CALEY CTD SYSTEM ON R/V KILO MOANA

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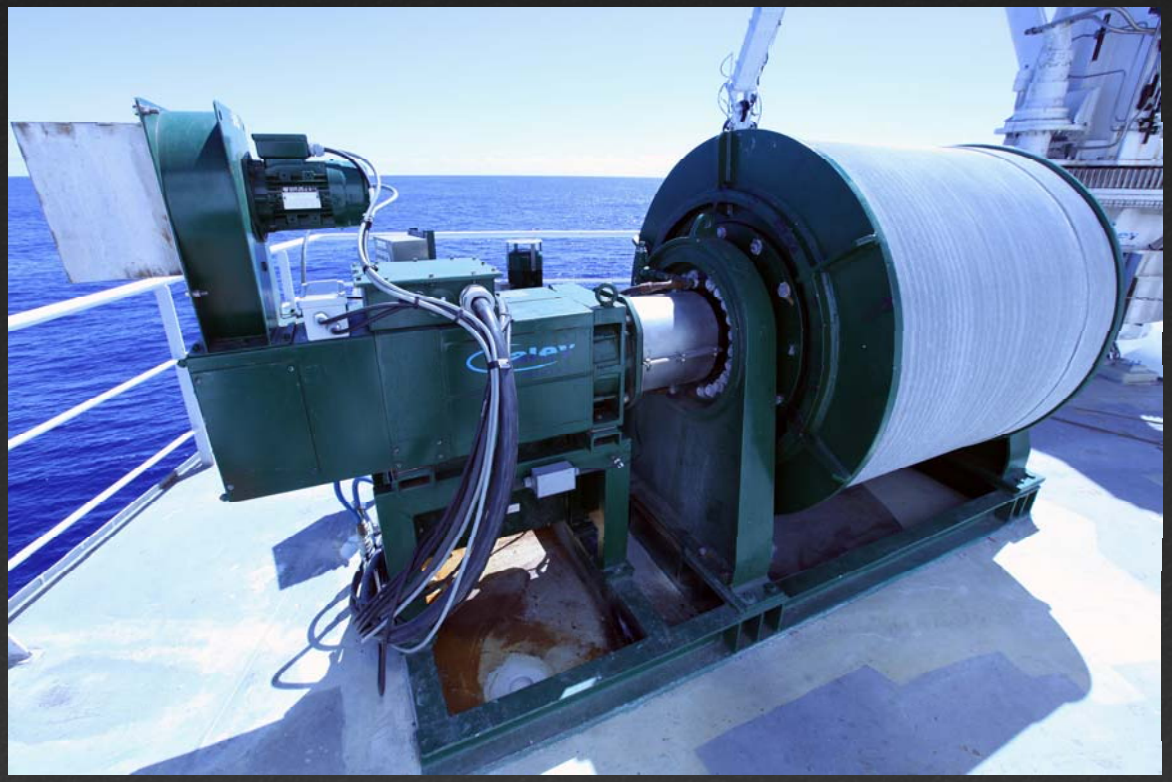
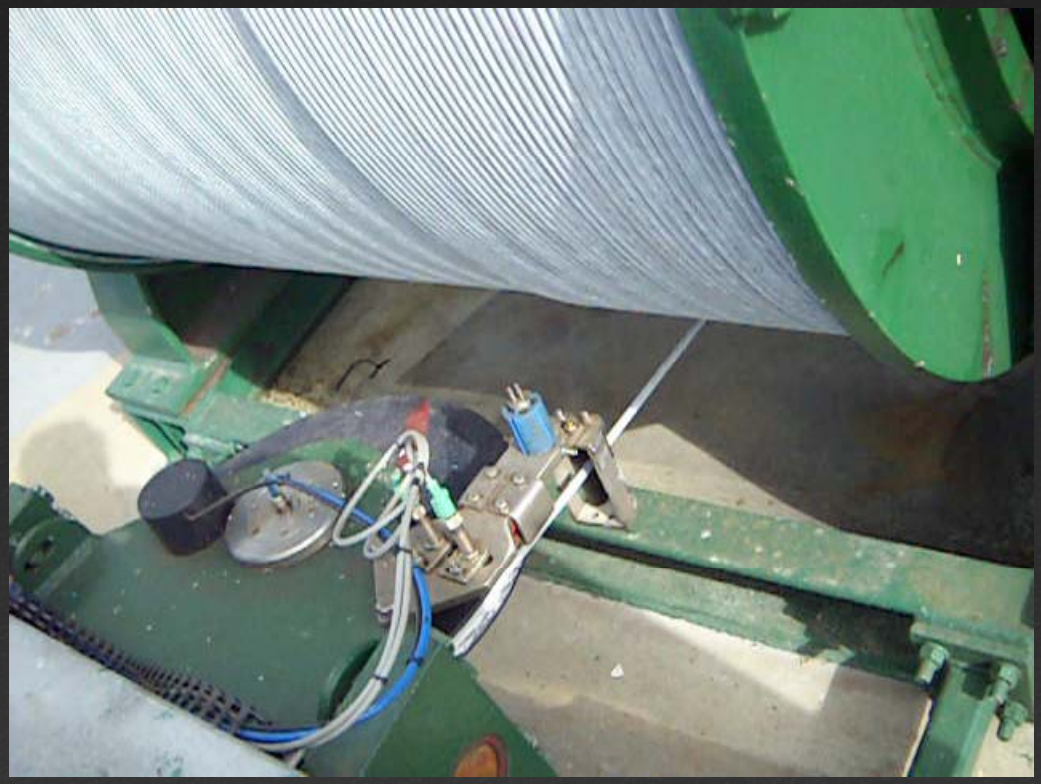
There are four major components to the KILO MOANA Caley CTD system,

