

## Selecting the right Slingco Cable Protector for your well is a straightforward process.

Slingco cable protectors are designed to securely hold cables and lines within a specific, narrowly defined size range. This range is clearly indicated in our drawings and markings on our protectors. This document is to help you understand how these ranges work so clients may select the best protector for their specific application. Please call Slingco to discuss well configurations so we may suggest the proper cable protector for your well. **Call 888-685-9478 or email sales@slingcoamerica.com** 

Slingco cable protectors are designed to provide a holding strength on cables being run to a minimum of 1,500 lbs. at the 'loosest' specification. The holding strength is defined by the amount of pulling load required to cause any movement of the cable when secured by the protector. The 'loosest' specification is when the cable height/OD is at the lowest point in the acceptable range and the tubing is at the smallest OD allowed by API tolerances. This means that when cables are at a higher point in the range and/or the tubing OD is larger within the allowed API tolerance specification, the cable will be held more tightly. Any thermal expansion of the tubing or cable in the well will add to the holding pressure and compression on the cable.

## **Cable Protector Naming Convention**

Slingco uses a ZCPXXXX number to identify a specific cable protector design. Additionally, a descriptive labeling nomenclature will be provided. The part number and descriptive label will be stamped on the protector and provided on all drawings. See diagram for examples of the descriptive label.

The descriptive label will provide the TUBING SIZE [3 ½ from example], CABLE TYPE [flat or round], allowable CABLE DIMENSION [a cable with dimensions within the listed range will be held securely and will fit], SPECIAL DESIGN FEATURES if any [notched, mid-joint, Low, etc.].

Selecting the best cable protector for your project. Confirm the following will work for your specific well application.

#### **TUBING SIZE**

Select a cable protector for the tubing size being run.

### **COUPING OD**

Confirm the coupling OD being run will fit within the cable protector selected. The drawing will indicate the max OD or typical OD of the coupling for the protector

design. If using a coupling with an OD larger than or significantly lower than the coupling OD listed on the drawing contact Slingco to confirm if it is the best protector for your application. If not, an alternate protector design will be recommended.

## CABLE(S) DIMENSION(S)

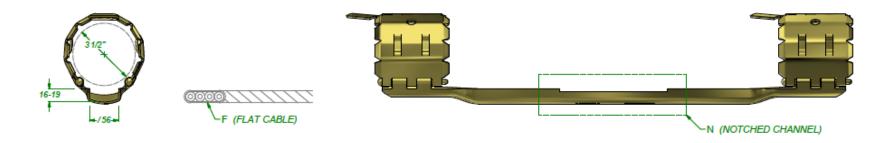
Confirm the dimensions of the cable you are running falls WITHIN the stated range for the cable protector. This is typically stated in metric and converted to Imperial. For ESP or armored power cables - If your cable's height is at the top end of the range be aware that the cable will experience maximum compression. Review the manufacturing tolerance for the cable you are running. If without the tolerance the cable is at the top of the protector range one should consider moving to the next larger protector size. This will minimize compression marks on the cable and will still provide appropriate holding strength. Also, if one expects thermal expansion of the tubing or cable one should consider moving to the next size up if the cable is at the top end of the cable dimension range. Be sure to confirm dimensions for all cables being run and the channels in the protector specifically designed to hold them.

## **MATERIAL REQUIRED**

If your well conditions require a specific cable protector material, please confirm this. Many materials are available such as 304, 316 and 410 Stainless Steel, Monel, Inconel, Super Duplex, and others.

Additional well condition/environmental factors may impact dimensions and should be considered when selecting the proper protector. Some of these factors include tubing size relative to tubing specification and tolerances, thermal expansion likelihood, cable specification and tolerances, and if the cable being run had previously been run. One may desire less compression on subjected to harsh well environments.





# 3 1/2 F 16-19/56 N

## PRODUCTION TUBING SIZE

Ø 2 3/8" O.D. Ø 2 7/8" O.D. Ø 3 1/2" O.D. Ø 4 1/2" O.D. Ø 5 1/2" O.D. Ø 7" O.D.

## **CABLE TYPE**

F	FLAT
R	ROUND

## **CABLE DIMENSION**

6	Ø 6mm O.D.
6-8	Ø 6-8mm O.D.
30-33	Ø 30-33 <b>mm</b> O.D.
32-34	Ø 32-34mm O.D.
34-37	Ø 34-37 <b>mm</b> O.D.
38-42	Ø 38-42 <b>mm</b> O.D.
11/34	□ 11mm x 34mm
11-16/56	□ 11-16mm x 56mm
11-16/60	□ 11-16mm x 60mm
16-19/56	□ 16-19mm x 56mm
16-19/60	□ 16-19mm x 60mm
16-19/70	□ 16-19mm x 70mm
19-23/60	□ 19-23mm x 60mm

# **SPECIAL DESIGN FEATURE**

-	NONE/STANDARD
N	NOTCHED
MJ	MID-JOINT
D ∝ DUAL	TWO CABLE TYPES
T∝TRIPLE	THREE CABLE TYPES
G	GAUGE PROTECTOR
GWS	GAUGE WIRE SPLICE
S	SPECIAL / OTHER
SS	STAINLESS STEEL