



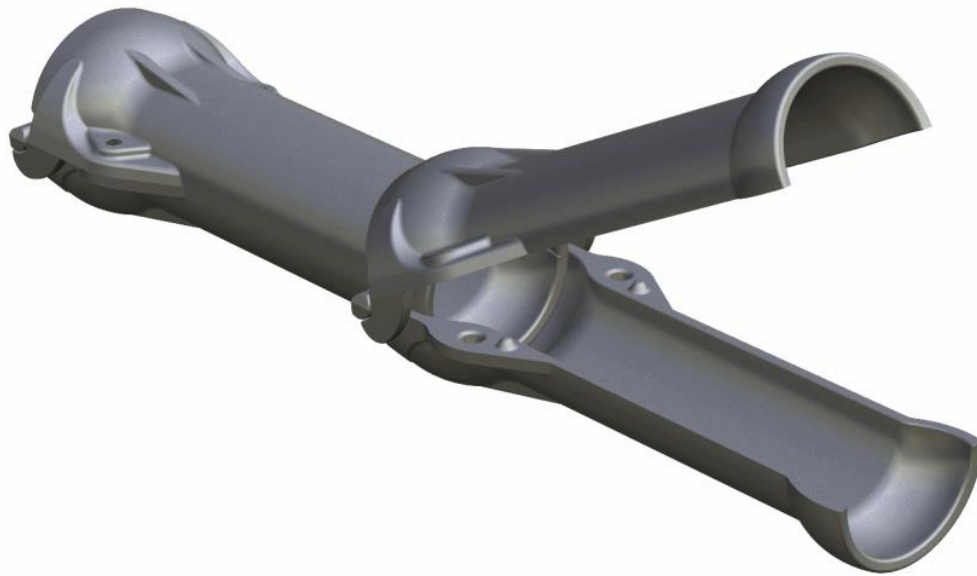
# Protectorshell

**Protectorshell Articulated Pipe** has been developed to provide shallow water abrasion and impact protection for submarine cables.

**Protectorshell** is unique in that it clips together, avoiding the nuts and bolts of traditional articulated pipe. This clip together feature allows quick real time application during laying and a much simplified diver installation onto pre-laid cables.

The **Protectorshell** system comprises two different cast segments which are identified as uppers and lowers. Each successive pair of segments clips over and retains the end of the preceding pair.

A wide range of adaptors and attachments are available for use with **Protectorshell** Articulated Pipe. These adaptors and attachments allow the reversal of application direction and interfacing with other cable protection measures such as directionally drilled pipes, pipe flanges and concrete abutments.



## PS100/478/09

### Specifications

Segment Length - Overall	530mm
Effective Installed Length/segment pair	478mm
Minimum Internal Diameter	100mm - for cables up to 88mm diameter
Maximum External Diameter	198mm
Wall Thickness	9mm
Material	Ductile Iron to ISO 1083
Tensile Strength / Elongation	400MPa / 12% elongation
Impact Resistance	>7.5kJ
Minimum Bend Diameter	4.0m
Weight per Segment	14.6kg
Weight per installed metre (air)	30.5kg
Weight per installed metre (water)	26.7kg
Fasteners	M12x50 Bolt and M12 Nyloc Nut – Material: Stainless Steel G316/A4 Recommended usage: 1 pair per 10 metres of installed pipe

#### Protectorshell SL

C Regata Cutty Sark No 21 4 IZ 15002 La Coruña, Spain  
T: +34 8 8124 1115 F: +34 8 8192 4978

[www.protectorshell.com](http://www.protectorshell.com)

#### MS Diversified Services Pty Limited

PO Box 150 Maroubra NSW 2035 Australia  
1135 Anzac Parade, Matraville, NSW 2036 Australia  
T: +61 2 9694 1004 F: +61 2 9314 3526

