

Hydril Pressure Control 5k WBSR

Wireline Blind Shear Ram

Product description

Offshore rigs must be able to effectively shear wirelines used in drilling operations, and there's a growing demand for shearing rams that can sever a wide variety of pipe, casing, tubing, and various sizes of, slick line, vacuum-insulated tubing (VIT), wireline, E-line, control lines, and shear subs.

The wireline blind shear ram (WBSR) from HMMH is designed to reliably cut all of these wellbore elements, and seal the well to protect people, equipment, and the environment. The NACE-compliant 5K WBSR shearing technology builds on the legacy performance of our 5K blind shear ram (BSR), with the capability to shear and seal wire and tubing elements—without needing any tension. The WBSR has successfully sheared and sealed complex sub assemblies with combinations of pipe, wireline, coiled tubing, and control lines suspended and on bottom.

Benefits

The patent pending WBSR features an integral block/blade design with a hardened cutting edge for enhanced strength and reliability. The new design is NACE MR0175 compliant along the pressure boundary, providing higher reliability and resistance to cracking in hydrogen sulfide (H₂S) environments.

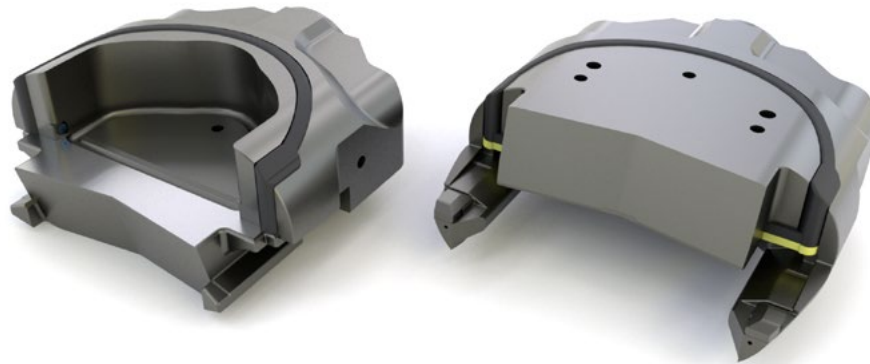
During validation testing, the WBSR sheared and sealed wirelines as small as 7/32 inches, VIT, braided wire, drill pipe, casing, and combinations of wire, pipe, and coiled tubing—all with one set of blocks, and without any tension to assist the shearing action. The design has also achieved an API 16A PR2 side-loaded shear and seal test rating of over 36,000 pounds; more than 3x times the force of any other publicly published results.*

*As of January 2020. Testing performed with 6-5/8" V-150 drill pipe.

Key features

- API 16A, 4th edition PR2 compliant
- Combines the capabilities of wireline and blind-shear ram blocks into a single product
- Capable of shearing and sealing combinations of pipe, wireline, and tubing with no tension
- Industry leading side load shearing and sealing performance
- NACE-compliant through the pressure load path
- Integral boltless block/blade design, replaceable wear pads, and hardened cutting edge
- Compatible with 18¾ inch (15k) ram BOPs with 5k bonnets
- Hot temperature rating: 250 F
- Continuous hot temperature rating: 150 F
- Low temperature rating: 20 F
- H₂S rating: 20%
- 15,000 psi pressure rating





Technical specifications

Shear sample		Shear & seal
Wireline	1/8 in. slick line	Yes†
	7/32 in. braided wire slack	Yes
	1/2 in. braided wire slack	Yes
	1/2 in. tubing	Yes†
	Vacuum-insulated tubing VIT	Yes
Drill pipe/casing	5 in. G-105 19.5 lb/ft	Yes
	5 1/2 in. S-135 24.7 lb/ft (on bottom)	Yes†
	6 5/8 in. V-150 57 lb/ft	Yes††
	10 3/4 in. P-110 85.3 lb/ft	Yes†
	3 1/2 in. N-80 10.2 lb/ft	Yes†
Combination	5 in. G-105 with 6 flat packs and 7/16 in. wire	Yes
	5 in. G-105 with 7/16 in. wire	Yes
Shear subs	T-95 shear sub (combination)	Yes
	Shear sub (combination—on bottom)	Yes

† Pipe placed off-center (on side wall)

†† Side-loaded