

### OFFSHORE - LARS FOR ROV

Evotec's Launch And Recovery Systems for ROV are the most reliable systems in the industry. Providing you the best AHC (Active Heave Compensation) performance ensures a smooth and hazzle free operation, in the most harsh conditions!





Estimated weight (each)	20 Te
Type of equipment	A-frame for ROV
SWL	20 Te
Design weight of ROV/TMS	12 Te
DAF	1.8
Sheave	Ø1500 mm, for Ø50 mm umbilical
Docking Head	Max in/out 10 deg / 30 deg Max rotation +- 90 deg Max left/right 37 deg / 37 deg
Oil consumption	300 l/min
Hydraulic system	250 bar
Ambient temperature	-20 deg. to +30 deg





Estimated weight (each)	30 Te
Type of equipment	A-frame for ROV, skidding
SWL	21 Te
Design weight of ROV/TMS	21 Te
DAF	2
Sheave	Ø1100 mm, for Ø52,6 mm umbilical
Docking Head	Max in/out 10 deg / 30 deg Max rotation +- 90 deg
Oil consumption	300 l/min
Hydraulic system	250 bar
Ambient temperature	-20 deg. to +50 deg



L-Frame

Offshore Vessel



Estimated weight (each)	10 Te
Type of equipment	L-frame for ROV
SWL, Bullet/Dive	5 Te
Design weight of ROV/TMS	13 Te
DAF	1.8
Sheave	Ø1000 mm, for Ø28 mm umbilical
Docking Head	Longitudinal tilt +-30 deg Max rotation +- 90 deg
Oil consumption	280 l/min
Hydraulic system	250 bar
Ambient temperature	-20 deg. to +30 deg



### Overhead-Frame



Estimated weight (each)	8 Te
Type of equipment	Roof mounted LARS
SWL	8 Te
DAF	13 Te
Transvers travel	8000 mm
Outreach	4500 mm
Downreach	6800 mm from roof to ROV interface ring
Docking head rotation	180 deg



## Telescope-Frame

Offshore Vessel



Design	Mobile LARS on skid - SWL 4 Te, 6 Te and 10 Te
Designed for	ROV+TMS or Free Flying ROV
System	Complete modular system including umibilical winch, HPU, A-frame and docking head
Prepared for	Single point lifting and easy istallation / transportation
	Can be delivered with or without telesopic beam



E-Door

Offshore Vessel

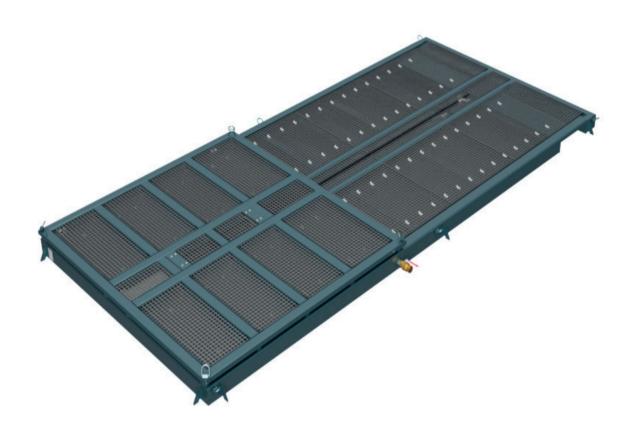


Estimated weight (each)	31 Te
Type of equipment	E-door for ROV
SWL	20 Te
Design weight of ROV/TMS	12 Te
DAF	1.8
Sheave	Ø1500 mm, for Ø50 mm umbilical
Docking Head	Max in/out 10/30 deg Max rotation 90 deg Max left/right 45/45 deg
Oil consumption	280 l/min
Hydraulic system	250 bar
Ambient temperature	-20 deg. to +30 deg



# Skidding system

Offshore Vessel



Estimated weight (each)	1,8 Te
Type of equipment	Skidding system with drip tray
Max weight of ROV / payload	12 Te
Travel	5400 mm
DAF	1,3
Skid speed	3 m/min (approx.)



### **Umbilical Winch**

Offshore Vessel

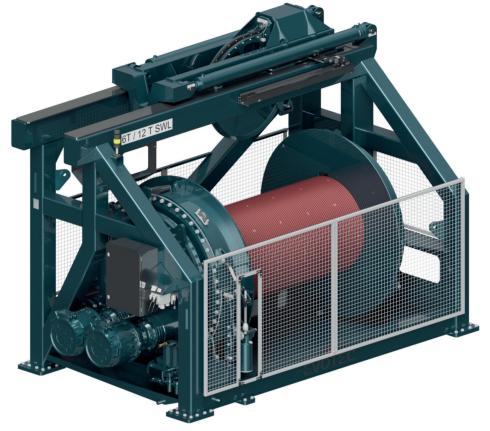


Drum size (inner/outer dia - width)	Ø1500/Ø2450 - 1900mm
Estimated weight (each)	18 Te (without cable)
Power consumption (winch)	220 kW
Winch capacity	4200 m of Ø34,9 mm umbilical
Minimum bend radius cable	R750 mm
Speed	60 m/min (90 m/min max speed outer layer)
Winch pull / brake	200 kN / 360 kN at 1st layer (Ø1541 mm) 156 kN / 280 kN at mid layer (Ø1976 mm) 127 kN / 230 kN at outer layer (Ø2411 mm)
Spooling device	Automatic parametric spooling
Brake	Hydraulic release, spring applied band brake
Secondary brake	Hydraulic release, spring applied multidisc brake, each motor



