



# Soil corer for volatiles

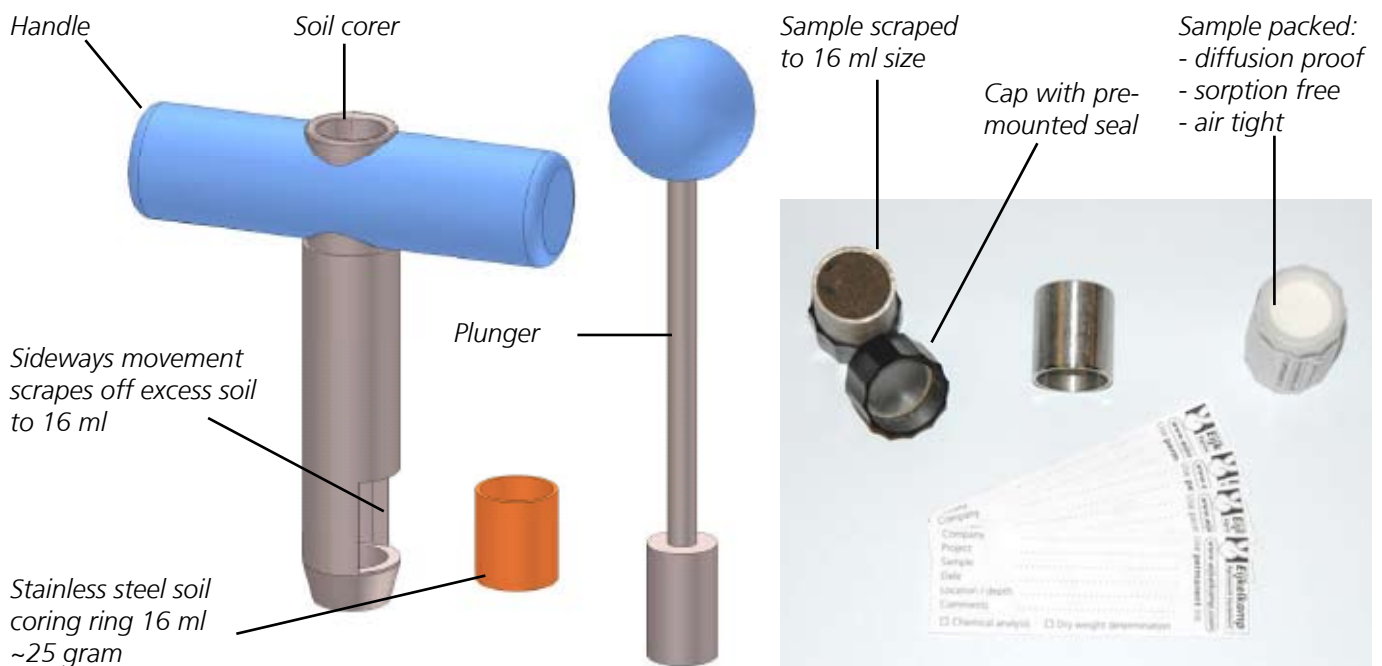
## 04.10 No-loss on-site soil corer for soil with volatile components

- For methanol method
- For cooling method

- Soil is sampled above ground from any regular soil sampler or auger
- 16 ml (~25 grams) stainless steel soil coring rings can be used over and over
- Smart but simple feature scrapes sample to an exact volume of 16 ml (~25 grams).
- Coring ring not damaged by stones; device can be hammered
- Corer and rings can be field sterilized with a flame for biological activity samples.
- Takes sample not at, but just below the ambient air exposed surface
- Plunger to push out sample (methanol method or in laboratory)
- Easy decontamination of coring rings in dish-washer or with flame
- Aluminium lined seals prevent sorption and diffusion; no headspace

Methanol and sodiumthiosulphate method acc. to US-EPA 5035A-2002 + ~ISO 22155	Cooling or freezing methods according to US-EPA 5035A-2002, ~Dutch NEN 5743 and ISO 18512
No disposables. All parts can be used over and over*	Sample packed in diffusion and sorption proof material with diffusion proof seals.
	Cheap consumables (PE caps with seals and a sticker)
	Small weight → Rapid cooling → little waste

\* If concentrations are reported without moisture correction factor ("As received")



All it takes for environmental research



## Procedures (there is a separate manual with images)

### Methanol-or sodiumthiosulphate method (US-EPA 5035A-2002 + ~ ISO 22155):

- Decontaminate / sterilize cutting part of sampler with soldering gun flame
- Put jar ready pre-filled with 25 grams of methanol
  - Use sodiumthiosulphate at low concentrations
- Push a stainless steel coring ring 16 ml in the coring device
- Fill in 2 stickers. Mark ticket boxes (□) with Chemical Analyses (for the jar) OR with Dry weight (to enable the lab to express the found concentrations based on dry weight)\*\*
- Take a large soil sample from the layer to be analysed and leave it in the tube or auger
- Push (or hammer) the soil corer for volatiles into the larger sample. Overfill.
- Push cutting ring sideways out of coring device. This will scrape off soil to 16 ml.
- When re-using coring ring, push ring back into place and push sample out of ring into methanol jar with plunger. Otherwise drop ring with soil into methanol jar.
- Decontaminate coring device (and ring) with gas soldering flame.
- Take a **duplicate\*\*** just next to the first sample for the determination of dry weight.
- Push soil corer with clean coring ring in sample once more.
- Push cutting ring sideways out of coring device.
- Clean ring edges and push **black** caps in place. Put Dry weight sticker and store sample.

### Cooling or freezing method (US-EPA 5035A-2002, + current ~ NEN5743, ~ ISO18512):

- Decontaminate / sterilize cutting part of sampler with soldering gun flame
- Push a stainless steel coring ring 16 ml in the soil corer for volatiles
- Fill in 2 stickers. Mark ticket boxes (□) with Chemical Analyses OR with Dry weight.
- Take a large soil sample from the layer to be analysed and leave it in the tube or auger
- Push (or hammer) the soil corer for volatiles into the larger sample, overfill.
- Push cutting ring sideways out of coring device. Soil volume will now become 16 ml.
- Clean ring edges and push **transparent** caps in place. Wrap Chemical analyses sticker around sample ring and store sample.
- Take a **duplicate\*\*** to allow the lab to express the concentrations based on dry weight.
- Repeat the above described procedure. Now use the **black** caps and sticker Dry weight.
- Cool (up till 48 hrs) or freeze (up till 2 weeks) the filled ring, prior to extraction in the laboratory. Use plunger to push out the sample in the extraction liquid there.

\*\* Not necessary if concentrations can be reported on an "As received" basis so without moisture correction.

### Two standard sets are supplied:

04.10.SA Soil corer, on-site, for soils with volatile components. Start set for methanol method without dry weight determination. With corer, plunger, stand with push pin, hammer and 10 stainless steel coring rings with 20 end caps and 100 stickers.

04.10.SC Soil corer, on-site, for soils with volatile components. Start set for both cooling and methanol method + dry weight determination. With corer, plunger, stand with push pin, hammer, 50 stainless steel coring rings, caps (200 transparent and 200 black) and 200 stickers

