



# SUCCESS STORY

International Ocean Discovery Program

# Rhinestahl Partners with IODP

## CHALLENGE

The movement of tectonic plates during a slow slip event — a type of earthquake that has only been recognized in recent years — can lead to major damage on land, large submarine landslides, and tsunamis. For the first time, scientists from The International Ocean Discovery Program (IODP), a team studying the earth's history and dynamics, will measure the properties of the sediments entering the subduction zone; this research could lead to predicting catastrophic events such as tsunamis.

Their challenge entailed:

- Designing and manufacturing a complex observatory structure
- Ensuring it collects data for 5 years below the seafloor
- Installing the system 500 m. deep

## SOLUTION

After designing the structure to monitor the activity below the seafloor, IODP chose Rhinestahl AMG as its partner to machine this assembly with 100% accuracy. Rhinestahl became the team's first choice to complete the precision machining necessary for this experiment because of its proven ability of machining exotic and durable materials to exact specifications.

## RESULT

On April 1, 2018, IODP successfully installed the subsea observatory system. When these structures are pulled from the ocean seafloor in 5 years, they will hold valuable data that will help scientists understand the nature of slow slip events. Rhinestahl AMG will continue to support IODP during the ongoing research.

*"We have successfully installed the subsea observatory system (called a CORK) in the seafloor on 01 Apr 18. The titanium osmotic pump hanger and guide assembly manufactured by Rhinestahl went together flawlessly. Please forward my thanks to your team for their assistance in making this a successful installation. I look forward to working with Rhinestahl on future projects."*

Supervisor of Engineering and Logistical Support



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