1. TECHNICAL SPECIFICATION EQUIPMENT

1.1. ROV EQUIPMENT

Thrust	: Forward	53 Kg
	Lateral	53 Kg
	Vertical	46 Kg
Max depth	:	300 Mtr
Length	:	1100 mm
With	:	760 mm
Height	:	550 mm
Payload	:	40 Kg

Camera #1 : 540 lines/ 0,02 lux colour

Camera #2 : $2x10^{-5}$ Lux B&W (near sit)

Sonar : Blueview M900-130

Weight : 150 Kg (neutral in seawater)

Max speed : 3,5 Knots

1.2. ROV CONTROL UNIT

The surface controls of the Rov are integrated in an airconditioned certified Dnv offshore container to create an ergonomic workspace for the Rov operations. Also, the container is equipped with system tools and the full extended spares kit for the Rov and surface equipment.
The container is also equipped with its own certified lifting sling for easy mobilisation on board a structure or clients vessel of choice using the crane from the vessel or a shore crane if the vessels crane is not capable of lifting.

Sea-fasting can be done by using the corner blocks of the container and if available the put-holes in the vessels deck. To complete the mobilisation of the container there are only three electrical connections to be made 1. Main power. 2. Rov's umbilical and 3. clear-comms cable to the bridge. If the Lars is supplied with the system, this will also directly connect to the control room. If there are no putholes in the vessels deck to mount the corner blocks, the system need to be welded to the deck.

1.2.1. DIMENSIONS

Length	: 2991 mm
With	: 2591 mm
Height	: 2440 mm
Weight	: 4500 Kg
Power requirements	: 32 Amps 400Vac

1.3. LARS (LAUNCH AND RECOVERY SYSTEM)

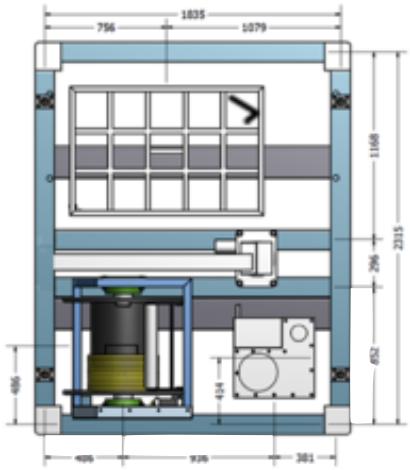
The systems Lars (Launch and Recovery system) is also equipped with its own certified lifting gear for easy mobilisation on board a structure or clients vessel of choice using the crane from the vessel or a shore crane if the vessels crane is not capable of lifting.

The Electrical connection is made thru the Rov control.

Sea-fasting can be done by using the corner blocks of the Launch frame.
If on board there is only putholes available to mount 2x 10' containers we have the possibility to supply 2 extra beams with the launch system. these beams are bolted to the frame and give the frame the exact same dimension and sea-fasting possibilities as a 10' container. If there are no putholes in the vessels deck to mount the corner blocks, the system need to be welded to the deck.

1.3.1. DIMENSIONS

Length	: 2591 mm
With	: 2111 mm
Height	: 2440 mm
Weight	: 1600 Kg
Power requirements	: 16 Amps 400Vac



Launching of the vehicle can be done by cage or with the lock-latch and bullet. Both are made heavy to guide the umbilical constant in a safe matter while the vessel is on DP. To safely use the full length of the tide, the vessel need to be positioned in such a way that the Rov is always in a blowoff position.

