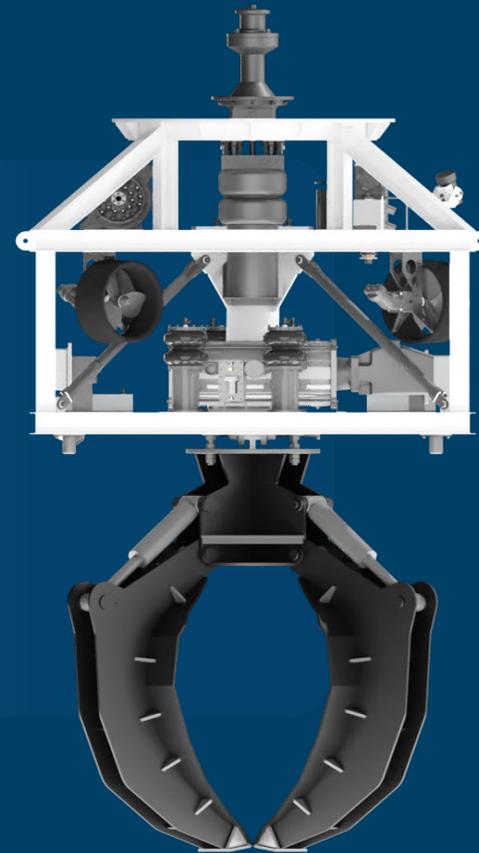


# AssoGrapple I

Underwater Hydraulic Grapple



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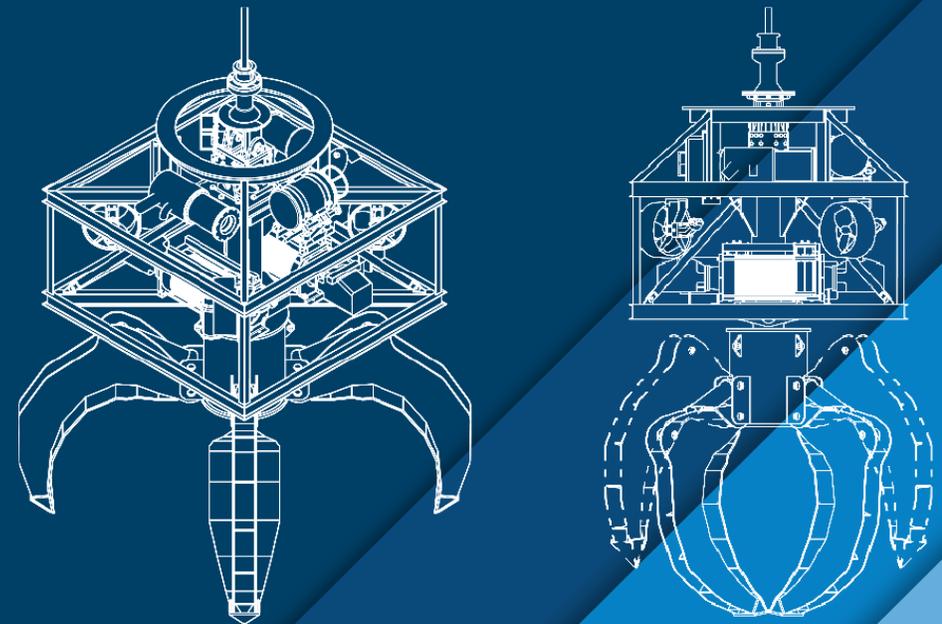
## Underwater Hydraulic Grapple

The Assograpple I is a purpose-built construction able to remove rocks or similar products, it also incorporates a grapple frame which is focused in increased control and product positioning accuracy.

This in-house system designed for fast and accurate removal of rocks and similar products designed for provision of protection on cables, pipelines and crossings. It is ideal selection for crossings protection and cable/pipe free-span rectification.

The AssoGrapple I eliminates the need for complicated/bulky support equipment on deck that would, in other cases, assist in frame's maneuvering.

This new version is extremely versatile and can easily be incorporated onto existent trenching spreads taking advantage of existent deck equipment and minimizing mobilization / demobilization time.



## Specifications

Length	3.1 m
Width	2.1 m
Height	6.5 m
Weight	9300 kg
Power	200 Hp
Max. Capacity heaped	~2.3 m3
Max. Operational Depth	3000 m

## 4-Tine Hydraulic Grab

### Dimensions Open

Length	3.3 m
Height	2.7 m

### Dimensions Closed

Length	2.2 m
Height	3.3 m
Cylinder Pressure	5000 psi
Rotational Pressure	1500 psi

## Hydraulic Grapple

AssoGrapple is differentiated from the competition as it is a self-propelled autonomous grapple frame. Its dimensions (3.1m x 2.1m), along with four thrusters and a powerful 200HP HPU unit provide a formidable outcome able to operate at high water depths with adverse local conditions like high currents.

