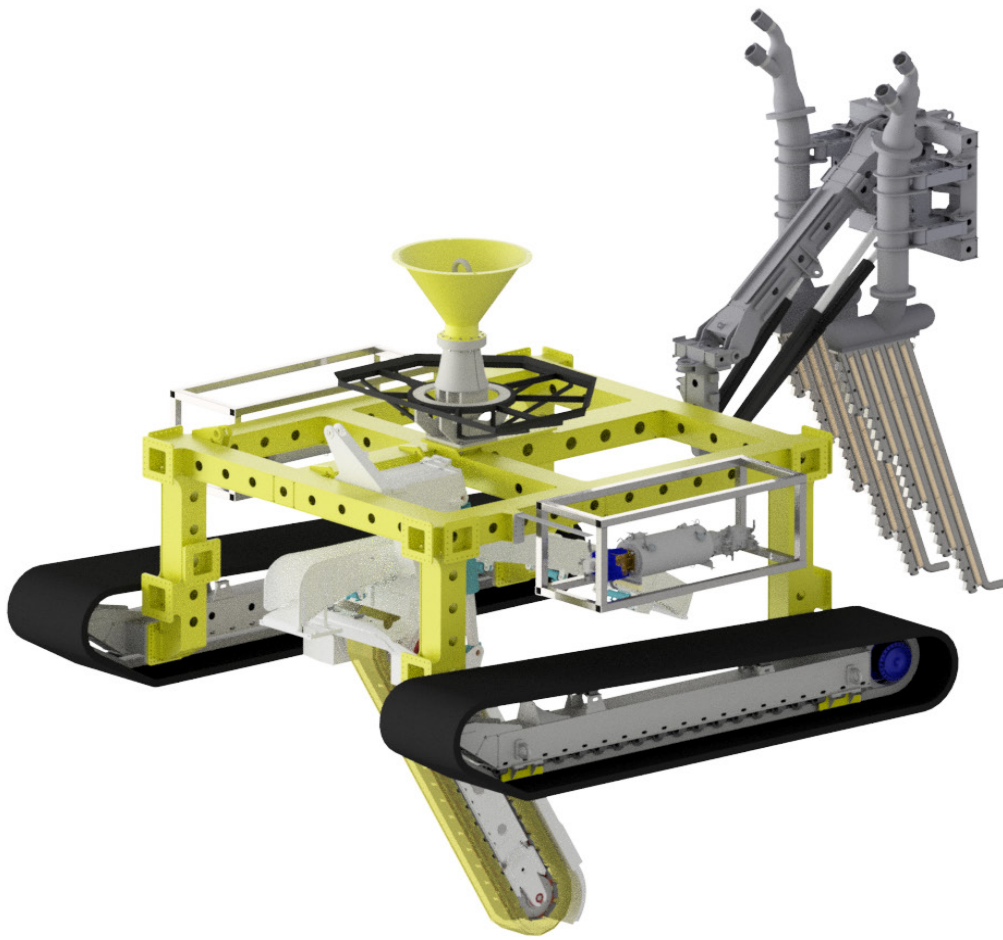




## DATA SHEET

Doc Ref:  
ENS-MAR-DAS-009\_RevE

### KEY FEATURES

- Simultaneous operations.
- Easily and quickly adaptable for a varied range of modes including cutting and jetting.
- Trench depths up to 2.5m simultaneous cutting and jetting or 3.0m jetting.

# ENS1100

## CUTTING AND/OR JETTING SOLUTION

The ENS1100 trencher is the latest addition to the Enshore Subsea fleet, now in the final stages of development. Combining proven technologies from Enshore's existing assets with the flexibility to deploy from the CMOS Installer - Enshore's dedicated cable-laying vessel - it offers a seamless solution which can be operated in shallow water depths which can be accessed by CMOS Installer, without the need to charter a third party TSV.

Designed as a hybrid trenching vehicle, the ENS1100 is capable of burying large diameter submarine cables and flexibles, with maximum trench depth of 2.5m simultaneous chain cutting and jetting mode or 3m jetting mode.

The vehicle is powered by a subsea hydraulic system and the power split can be tuned to either the cutting or jetting system depending on soil types.

# ENS1100

## PARTICULARS

|                                                      |                                                |
|------------------------------------------------------|------------------------------------------------|
| Operating Depth                                      | 1500m                                          |
| Max. Product Diameter                                | 300mm (Cutting) / 500mm (Jetting)              |
| Max. Trench Depth                                    | 2.5m (Cutting) / 3.0m (Jetting)                |
| Dimensions with cutter and rear jetting ( L x W x H) | 12m x 7.5m x 5.5m                              |
| Weight (In Water)                                    | 39Te (depending on configuration)              |
| Weight (In Water) with Buoyancy                      | 1Te                                            |
| Weight (In Air)                                      | 48.5Te (Jetting mode)<br>52.5Te (Cutting mode) |

## SPEED RANGE

|                               |                                 |
|-------------------------------|---------------------------------|
| No Burial                     | 0-1500 m/hr                     |
| Trenching (with cutter chain) | up to 300 m/hr (soil dependent) |
| Trenching (Jetting)           | up to 400m/hr (soil dependent)  |

## VEHICLE POWER

|                       |                        |
|-----------------------|------------------------|
| Total Power           | 800kW (Subsea)         |
| Electric Motor Supply | Main system hydraulics |

## SOIL TYPE

Suitable for a range of soil types, including sands and very soft to hard clays.

## SIMULTANEOUS CUTTING AND JETTING MODE

|                  |                                                                                                                                                             |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Burial Power     | 400kW of cutting<br>300kW of jetting                                                                                                                        |
| Product Handling | Product passes through trencher and over cutting chain by means of pipe roller cradle or cable trough before exiting rear of machine through jetting swords |
| Depth Control    | 0 - 2.5m. Chain swings laterally to clear product during loading and unloading                                                                              |
| Chain Speed      | 0-3m/sec                                                                                                                                                    |

## JETTING MODE

|                                 |                                                                                                         |
|---------------------------------|---------------------------------------------------------------------------------------------------------|
| Burial Power                    | 700kW of jetting                                                                                        |
| Product Handling                | Product passes underneath trencher between tracks before passing through jet legs into fluidised trench |
| Central Water Jetting (typical) | 2m swords with configurable nozzles                                                                     |
| Rear Water Jetting (typical)    | 3m swords with configurable nozzles                                                                     |
| Trench Depth Control            | 0-3m                                                                                                    |
| Buoyancy                        | Optional air filled                                                                                     |

## SURVEILLANCE EQUIPMENT

|                                             |
|---------------------------------------------|
| 4 x Bowtech Compact SD Colour Cameras       |
| 4 x Bowtech Compact SD Monochrome Cameras   |
| 4 x SubAtlantic 24V Pan & Tilt Units        |
| 8 x 24V Dimmable LED Floodlights            |
| 2 x Multibeam OA Sonar (Fwd and aft facing) |
| 2 x Multibeam profilers (fwd and aft)       |
| Octans Gyro                                 |
| Depth Sensor                                |
| Altimeter                                   |
| TSS350/440                                  |
| Responder/Transponders                      |

## LAUNCH & RECOVERY SYSTEM (LARS)

|                                   |                          |
|-----------------------------------|--------------------------|
| Type                              | A-Frame                  |
| SWL                               | 60te                     |
| Sea state                         | Designed for sea state 5 |
| Wind Period                       | 8s wave period           |
| Wind Speed                        | 20m/s                    |
| Option to use crane launch system |                          |