



## Hydroset Packers

**Product:** Type HD-1 Hydroset Packer, Single Completion  
**Type:** Retrievable  
**Set:** Hydraulic  
**Retrieve:** Straight Pull

TIW designed the Hydroset Packers for high-pressure completions when the well must be controlled at all times. Before the packer is set, operators can install the wellhead equipment, displace mud from tubing and casing, and circulate and clean the producing zones.

Hydraulic pressure, applied through the tubing, sets these packers, so they cannot set prematurely while going in the hole. A large bypass area, plus the absence of friction blocks or springs, permits smooth running in directional holes or liners.

Once in place and set, the hydroset packer holds securely against the casing. There is no need to apply weight to the packer or tubing string before, during or after the packer setting operation, and there is no movement of the tubing during setting. TIW Hydroset Packers can be supplied with a ball seat, a P-1 landing sub, or wireline seating nipple.

Hydroset Packers hold their set mechanically with full-area hold-down slips that prevent packer movement due to differential pressure from below. These TIW Packers release without rotation.

### HD-1 Hydroset Packer Operation

**Setting:** Make up the packer on the bottom of the tubing string and run the tubing to the desired depth. With the packer in position, and with the tubing properly hung in the tubing hanger, install the Christmas tree. The tubing and casing can now be displaced and the packer set.

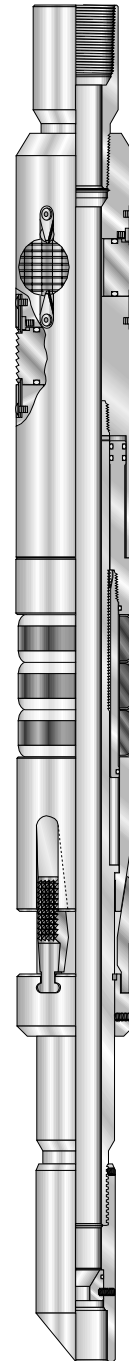
One method of displacing the well and setting the packers is as follows: 1) Pump sufficient fluid into the tubing to displace as desired; 2) Drop the setting ball and pressure up to set the packer; 3) Pressure up the casing with the tubing valve open to test the packer; and 4) Setting is now complete, and the well can be brought in by flowing or swabbing.

**Retrieval:** Retrieve the packer by picking straight up on the string. In wells where more than one packer is used, the top packer will release first, then the next lower packer. At this point, the assembly can be removed.

### HD-1 Hydroset Packer Specifications

CASING SIZE				MAXIMUM TUBING I.D.		MAXIMUM BODY O.D.	
O.D.		WEIGHT RANGE					
In.	Mm.	Lb./Ft.	Kg./M.	In.	Mm.	In.	Mm.
4½	114.3	9.5-11.5	14.1-17.1	1½ <sup>15</sup> / <sub>16</sub>	49.2	3 <sup>27</sup> / <sub>32</sub>	97.6
4½	114.3	13.5	20.1	1½ <sup>15</sup> / <sub>16</sub>	49.2	3¾	95.3
4½	114.3	16.6	24.7	1½ <sup>15</sup> / <sub>16</sub>	49.2	3⅝	92.1
5	127.0	13.0-18.0	19.4-26.8	1½ <sup>15</sup> / <sub>16</sub>	49.2	3 <sup>15</sup> / <sub>16</sub>	100.0
5½	139.7	14.0-20.0	20.8-29.8	2	50.8	4¾ <sup>15</sup> / <sub>16</sub>	115.9
5½	139.7	17.0-23.0	25.3-34.2	2	50.8	4 <sup>15</sup> / <sub>32</sub>	113.5
7	177.8	20.0-26.0	29.8-38.7	2½	63.5	5 <sup>29</sup> / <sub>32</sub>	150.0
7	177.8	26.0-32.0	38.7-47.6	2½	63.5	5¾	146.1
7	177.8	35.0-38.0	52.1-56.6	2½	63.5	5 <sup>11</sup> / <sub>16</sub>	144.5
7 <sup>5</sup> / <sub>8</sub>	193.7	20.0-26.4	29.8-39.3	2½	63.5	6 <sup>25</sup> / <sub>32</sub>	172.2
7 <sup>5</sup> / <sub>8</sub>	193.7	26.4-33.7	39.3-50.2	2½	63.5	6 <sup>37</sup> / <sub>64</sub>	167.1
7 <sup>5</sup> / <sub>8</sub>	193.7	33.7-39.0	50.2-58.1	2½	63.5	6 <sup>7</sup> / <sub>16</sub>	163.5
8 <sup>5</sup> / <sub>8</sub>	219.1	36.0-44.0	53.6-65.5	3	76.2	7¼	184.2
9 <sup>5</sup> / <sub>8</sub>	244.5	36.0-43.5	53.6-64.7	3	76.2	8 <sup>15</sup> / <sub>32</sub>	215.1
9 <sup>5</sup> / <sub>8</sub>	244.5	40.0-47.0	59.5-69.9	3	76.2	8 <sup>3</sup> / <sub>8</sub>	212.7
9 <sup>5</sup> / <sub>8</sub>	244.5	43.5-53.5	64.7-79.6	3	76.2	8¼	209.6

Popular sizes shown. Other sizes available from your TIW representative.



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Packer