TAKAGAWA LAB.

[Going Freely to the New Big World]

Underwater Technology Research Center

http://underwater.iis.u-tokyo.ac.jp

Subsea Technology

Dept.of Ocean Technology, Environment, and Policy

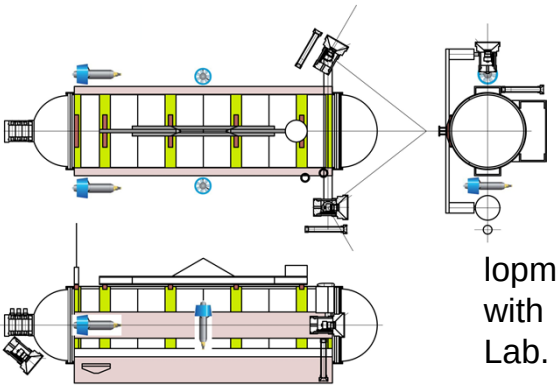
New World under the Sea

Go Freely to the New Big World beneath the Sea Surface

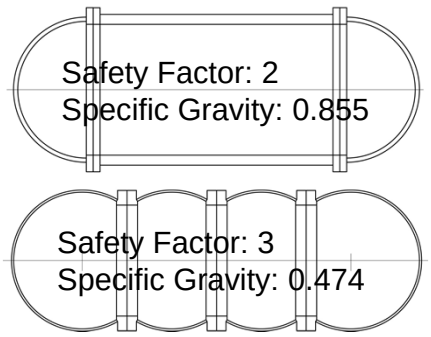
Under the sea/seafloor, there is a big new world, and it is eagerly expected to visit there without any burden. In order to visit this world freely, TAKAGAWA laboratory is developing new technology of ceramic pressure vessel which shall become basement for any robots and sensors. Also, researches on new method to grasp the detailed distribution of deposits under the seafloor and on new and simple mechanism of drilling different from the conventional rotating system are underway.

Integrating these works, total design of recovery system of resources is also underway.

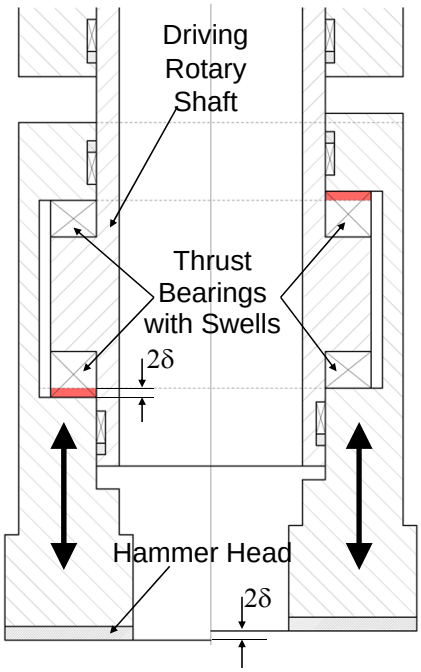
Scale Model of Ceramic Pressure Vessel for 11,000m depth capability (Length: ab.40cm)



Jellyfish Catcher AUV of 7,300m depth capability now under development in cooperation with Ura Lab. and Maki Lab. (Length: ab. 1.7m)



Development of Light Weight Pressure Vessel. Comparison shows the specific gravities.
Material: Silicon Nitride
Water Depth: 11,000m



Study on Vibro-Hammering Drilling/Coring using High Frequency Mechanical Vibrator