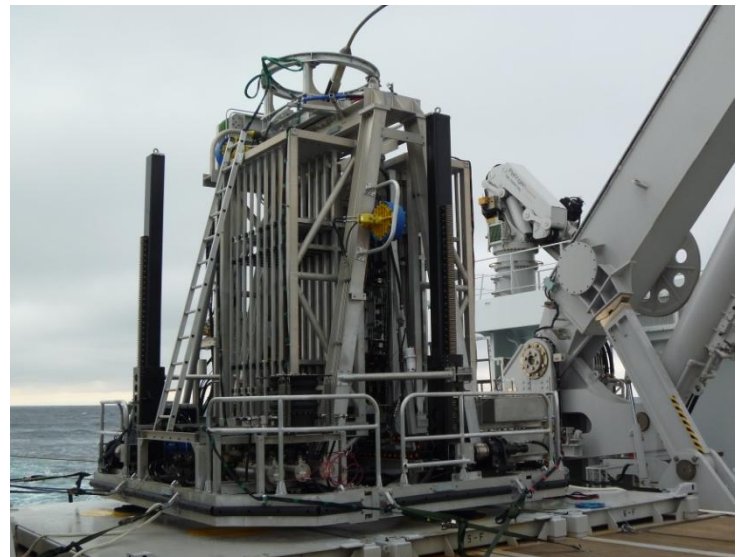
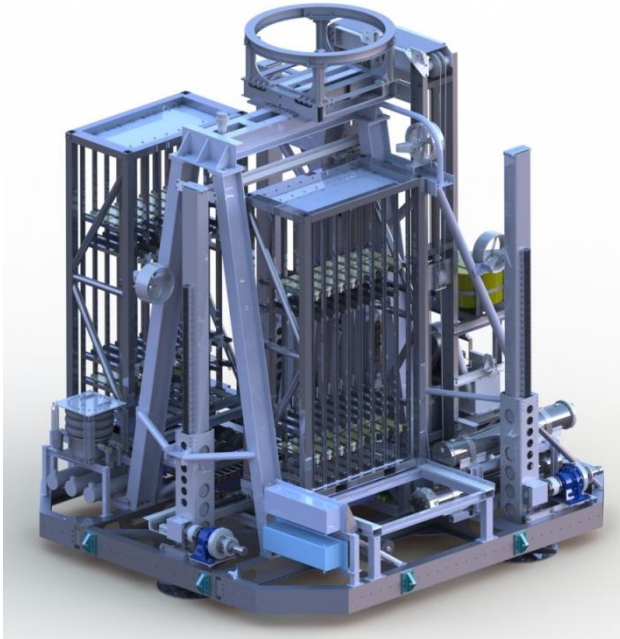