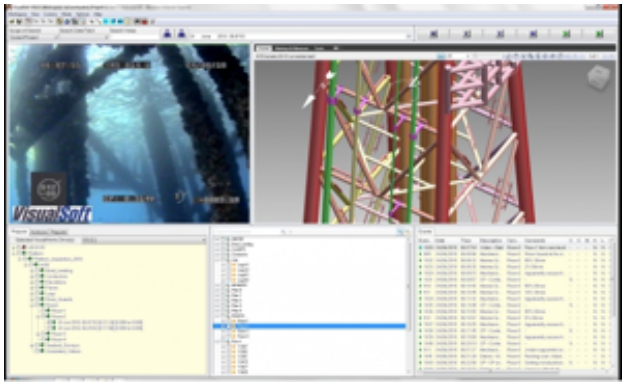
Rov with cage

Rov with bullet

1.4. Recording & camera equipment

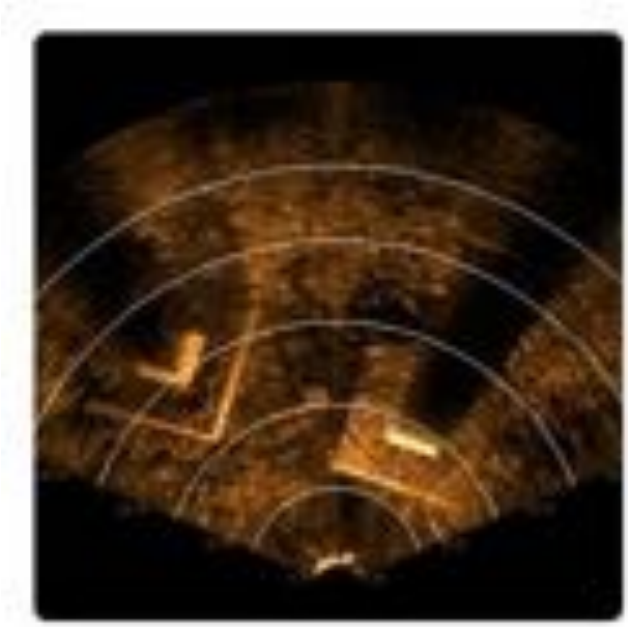
1.4.1. VISUALSOFT RECORDING COMPUTER

Integrated with the Rov system as extra feature is the visualsoft recording software from Forum.
This software is purpose build for Rov inspections, and therefore time saving and easy to use.
The software has a build in overlay and is capable to implement a survey data string or client specific data.



1.4.2. BLUEVIEW 2D SCANNING SONAR

For navigation we use the Blueview M900-1300 multi beam sonar. Also this item is integrated in the system as standard because we believe the Northsea conditions make this mandatory to guaranty quick navigation in turbid waters. The sonar makes it positie to quickly locate and identify the object to be inspected due to the real time sonar image generated. Flying to the target can be done without waiting for the Sonar image to update.



1.4.3. SYSTEM CAMERA'S

For the inspection the Rov is equipped with two lowlight camera's.The Colour low light inspection camera from C-technics in the front and in the rear the Near Sit performance low light camera from Bowtech. Both camera's widely used thru out the industrie.

The colour camera is an extremely compact high quality colour camera which feathers an excellent distortion free rectilinear fixed focus, auto iris, wide angle lens.
The low light sensitivity coupled with such high resolution and exceptionally wide but geometrically accurate pictures combine to make an extremely versatile tool for close inspection work through to general observation tasks.

1.4.3.1. TECHNICAL SPECIFICATION COLOUR CAMERA

1/3" Interline Transfer CCD
image sensor 2.6mm, F1.6 Lens

Horizontal Resolution 540 TV lines
Signal to Noise +50dB
Video output volt peak to peak into 75Ohms
aluminum Angle view in seawater 84°
Sensitivity
0.02Lux/F1.2

The Bowtech Products EXPLORER PRO low light level high resolution monochrome underwater CCD camera, is the ideal solution for extremely low light level, underwater viewing and navigation, yet still producing excellent images in high intensity illumination.

The camera is fitted with a wide angle, high speed, aspherical lens, giving a diagonal field of view of 103° through a fully water corrected front port. The camera features built-in reverse polarity and surge protection. The miniature, high quality 1/2" CCD sensor, offers high resolution and low light level sensitivity. It is the ideal camera for low light underwater viewing tasks, offering practically SIT performance.

1.4.3.2. TECHNICAL SPECIFICATION B & W CAMERA

High Resolution Monochrome 570 TVL
Low Light Sensitivity 2 x 10^{-5} Lux (faceplate)
103° Diagonal Angle of View
Water Corrected Optics
Practically SIT Performance

If required the possibilities and capabilities are available to mount an ultra high resolution camera as optional, however due to the Northsea water quality we would not recommend.