

UltiPac

Alternate Path extended-reach gravel-pack screen

APPLICATIONS

- Openhole land and offshore extended-reach wells requiring
 - gravel packing
 - zonal isolation, or
 - gravel packing behind an annular packer
- Wells with high-permeability thief zones where annular bridging is a risk

BENEFITS

- Promotes full gravel packs, thereby increasing reservoir drainage and completion longevity
- Allows gravel packing in longer intervals previously considered unachievable
- Enables multiple zones instead of multiple wells, reducing costs
- Minimizes rig time spent on screen makeup because no additional equipment or tools are required
- Provides economical means to complete marginal hydrocarbon zones
- Allows higher sand concentrations, reducing job time
- Can be fully rotated, enabling faster running-in time in longer laterals

FEATURES

- Round shunt tubes that minimize frictional pressure losses over extended-reach wellbores
- Use of LineSlot* premium direct-wire-wrapped screen as the base
- Single-action, joint-to-joint coaxial connection
- Automatic alignment of Alternate Path[†] gravel-pack shunt tubes when screen joints are being connected
- Pressure rating of 6,500 psi [44.8 MPa]
- Extended gravel-pack capability of more than 6,000 ft [1,829 m]
- Capability of being used with shunted zonal isolation packer to pack multiple zones in a single operation

The UltiPac* Alternate Path[†] extended-reach gravel-pack screen is a system for gravel packing openhole extended-reach wells both on land and offshore. It is especially effective in wells requiring compartmentalization or isolation with packers.

The screen has unique round shunt tubes encased by the screen wire. This protective shell allows the screen to be fully rotated while it is being run in extended and horizontal wells. The tubes, along with slurry exit nozzles, serve as an alternate flow channel that allows slurry to bypass sand bridges and fill in voids that can occur during gravel packing and that would stop a conventional gravel packing operation.

Transport and packing tubes ensure 100% gravel pack

The UltiPac screen has nine round shunt tubes: six transport tubes and three packing tubes, all protected by the direct-wrapped screen. The transport tubes are nonported and run continuously throughout the length of each joint. The packing tubes are closed at the bottom of each screen joint and contain nozzle rings spaced along the length of the joint approximately 6 feet apart. In each nozzle ring are three evenly spaced carbide-lined slurry exit nozzles that divert the slurry to the open hole between the screen and wellbore.

Round tubes minimize frictional pressure

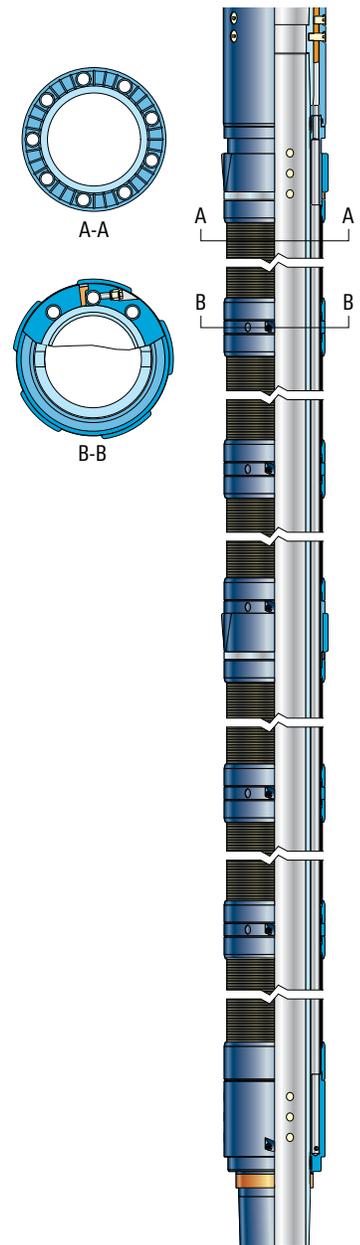
The UltiPac screen's tubes are round to minimize frictional losses and increase gravel-pack length. This design and a pressure rating of 6,500 psi [44.8 MPa] extend the gravel-pack capability to more than 6,000 ft [1,829 m].

Screen joint connection streamlines makeup at rig site

Screen joints are linked in a single action by a joint-to-joint coaxial manifold with an open flow area, where slurry from the transport tubes of the previous joint is redistributed and can flow to any of the transport or packing tubes of the next joint. The open flow area in the manifold eliminates both the need for tools to align the tubes and the possibility of misaligning the tubes of coupled joints during assembly, greatly simplifying field makeup and reducing rig time.

Robust wire-wrapped screen provides protection

The UltiPac screen uses the same wrapped wire as that of the Schlumberger LineSlot premium direct-wire-wrapped screen, the industry's most robust and precisely manufactured direct-wrapped screen. The wire encases the shunts, providing a protective shell, which allows the screen to be fully rotated while it is being run into the well.



UltiPac Alternate Path extended-reach gravel-pack screen with cross sections showing nine round shunt tubes (A-A) and the three packing tubes (B-B).

Zonal isolation packer enables multizone gravel packing

The UltiPac screen can be coupled with shunted zonal isolation packers to gravel pack multiple zones in a single operation. Zonal isolation with shunted packers enhances well design in several ways.

The packers enable water, gas, or dead zones to be straddled with shunted blanks from the beginning. They can shut off a zone if the water cut or gas cut exceeds acceptable levels during the life of the well. And they enable zones to be selectively produced with polished bore, seals, and sliding sleeves.

UltiPac Screen Specifications

Basepipe Size, in	Basepipe Weight, lbm/ft	Additional Assembly Weight, lbm/ft	Min. Basepipe ID, in	Max. Screen OD, in	Max. Tensile Rating, [†] lbf	Max. Torque Rating, lbf.ft [‡]	Max. Collapse Rating, [§] psi	Max. Burst Rating, [§] psi
5.500	20.0	25.0	4.78	7.87	337,000	7,950	5,800	2,000

[†] Based on load shoulder rig hanging capacity.

[‡] Based on 95,000-psi basepipe and VAM top coupling.

[§] Data based on 9 GA, 825 direct-wire-wrapped screen (4-mm × 3-mm wrap wire on 20-mm × 2-mm axial wire).