BluePack Production Packers
Engineered. Validated. Trusted.
A simplified naming convention tells you what you need at a glance

An expanding portfolio of packers and plugs includes packers in all major casing sizes, and every size is validated to API Spec 11D1 and ISO 14310 standards—an industry first. Single-piece mandrels and configurable designs enhance operational reliability and efficiency.

The new rationalized naming convention for BluePack* production packers helps you find the optimal choice for your application, swiftly and painlessly.
<table>
<thead>
<tr>
<th>Pressure rating</th>
<th>R = retrievable</th>
<th>P = permanent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;none&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max</td>
<td>10,000 psi</td>
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<tr>
<td>Ultra</td>
<td>15,000 psi</td>
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<tr>
<td>Extreme</td>
<td>20,000 psi</td>
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</table>

**BluePack Max RH**

**Application**
- MP = multiport
- ESP = used with ESPs
- DUAL = dual string

**Setting method**
- H = hydraulic
- M = mechanical
- S = hydrostatic
- CL = control line

**BluePack WXYZ**
Proven Reliability

>1,000 shipments for more than 50 operators since 2016

- BluePack ESP packer
- BluePack Max RH packer
- BluePack RH packer
- BluePack Max PH-V3 packer
- BluePack Ultra PH packer
BluePack production packers are developed in a Schlumberger Engineering Center of Excellence, leveraging decades of experience and advanced stress analysis tools. Platform-based development ensures design consistency, robust construction, and operational efficiency, while world-class test facilities use test types and criteria that exceed API requirements.

The packers are engineered to withstand a complete range of wellbore operations — whether they place the packer in tension or compression — and to maximize the operating envelope.

Operating envelopes for the 7-in × 3½-in (left) and 9½-in × 5½-in (right) BluePack Max RH* high-pressure retrievable hydraulic-set production packers compared with conventional packers. Packer bodies are made of 4140 and 13Cr steel, respectively, with yield strength of 80,000 psi.
Finite element analysis (FEA) of all components to ensure stresses are within acceptable limits.

Slips: Optimized distribution of gripping force to prevent damage to the casing.

Seal: Detailed stress analysis to help ensure a uniform seal.

FEA of metal and elastomer enables optimized designs, enhancing reliability and the performance operating envelope.
BluePack packers can be used in a wide range of completion designs to meet your requirements. Some of the many options available are illustrated here.
Retrievable hydraulic-set ESP production packer in a single-zone offshore completion.

High-pressure retrievable hydraulic-set production packer in a deepwater gravel-pack completion.

High-pressure retrievable hydrostatic-set production packer in a deepwater one-trip completion.

Ultrahigh-pressure retrievable hydrostatic-set, multiport production packer in very deep water.
BluePack ESP
Retrievable hydraulic-set ESP production packer

**APPLICATIONS**
- ESP completions
- Zonal isolation
- Vertical, deviated, and horizontal wells

**BENEFITS**
- Reduces rig time and cost with simple setting and retrieval operations
- Enables system pressure test at surface

**FEATURES**
- No tubing movement while setting
- Validation to ISO 14310 and API Spec 11D1 V3
- Available with HNBR and Aflas® elements
- One-piece mandrel
- Adjustable, straight-pull shear release
- Dual bore with multiple ports
- Available in API standard grades Q1, Q2, and Q3
- API and premium end connections available

BluePack ESP* retrievable hydraulic-set ESP production packers are designed for use in vertical and deviated wellbores with ESP completions. Multiple feedthrough ports are available and may be configured for chemical injection, gas vents, and ESP accessories. The packer allows onsite feedthrough and connection of electric cable.

A single-piece mandrel body rated for a 5,000-psi [34.5-MPa] pressure differential and a straight-pull, adjustable shear release make this compact packer an economical choice for production applications with ESPs.
### BluePack ESP Packer Specifications

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</thead>
<tbody>
<tr>
<td>7 [177.8]</td>
<td>23–32 [34.2–47.6]</td>
<td>2½ [73.0]</td>
<td>Single, 3-legged</td>
<td>1/4 [6.35]</td>
<td>325 [163]</td>
<td>5,000 [34.5]</td>
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<td>9½ [244.5]</td>
<td>36–53.5 [53.6–79.6]</td>
<td>3½ [88.9]</td>
<td>Single, dual, 3-legged</td>
<td>1/4 [6.35]</td>
<td>325 [163]</td>
<td>5,000 [34.5]</td>
</tr>
</tbody>
</table>

*BluePack ESP packer penetrator configurations.*
Hydrostatic Setting Option Enables True Single-Trip Completion and Saves 3 Days of Rig Time, Nigeria

