

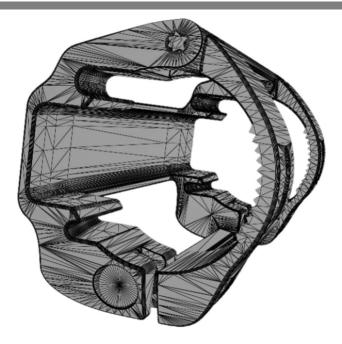


Benefits:

- Protects Cable at Coupling
- Shifts tubing string away from Casing
- Replaces cable bands near joint
- Eliminates cleanouts for bands

Applications:

- ESP Cable Protection
 - Deviated or Inclined wells
- Unconventional Horizontals- High DLS and Tangents
- Chemical treatment with Cap tube
 - Protects 3/8" and ¼" Capillary



Improvements for Unconventionals:

- No-Slip grip: Improved rotational and axial grip
- Improved design of body to improve installation increase rerun rates

Features:

- Upgraded Annealed Ductile Iron
- Heavy Duty Cable guard with Cap tube slots
- 1-piece design
 - No parts to drop down hole
 - Rapid installation

TEST	RESULTS	Description
Rotation Slip	3.5 TONS	Rotational grip on tubing
Lateral Load	6 TONS	Until .5 mm deflection (safe)
Axial Load	3.8 TONS	Up and Down tubing
Cable Grip	575 lbs.	10+ Joints of cable
Control Line Grip	337 lbs 425 lbs.	1/4" & 3/8" Cap Tube

^{*} ISO9001 Manufactured, Third Party Tested