

# CEMENT RETAINER

## SHIELD-PCRM

The Model PCRM Tubing Set Sleeve Valve Cement Retainers are used for secondary cementing operations. These drillable retainers set securely in any hardness casing. The case hardened, one piece slips virtually eliminate premature setting, yet can be easily drilled out. Set with Model MSR Mechanical Setting Tool. Single run to set and squeeze cement. They are available for 4-1/2" through 20" casing.

## SPECIAL FEATURES

- Sets securely in any hardness casing
- Ratchet lock rings secure dynamic setting force. Faster, safer run-in
- One piece packing element and metal back up rings combine for a superior seal
- Pressure balanced sleeve valve is opened and closed by tubing manipulation from the surface for better control
- Can be converted to PCRW Wireline Set Cement Retainer or PCRM Bridge plug
- Tests tubing — tubing can be tested before squeezing by picking up to close the valve and applying pressure
- Holds final squeeze pressure — automatic closing of the valve when picking up, or removal of stinger, ensures holding the squeeze under final pressure as cement is circulated out
- Isolates squeeze from hydrostatic pressure — keeping hydrostatic pressure off the zone just squeezed is important, especially for cementing low-fluid-level wells in batch-squeeze operations



CASING		SETTING RANGE		TOOL OD
OD	Wt	Min ID	Max ID	
4 ½	9.5-15.1	3.826	4.090	3.59
5	11.5-20.8	4.156	4.560	3.93
5 ½	13.0-23.0	4.580	5.044	4.31
5 ¾	14.0-26.0	4.890	5.290	4.70
6 5/8	17.0-32.0	5.595	6.135	5.37
7	17.0-35.0	6.004	6.538	5.68
7 5/8	20.0-39.0	6.625	7.125	6.31
8 5/8	24.0-49.0	7.511	8.097	7.12
9 5/8	29.3-58.4	8.435	9.063	8.12
10 ¾	32.75-60.7	9.660	10.192	9.43
11 ¾	38.0-60.0	10.772	11.150	10.43
11 ¾	60.0-83.0	10.192	10.772	9.94
13 3/8	48.0-80.7	12.175	12.715	11.88
16	65.0-118.0	14.576	15.250	14.12
20	94.0-133.0	18.730	19.124	18.37