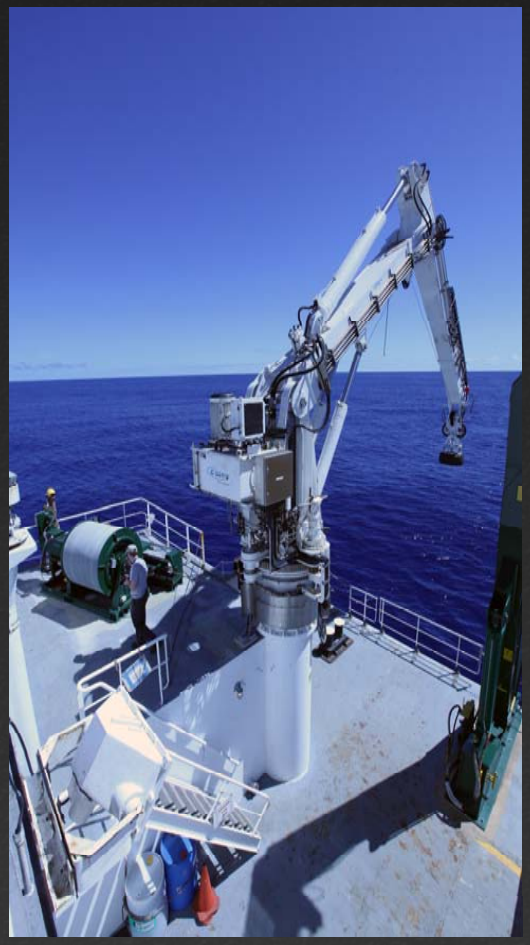
WINCH



MOTION COMPENSATION

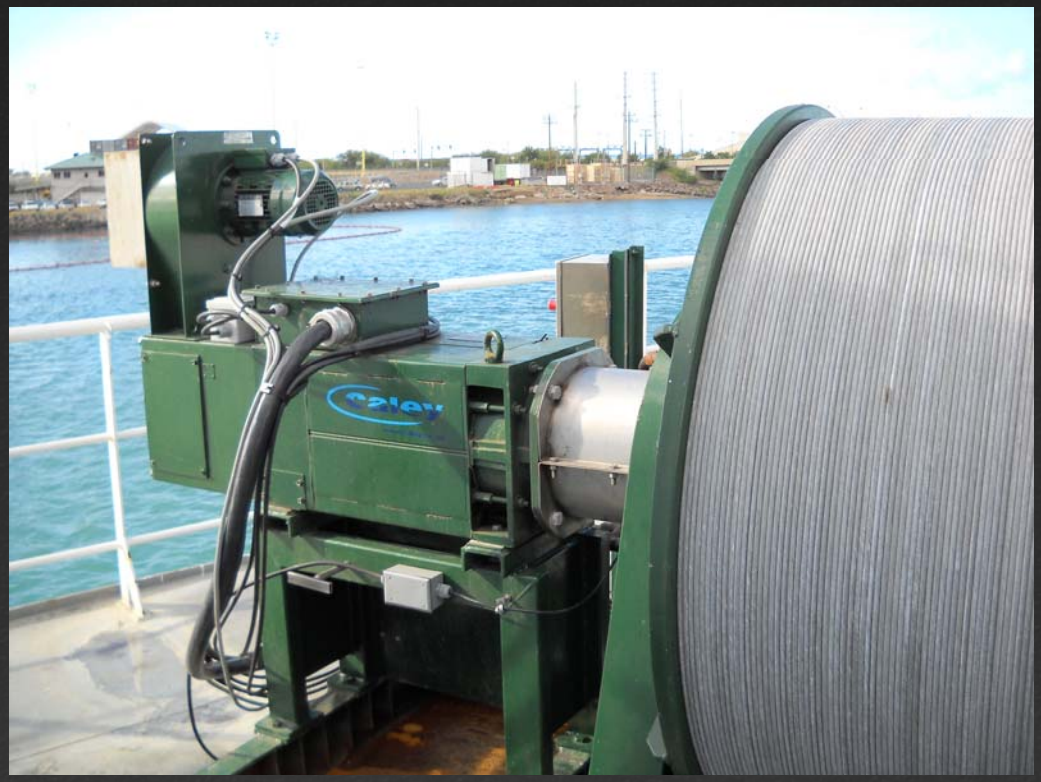


CRANE