- Packer’s ability to convey heavy loads enabled running in with lower and upper completion in one run.
- Precise activation pressure set packer without affecting other components in the completion string.
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<td>400 [204]</td>
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<td>CTR</td>
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<td>5¾ [139.7]</td>
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<tr>
<td>9¾ [244.5]</td>
<td>40–53.5 [59.5–79.6]†</td>
<td>7 [177.8]</td>
<td>400 [204]</td>
<td>10,000 [69]</td>
<td>CTR or SPR</td>
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<tr>
<td>7¾ [193.7]</td>
<td>29.7–47.1 [44.2–70.1]</td>
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<td></td>
<td></td>
<td>3½ [88.9]</td>
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</table>

† Special drift 8.500 in [215.9 mm]

BluePack Max RH Packer Specifications

Optional SPR conversion kit

Standard CTR mechanism

BluePack Max RH packer.
BluePack RH
Retrieveable hydraulic-set production packer

**APPLICATIONS**
- Single-string completions
- Zonal isolation
- Vertical, deviated, and horizontal wells
- Production and water injection wells

**BENEFITS**
- Easily installs on the rig
- Reduces rig costs by simplifying operations
- Eliminates tubing movement during installation

**FEATURES**
- Validation to ISO 14310 and API Spec 11D1 V3
- One-piece mandrel
- Slips protected from debris with packer element or debris barrier
- Bidirectional caged slips
- Adjustable, straight-pull shear release
- Available in quality grade Q1, Q2, and Q3
- Premium end connections available

BluePack RH* retrievable hydraulic-set production packers are straight-pull, shear-release packers for vertical and deviated wellbores. A single-piece mandrel body—designed for a 5,000-psi pressure differential—combined with an adjustable shear release value makes this compact packer cost efficient for production and injection applications.

Rated to 5,000 psi [34.5 MPa]
Rated to 325 degF [163 degC]
### BluePack RH Packer Specifications

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<td>2¼ [73.0]</td>
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<td>6½ [168.3]</td>
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<td>3½ [88.9]</td>
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<td>2¼ [73.0]</td>
<td>325 [163]</td>
<td>5,000 [34.5]</td>
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<td>2⅛ [60.3]</td>
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<td>3½ [88.9]</td>
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<td>4½ [114.3]</td>
<td></td>
<td></td>
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<td>7½ [193.7]</td>
<td>29.7–39 [44.2–58.0]</td>
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<td>325 [163]</td>
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<td>4½ [114.3]</td>
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<td>36–53.5 [53.6–79.6]</td>
<td>2¾ [73.0]</td>
<td>325 [163]</td>
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<td>45.5–65.7 [67.7–97.8]</td>
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<td>325 [163]</td>
<td>5,000 [34.5]</td>
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<td></td>
<td></td>
<td>4½ [114.3]</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>5½ [139.7]</td>
<td></td>
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</tbody>
</table>

Available in conventional configuration (left) or fullbore configuration (right) allowing a larger tubing ID.
BluePack Max PH-V3
High-pressure permanent hydraulic-set production packer

APPLICATIONS
- Vertical, deviated, and horizontal wells
- Permanent production or isolation requirements
- High-pressure or hostile environments or both

BENEFITS
- Improves reliability with positive set of slips and element
- Simplifies completion operations through ability to set on workstring
- Reduces rig costs because of streamlined setting procedure

FEATURES
- Validation to ISO 14310 and API Spec 11D1 V3
- One-piece mandrel
- Ability to pressure test the system at surface
- Availability in quality grades Q1, Q2, and Q3
- Availability with HNBR or Aflas elements
- 360° dual opposing one-piece slips
- Full tubing bore through packer and stinger
- Ability to install wellhead before the packer is set

BluePack Max PH-V3* high-pressure permanent hydraulic-set production packer is a single-string device that can hold differential pressure from above or below. It isolates the casing annulus to allow production of a specified zone.

The packer can also act as an anchor for the tubing string. The single-piece mandrel body designed for up to 10,000-psi pressure differential makes this packer an economical choice for production and injection applications. The packer is configurable for tubing-mounted, sealbore, and step-bore options.

BluePack Max PH-V3 packers are available in a range of materials for a variety of service applications, including H₂S and CO₂ environments.
<table>
<thead>
<tr>
<th>Nominal OD, in [mm]</th>
<th>Weight, lbm/ft [kg/m]</th>
<th>Packer Sealbore</th>
<th>Tubing Connection</th>
<th>Max. Working Temperature, degF [degC]</th>
<th>Differential Pressure Rating, psi [MPa]</th>
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</thead>
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<tr>
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<td></td>
<td>23–38 [34.2–56.6]</td>
<td>4.00 [101.6]</td>
<td>3.25 [82.6]</td>
<td>4½, 3½, 2½</td>
<td>10,000 [69]</td>
</tr>
<tr>
<td></td>
<td>23–38 [34.2–56.6]</td>
<td>4.75 [120.7]</td>
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<td>6.00 [152.4]</td>
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<td>7, 5½</td>
<td>HNBR: 325 [163]</td>
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<td>Aflas: 350 [177]</td>
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<td></td>
<td></td>
<td>Based on metallurgy</td>
</tr>
</tbody>
</table>

BluePack Max PH-V3 packer.
BluePack RH-MP
Retrievable hydraulic-set, multiport production packer

**APPLICATIONS**
- Intelligent completions
- Single-trip completions
- Completions in wells with multiple production zones
- Vertical or deviated wellbores

BluePack RH-MP* retrievable hydraulic-set, multiport production packers are feedthrough packers for intelligent completions or any other type of completion where control lines are required. V3 validation makes it a cost-effective option compared with V0-validated packers.

