

Technical Bulletin

No. RG002AU, Rev. A
Release Date: 03/2007

Subject: Use of Protecta AC202 Cobra and AC400 Viper Automatic Rope Grabs on Kernmantle Rope

The Protecta model AC202 Cobra is a type 1 fall arrest device that is manufactured in France and designed to be used on 12 or 14mm diameter polyester 3-strand rope. When used on this rope type, it is certified to perform correctly and conforms to the requirements of AS/NZS 1891.3 and the European standards.

It is **not** recommended that the Protecta AC202 Cobra be used on kernmantle rope. After extensive fall arrest testing, Protecta France could not produce consistent and repeatable performance results.

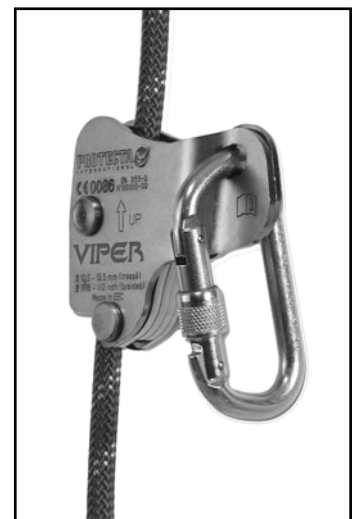
When used on kernmantle rope, the Cobra friction mechanism tears the rope outer sheath during a fall arrest. This allows the device to slide, creating a fall distance greater than the maximum acceptable drop of 600mm (AS/NZS 1891.4:2000, Section 8.3a). Although the Cobra and the rope's inner core arrest and retain the test weight, the fall distance is consistently greater than the maximum allowable slippage distance of 1 metre. AS/NZS1891.3:1997 Section 3.4a states: "For the Type 1 fall-arrest device, the vertical displacement of the device from its initial position on the anchorage line to its final position after the test shall not exceed 1.0m."

When using a type 1 fall arrest devices with kernmantle rope, the Protecta AC400 Viper automatic rope grab can be used as an alternative to the Cobra. This device has been approved for use on 10.5 to 11.5mm braided kernmantle rope and also complies with the requirements of AS/NZS1891.3. The AC400 Viper rope grab can only be used with a shock absorber on 12.5 to 13.5mm braided kernmantle rope, however technically this configuration does not comply with AS/NZS 1891.3 as the shock absorber can be separated from the device.

For further information, refer to RG003AU for test and usage of Capital Safety type 1 fall arrest devices.



Cobra AC202 Rope Grab



Viper AC400 Rope Grab