## **A-BMS – Automated Benthic Multi-coring System**



**Above – Computer visualization of A-BMS.**

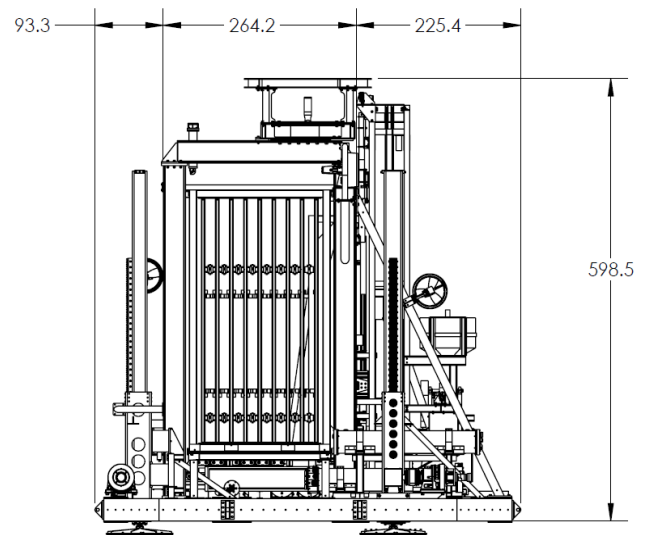
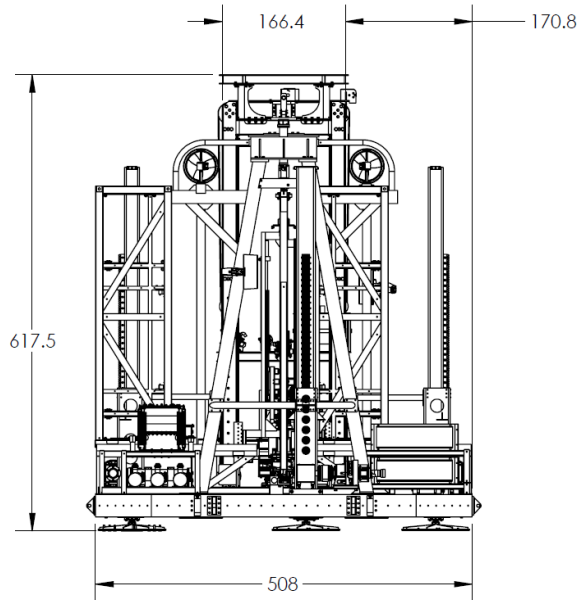
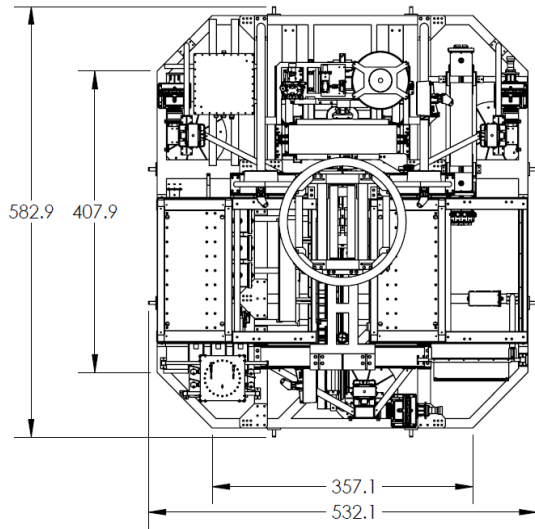
**Top Right – A-BMS during sea trial,  
Seattle, WA.**

**Bottom Right – A-BMS sitting on deck of  
the JOGMEC vessel ORV Hakurei.**

### **DESCRIPTION**

The A-BMS is a remotely operated seafloor coring system that uses wire-line drilling technology to drill deeper, faster, and with higher core recovery than conventional drilling methods. Williamson & Associates developed and holds both US and international patents on this game-changing technology. This innovative drill is designed to operate at depths up to 4,000 m and to recover up to 100 m of core samples from the substrate. The A-BMS uses modified HQ standard drill tools, which recover a 63.5 mm diameter core sample from a 96 mm hole diameter. The magazine holds the drill tools, rods, and casing and can be adapted to accommodate tools that could core up to 150 m. The A-BMS is capable of coring both soft and hard consolidated rock materials. The system uses conventional rotary hard-rock and soil sampling tools combined with computer controlled automation to assemble and disassemble the drill string. A full suite of sensors along with cameras and lights provide the operators with excellent oversight of the drilling process.

Williamson & Associates designed and completed the first A-BMS in 2011 and can customize the equipment to suit your specific needs. Williamson & Associates provides continual support and training with each drilling system. For further information, or to talk to our engineers, please contact us.



***NB. Dimensions are in centimeters***

## SPECIFICATIONS

Total Weight (air)	13,800 kg (without tools and core samples)
Total Weight (sea)	10,700 kg (estimated, without tools and core samples)
Operating Depth	4,000 m
Device Envelope	5.8 m length x 5.3 m width x 6.2 m height
Drill Tool Type	Modified HQ standard (up to PQ standard)
Hole Diameter	96 mm (PQ, 122.6 mm)
Core Diameter	63.5 mm (PQ, 85.0 mm)
Core Depth (total)	100 m (HQ standard, expandable to 150 m)