DOCKING HEAD

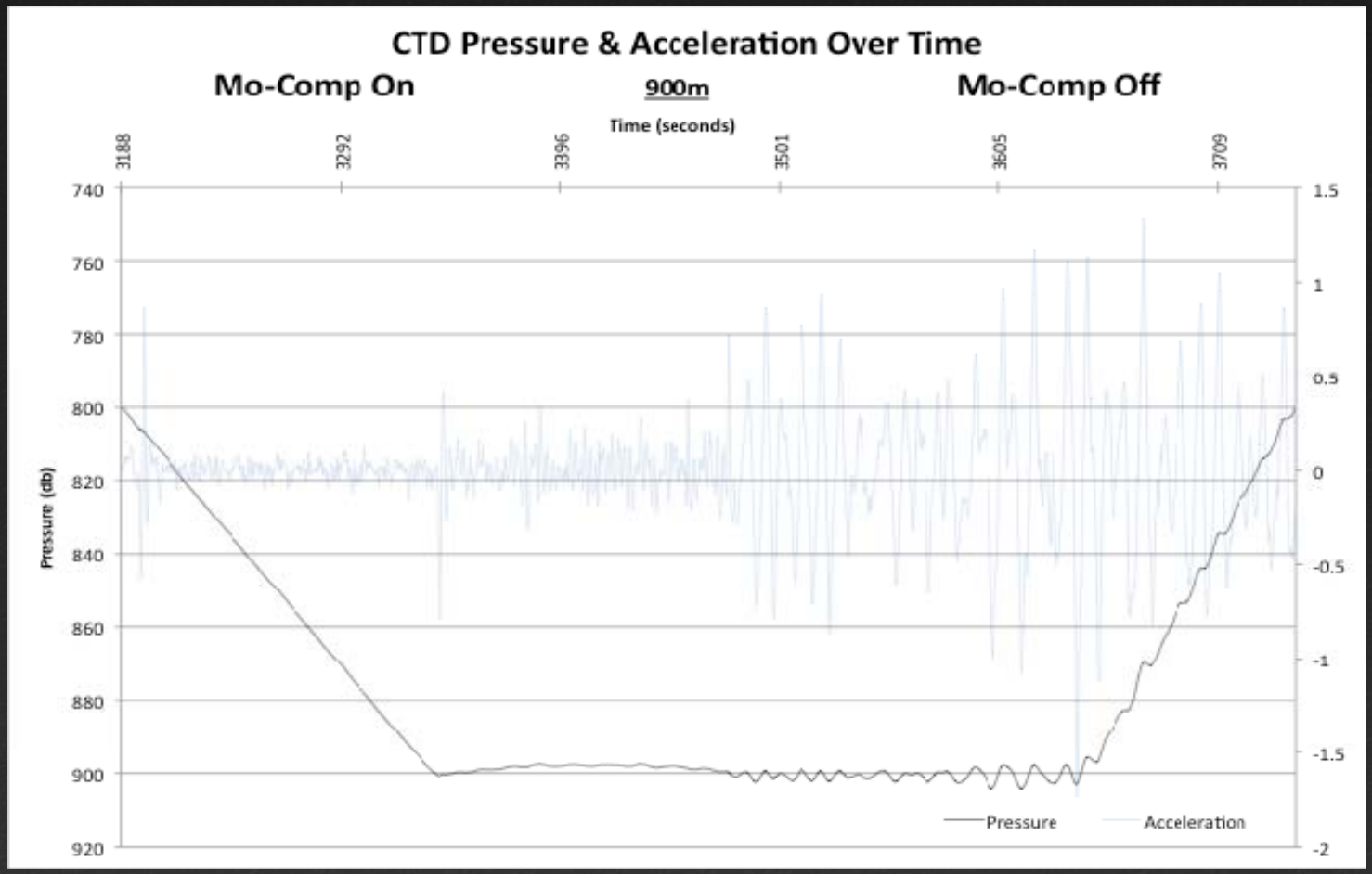
The WINCH is powered by a self contained
100 hp AC VECTOR DRIVE motor



