



OSIL

Environmental Instruments
and Systems

Core Splitter

High-quality split core

Core splitting is a standard operation, generally performed with non-standard equipment. The quality of the split core affects subsequent image data and other measurements made on the split core surface.

The core splitter is designed to enable fine adjustments to be made that in turn enable the best possible split core surfaces, including reproducible thicknesses, with further analysis in mind.

The splitter, with its own self-contained “wet tray”, can be provided on its own and mounted on any suitable bench-top. It can also be supplied as part of a suite of equipment, including non-destructive geophysical testing, core splitting and sub-sampling, all furnished in a custom 20-foot laboratory container.

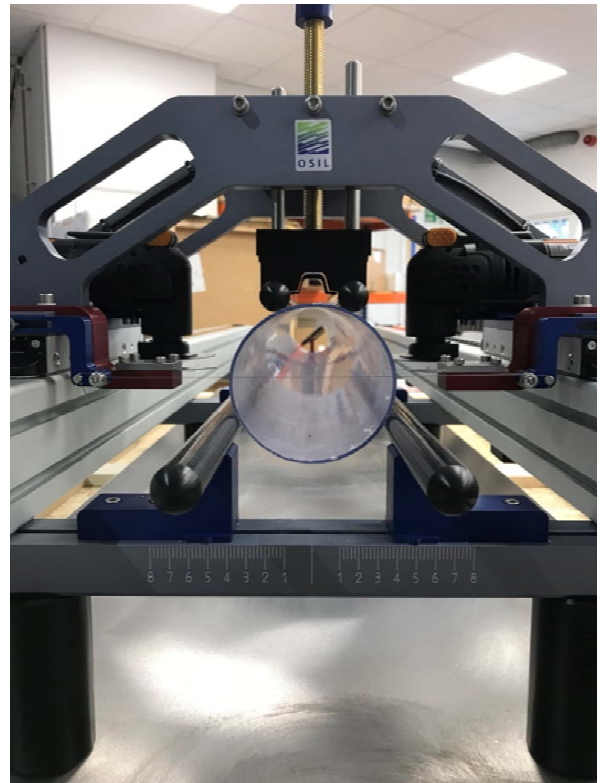
All plastic liners cut

The core splitter incorporates two cutting mechanisms (vibratory cutters and hooked slitting blades) for the plastic liner, that are used separately or in tandem depending on the thickness and type of core liner. Thin liners, up to 3 mm in wall thickness, are cut with hooked blades alone.

Thicker liners are cut using both vibratory cutters and hooked blades simultaneously. Vibratory cutters create a groove in the liner, without penetrating through to the core, leaving a thin sliver of plastic that is then cleanly sliced through by the hooked blades. This combination minimises the ingress of plastic cuttings into the sediment.

Wire creates clean surface

Following the blade or blade/cutter combination, a thin stainless steel wire cleanly splits the sediment. The wire is easily removed if obstructions in the core are encountered.



FOR FURTHER INFORMATION PLEASE CONTACT:

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Manual operation retains feel

The cutting arch, containing the blades, cutters, and wire, is moved along the core with a large manual hand-wheel. This manual motion of the splitting mechanism allows the operator to feel obstructions in the core (concretions, drop-stones, shells, woody material) and stop operation, rather than dragging them through the sediment and ruining the core. The splitting operation is controlled but rapid, taking less than 2 minutes to set up and split each 1 or 1.5 m core section.

Ideal for further analysis

The core from the core splitter is ideal for high resolution imaging with the line scan camera system or other automated analyses, such as colour spectrophotometry, X-ray fluorescence, and high resolution magnetic susceptibility with the MSCL-XZ or -XYZ. All these measurements benefit from having the flattest surface possible.



Specifications

- **Core accepted:** Length: up to 155 cm; Diameter: 5-15 cm
- **Liner cutting mechanism:** Standard hooked utility knife blades with the option of electric vibratory cutters (cast cutters) for thick (> 3 mm) liner
- **Sediment core splitting mechanism:** Thin wire
- **Dimensions:** Standard system L x W x H (cm): 255 x 70 x 45; Weight: approx. 100 kg

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