



# *MetalSkin® Openhole Liner System*

## *Sizes 9-5/8 × 11-3/4 in. and 11-3/4 × 13-3/8 in.*

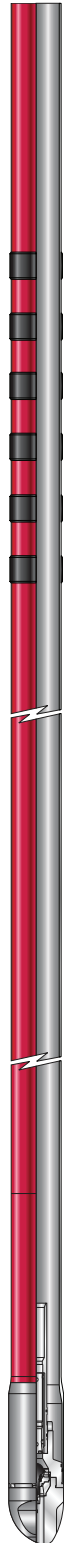
The Weatherford MetalSkin openhole liner is a solid-tubular, expandable system that enhances the architecture of new wells by providing an additional casing string to isolate specific wellbore sections. The MetalSkin system is a robust liner that can also be included in the well plan for contingent use to maintain production-casing diameter for optimizing production. The permanent MetalSkin openhole liner can isolate lost-circulation zones, over-pressured formations, and shallow zones that flow so that drilling can continue.

The MetalSkin openhole liner system consists of elastomer seal elements, expandable pipe and connectors, a cone launcher, protector sleeve, Sure-Seal™ 3-float valve, and an eccentric guide shoe—all designed to enhance installation reliability and long-term downhole performance. The redundant seal elements provide cost-effective, reliable zonal isolation when expanded against the parent casing. The highly ductile and fracture-resistant material of the expandable pipe and connections improves the defect tolerance during expansion, contributing further to system reliability. The cone launcher minimizes surge effects by housing the expansion cone, and the protector sleeve minimizes liner damage during run-in. The patented Sure-Seal 3-float valve provides an auto-fill option while running in and backpressure during cementing operations. The eccentric guide shoe enables the liner to reach total depth, despite any openhole ledges.

The MetalSkin openhole liner system is run to a predetermined setting depth with the expansion system stabbed in. If required, cement is pumped into the annulus between the wellbore and the expandable liner. A single dart, dual dart (which provide the most efficient cement jobs), or ball is released and lands in the valve of the system, activating the expansion process. Hydraulic pressure across the valve forces the expansion cone from the bottom of the assembly to the top, expanding the liner in the open hole and the parent casing. After expanding the full liner length, the expansion system exits the top of the liner with rig overpull, and the valve can then be drilled out for continued well operations.

## *Applications*

- Isolating lost-circulation zones, over-pressured formations, and shallow zones that flow
- Unstable wellbores
- Wellbores where high-pressure anomalies and unexpected drilling hazards can occur
- Wells requiring optimal completion and production





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### *Features, Advantages, and Benefits*

- The large inside diameter (ID) after installation provides a larger through-bore access to lower zones than alternative solutions and maximizes the completion.
- The fully qualified MetalSkin openhole liner system has been tested and verified to American Petroleum Institute (API) standards in maximum parent-casing IDs before release, ensuring the system can perform to its ratings downhole.
- The true-flush, performance-tested connections enable the liner to be expanded with no parent-casing interference on overlapping strings.
- Field-proven, reliable Sure-Seal™ 3-float valve can be configured to automatically fill the casing at rates up to 15 bbl/min (2.4 m<sup>3</sup>/min), providing a time- and cost-saving solution by increasing running speed and reducing surge on the formation.
- The protector sleeve protects the system from damage during run-in, especially when running through windows. That contributes to system reliability.
- The solid-body cone ensures a full radial-outside diameter (OD) contact of the expandable pipe body and seal elements with the parent casing, providing uniform expansion with a reliable seal.
- Multiple, redundant, bonded elastomers create a positive seal between the expandable liner and parent casing, providing reliable and cost-effective zonal isolation.
- The system can be sealed with a single dart, dual darts, or a ball to enable proper expansion; therefore it provides operational flexibility to suit various applications requirements.
- The reduced-diameter launcher houses the expansion cone to reduce the risk of differential sticking and maximize the running clearance, preventing problems associated with equivalent circulation density (ECD).
- The eccentric guide shoe helps guide the liner past openhole ledges, enabling the liner to reach total depth as planned.

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### *Specifications*

Contact an authorized Weatherford representative for further information.

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### *Options*

The system requires a seal with a single-dart, dual-dart, or ball mechanism to initiate expansion.