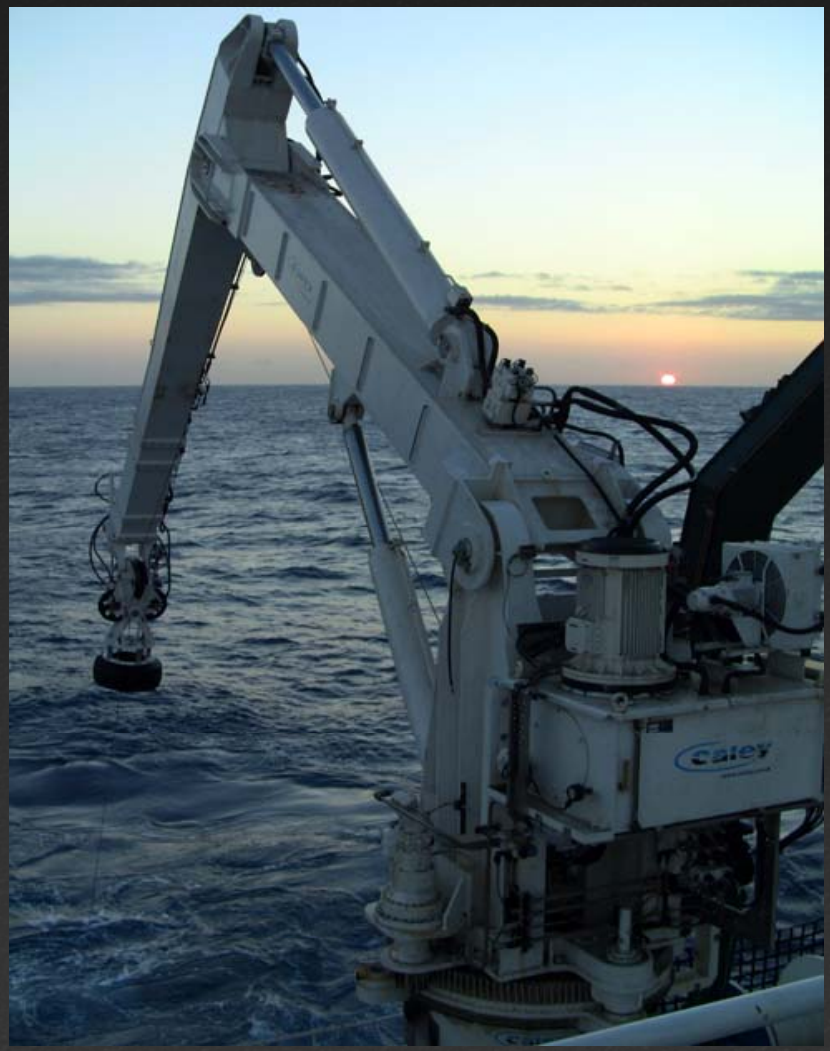
MAIN WINCH CONTROLS and ALARM PANEL are located in the AFT CONTROL STATION

A Motion Reference Unit (MRU) located at the head of the crane boom controls the MOTION COMPENSATION through a Variable Speed Drive

