

Pressurized DuraSeal[®] Rotating Stuffing Box

Extends the life of your progressing cavity pumping (PCP) system by creating a reliable seal between produced well fluids and the environment

Applications

- Oil, water, and dewatering gas wells
- Abrasive applications
- Wellsites that require the use of hydraulic systems

Features and Benefits

- The innovative seal design and robust bearing system reduce the risk of seal failure and the associated impact to the environment.
- An intensifier in the hydraulic system maintains fluid pressure within the seals during flushby and coiled tubing operations, preventing damage to the stuffing-box seals.
- The maintenance-free design incorporates a unique, integral connection that provides a robust link between the stuffing box and drive head, minimizing the risk for costly repairs and reducing nonproductive time.
- The pressurized fluid system creates an oil barrier that extends the life of the PCP system by eliminating the potential for destructive seal wear by abrasives.
- To lower operating costs, all Weatherford stuffing boxes can be remanufactured to OEM specifications at a Weatherford service facility.

Tool Description

The pressurized DuraSeal rotating stuffing box enhances the longevity of PCP systems in wells using hydraulic systems. The innovative hydrodynamic seal and robust bearing assembly provide a superior seal between the rotating shaft assembly and the environment, mitigating the risk of external production fluid leakage and associated environmental impact. For added protection, an indicator on the stuffing box pops out and exposes a red band if an early-stage seal failure occurs. This pop-out indicator often eliminates the need for expensive controls or external shutdown.

The DuraSeal stuffing box uses a pressurized fluid system with clean hydraulic fluid in the seal section to create an oil barrier that reduces the potential for seal wear caused by abrasives.

A jaw-style connection and shear ring between the stuffing box and drive head provide a robust connection that prevents costly drive head repairs. Available in 1.25-in. and 1.50-in. polished rod sizes and various flanged wellhead connections, the DuraSeal rotating stuffing box is compatible with Weatherford jaw-style PCP drive heads.



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Specifications

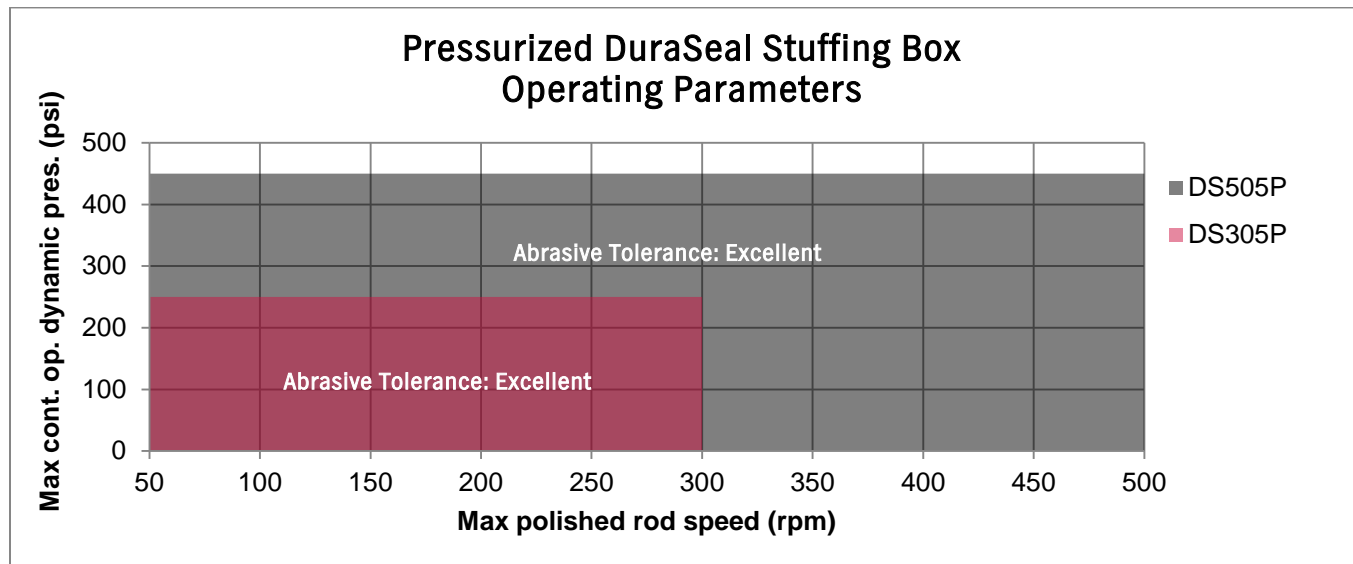
Model	305P	505P
Box type	Integral	
Seal type ¹	Pressurized hydrodynamic rotary seals	
Wellhead attachment	Flanged	
Input shaft	Vertical hollow shaft	
Media	Oil, water, gas, and abrasives	
Abrasive tolerances ²	Excellent	
Maximum polished-rod speed	300 rpm	500 rpm
Maximum dynamic pressure ³	250 psi (1,724 kPa)	450 psi (3,102 kPa)
Maximum static pressure	3,000 psi (20,684 kPa)	
Maximum recommended production media temperature	32 to 167°F (0 to 75°C)	
Height	8.9 in. (226.06 mm)	
Weight	72 lb (32.65 kg)	
Polished-rod size	1-1/4 or 1-1/2 in. (31.75 or 38.10 mm)	
API well head connection ⁴	3-1/8 in. × 3,000 psi (79.38 mm × 20,654 kPa)	

¹ During standard operation the DuraSeal pressurized seals are engineered and designed to have a controlled level of hydraulic oil weep past the seal interface and into the produced fluid.

² Recommended abrasive tolerance is based on lab testing and field trials with typical Canadian cold heavy oil production with sand (CHOPS). The nature of the abrasives (size, composition, and shape) will impact stuffing box longevity.

³ Refer to the operating specification chart to verify that the application conditions fall within the specification of the seals. Contact your Weatherford representative if the application conditions are outside these ratings.

⁴ Optional API wellhead connections available.



Note: Consult your Weatherford representative if the application conditions are outside these operating parameters.

DuraSeal is a registered trademark of Weatherford in the US.

