

TDI-BROOKS DOUBLE VAN VEEN GRAB SAMPLER

The TDI-Brooks Double Van-Veen Grab Sampler allows for more efficient sampling operations in deeper waters, reducing the time needed on the vessel. Nonetheless, the system is suitable for projects in both shallow and deep waters. The double grab configuration allows sampling operations in any depth of water.

The Double Van Veen Grab is a universal tool ideal for taking dual samples for biological, hydrological and environmental studies, designed for comparable sampling where samples for chemical and also biological analysis are required from the same site.

The use of the Van Veen's grab is very simple which has made it the industry standard for surface sediment sampling.

OVERVIEW

The Van Veen grab is designed for collecting sediment samples in fresh and marine water, from soft or medium-hard bottoms like sand, gravel, consolidated marl or clay. It consists of two buckets connected by a hinge. During descent, the two buckets remain apart. When the unit hits the bottom, the locking mechanism releases, and when the main line is pulled to retrieve the grab, the buckets close allowing the collection of the sample.

The Van Vee grab sampler has upper windows which allow inspection of the sample or the ability to sub-sample before opening the grab.

The lead-weighted jaws close positively, capturing the sample for secure recovery to the surface. The weights also enable reliable operation in strong currents, and extra weights can be added for hard seabed conditions.



- It has 2 arms that open and close the grab, and includes a chain with an attachment for the main line.
- Includes a locking mechanism that is released on contact with the bottom, allowing the grab to close.
- Has upper windows that allow you to inspect the sample or remove a sub-sample (*Not available in SG-200).
- Includes 4 lead weights designed to help the grab enter the sediment (*Not available in SG-200).

CONFIGURATION

The sampling device is composed of two 0.04-m² samplers (.08-m² total) joined together in a single frame. The target penetration depth is 0.1 m, which is the nominal limit of the grab sampler.

One sample can be collected for benthic infauna (one side of the grab) and the 2nd side of the grab for geotechnical measurements at each site. A grab sample is deemed successful when the grab unit is > 75% full (with no major slumping). The grab sampler is recovered from the seabed and back onto the vessel at a velocity which minimized any potential loss or disturbance to the seabed sample.

Collection of benthic grab samples for bulk physical and macrofaunal analysis is collected using a Double Salish (Young-modified) Van Veen grab (**Figure 1**).



Figure 1. Double Van Veen grab sampler (bottom view)

The grabs are mounted on a common pivot and each bucket has the capacity to collect a sample of approximately 0.10 m². Similar to the Salish Sea design the double Van-Veen comes with a weight frame and release mechanism which makes it ideal for hard substrates such as clays and gravels.



IMG_0251



IMG_0254



IMG_0255



IMG_0257



IMG_0259



IMG_0268



BG-AC-40 (2)



BG-AC-42



BG-AC-45_R



BG-AC-48



BG-AC-49



BG-AC-52_R

SPECIFICATIONS

- Double 0.1m² buckets
- Bucket size: 20 cm penetration
- Sampling area: each of 2 at 0.10 m²
- Full ocean depth rating
- Inspection lids for easy sampling
- Supplied with deck stand
- Optional lead weights for extra penetration
- Configurable weights for strong currents and hard seabeds
- Material: 316 Stainless Steel