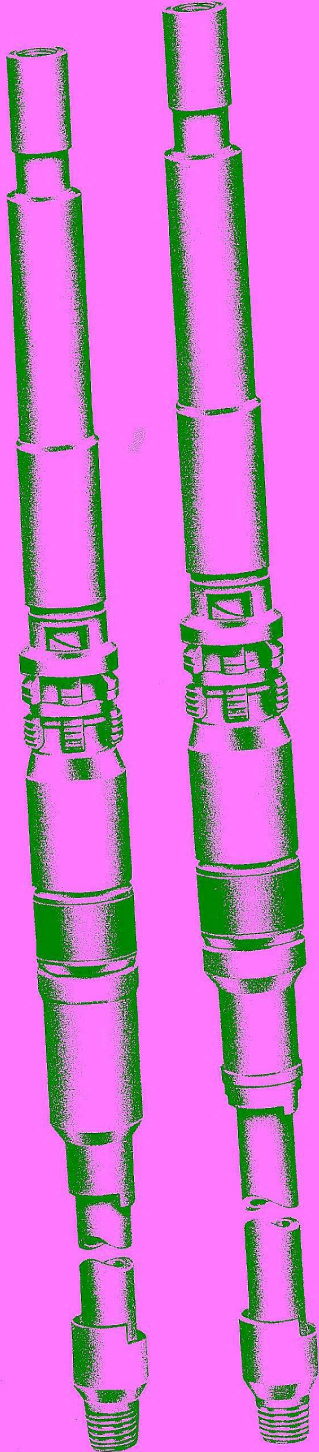


THERMAL SYSTEMS



Model "HBD-1"  
Single-Grip  
Thermoseal Packer

Model "HB-1"  
Single-Grip  
Thermoseal Packer

**MODEL "HB-1" SINGLE-GRIP THERMOSEAL<sup>®</sup> PACKER**  
Product No. 417-37

The "HB-1" is a single-grip, tension set packer for use in steam injection wells. It is designed to be a simple and economical, high temperature sealing system offering an expansion joint and casing packer in one unit.

**MODEL "HBD-1" SINGLE-GRIP THERMOSEAL<sup>®</sup> PACKER**  
Product No. 417-45

The "HBD-1" is the "soft-release" version of the Model "HB-1" Thermoseal Packer. It is designed with a "soft-shear" feature which reduces tubing stretch and re-coil during shear-out; making it ideal for use with insulated tubing or the longer strings of deep injection wells.

**FEATURES/BENEFITS**

- Integral expansion joint with lengths up to 26 ft. (8M) provides for tubing expansion; eliminating the need for additional equipment to be run above the packer

- Packer design utilizes differential pressure boost to constantly energize packing element system
- Tension set to achieve high pack-off force; even in shallow wells
- Tension shear release for simple operation
- Choice of packing element systems provides maximum economy

**OPERATING PROCEDURES**

**TO SET PACKER:** Rotate tubing to the left to obtain one-quarter turn at the packer. This actuates the simple and reliable J-slot mechanism. Apply tension to pack-off.

**TO RELEASE EXPANSION JOINT:** After the packer is set, hold a slight upstrain and rotate to the right.

**TO RELEASE PACKER:** Apply sufficient tension to actuate the straight pull/shear release mechanism.

**FOR EMERGENCY RELEASE:** A left-hand safety connector provides for emergency retrieval of tubing and expansion joint.

**PACKER SELECTION GUIDE**

OD	Casing		Size	Packer			Thread Specifications (Box Up × Pin Down)
	Weight <sup>a</sup>	Preferred Range of Casing ID's		Gage Ring OD	Expansion Joint		
In. / mm	Lb./Ft.	Min. In. / mm Max. In. / mm		In. / mm	Nom. OD In. / mm	Nom. ID In. / mm	
5-1/2 139.70	20	4.778 121.36	45A	4.500 114.30	2.50 63.50	1.99 50.50	2-3/8 OD EU 8 RD
	15.5-17	4.892 124.26	45B	4.656 118.19			
	13-14	4.980 126.75	45C	4.828 122.63			
5-3/4 146.05	17-22.5	4.980 126.75	45C	4.828 122.63	3.25 82.50	2.44 62.00	2-7/8 OD EU 8 RD
	28	5.791 147.09	46A	5.600 142.24			
6-5/8 168.50	24	5.921 150.39	46B	5.843 148.31	3.25 82.50	2.44 62.00	2-7/8 OD EU 8 RD
	17-20	6.049 153.64	46C	6.135 155.83			
7 177.80	29-32	6.094 154.79	46C	6.184 157.07	3.25 82.50	2.44 62.00	2-7/8 OD EU 8 RD
	26-29	6.184 157.07	47A2	6.276 158.41			
	20-26	6.276 159.41	47A	6.456 163.98			
	17-20	6.456 163.98	47B	6.538 166.07			
7-5/8 193.68	24-29.7	6.875 174.63	48C	7.025 178.44	3.62 92.00	2.99 75.90	3-1/2 OD EU 8 RD
	36	7.825 198.76	49A4	7.656 194.46			
8-5/8 219.04	24-32	7.921 201.19	49B	8.097 205.66	3.62 92.00	2.99 75.90	3-1/2 OD EU 8 RD
	47-58.4	8.435 214.75	51A	8.681 220.50			
9-5/8 244.48	29.3-43.5	8.755 222.38	51B	9.053 230.20	3.25 82.50	2.44 62.00	2-7/8 OD EU 8 RD
	38-60	10.772 273.61	53B	11.150 283.21			

<sup>a</sup> When selecting a packer for a casing weight common to two weight ranges (same OD), choose the packer size shown for the lighter of the two weight ranges. Example: for 7" 20 lbs./ft. casing, use packer size 47B. Under certain circumstances the other packer size may be run, such as when running in mixed casing strings.

Standard stroke lengths are 10 ft., 15 ft., 20 ft. and 26 ft. (P/HB-1).

Threads shown are "standard" for the respective packer/expansion joint sizes; other threads are available on request. Please specify when ordering.

"HB-1" only.      Optional.

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