

Saltel Xpandable ECP

Cementing operations external casing packer



Rated up to 5,000 psi
[34 MPa]



Rated to 248 degF
[120 degC]

APPLICATIONS

- Cement backup
- Primary cement improvement
- Single-stage, multistage, or off-bottom cementing
- Annular isolation

BENEFITS

- Provides an effective steel barrier between the casing and borehole
- Prevents fluid migration in the annulus, eliminates crossflow during cementation, and eliminates gas migration during cement setting
- Seals in any hole shape and condition, including oval, out-of-gauge, and irregular boreholes
- Maintains casing rating by avoiding extra connections or casing ID reduction
- Saves rig time with rapid installation, on-demand expansion, and immediate sealing
- Minimizes NPT with robust construction that withstands reciprocation and rotation to pass through doglegs and tight spots

FEATURES

- Simplified setting process
- Compatibility with standard casing
- Burst and collapse ratings equivalent to casing ratings
- API Spec 190H V2-qualified packer
- HNBR elastomer to ensure sealing even in washed out zones
- Self centralization during expansion

Saltel Xpandable ECP* cementing operations external casing packers are robust expandable stainless steel devices designed to set at low pressures to achieve zonal isolation. They can be used for any stage cementing operation or to prevent fluid migration in the annulus.

The packer sleeve is expanded between the casing and borehole by applying pressure in the casing. This pressure is transmitted through the expansion port to the packer's integral stainless steel sleeve. As the sleeve expands, it conforms to the shape of the wellbore. A patented thin layer of bonded elastomer ensures sealing in irregular boreholes. The expanded sleeve also serves to centralize the casing string.

The packer is built on a one-piece mandrel by welding or crimping with no hidden connections. Both ends are fixed and protect the expandable sleeve while running in hole. The robust construction allows the packer to be rotated and worked through doglegs and tight spots; full casing characteristics are maintained.

Welded packer

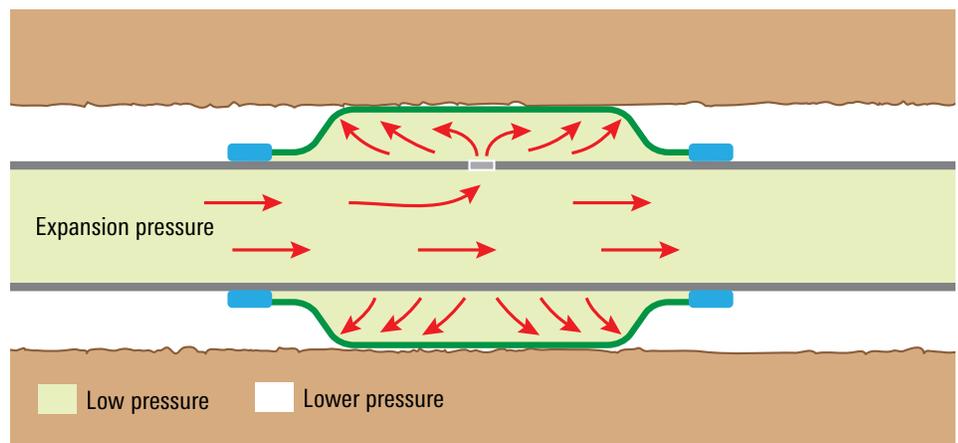
The expansion port features a one-way valve system that traps fluid inside the expanded sleeve to increase the differential pressure rating.

Crimped packer

The expansion port features a valve system that permanently closes the port once the packer is set and a predetermined pressure is reached. This activation pressure can be modified by replacing an easily accessible shear pin.

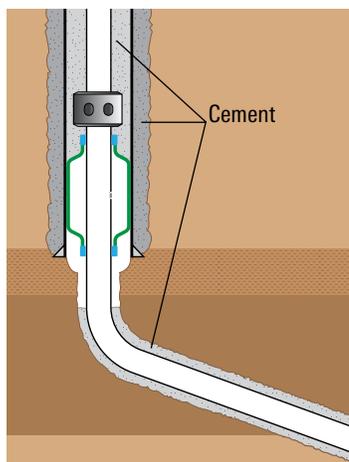
Safety feature

In both versions of the packer, the expansion port valve also serves as a safety feature. If the packer is expanded in front of a severe washout, the valve closes, preventing fluid loss.

