



**BLACKHAWK**  
SPECIALTY TOOLS

COMPLIANT WITH API 11D1 3<sup>RD</sup> EDITION

ENGINEERED CEMENTING SOLUTIONS

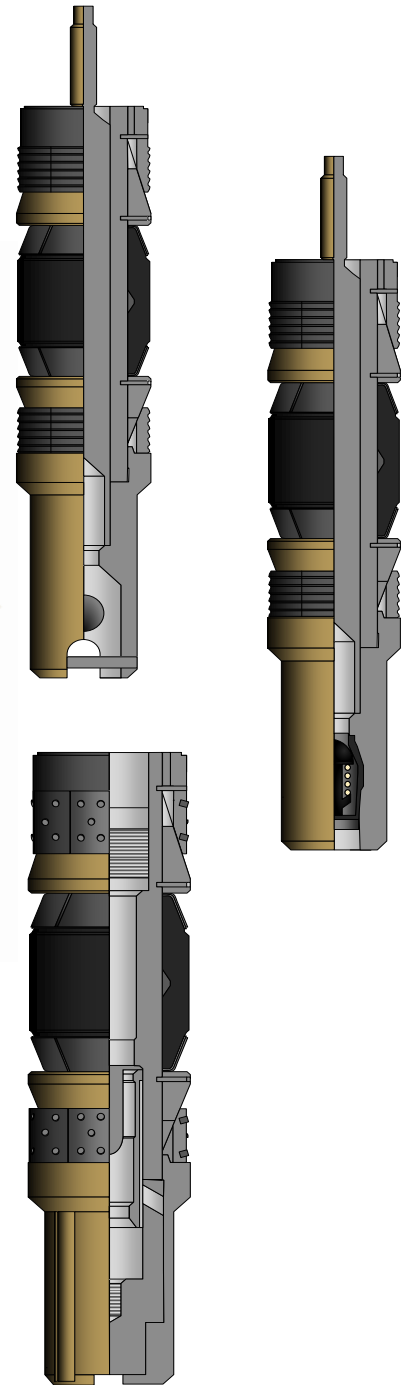
## CAST IRON CEMENT RETAINERS/BRIDGE PLUG

Blackhawk's Cast Iron Cement Retainers are ideal for squeeze cementing and well abandonment operations and can be set on wireline, drill pipe, tubing, or coiled tubing. Three variants of cement retainers 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

- 300°F temperature rating standard. Higher ratings available upon request.
- Wireline, drill pipe, tubing, or coiled tubing set.
- Drillable cast iron construction.
- One piece slips with hardened wickers for use in up to 110 yield casing.
- Anti-swab/anti-preset characteristics with 360 degree slips and 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





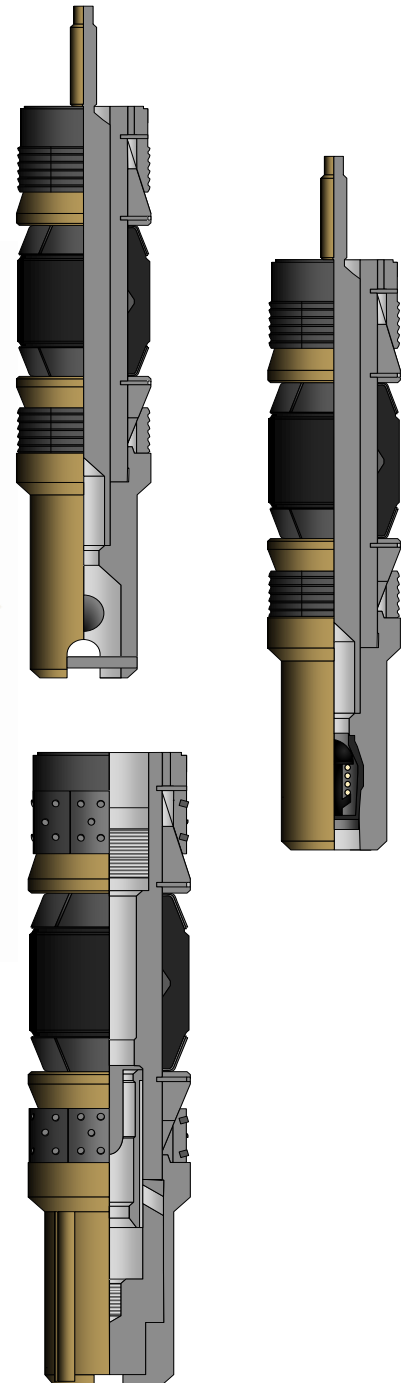
**BLACKHAWK**  
SPECIALTY TOOLS

COMPLIANT WITH API 11D1 3<sup>RD</sup> EDITION

ENGINEERED CEMENTING SOLUTIONS

**SPECIFICATIONS**

<b>Poppet and Ball Check Valve Cement Retainers</b>					
Casing (in)	Setting Range		Pressure/temp Rating (psi/°F)	Setting Tool	
	Min	Max			
2 3/8"	1.780	2.074	7,500/300	1.75 / 1-11/16	
2 7/8"	2.34	2.525		1.75 / 1-11/16	
3 1/2"	2.867	3.258		1.75 / 2 1/8	
4"	3.34	3.732		#10	
<b>Sleeve Valve Cement Retainers</b>					
Casing (in)	Setting Range		Pressure/temp Rating (psi/°F)	Setting Tool	
	Min	Max			
2 3/8"	1.867	2.107	10,000 / 325	1.75 / 1-11/16	
2 7/8"	2.28	2.563		1.75 / 1-11/16	
3 1/2"	2.867	3.258		1.75 / 2 1/8	
4"	3.34	3.732		#10	
4 1/2"	3.826	4.090		8,000 / 300	#20
5"	4.154	4.560			
5 1/2"	4.580	5.044			
6"	5.595	6.135			
6 5/8"	5.595	6.135			
7"	6.004	6.538			
7 5/8"	6.560	7.263			
8 5/8"	7.511	8.248			
9 5/8"	8.435	9.063			
10 3/4"	8.979	9.342	5,000 / 300		
10 3/4"	9.250	9.660			
10 3/4"	9.660	10.192			
11 3/4"	10.192	10.772	3,000 / 300		
13 3/8"	11.633	12.464			
13 3/8"	12.175	12.715	2,000 / 200		
16"	14.438	15.250			
18 5/8"	17.480	18.00			
20"	18.730	19.124			





**BLACKHAWK**  
SPECIALTY TOOLS

COMPLIANT WITH API 11D1 3<sup>RD</sup> EDITION

*ENGINEERED CEMENTING SOLUTIONS*

