



You will return to the contents of P1 SOIL by clicking the pictogram

CABLE OPERATED SEDIMENT SAMPLERS

P1.41

Sampling of submerged soils at greater depths from the bottoms of rivers, lakes, etc. is executed with cable operated samplers. The samples are either or not disturbed.

After lifting the sampler an immediate rough description of the stratification of the submerged soil is possible due to the transparent tube and also the depth of penetration can be measured.

04.29 Free-fall corer

After removing the sample further description regarding the composition, colour, smell and particulars if any, is possible.

The free-fall corer is a sampling tool for fairly undisturbed sampling from the top layer of submerged sediments either or not consolidated.

Applications

The free-fall corer consists of a frame with strengthening ribs, falling weight and sampler. Using a hoisting unit (davit) on board of a boat the sampler is lowered in free fall. By its own weight and velocity the apparatus penetrates the submerged soil.

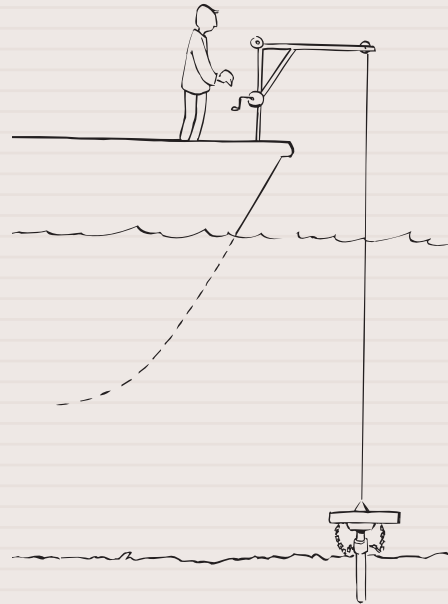
□ The free-fall corer is applied particularly when sampling with rod operated equipment poses problems because of too great water depth and current velocity.

□ Sampling is done on behalf of environmental research, soil research and geo-hydrological research.

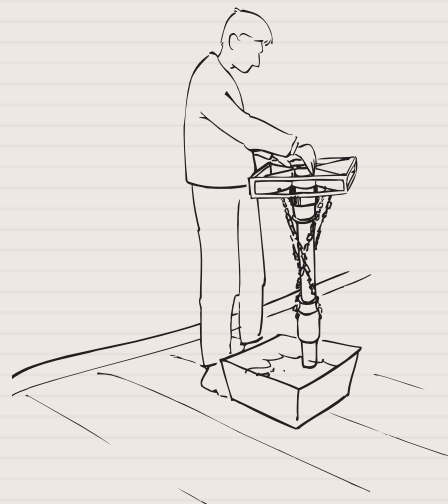
The depth of penetration is partly determined by the composition of the submerged soil. In soils rich of mud, penetration will reach to about 80 cm, in more sandy soils this will be about 30 cm.

Note: During sampling with the free-fall corer samples are compressed, in some cases this may amount to a factor 2. The problem of compression can be avoided by using a sediment sampler, type Beeker sampler (04.23.SA).

Using a davit on board of a boat the free-fall corer is lowered in free-fall.



The sample is discharged by lifting the ball valve a little.



BENEFITS

04.29 Free-fall corer

- Cable operated; takes samples at any depth
- Super rapid, no anchoring needed
- Ball valve at top prevents loss of sample



Free-fall corer