

## BOX CORER (USNEL and Grey-O'Hara)

### General specifications

- 0.25m<sup>2</sup> Sample Area
- Constructed for minimum disturbance
- Stainless steel box, for reduced contamination
- Variable weight around to aid penetration
- Used for detailed environmental, geochemical and surface sedimentological studies
- Two different design options for soft and mixed sediment types



### Services

The USNEL type box corer has become the standard sampling tool for surveys in soft or deep sediments. The enlarged surface area of the box (0.25m<sup>2</sup>) allows for relatively large sample sizes to be recovered in deep water where the time required to deploy and recover the instrument is significant. The standard box corer is built within a gimbaled hexagonal frame. The instrument is triggered by a trip as the main coring stem passes through its frame. The depth of penetration (maximum 65 cm) can be controlled to prevent over-penetration in softer sediments.

The recovered sample is completely enclosed after sampling, reducing the loss of finer materials during recovery. Stainless steel doors, kept open during the deployment to reduce any "bow-wave effect" during sampling, are triggered on sampling and remain tightly closed, sealing the sampled water from that of the water column.

On recovery, the sample can be processed directly through the large access doors or via the removal of the box completely, together with its cutting blade. A spare stainless steel box and galvanised cutting blade can then be added, ready for an immediate re-deployment. The sampler will be supplied with additional 0.1m<sup>2</sup> templates for macrofaunal sub-sampling if required (pictured left).

An alternative sampler is the BSL modification of the Grey-O'Hara box corer (sometimes called the GOMEX corer due to its historical use in the Gulf of Mexico). The sampler is entirely constructed in stainless steel with a large 0.25m<sup>2</sup> sampling area. A smaller design, this box corer can be used from smaller vessels or where space is limited and is suitable for soft deep-water sediments only. This sampler can be deployed using BSL's containerised LARS system.



Shipping weight	1000 and 500 kg
Sample areas	Both 0.25m <sup>2</sup>
Deck clearance required	5 and 3m