

## **RTTS Packer**

The **RTTS Packer** is a full-opening, hookwall packer used for testing, treating, and squeeze cementing operations. In most cases, the tool runs with a circulating valve assembly.

The packer body includes a J-slot mechanism, mechanical slips, packer elements, and hydraulic slips. Large, heavy-duty slips in the hydraulic holddown mechanism help prevent the tool from being pumped up the hole. Drag springs operate the J-slot mechanism on  $\leq 3$  1/2-in. (88.9-mm) packer bodies, while larger packer sizes  $\geq 4$ -in. (101.6 mm) use drag blocks. Automatic J-slot sleeves are standard equipment on all packer bodies. The circulating valve, if used, is a locked-open/locked-closed type that serves as both a circulating valve and bypass. The valve automatically locks in the closed position when the packer sets. During testing or squeezing operations, the lock prevents the valve from being pumped open. A straight J-slot in the locked-open position matches with a straight J-slot (optional) in the packer body. This combination eliminates the need to turn the tubing to close the circulating valve or reset the packer after the tubing has been displaced with cement.



## Features

1) The full-opening design of the packer mandrel bore allows large volumes

of fluid to pump through the tool. Tubing-type guns and other wireline tools can be run through the packer.

- 2) The packer can be set and relocated as many times as necessary with simple tubing manipulation.
- 3) Tungsten carbide slips provide greater holding ability and improved wear resistance in high-strength casing.
- Pressure through the tubing activates the slips in the hydraulic holddown mechanism.

4) An optional integral circulating valve locks into open or closed position during squeezing or treating operations, and opens easily to allow circulation above the packer.

## Operation

The tool is run slightly below the desired setting position to set the packer and is then picked up and rotated several



turns. If the tool is on the bottom, only a half-turn is actually required. However, in deep or deviated holes, several turns with the rotary may be necessary. To maintain position, the right-hand torque must be held until the mechanical slips on the tool are set and can start taking weight.

The pressure must be equalized across the packer to unset it. As the tubing is picked up, the circulating valve remains closed, establishing reverse circulation around the lower end of the packer. The circulating valve is opened for coming out of the hole when the tubing is lowered, rotated to the right, and picked up.

| RTTS Packer |           |           |                     |  |   |
|-------------|-----------|-----------|---------------------|--|---|
| Casing Size | Nom. O.D. | Min. I.D. | Casing Weight Range | Top Connection                                 | Lower Connection                            |
| In.         | ln.       | In.       | lb/ft               | /  | Psi.  |
| 5           | 3.90      | 1.77      | 15~18               | 3-3/32"-10UN.B<br>2-7/8" EUE.B<br>2-7/8" CAS.B | 2-7/8" EUE.P<br>2-7/8" CAS.P                |
|             | 3.78      | 1.77      | 21.4~23             | 3-3/32"-10UN.B<br>2-7/8" EUE.B                 | 2-7/8" EUE.P                                |
| 5-1/2       | 4.55      | 1.77      | 13~20               | 3-1/2"-8UN.B<br>2-7/8" EUE.B<br>2-7/8" CAS.B   | 2-7/8" EUE.P<br>2-7/8" CAS.P                |
| 6-5/8       | 5.43      | 1.89      | 24~32               | 3-1/2"-8UN.B<br>2-7/8" EUE.B<br>2-7/8" CAS.B   | 2-7/8" EUE.P<br>2-7/8" CAS.P                |
| 7           | 6.00      | 2.40      | 17~26               | 4-5/32"-8UN.B<br>3-7/8" CAS.B<br>3-1/2" IF.B   | 2-7/8" EUE.P<br>3-7/8" CAS.P<br>3-1/2" IF.P |
|             | 5.75      | 2.40      | 23~29               |  |   |
|             | 5.65      | 2.40      | 32~38               |  |   |
| 7-5/8       | 6.75      | 2.44      | 17~26               | 3-7/8" CAS.B                                   | 2-7/8" EUE.P<br>3-7/8" CAS.P<br>3-1/2" IF.P |
|             | 6.59      | 2.44      | 23~29               |  |   |
|             | 6.35      | 2.44      | 32~38               |  |   |
| 9-5/8       | 8.25      | 3.98      | 29.3~53.5           | 3-1/2" IF.B<br>4-1/2" IF.B                     | 3-1/2" IF.P<br>4-1/2" IF.P                  |
|             | 7.80      | 3.00      | 40~71.8             | 4-1/2" IF.B                                    | 4-1/2" IF.P                                 |
| 13-3/8      | 11.94     | 3.75      | 48~72               | 4-1/2" IF.B                                    | 4-1/2" IF.P                                 |

1) Other sizes available on request.

2) These ratings are guidelines only.