

# OPTIO<sup>®</sup> Immediate-Open Toe Sleeve

Initiates instant communication with the reservoir through pressure activation

## Applications

- Any multistage hydraulic fracture applications
- Horizontal or vertical wells
- Cemented and openhole completions

## Features and Benefits

- Immediately opens once the pre-determined absolute activation pressure is reached.
- Achieves precise opening with an activation pressure tolerance of  $\pm 4\%$ .
- Provides maximum stimulation capacity and improves production using large flow ports.
- Saves on mill-out expenses during plug-and-perf operations in extended-reach wells by dropping a dissolvable ball on the upper sub instead of pumping the first plug.

## Tool Description

The Weatherford ZoneSelect<sup>®</sup> OPTIO immediate-open (OIO) toe sleeve is a critical part in multizone completion systems. Placed at the toe of the liner, the OIO toe sleeve opens when applied pressure exceeds the pre-determined shear-ring value. The inner sleeve then slides past the flow ports in the housing and locks in the open position.

The first stimulation can be performed through the open OIO toe sleeve. ZoneSelect system balls or composite plugs can then be pumped down to continue the stimulation operations.

## Specifications

Sleeve size	5-1/2 in.	4-1/2 in.
Casing size	5.50 in (139.70 mm)	4.50 in. (114.3 mm)
Maximum outside diameter	6.75 in. (171.45 mm)	5.65 in. (143.51 mm)
Minimum inside diameter	4.00 in. (101.35 mm)	3.34 in. (84.84 mm)
Tool length	46.90 in. (1,191 mm)	46.36 in. (1,178 mm)
Port flow area	15.99 in. <sup>2</sup> (10,245 mm <sup>2</sup> )	14.69 in. <sup>2</sup> (9,477 mm <sup>2</sup> )
Burst rating, 110 ksi*	15,900 psi (109.60 MPa)	15,700 psi (108.25 MPa)
Collapse rating, 110 ksi*	15,900 psi (109.60 MPa)	14,800 psi (102.04 MPa)
Tensile rating, 110 ksi*	717,000 lbf (3,189,375 N)	561,000 lbf (2,465,450 N)
Torque rating, 110 ksi*	20,000 lb/ft (27,116 N-m)	15,000 lb/ft (20,337 N-m)
Activation pressure ratings**†	8,000 to 16,500 psi (55.16 to 113.76 MPa)	8,000 to 14,500 psi (55.16 to 99.97 MPa)
Maximum temperature	325°F (163°C)	325°F (163°C)

\*Burst, collapse, and tensile ratings are at the ambient temperature.

\*\*The activation pressures listed are a combination of hydrostatic and applied pressure at the ambient temperature. Available in 500-psi increments. Other shear ring values are available on request.

† Activation pressure ratings that exceed the maximum pressure rating of the tool require annular pressure to balance the tool when under pressure.



The Weatherford OPTIO immediate-open toe sleeve slides open when the activation pressure is reached.

