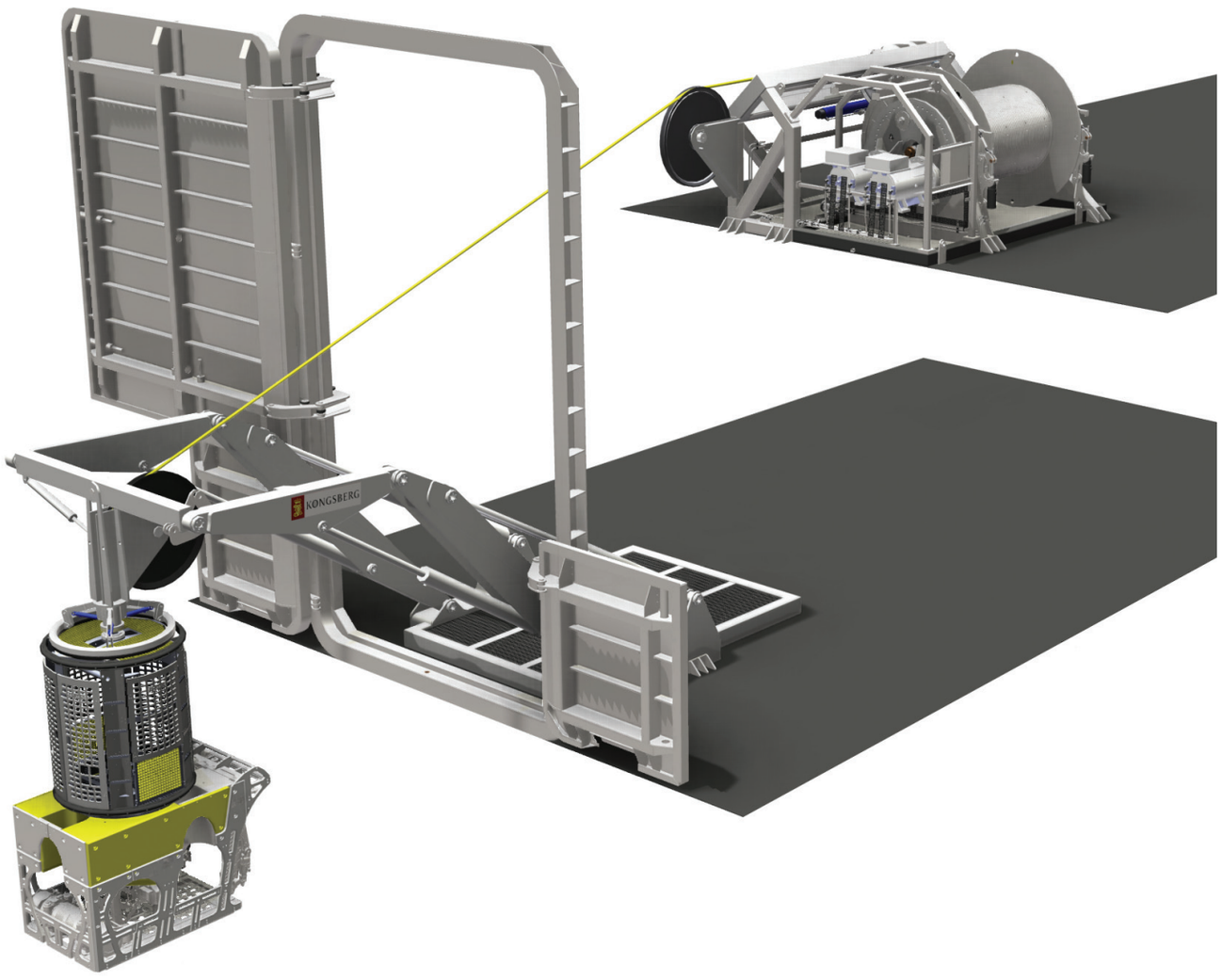
Electrical LARS for WROV

E-LARS

KONGSBERG



Kongsberg Evotec Electrical LARS for WROV

Electrical LARS for WROV, using permanent magnet motors

Evotec Launch and Recovery System (E-LARS) is designed to handle work ROVs with or without TMS to depths below 4000 m. The system is designed in close cooperation with end users, umbilical manufacturers, ROV suppliers and ship designers.

Personnel safety, gentle handling of umbilical and ROV and easy maintenance form the basis for the complete design of both the advanced control system and the mechanical design of the E-LARS. This is to ensure the best uptime for the complete ROV system.

Electric Umbilical winch

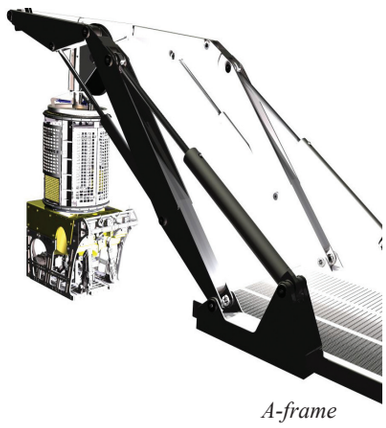
The umbilical winch is equipped with two frequency controlled permanent magnet high torque motors. Two fail safe disc brakes are mounted on the drum for brake redundancy. The large sheave D:d ratio on the spooling device ensures correct spooling and best life time for the umbilical.

A-frame:

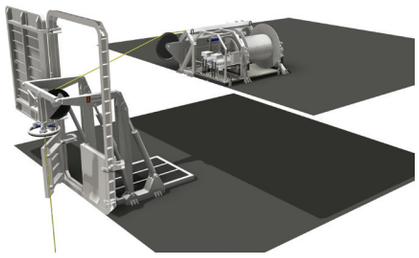
The A-frame is equipped with two pivot points to achieve a good outreach and at the same time have as low unguided lifting height as possible. This good manoeuverability enables the A-frame to operate 5.2 m packages in hangars with only 8.0 m hangar heights. The A-frame design also makes it possible to close the lower hangar port during operations if needed.

Mool pool system:

The moon pool system is designed for safe and effective launch and recovery of the ROV/TMS through the moon pool in a vessel. The ROV/TMS is lifted by a lifting wire and a dedicated cursor winch through the splash zone, this to ensure the best possible life time for the umbilical. Good functionality and low maintenance costs forms the basis through the complete moon pool handling unit design.



A-frame



Lower hangar door can be closed during operation

General:

Max ROV/TMS weight (dry)	20.0/12.0 Te (deployed load/docking head lock)
Max operation depth	4000 + m
Max power consumption	650 kW
Certification	DnV Standard for Certification No 2.22 - Lifting Appliances

Umbilical Winch:

SWL	20.0/12.0 Te (inner/outer layer)
Max braking capacity	36.0/22.0 Te (inner/outer layer)
Max hoisting speed	2.5 m/s (all layers)
Max acceleration	2.0 m/s^2 (all layers)

A-frame:

SWL	20.0/12.0 Te (deployed load/docking head lock)
Docking head functions	- Fail safe lock - Rotation - Tilt - in/out - Tilt - left/right - Damping
Max package height	Depending on package and hangar design > 5.2 m (8.0 m hangar height) > 6.0 m (9.0 m hangar height)

Moon pool handling unit:

SWL	20.0/12.0 Te (deployed/cursor load)
Max launch / recovery speed (in moon pool)	1.0 m/s

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