The CHAMP® V 15K non-rotational packer is ideal for deepwater, extended-reach situations where getting enough torque downhole to manipulate the toolstring can be a major challenge. The CHAMP® V 15K non-rotational packer consists of a hookwall retrievable packer with a concentric bypass and a continuous indexing J-slot.

This packer is constructed with higher grade materials, and elastomers are supported with backup rings, including element package. The J-slot enables the packer to be run in the casing, set, and unset without applying any rotation to the workstring. The packer can cycle from the run-in-hole position to the set and pull-out-of-hole positions simply by lifting or lowering the drillpipe or tubing in the wellbore.

Each assembly includes an indexing J-slot mechanism, mechanical slips, packer elements, hydraulic slips, and a concentric bypass. Round, piston-type slips are used in the hydraulic-holddown mechanism to help prevent the tool from being pumped up the hole. The CHAMP® V 15K non-rotational packer has additional holddown mechanisms to help keep it in place because of the higher loads.

A J-slot position locking mechanism keeps the packer in the run-in-hole configuration until the required depth is reached and the locking mechanism is deactivated. The position locking mechanism is deactivated by the use of a rupture disk, which is set to rupture at a pre-determined pressure. The deactivation pressure can be either wellbore hydrostatic at a certain depth or pump pressure applied to the annulus at surface.

The locking mechanism enables the packer to be run on jointed pipe without cycling through the positions in the J-slot as each joint of pipe is being made up at the surface.

The concentric bypass enables fluids to circulate around the bottom of the tool when it is removed from or moved uphole in the wellbore. Therefore, circulation as the packer assembly is passed through tight spots where packer elements may unintentionally achieve a temporary seal remains uninterrupted. The bypass valve is also designed to be pressure balanced with applied pressure. This prevents unintentional opening of the bypass during treatment applications.

### Features and Benefits
- Easily operated in extended reach or highly deviated wellbores
- Requires no rotation to set the packer
- Assembly will not set until the hydrostatic at a pre-determined depth is reached or annulus pressure is applied
- Can be easily relocated to multiple zones during a single trip for treating, testing, or squeezing
- Concentric bypass enables a larger bypass flow area with positive circulation below packer and tailpipe
- Rated up to 15,000 psi (103.42 MPa) working pressure with a temperature rating of up to 400°F (204.4°C)
- Service environment—immersion in various well fluids including hydrocarbons dilute HCL, sour gas, salt water, and CO₂

### Operation
Run the packer to the required setting depth. Burst the rupture disk with wellbore hydrostatic pressure or applied annulus pressure. This disengages the locking mechanism and enables the packer assembly to cycle through the different positions in the J-slot.

Pick up 1 to 2 ft at the tool to cycle the lugs through the continuous J-slot from the RIH position to the POOH position.

Lower the workstring back down to set the packer. The downward movement cycles the lugs from the POOH position to the set position in the continuous J-slot.

Set the required amount of weight on the packer. If the packer does not take weight, the locking mechanism might not have been disengaged. Apply a safe amount of pressure to the annulus to assist in the disengagement of the lock.

To unset the packer, relieve any surface pressure and simply pick up the workstring to open the bypass valve. This equalizes pressure around the packer elements and enables them to relax. Once pressure is equalized, continue to lift the workstring to completely unset the packer assembly. The packer assembly can then be repositioned in the wellbore or pulled out of the hole.
### CHAMP® V 15K Non-Rotational Retrievable Packer Technical Specifications

<table>
<thead>
<tr>
<th>Casing Size in.</th>
<th>Packer OD in. (cm)</th>
<th>Packer ID in. (cm)</th>
<th>End Connection</th>
<th>Nominal Casing Weight lb/ft</th>
<th>Minimum Casing ID in. (cm)</th>
<th>Maximum Casing ID in. (cm)</th>
<th>Length in. (cm)</th>
<th>Tensile Rating* lb (kg)</th>
<th>Temperature Rating F° (C°)</th>
<th>Working Pressure* psi (bar)</th>
<th>Absolute Pressure psi (bar)</th>
<th>Burst Pressure* psi (bar)</th>
<th>Collapse Rating* psi (bar)</th>
<th>Open Ended</th>
<th>Bull Plugged</th>
<th>Open Ended</th>
<th>Bull Plugged</th>
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<td>5.75 (14.60)</td>
<td>2.00 (5.08)</td>
<td>3 7/8 CAS (Box) 2 7/8 EUE (Pin)</td>
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<td>6.004 (15.25)</td>
<td>6.184 (15.71)</td>
<td>163.84 (415.15)</td>
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<td>400 (204.4)</td>
<td>15,000 (1,034)</td>
<td>25,000 (1,724)</td>
<td>16,217 (4,403)</td>
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<td>9 7/8</td>
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Note: Although other sizes may be available, these sizes are the most common.

*The values of tensile, burst, and collapse strength are calculated with new tool conditions, Lame’s formulas with von Mises’ Distortion Energy Theory for burst and collapse strength, and stress area calculations for tensile strength. These ratings are guidelines only. For more information, consult your local Halliburton representative.

For more information, contact your local Halliburton representative or email us at welltesting@halliburton.com.

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