- High compression set of rubber and inside design of the protector with alveoles optimized to be closed by rubber displaced after installation on the drill pipe.
- Available in two types
  Solid « Slick »
  Spiral « fluted »

Both types of similar design.
In some drilling programs the solid « slick » protector may have some disadvantages.

It may restrict the mud flow, increasing mud pump pressure; this naturally increases wear, maintenance and cost of operating the pumps.

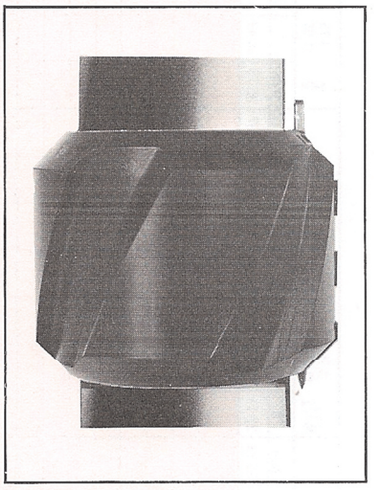
BECAP developed the SPIRAL FLUTED SPLIT PROTECTOR, a design modification of the « Solid Slick » protector, intended specially for applications where high mud velocity is encountered.

The SPIRAL FLUTED has a larger outside diameter than solid slick protectors thus providing better stabilisation downhole.

At the same time the spiral flutes allow ample passage area for drilling mud and cuttings and better absorption of high side loads.

The tight design and open angle of the spiral flutes increase the contact of the protector, provide better wear resistance and reduce damage to casing walls.

See page 4 for full explanation of clearance ratio calculations.



QUALITY CONTROL

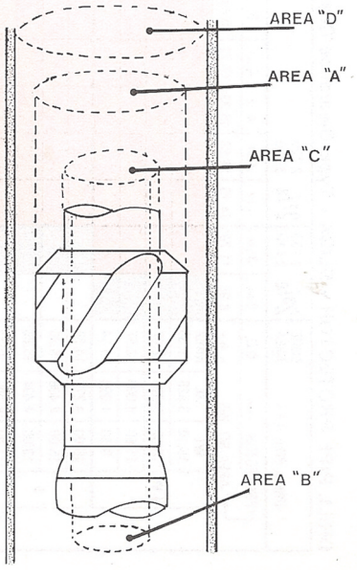
All aspects of production, from incoming material, elastomer mix and moulding to final performance are carefully controled.

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 evaluated.

SELECTION GUIDE

- Area of the annulus between the expanded protector and the bore of the casing is less than the area of the tool joint bore.
- Area of the annulus between the expanded protector and the bore of the tool joint.
- Recommended ratio.
  Area of the annulus to the bore area of the tool joint is 2 to 1 or more.



Flow aera ratio calculation

A : Annular flow area
B : Bore area through the tool joint
C : Installed area of the protector + D.P. area
D : Internal area of the casing