

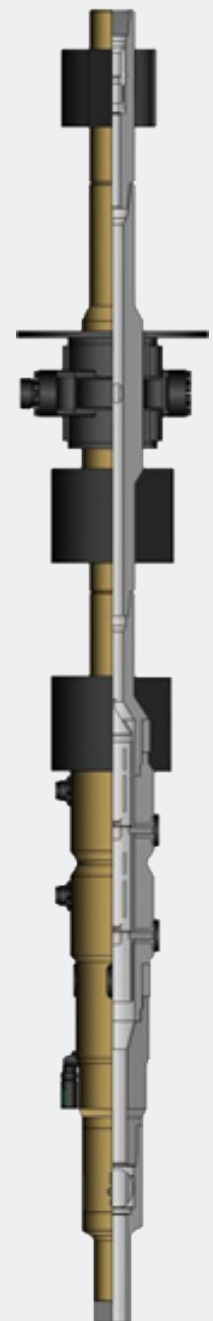
BLACKHAWK® Rotating Plug Launcher

Standard Features and Benefits

- Universal design facilitates the operational flexibility to drop multiple styles of wiper plugs
- Industry-exclusive LED tattle-tale enables visual and audible confirmation of wiper plug release to eliminate need for personnel to manually confirm from the rig floor
- Industry-exclusive inspection port on each chamber allows for viewing inside the cement head, improving operational efficiencies by ensuring proper load out and release of wiper plugs
- Full “flow-around” cage allows plugs to be pre-loaded to reduce rig time and improve operational efficiency
- High-pressure swivel facilitates high RPMs and long-duration rotation while conditioning and cementing to improve quality of cement job
- Swivel can be removed from assembly when pumping cement through the top-drive to reduce overall length for various applications
- Isolation valve above tool isolates top-drive during cementing operations for added tool protection
- For 5-1/2” only - isolation valve below tool completely isolates plug launcher and allows isolation flange to be made up for wireline re-entry intervention to perform well control operations
- Patented hold down rotating swivel for 9-5/8” and 13-3/8” holds negatively buoyant casing to rig floor for increased safety during operations
- Administrative CE marking available for required environments

Optional Wireless Features and Benefits

- Includes cementing plug valve, pin pullers, ball droppers and wireless isolation valves that eliminate hydraulic umbilical lines to reduce the number of riding belt trips above the rig floor
- Fully-wireless automation system eliminates the requirement to pause pumping, reciprocating, or rotating during cementing operations to enhance operational efficiencies
- Manual backup on all remote-operated features ensures redundancy and risk-free operation
- Continuous wireless link monitoring and radio signal filtering blocks Wi-Fi® and other wireless transmission interference for increased reliability
- ATEX Zone 1, IECEx, and UL Class I, Division 2 safety certifications available for required environments



Use in the following applications:

Shelf

Land

The Frank's International BLACKHAWK® Rotating Plug Launcher is ideal for rotating while cementing surface casing strings in shale or shallow water. The BLACKHAWK® Rotating Plug Launcher can be configured with multiple chambers to adapt to any primary cementing application and can be upgraded with an optional wireless automation system.

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Specifications

Casing Size (IN.)	Max Hook Load (LBS)	Maximum Working Pressure (PSI)	Torque-Thru Tool Rating (FT-LBS)	Maximum Pump Rates (BPM)	Complete Tool Weight (LBS)***	Wiper Plug/Dart Range (IN.)	Wiper Plug Maximum Length (IN.)**	Top Connection	Bottom Connection
5-1/2"	810,000 (1.5 SF) *	10,000	50,000	35 (Top Drive) 15 (2" 1502)	4,500	3-1/2" – 5-1/2"	24	NC-50 (4-1/2" IF) Box	5-1/2" 23.0 ppf GB CDE pin
9-5/8"	2,270,000 (1.5 SF) *	10,000	100,000	35 (Top Drive) 15 (2" 1502)	4,900	6" – 9-5/8"	18	6-5/8" FH Box	9-5/8" 53.5 ppf GB CDE pin
13-3/8"	2,500,000 (1.5 SF) *	10,000	100,000	35 (Top Drive) 15 (2" 1502)	10,000	9-5/8" – 14"	18	6-5/8" FH Box	13-3/8" 72.0 ppf GB CDE / 9-5/8" 53.50 ppf GB CDE

* Maximum Hook load may be limited by connection ratings

** Can combine chambers to launch longer plugs

*** Includes Triple Body, HD Flow Ring, Wireless Package, Pups and Crossovers