

## CONTROL LINE PROTECTORS

BECAP « CONTROL LINE PROTECTORS » have been developed in the same way as casing protectors to perform the dual function of positioning production tubing away from casing and securely clamping hydraulic control line to production tubular to protect against failure due to abrasion and slippage.

At the upset coupling the control line is most susceptible to damage and BECAP protectors create a sufficient stand off between the outside diameter of the external upset and the casing to prevent damage of the line by nipping.

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

BECAP control line protectors are available in 3 designs

Slick

Fluted

Excentric (exceptionally and on request)

Using the same design as casing protectors (ARROW HEAD lock pin in forged stainless steel) their resistance against deflection is high (more than 2500 Lbs side loading for 1/16" deflection) assuring safe control line protection and pipe centralisation, even in highly deviated wells.

Many configurations are offered:

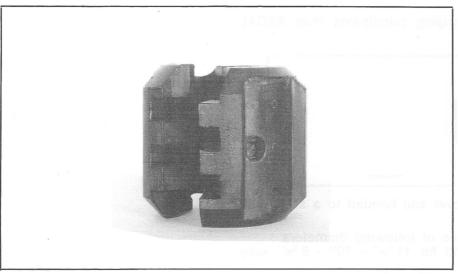
BECAP control line protectors are available for tubing sizes  $2^{3}/8$ " to  $7^{5}/8$ ".

Slot sizes for control line and cable range from 1/4 to  $1^{1}/4$  OD and/or 1" x 2".

Special application designs and non-standard sizes may be supplied within very short delivery and low cost for tooling.

## Position on tubing string

In vertical or slightly deviated holes BECAP control line protector above each coupling is recommended. In highly deviated wells an additional protector should be installed in the middle of the joint.



All sizes on request