. (193.68 mm)	9-5/8 in. (244.47 mm)	9-7/8 in. (250.83 mm)	13-3/8 in. (339.73 mm)
Centralizer OD	8.250 in. (209.55 mm)	8.500 in. (215.90 mm)	8.375 in. (212.73 mm)	12.000 in. (304.80 mm)	11.750 in. (298.45 mm)	16.750 in. (425.45 mm)
Liner ID	7.100 in. (180.34 mm)		7.725 in. (196.22 mm) steel	9.750 in. (247.65 mm)	10.000 in. (254.00 mm)	13.540 in. (343.92 mm)
Centralizer length	10.00 in. (254.00 mm)			12.00 in. (304.80 mm)	14.00 in. (355.60 mm)	18.00 in. (457.20 mm)
Weight centralizer	19.5 lb (8.8 kg)	22.3 lb (10.1 kg)	13.4 lb (6.1 kg)	61.5 lb (27.9 kg)	57.6 lb (26.1 kg)	115.8 lb (52.5 kg)
Weight assembly	32.2 lb (14.6 kg)	35.5 lb (16.1 kg)	21.8 lb (9.9 kg)	83.5 lb (37.9 kg)	91.0 lb (41.3 kg)	162.8 lb (73.8 kg)
Centralizer material	Cast steel					
Liner material	Elastomer		NO LINER	Elastomer		
Stop collar OD	7.75 in. (196.85 mm)		8.28 in. (210.31 mm)	10.56 in. (268.22 mm)	11.00 in. (279.40 mm)	14.79 in. (375.67 mm)
Stop collar length	3.00 in. (76.20 mm)				4.00 in. (101.60 mm)	3.00 in. (76.20 mm)
Stop collar gap	0.50 in. (12.70 mm)					
Set screw torque	22 ft-lb (30 N⋅m)			50 ft-lb (68 N⋅m)		
Set screw size	3/8 - 16 UNC × 7/16		3/8 - 16 UNC × 5/16	1/2 – 13 UNC × 1/2		



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