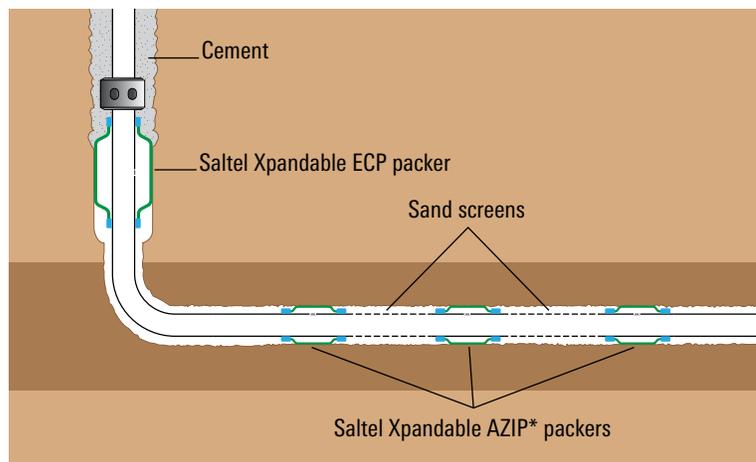


Saltel Xpandable ECP packers set at low pressures.

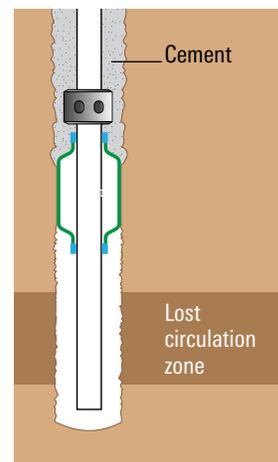
Saltel Xpandable ECP



Multistage cementing.



Off-bottom cementing above low-pressure completion.



One-stage cementing.

Saltel Xpandable ECP Packer Specifications

Packer Size, in	Run-in-Hole OD, in [mm]	Nominal Hole Diameter, in [mm]	Max. Setting Diameter, in [mm]	Pressure to Start Expansion, psi [MPa]	Min. Setting Pressure, psi [MPa]	Sealing Contact Length, ft [m]	Injection Differential Pressure Rating, psi [MPa]	Production Differential Pressure Rating, psi [MPa]
Standard (welded)								
4½	5.50 [139.70]	5.875 [149.23]	6.75 [171.45]	1,250 [8.6]	2,750 [18.96]	4 [1.2]	5,000 [34]	5,000 [34]
5½	8.00 [203.20]	8.50 [215.90]	10.00 [254.00]	1,250 [8.6]	2,500 [17.2]	4 [1.2]	3,500 [24]	3,500 [24]
7	8.15 [207.01]	8.50 [215.90]	10.00 [254.00]	1,250 [8.6]	2,500 [17.2]	4 [1.2]	3,500 [24]	3,500 [24]
9⅝	11.35 [288.29]	12.25 [311.15]	14.00 [355.60]	750 [5.2]	1,900 [13.1]	4 [1.2]	2,000 [13]	2,000 [13]
High pressure (crimped)								
4½	5.60 [142.24]	5.875 [149.23]	6.75 [171.45]	1,250 [8.6]	3,000 [20.7]	4 [1.2] or 8 [2.4]	5,000 [34]	5,000 [34]
5½	8.00 [203.20]	8.50 [215.90]	10.00 [254.00]	1,250 [8.6]	2,700 [18.6]	4 [1.2] or 8 [2.4]	5,000 [34]	5,000 [34]
7	8.15 [207.01]	8.50 [215.90]	10.00 [254.00]	1,250 [8.6]	2,700 [18.6]	4 [1.2] or 8 [2.4]	5,000 [34]	5,000 [34]
9⅝	11.35 [288.29]	11.25 [285.75]	14.00 [355.60]	1,250 [8.6]	2,700 [18.6]	4 [1.2] or 8 [2.4]	3,500 [24]	3,500 [24]

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