

## **CORE EXTRACTOR FOR A HABITABLE SUBMARINE APPARATUS**

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The offered rotatable core extractor makes it possible to extract hard rock cores and also to make holes for installation of anchor bolts, blocks, detector, etc. The diamond abrasive instrument with core gripper working with minimum effort upon the drilling axis has been created on the basis of preliminarily made scientific research. The developed and practiced methods of using the core extractor enable to extract cores oriented according to the geographical parts of the world. The core extractor design provides for the back-flushing with sludge effluent at the upper part of the drilling tool in the course of drilling, which does not interfere with the visual control of the hole mouth. The offered core extractor enables drilling of several cores from different points without changing the operating instrument. It is supplied with a quick response device, separating the drilling instrument in case of emergency. It is usually attached to a submarine apparatus board hydrosystem, but can also be supplied complete with a small-size hydraulic control equipment block and oil pumping station, installed outside the solid body of the habitable submarine apparatus. The core extractor made is possible to receive sample hard rock cores in the ocean drilling from strata lying up to 4000 m deep. Technical specifications: drilling mast height - 1160 mm; width enters the diameter of - 180 mm; weight - 16 kg; drive type - hydraulic; drilling depth - up to 450 mm; core diameter - 21 mm, 25 mm; hole diameter - 25 mm, 30 mm.