Equipamentos para: Solo – Cimento – Concreto – Betume – Agregados – Metalografia – Areia de Fundição – Refratários
Rua Conselheiro Carrão, 275 - Bela Vista - CEP 01328-000 - São Paulo – SP - Brasil - TEL: 55 (11)3289-0211 - FAX: 55 (11) 3289-4516
Internet: http://www.solotest.com – E-mail: solotest@solotest.com

Water bottom investigation

The Beeker sampler has been the best solution for collecting undisturbed samples from underwater soils. The samples are collected in a transparent tube. The original bedding of the layers is maintained in the sample. Because of this a clear profile description can be made. Nowadays Eijkelkamp has at his disposal an improved version of the Beeker sampler, called 'Sediment core sampler, type Beeker'.

In the Sediment core sampler, type Beeker some of the practical imperfections, inherent to the original Beeker Sampler, have been solved. For example, the piston can now be driven directly by means of a rod, so that a sample can be pushed out of the sampler on the spot and directly into a sample bucket. Also the tension ropes have been replaced by rigid steel strips. These hold the sampler better together and make sure that, also because the piston cable has been excluded, there no longer is a messy labyrinth of tension ropes, hose and cable. The huge pump, as well as the pressure vessels, necessary to operate the closeable bellow in the head, can be taken away and replaced, if so wished, by small chargeable pumps of which most users will only have to clip the pressure pump on their waist belt. Much has improved from an ergonomic point of view. For those persons who want to transfer a sample from the long sample tube into the small 10 cm tubes, the hydro-pneumatic discharge pressure system remains intact. Therefore your sampler can continue to be used with this 'old' discharge pressure system. The hydropneumatic discharge pressure also can be connected directly onto the water supply, making preparation and application much more much simple. In short: the advantages of the old Beeker Sampler (hammering possibility, closeable sampler head, big diameter long sample in transparent tube) have been maintained but it's application has become much easier and more pleasant.

Applications:

• Can be applied for various sediments: from watery mud to unconsolidated sand in any soil stratification.
• Simple and controlled removal of the sample by pressing the piston or sectioning of the sample by means of the hydro-pneumatic loosening and distribution system.
• The standard set can be used in a maximum of 5 m water depth. With the aid of extra extension rods, deeper sampling is incidentally possible in dead water. Some parts of the old Beeker sampler can be used in combination with the Sediment core sampler.
• Geo-hydrological investigations
• Palaeontological investigations
• Environmental investigations
• Sediment profile investigation

Characteristics:

Maximum sample depth : 5 meter
Maximum sample length and volume: 1.2 - 3.6 L
Type of sample : Undisturbed
Applicability : Sediment investigations in dead or hardly flowing waters (max. 5 km/h)
Weight of set : max. 35 kg

Van Veen grabs

Indicative sampling of water bottoms, eventually at higher depths, is done by the cable controlled sample grabs. The stainless steel van Veen grabs are used for the collection of disturbed samples from the bottom of lakes, rivers, etc. Various types and versions are available. The two minor ones can be operated by hand. The bigger ones are lowered on and lifted from the deck by davit. On the surface the grab is opened and fixed with a pin. The Van Veen grab is then slowly lowered. Both halves of the grab have holes in them to permit the air in the grab halves to escape whilst lowering. As soon as the grab touches the bottom, the rope relaxes and the pin is loosened. At pulling the cord the grab closes again and the Van Veen grab is being lifted.

Applications:

• Pollution investigation
• Sediment transport

Characteristics:

Maximum sample depth : > 30 meter
Sample volume : 0.5 - 12.0 L (4 sizes)
Type of sample : disturbed
Applicability : medium hard sediment. Top profile description, for dead waters only (max. 1 km/h)
Weigths : 2-41 kg (4 sizes)

Multisampler

The multisampler is multi-functional. It enables sampling of very polluted waters (e.g. liquids from a sewer). When the delivered ball valve is changed for an open cutting head, untouched column samples of water bottoms, sand traps, sediment layers, crystallization baths, etc. can be taken. The sample tube is transparent which enables the immediate visual evaluation of the sample from the outside. The integrated piston avoids compression of the sample to a high extent and, as often happens, the sample falling out of the tube. The materials used allow for the use of water-based chemicals. In liquids both column and well as spot sampling is possible. By sampling 100 ml at each spot one can compose a sample mix of 1000 ml in the apparatus without the mess of funnels and pots. The multisampler supplies, if it can be pushed in at least 1 meter, excellent profile descriptions of up to 1 meter of length. A taken sample can be transported inside the sample tube or transferred into a sample pot or bucket.

Applications:

- Geo-hydrological investigations
- Palaeontological investigations
- Pollution investigations
- Sediment profile investigations

Characteristics:

Maximum sample depth : 5 meters
Sample volume : 1,00 L
Type of sample : Undisturbed (liquids semi-disturbed)
Applicability : soft sediment profile description from soft sediment to uncompacted sand in dead and slowly flowing waters (max. 3 km/h)
Weight of set : 16 kg