NV Mechanics Design Ltd North Vancouver, BC, Canada Tel: +01 604-250-3375 sales@mechanicsdesign.com www.mechanicsdesign.com



ROV Equipment

Subsea Electronics Housing

NV Mechanics Design Ltd. designs and manufactures electronics housing, one atmosphere pressure vessels for subsea applications.

Underwater pressure vessels are designed and calculated in accordance with 1990 ABS Rules for Building and Classing Underwater Vehicles, Systems and Hyperbaric Facilities, Section 6.19. Pressure Vessels are used in Subsea Applications for ROV's Trenchers, Subsea Drills and based on client's request they are built of Aluminum 6061-T6, Titanium or Stainless Steel material.

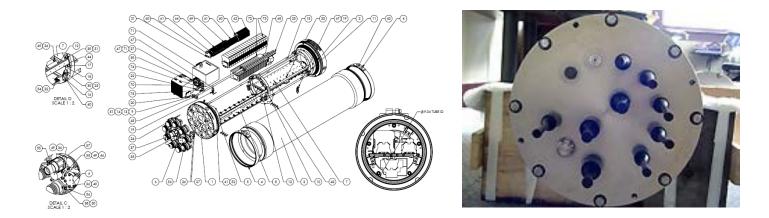


Features:

- Aluminum (6061-T6), Stainless Steel (316, 17-4 PH COND 1150), Super Duplex Stainless Steel, Titanium and Other Materials
- Fail safe sealing design (dual radial and face O-rings)
- Various end cap closure methods
- Seal check port (in between radial and face O-ring) and purging port (nitrogen purging for delicate internal electronics)
- Custom external mounting for easy handling and servicing
- Custom connector/penetration configuration
- Custom internal electronics support structure
- Optimized size vs. weight
- Hard anodized surface finish (aluminum); passivated surface finish (stainless steel)
- Design standards: ABS, DNV, ASME

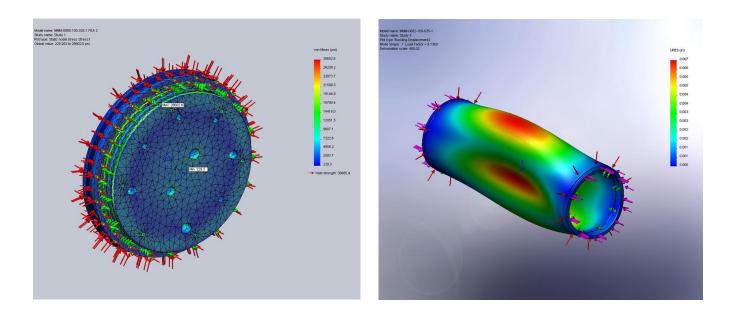
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Static Finite Element Analysis (FEA) is performed on all designed components. Further buckling FEA is performed on the tube.

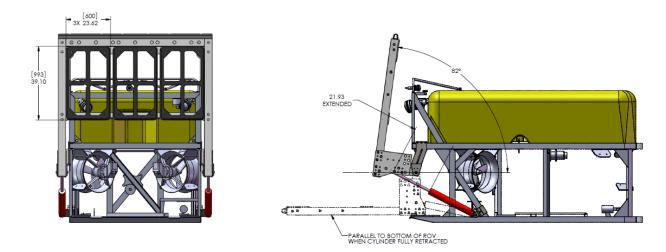
Stress analysis hand calculations are performed for further confidence on the FEA results.





TSS Coils Deployment Systems

Designed to deploy TSS 340, 430 coils from an ROV of opportunity. The mechanism is built of Pultruded Fiberglass Profiles, has two synchronized hydraulic cylinders for deployment and can be attached to any Work Class ROV of opportunity (Perry Slingsby XLS or XLX, Shilling or ISE 3000 HYDRO).



BIO Scoop Ocean Floor Sampling

The ROV manipulator operated aluminum scoop with clamped on canvas sock is used underwater for collecting samples on the ocean floor.



Specifications

SCOOP OUTSIDE DIAMETER	6"
SCOOP INSIDE DIAMETER	5.5"
SCOOP LENGTH	10.39"
SOCK-CANVAS LENGTH	36"

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