**Umbilical Winch** 

Offshore Vessel



Drum size (inner/outer dia - width)	Ø1000/Ø2020 - 2100mm
Estimated weight (each)	13 Te (without cable)
Power consumption (winch)	150 kW
Winch capacity	6500 m Ø24,9 mm umbilical
Minimum bend radius cable	R500 mm
Speed	50 m/min at 1st layer 80 m/min at outer layer
Winch pull / brake (2 motors)	160 kN / 295 kN at 1st layer 98 kN / 170 kN at outer layer
Winch pull / brake (1 motor)	120 kN / 295 kN at 1st layer 68 kN / 170 kN at outer layer
Spooling device	Automatic parametric spooling
Brake	Hydraulic release, spring applied band brake
Secondary brake	Hydraulic release, spring applied multidisc brake between motor/gear



### Side Door

Offshore Vessel

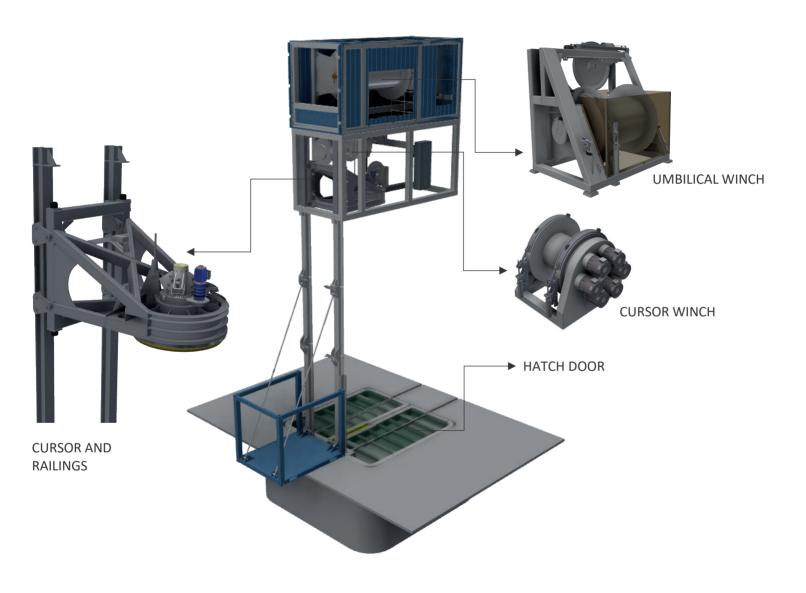


Max. operation wind load	Storm (24 m/s)
Design water pressure	13,87 kN/m2
DAF	1,3
Design	Hydraulic cylinders
Cylinder force	300 kN at 250 bar
Open/closing time	Approx. 45 s/ 30 s
Locking elements	8 hydraulic locking pins



# Moon Pool System

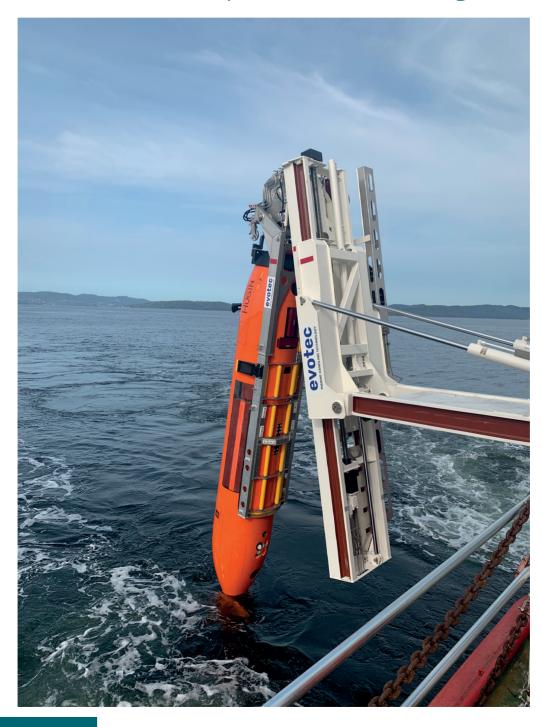
Offshore Vessel





### OFFSHORE - LARS FOR AUV

Evotec enables AUV operation 365-24/7, guaranteed







### Containarized AUV LARS









## **AUV** deploy

Offshore Vessel

With Evotec's LARS for AUV the deployment is made easy.







### **AUV** retrive

Offshore Vessel

With Evotec's LARS for AUV and possibility for VERTICAL retrieval, the operation is gentle even in high sea states.