The solid one-piece mandrel can be delivered in several configurations that suit most application requirements for feedthrough size and quantity. The absence of mandrel movement allows installation of multiple units at the same time, without interference.

**BENEFITS**
- Increases completion flexibility with multiple feedthrough ports for control lines
- Reduces rig time and cost with simple setting and retrieval options
- Improves sealing reliability by eliminating tubing movement during installation
- Minimizes risk that debris will hinder retrieval by featuring the sealing element above the slips

**FEATURES**
- One-piece mandrel
- No tubing movement while setting
- Field-adjustable shear release
- Availability with HNBR and Aflas elements
- Validation to ISO 14310 and API Spec 11D1 V3
- Availability in API standard quality grades Q1, Q2, and Q3
### BluePack RH-MP Packer Specifications

<table>
<thead>
<tr>
<th>Casing Size, in [mm]</th>
<th>Casing Weight Range, lbm/ft [kg/m]</th>
<th>Max. OD, in [mm]</th>
<th>Nominal ID, in [mm]</th>
<th>Max. Working Temperature, degF [degC]</th>
<th>Pressure Rating, psi [MPa]</th>
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<td>9¾ [244.5]</td>
<td>40–47 [59.5–69.9]</td>
<td>8.47 [215.1]</td>
<td>3.86 [98.0]</td>
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<td>23–26 [34.2–38.7]</td>
<td>6.09 [154.6]</td>
<td>2.95 [74.9]</td>
<td>350 [177]</td>
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</tr>
</tbody>
</table>

Option to configure feedthroughs as shown or in other arrangements and quantities to suit most application requirements.
BluePack Ultra PH
Ultrahigh-pressure permanent hydraulic-set production packer

APPLICATIONS
- Vertical, deviated, or horizontal wellbores
- High-rate gas wells
- Permanent production or isolation packing

BENEFITS
- Reduces rig time needed to install and set the packer because of its high running speed
- Eliminates tubing movement during setting
- Enables easier milling of the packer

FEATURES
- Dual opposing one-piece slips
- 360° solid-metal backup system to prevent element extrusion
- Validation to ISO 14310 and API Spec 11D1 V0

BluePack Ultra PH® Packer Specifications

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<td>4½ [114.3]</td>
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<td>15,000 [103]</td>
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</table>
BluePack Ultra RH-MP
Ultrahigh-pressure retrievable hydraulic-set, multiport production packer

**APPLICATIONS**
- Intelligent completions
- Single-string production wells
- Single-trip completions
- High-pressure production or injection wells
- Deepwater and deepset completions
- Completions in wells with low fracture gradient

**BENEFITS**
- Increases lower completion flexibility and intelligence with seven feedthrough ports for hydraulic and electric lines
- Improves sealing reliability by eliminating tubing movement during installation
- Minimizes risk that debris will hinder retrieval
- Decreases risk of damaging slips while running into well
- Minimizes milling risk with a cut-to-release (CTR) function

**FEATURES**
- Hydraulic setting mechanism
- Optional hydrostatic setting trigger
- Validation to ISO 14310 and API Spec 11D1 V0

BluePack Ultra RH-MP Packer Specifications

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<td>10 [254.0]</td>
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<td>9 7/8 [250.8]</td>
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<td>CTR</td>
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† Special drift 8.5 in [215.9 mm]
The ISO 9001–certified Product Center is committed to superior quality and on-time, on-budget delivery. A state-of-the-art machine shop is equipped with more than 65 machine tools with computer numerical control (CNC). The computer-based production systems feature integration and automation of order entry, production planning, and purchasing, quality, and shop floor control functions.

Purchased parts and raw materials go through a series of quality checks, and in-house machined parts are inspected after each process. Multiple coordinate measuring machines (CMMs) eliminate human intervention, ensuring accurate and rapid measurements. Nondestructive testing is performed in-house and the final assembly undergoes secure, efficient, and reproducible functional acceptance testing (FAT) in a digitally enabled test bay.
All inspection results are recorded in the Schlumberger Quality Information System, ensuring traceability. With continuous improvement a fundamental goal, any issues—should they arise—are promptly analyzed by multifunctional teams to address the root causes and ensure a smooth remediation.