



## Retrievable Packer-Bore Receptacle

TIW developed the Retrievable Packer-Bore Receptacle in response to the problems caused by the use of small-diameter tubing (2 $\frac{7}{8}$  inches O.D. and smaller) in completing deep, high-pressure wells. It is a known fact that small-diameter tubing is more susceptible than larger-diameter tubing to the stress caused by downhole pressure acting against the tubing's inner wall, coupled with the effect of bending acting against its outerwall. This stress produces buckling; and if great enough, results in corkscrewing and/or permanent tubing deformation.

A TIW Packer-Bore Receptacle is the ultimate solution to the stress problem because it will allow the tubing to elongate and contract while maintaining an integral seal. But to seal small-diameter tubing into a polished bore, with an I.D. that is larger than the O.D. of the tubing, will also cause stress to the tubing. The tubing needs support all around its O.D. along the portion that is actually in the polished bore. The solution lies in reducing the seal bore so the tubing is supported by the receptacle, with a minimum gap between the tubing and the polished bore.

To reduce the polished bore I.D., TIW developed the Retrievable Packer-Bore Receptacle Assembly. It consists of a Retrievable Landing Nipple (RLN) with a small-diameter receptacle made up on its top. The RLN/Retrievable PBR assembly connects to, and is run on, the work string. The RLN, which is on the bottom of the assembly, latches into the full-size PBR which is already in place. This attaches the Retrievable PBR to the larger PBR. Now the small-diameter tubing can accommodate the pressure/temperature-induced forces in the well without damaging stress.

When using a Retrievable PBR, the larger PBR (in the casing or liner) only needs to be of minimal length to receive the Retrievable Landing Nipple.

### Retrievable PBR/RLN Specifications

PBR I.D.		RLN O.D.		RLN I.D.		RETRIEVABLE PBR I.D.		RETRIEVABLE PBR O.D.	
In.	Mm.	In.	Mm.	In.	Mm.	In.	Mm.	In.	Mm.
3.750	<b>95.25</b>	3.720	<b>94.49</b>	2.250	<b>57.15</b>	3.005	<b>76.33</b>	3.720	<b>94.49</b>
4.000	<b>101.60</b>	3.970	<b>100.84</b>	2.500	<b>63.50</b>	3.255	<b>82.68</b>	3.970	<b>100.84</b>
4.250	<b>107.95</b>	4.220	<b>107.19</b>	2.500	<b>63.50</b>	3.255	<b>82.68</b>	4.220	<b>107.19</b>
4.750	<b>120.65</b>	4.720	<b>119.89</b>	2.750	<b>69.85</b>	3.005	<b>76.33</b>	4.720	<b>119.89</b>

\*Other RLN I.D. available upon request.

