

# Heavy Duty Cable Protectors



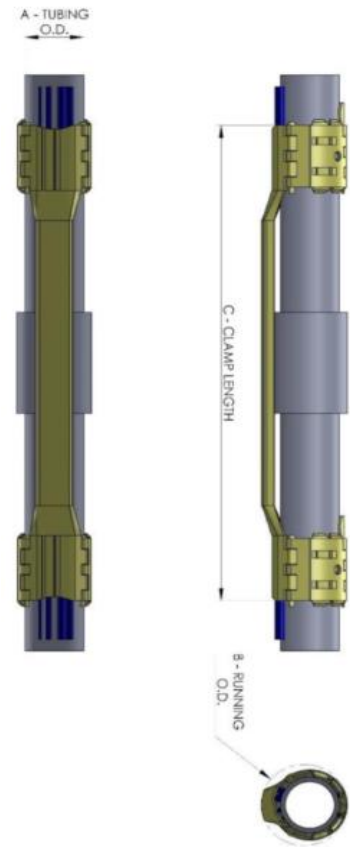
Qteq's Heavy Duty Cable Protectors are used to shield Tubing Encapsulated Cable (TEC) or Tubing Encapsulated Fibre (TEF), control lines, cable splices and pressure gauges from impact and abrasion damage during installation of permanent downhole monitoring systems.

The heavy duty protector design provides positive standoff protection over tubing couplings and any completions equipment with external upsets, even in highly deviated and horizontal wells. These protectors are also available as centralizers and can be installed in combination with light duty cross-coupling protectors to meet specific well application requirements.

Specialized equipment is required for the installation and retrieval of these protectors. Qteq provides this equipment as part of our installation service package.

## Features and Benefits

- Tapered profiles minimize the potential for hang-ups during system installation and retrieval.
- Vertical movement of protectors constrained by coupling shoulders and tubing upsets.
- Ability to configure design for multiple cables and sizes
- Available in variety of metallurgies
- Interchangeable design for all tubing and casing sizes
- Suitable for deviated and high angle well bores



## Specifications

Style	Size	Material	STD Running OD	SLIM Running OD	Clamp Length	Max. Coupling OD
Cross-Coupling	2- 3/8"	CS / 316SS	3.724"	3.674"	24.71"	3.063"
	2- 7/8"	CS / 316SS	4.410"	4.174"	24.71"	3.668"
	3- 1/2"	CS / 316SS	5.190"	N/A	24.71"	4.500"
Splice	2- 3/8"	CS / 316SS	N/A	3.875"	43.7"	N/A
	2- 7/8"	CS / 316SS	N/A	4.45"	43.7"	N/A
	3- 1/2"	CS / 316SS	N/A	5.011"	43.7"	N/A
Mid Joint	2- 3/8"	CS / 316SS	N/A	3.287"	3.386"	N/A
	2- 7/8"	CS / 316SS	N/A	3.800"	3.386"	N/A
	3- 1/2"	CS / 316SS	N/A	4.406"	3.386"	N/A
SSD	2- 3/8"	CS / 316SS	3.930"	N/A	15.2"	N/A
	2- 7/8"	CS / 316SS	4.430"	N/A	15.2"	N/A
	3- 1/2"	CS / 316SS	TBA	N/A	15.2"	N/A