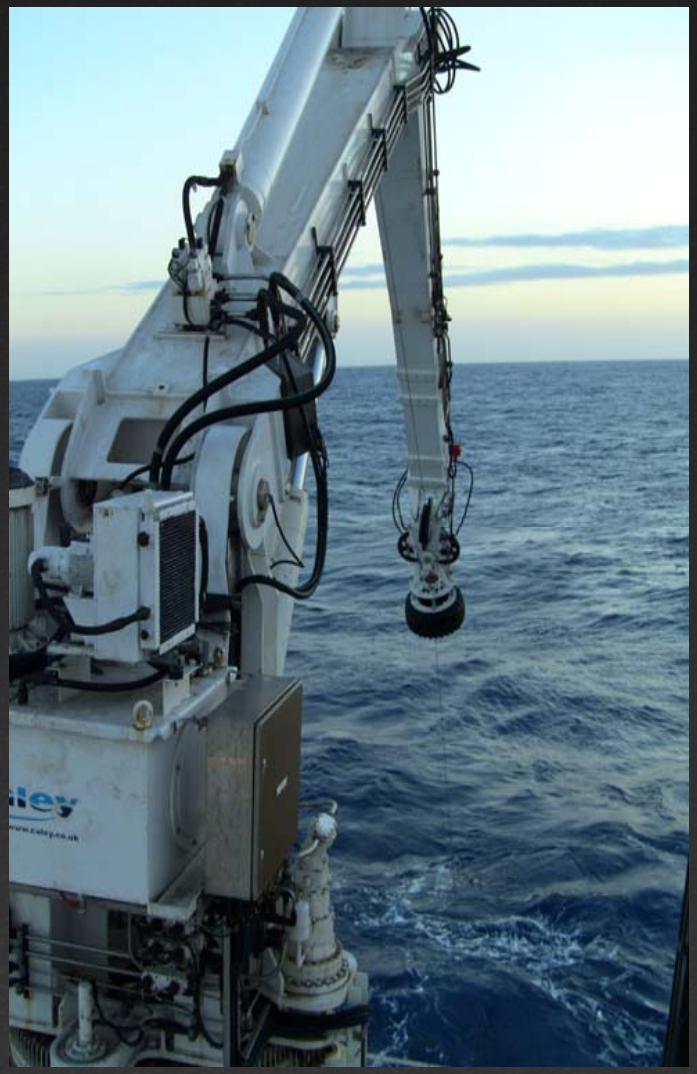
We have tapped into the ships chill water to cool the 75kw Braking Resistor, as a lot of power is discharged, to reverse direction of the winch.


CTD Pressure & Acceleration Over Time
Mo-Comp On
900m
Mo-Comp Off
Time (seconds)
3188
3292
3396
3501
3605
3709
740
760
780
800
820
840
860
880
900
920
Pressure (db)
1.5
1
0.5
0
-0.5
-1
-1.5
-2
Pressure
Acceleration

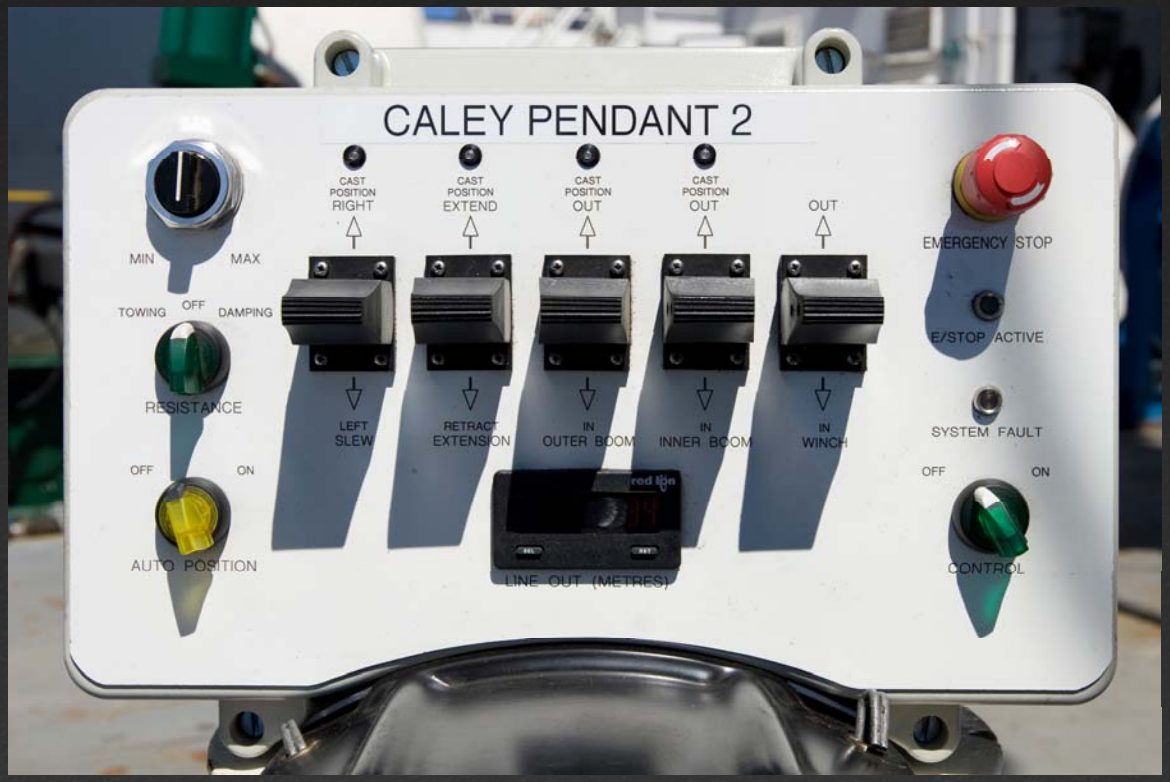
There are over two dozen proximity switches that control the cranes operations and are driven through a Portable Logic Controller (PLC)



