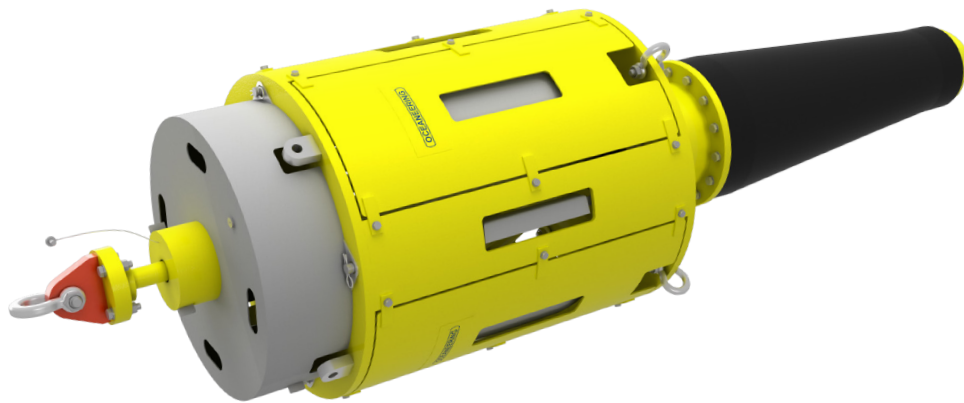


Diver Connected Umbilical Termination Assembly

Solutions for shallow water applications



Oceanengineering has an extensive catalog of diver connected subsea umbilical termination assemblies (UTAs) which are customized to meet each project's unique demands.

The umbilical termination assembly enables the functional components of the umbilical to be terminated ready to be connected to the subsea infrastructure. The ability for a diver to connect this system makes it an attractive option for shallow water depth applications.

FEATURES

Compact designs

Configurable to meet project requirements

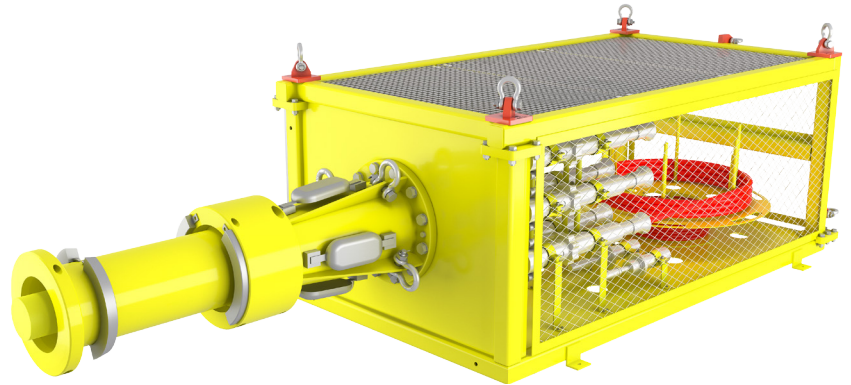
Excellent accessibility for diver connection

Diver Connected Umbilical Termination Assembly

The umbilical is connected to the termination assembly by the means of a subsea termination interface.

The functional components are connected to the umbilical termination assembly by means of 3rd party hydraulic, electrical and fiber optic diver mate connectors

from a number of approved vendors. A diver can mate these connectors to the subsea system by the use of flying leads or jumpers.



The structure components are protected from corrosion using sacrificial anodes and a NORSOK M501 painting system. The side panels are able to be removed allowing easy assembly and intervention if required.

Bend protection to the umbilical can be provided by bend strain relievers (BSRs) or bend limiters, dependent upon application demands. The main shackle/shackles on the umbilical termination assembly allow installation and are designed and rated according to project requirements.

Application	Suitable for use with armored, unarmored and aramid fiber strengthened umbilicals to facilitate connection of the functional components to the subsea control system
Size range	Qualified and tested designs for umbilicals sized 2.4 in x 13in / 60 mm to 330 mm
Overall dimensions	Varies based on project needs and depends on the number of functional components being terminated Typical Size Envelope = 40 in x 40 in x 60 in / 1000 mm x 1000 mm x 1500 mm
Transfer of umbilical loads	Installation and operational loads transferred through subsea interface into the connecting hardware
Bend protection	Assembly may include bend limiters or a bend strain reliever, as required by project requirements (steel, polymer, hybrid options)
Interface with UTA	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) and cathodic protection provided by attaching sacrificial anodes (per DNV-RP401)
Fitting of the UTA	Attached to umbilical and connecting hardware at umbilical manufacturer's facility
Pigtail requirements	5 meters typical, but can be made to meet project requirements Service loop of flexible components typically required
Lifting consideration	Weight of hardware varies: Typically 1,102 lb / 500 kg (may be more or less, dependent on project requirements) Lifting points for installation are clearly marked and rated accordingly
Fixings	Size and material may vary based on project requirements
Connections	Hydraulic, low/medium voltage electrical, fiber optic All connectors supplied by approved vendors to match client's field infrastructure

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