This configuration provides full two dimensional control (sway, yaw, surge) which along with the incorporated electronics that provide operator feedback including but not limited to pitch, roll, heave, water depth, altimeter, sonar readings etc.

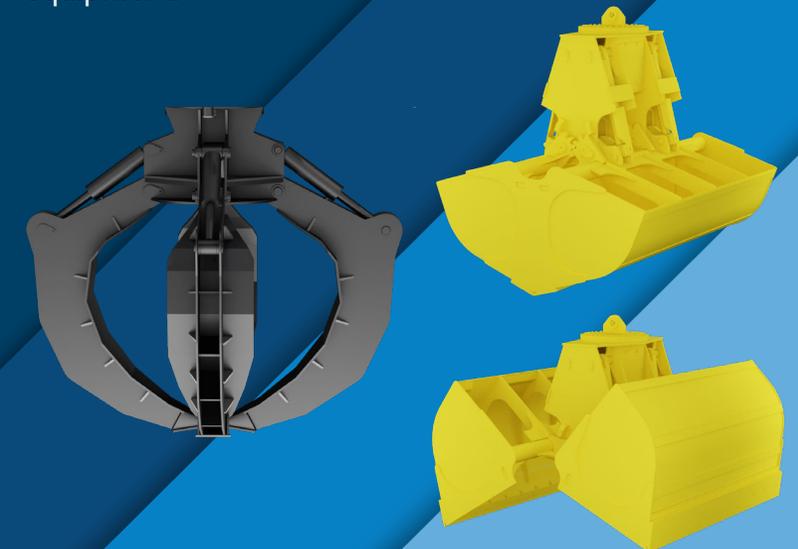
## Hydraulic Clamshell

Length	2.6 m
Width close	2.3 m
Height	2.5 m
Capacity static	14 T
Capacity dynamic	10 T
Pressure close	330 bar
Pressure open	280 bar

## Instrumentation

- Up to 8 low light cameras
- Up to 4 pan/tilt
- Up to 12 LED lights fully dimmable
- Up to 4 sonar (both imaging & profiling)
- 1 x altimeter with option for more
- 1 x gyro compass
- Up to two SSBL transponder

Power supply and communication with the Grapple Frame is affected through a dedicated umbilical, managed from the deck through suitable deck equipment.



## Deck Equipment

### Control Container

The control room is a 20ft container properly modified containing the controls of the A-frame, Winch and the AssoGrapple, in addition to the computers and the displays of cameras and sonars.

### LARS

The AssoGrapple is designed to fit throughout a wide range of LARS available throughout ASSO fleet, particular attention in protection provided by launching through moonpool (via VLS) or conventional side launch providing flexibility.

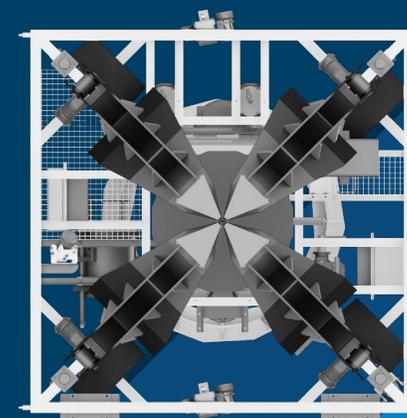
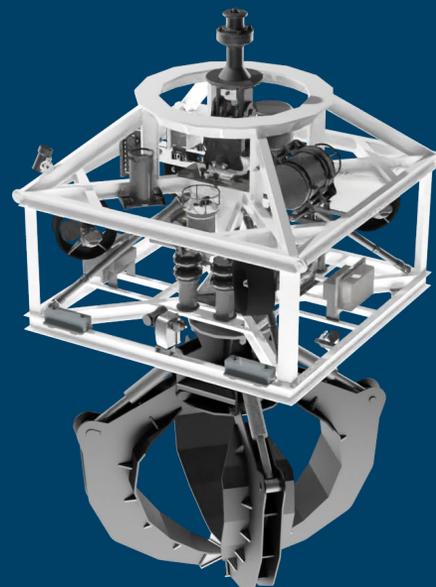
### Winch

The AssoGrapple is launched through dedicated AHC Winch which carries the load and communication needs of the system. Heave compensation provides the necessary stability required to accurately position/en-gage the AssoGrapple to the product.

## Boulder dimensions

Min boulder dimensions	0.3 m in one direction (Length, Width, Height)
Max boulder dimensions	3.0 m in one direction (Length, Width, Height)
Max boulder weight	15 Te

Load cell SWL25T for load monitoring



## Membership - Accreditations



## Disclaimer

The specification details are illustrative for marketing purposes only. Actual equipment may be different as a result of product improvement or other reasons. Specific interface and performance information should be reconfirmed at time of order placement. Specifications are subject to change without any prior notification.

## Contact Information

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