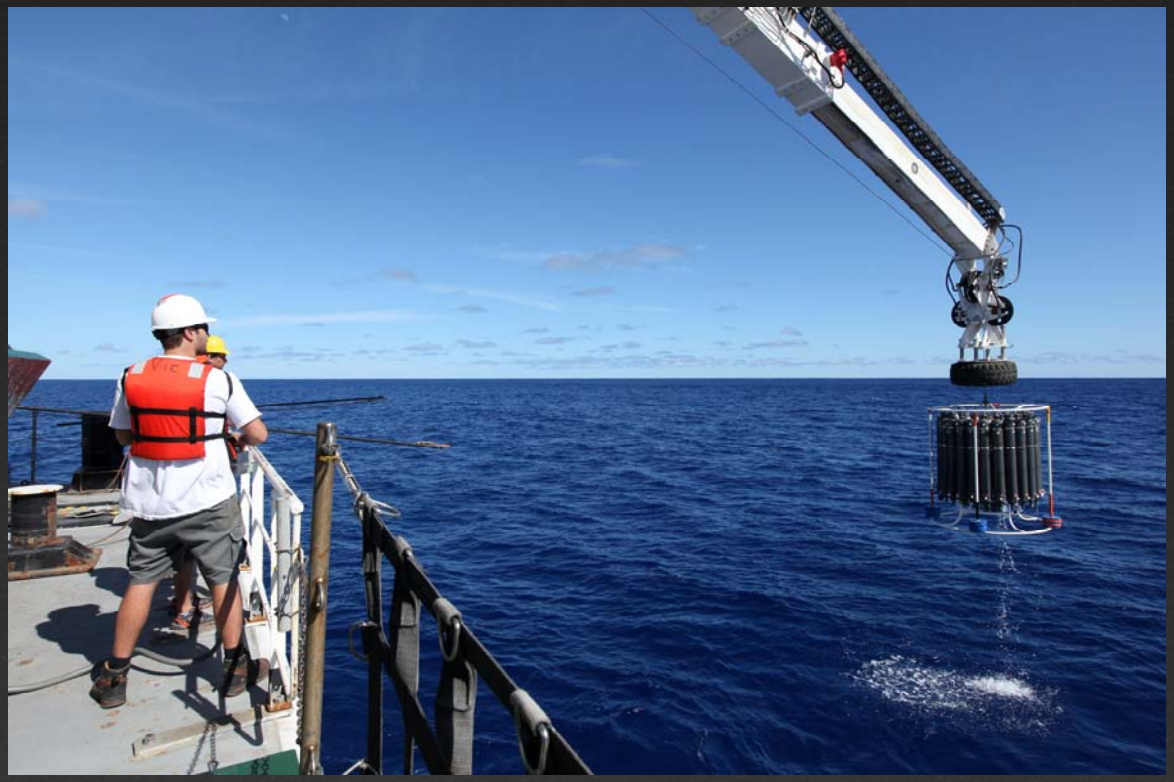
the system was designed to be able pass a four inch diameter fitting thru the docking head and crane sheaves to the winch level wind



All launching and recovery is controlled from the stern of the vessel utilizing a Portable Control Pack



Once the CTD is brought up snug against the Docking Head, AUTO RENDERING is engaged



The Docking Head is operated by a proximity switch, that maintains tension on the wire.

THE END