



BLACKHAWK
SPECIALTY TOOLS
A division of Frank's International

COMPLIANT WITH API 11D1 3RD EDITION

ENGINEERED DOWNHOLE SOLUTIONS

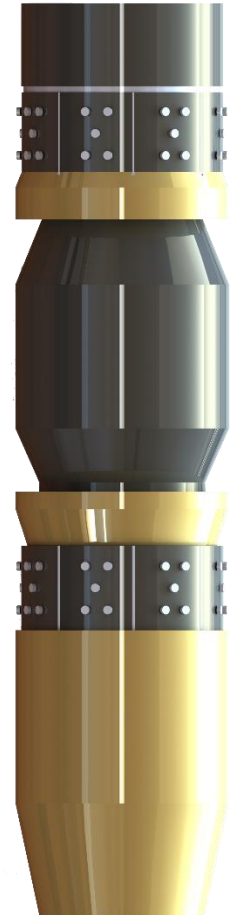
CAST-IRON CEMENT RETAINER/BRIDGE PLUG

Blackhawk's Cast-Iron Cement Retainers (CICR) and Bridge Plugs (CIBP) are ideal for squeeze cementing and well abandonment operations and can be set on wireline, drill pipe, tubing, or coiled tubing. Three variants of CICRs are available for a variety of applications; all are designed to prevent the backflow of fluids and are easily drillable.

- **Ball Check** - holds pressure from below during squeeze operations until the cement has set. The ball allows for bi-directional fluid flow once pressure equilibrium is reached.
- **Sleeve Valve** - remains closed until stung into, controlling flow and pressure differential bi-directionally, allowing pressure testing of the work string. Stabbing through with a stinger allows cement to be placed during squeeze operations.
- **Poppet Valve** – similar to the Ball Check variant, this retainer holds pressure from below during squeeze operations until the cement has set. However, the valve remains closed when at equilibrium.

FEATURES & BENEFITS

- Up to 325°F standard temperature rating **Higher ratings available*
- Wireline, drill pipe, tubing, or coiled tubing set
- Drillable cast-iron construction
- Sets in casing grades greater than Q125
- Anti-swab/anti-preset characteristics with 360-degree slips & angled backup design
- Setting force held in place by internal body lock ring
- Retaining rings prevent element extrusion
- Sleeve Valve Retainer can be easily converted into a Bridge Plug
- Brushes and Scrapers can be easily installed using a universal threaded adapter





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SPECIFICATIONS

POPPET VALVE AND BALL CHECK CEMENT RETAINERS								
Casing Details				Tool Details				
Casing Size (IN.)	Weight (LBS/FT)	Casing Min ID Setting Range (IN.)	Casing Max ID Setting Range (IN.)	OD (IN.)	Maximum Temperature (°F)	Maximum Pressure (PSI)	Setting Tool Options	
2-3/8"	4.0 - 5.8	1.780	2.074	1.750	300	7,500	Baker #5 & 1-11/16 - 1.75 L/S	
2-7/8"	6.4 - 6.5	2.340	2.525	2.220	300	7,500	Baker #5 & 1-11/16 - 1.75 L/S	
3-1/2"	5.75 - 10.3	2.867	3.258	2.750	300	7,500	Baker #10 & 2-1/8 Multi-Stage	
4"	5-6 - 14.0	3.340	3.732	3.140	300	7,500	Baker #10 & 2-1/8 Multi-Stage	
SLIDING VALVE CEMENT RETAINERS AND BRIDGE PLUGS								
Casing Details				Tool Details				
Casing Size (IN.)	Weight (LBS/FT)	Casing Min ID Setting Range (IN.)	Casing Max ID Setting Range (IN.)	OD (IN.)	Maximum Temperature (°F)	Maximum Pressure (PSI)	Setting Tool Options	
4-1/2"	9.5 - 16.6	3.826	4.090	3.500 / 3.593	325	10,000	WL Setting Tool - Standard and Heavy Wall	
5"	11.5 - 18	4.154	4.560	3.710 / 3.937	325	10,000		
5-1/2"	13 - 23	4.580	5.047	4.240 / 4.312	325	10,000		
6"	14 - 26	5.140	5.595	4.750	325	10,000		
6-5/8"	14							
6"	10.5 - 12	5.595	6.366	5.340 / 5.375	325	10,000		
6-5/8"	17 - 34							
7"	32 - 38							
7"	17 - 35	5.989	6.655	5.610 / 5.687	325	10,000		Hydraulic Setting Tool - Fury 5-20 and Full Hydraulic Options
7-5/8"	20 - 39	6.560	7.263	6.090 / 6.312	325	10,000		
8-5/8"	24 - 49	7.511	8.248	6.960 / 7.125	300	8,000		
9-5/8"	29.3 - 53.5	8.435	9.063	7.710 / 8.125	300	8,000		
10-3/4"	85.3	8.979	9.342	8.690	300	8,000		
10-3/4"	54 - 81	9.250	9.784	8.710 / 9.000	300	5,000		
10-3/4"	32.75 - 60.7	9.660	10.192	9.437	300	5,000		
11-3/4"	38 - 60	9.850	11.150	9.500	300	5,000		
11-3/4"	60 - 70	10.192	10.772	9.937	300	5,000		
13-3/8"	77 - 102	11.633	12.464	11.562	300	5,000	Mechanical Setting Tool - Drag Spring and Drag Block Styles	
13-3/8"	48 - 72	12.175	12.715	12.000	300	5,000		
16"	65 - 118	14.438	15.250	14.250	200	2,000		
18-5/8" 20"	76 - 96.5	17.655	18.730	17.250	200	2,000		
	133 - 169							
20"	94 - 133	18.730	19.124	18.375	200	2,000		