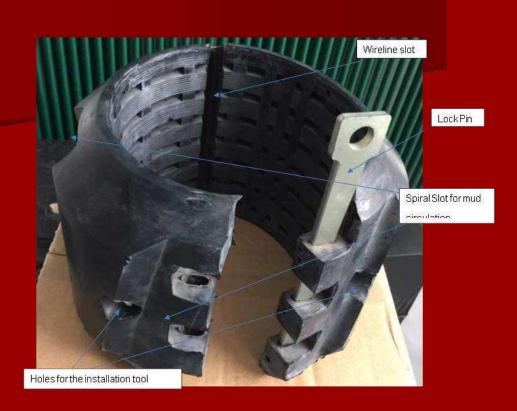


CABLE PROTECTOR



During logging operations, the wireline cable is most susceptible to damage. VINCI's TECHNOLOGIES PROTECTORS, create a sufficient stand-off between the outside diameter of the external upset and the casing to prevent damage of the wireline cable by nipping.

VINCI'S TECHNOLOGIES CABLE PROTECTOR is specially designed for:

- · Quick, easy installation and removal
- Better bonding
- Positive gripping
- Safety in operation

Quick, easy installation and removal of the VINCI's TECHNOLOGIES CABLE PROTECTOR is made possible by the use of locking pins which are forged stainless steel for corrosion protection.

The VINCI's TECHNOLOGIES CABLE PROTECTOR LOCK PIN is designed with an "ARROW HEAD" pin head.

The "ARROW HEAD" and the forged stainless-steel design with rounded angles of the pin decrease the friction surface of the pin inside the protector.

The "ARROW HEAD" position ease insertion of the pin into eyelet of the protection cage

Better bonding

In the CABLE PROTECTORS, the rubber component is bonded to a rugged steel cage with three interlocking fingers on each end.

Positive gripping

Advanced cage design with two advantages:

- -Stronger interlocking Rounded protector lock pin means rounded eyelets No risk of incipient cracks
- Better fitting between eyelet and lock pin No elongation of interlocks means better gripping
- -Safety in operations:
- *The "ARROW HEAD" of the pin locks, the PROTECTOR and eliminates hang-up potential in operations.
- *2/10" (5m.m) thickness of the "ARROW HEAD" lock pins prevent the pin head from being flattened against the pipe.
- *Higher "compression set" with better gripping on the pipe.
- *Axial load of more 2500 lbs. is required to move the PROTECTOR on the pipe, assuring continued stand-off where needed.

Position on tubing string

Is recommended to position the CABLE PROTECTOR above and below each DP coupling at a distance of 5ft. In special cases (such as highly deviated wells or tight dimensions) an additional protector should be installed in the middle of the joint.

Rubber compounds

The rubber composition is made in accordance with the general well conditions (swelling, gassing, slippage and jamming, immersion in completion fluids, corrosion inhibitors).

CABLE PROTECTORS are available in a choice of two rubber compounds:

- -Oil resistant for normal downhole conditions and for use where drilling muds have a high oil content and downhole temperature up to 300°F (upon request for higher temperatures)
- -Gas resistant compound recommended for wells with high gas concentration

Design

The design of the VINCI's TECHNOLOGIES CABLE PROTECTOR is "Spiral – Exocentric" or "Spiral Centralized".

The "spiral" design intended for applications where high mud velocity is encountered. The "Spiral – Exocentric" design is used only if the gap between the wireline slot and the CASING ID is not enough big and is available on request.

The CABLE PROTECTORS are available for tubing size 2"7/8 to 7".

The wireline slot can be from 0''1/4 to 1''1/4.

Quality Control

All aspects of production, from incoming material, elastomer mix and moulding to final performance are carefully controlled.

Cages are tested for rivet strength, rubber to metal bonds and dimensional tolerances. The product grip to drill pipe and slip resistance are also regularly controlled.

SPIRAL FLUTED PROTECTORS Clearance Charl

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