

# Remote Anchoring and MicroPiling (RAMP)

# RAMP SYSTEM

Makai Ocean Engineering's Remote Anchoring and MicroPiling (RAMP) System is able to drill and grout an array of micropiles that provides the same strength as traditional anchoring or mooring methods, at a fraction of the material and installation costs.

The weight of the RAMP drill rig is less than ten tons, allowing these systems to be installed using smaller vessels and support equipment, saving on costs and time to commissioning.

The RAMP system is patent pending.



# **Hard Seafloors** Wind speed resource map in >60 m water depth with

hard seafloors, ideally suited for FOW using RAMP.

#### **FEATURES & BENEFITS**

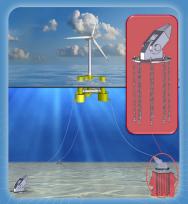
- High Strength
- Low Cost, Rapid Installation
- Reduced Size and Weight
- Minimal Environmental Impact
- Works on Hard Seabeds
- Minimal Surface Support

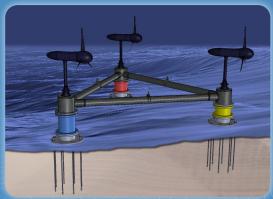
RAMP allows for cost effective deployment of systems in locations with hard seabeds. This will allow for lager marine renewable energy adoption, including floating offshore wind. Much of the West Coast U.S. has hard seabeds.

## **APPLICATIONS**

RAMP is suitable for anchoring and mooring a variety of systems.

- Floating Offshore Wind (FOW)
- Wave Energy Converters (WEC)
- Marine Hydrokinetic (MHK)
- Ocean Thermal Energy Conversion
- Other Marine Renewables
- Securing Seabed Laid Cables Marine Pipelines
- Offshore Infrastructure









### Contact us today!

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