

Subsea Umbilical Termination Interface

A safe and proven solution to connect subsea umbilicals to hardware

Oceanengineering has an extensive catalog of subsea umbilical terminations which are customized to meet each project's unique requirements.

Suitable umbilical termination interface designs are available for armored, unarmored, and aramid fiber reinforced umbilicals and terminate the umbilical to hardware via a flange.

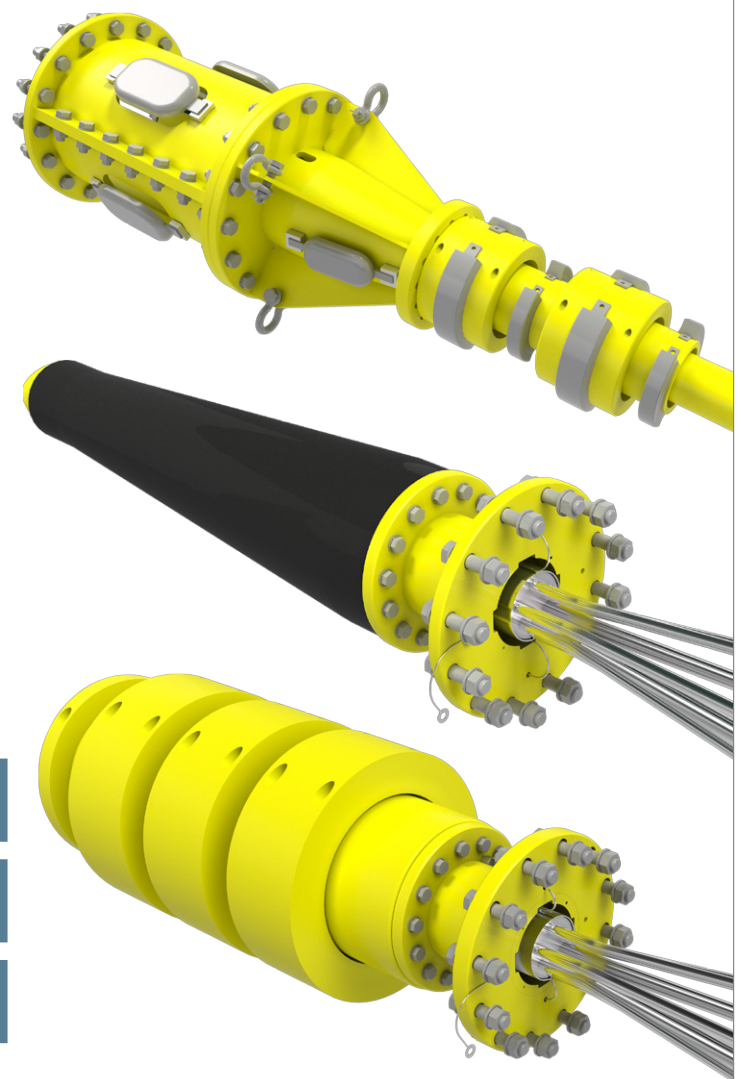
The interface is designed and tested to ensure the installation and operational loads are transferred from the umbilical, through the interface, and into the connecting hardware.

FEATURES

Robust and proven designs

Extensive range of sizes

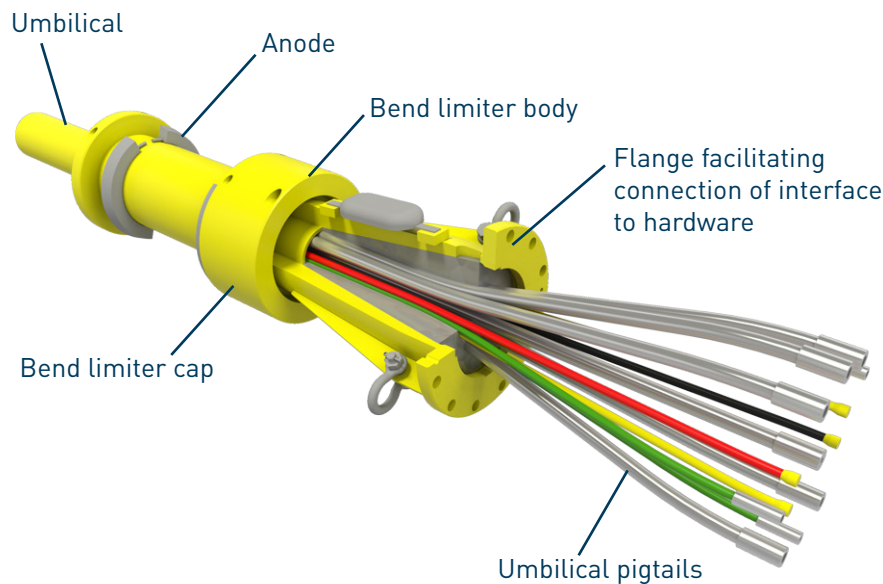
Safe and reliable connection method



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The components are splayed out within the termination interface and encapsulated in epoxy resin. The resin bonds the tensile members and provides a cup and cone interface to transfer the loads. Bend protection can be provided via a bend strain reliever or bend limiters, if required.



Application	Suitable for use with armored, unarmored and aramid fiber strengthened umbilicals
Interface size range	Qualified and tested designs for umbilicals sized 2.4 in to 13 in / 60 mm to 330 mm
Overall dimensions of interface	Varies based on project needs
Potting of strength member	Armor wires and/or steel tubes separated out of helix and potted in cup and cone arrangement using an epoxy resin
Transfer of umbilical loads	Installation and operational loads transferred through cone and into the connecting hardware
Bend protection	Assembly may include bend limiters or a bend strain reliever, as required by project requirements (steel, polymer, and hybrid options)
Interface with hardware	Via bolted flange typically with standard #150 ANSI bolt pattern
Design life	25 years typical, can be longer based on project requirements
Coating and cathodic protection	Coating per Oceaneering subsea painting specification (NORSOK M501) If required, cathodic protection provided by attaching sacrificial anodes (per DNV-RP401)
Fitting of the umbilical interface	Attached to umbilical and connecting hardware at umbilical manufacturer's facility
Pigtail requirements	16.4 ft / 5 m typical, but can be made to meet project requirements Service loop of flexible components is typically required
Lifting considerations	Weight of hardware varies: typically from 66 lb to 882 lb / 30 kg to 400 kg
Fixings	Size and material vary based on project requirements For pressure containment or critical load bearing applications, typically: Low alloy steel bolts to ASTM A320/A320M Grade L7 Low alloy steel nuts to ASTM A194/A194M Grade 7 S3

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