

Anemone

Recovery and sampling tool



3.7"
DIAMETER

10"
RETRACTED
LENGTH

15"
DEPLOYED LENGTH

4
POUNDS

20
POUND PAYLOAD

Above values pertain to the standard Anemone. Dimensions and characteristics above can be adapted to meet specific needs.



The Anemone tool is an ideal solution when radioactive solids need to be recovered and removed from a hostile environment, such as in support of sampling or cleanup activities.

This versatile device is composed of a rigid body and a flexible head equipped with tentacles designed to grip and trap any type of object or material. The gripping action is provided by retraction of the Anemone head.

The Anemone:

- Can be operated with either compressed air or electrical power
- Allows the recovery of various objects (shape, size, density, material), in different environments (air or water), and on different surfaces (sand, sludge, rubble)
- Can be used remotely:
 - On a pole equipped with a ball joint for maneuverability
 - On a remotely controlled arm

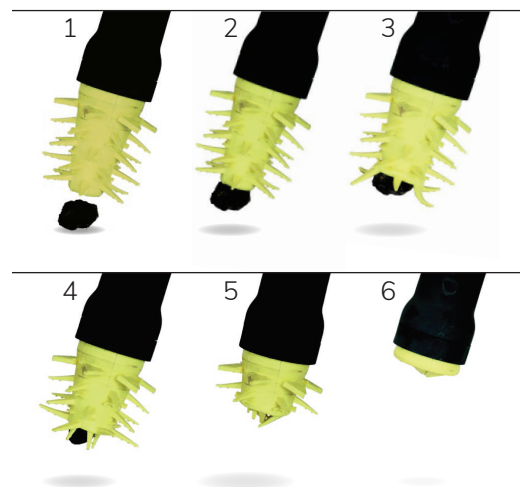


Anemone sampling tool head positions

- Resists cuts, tears, and radiation
- Is 3D printed and therefore reproducible, scalable, and easily replaceable in case of failure
- Has dimensions and characteristics adaptable to various needs

Advantages

- **Performance:** designed for operations in challenging, radioactive, and underwater environments
- **Adaptability:** the apparatus adapts to object sizes and can attach to a pole with connectible sections to extend from 6'7" to 32'10"
- **Ease of use:** user-friendly tool requiring minimal training
- **Versatility:** one tool for various objects or materials
- **Safety and radiation protection:** limited dose exposure through rapid and remote implementation



Corium sample recovery simulation



Anemone has been developed and tested internally by Orano DS and implemented in multiple scenarios, including the recovery of solid graphite waste items at a fuel reprocessing plant and capture of graphite hull containers coming from a disposal facility.

Possible fields of application:

- Remote recovery of objects in areas that are difficult to access and/or highly radioactive
 - Examples: pools, bottom of vessels, equipment in operation, shielded cells
- Removal of samples for analysis and characterization
 - Examples: corium in the Fukushima-Daiichi reactor, fission product residues, lost pieces of failed fuel



Anemone sampling tool installed on a pole



Watch our presentation
video for Anemone



An application for patent protection has been filed for Anemone under number FR 20 02401 with an international extension PCT/FR2021 050414.