Piston Corer

The piston corer has been designed for taking undisturbed cores in normally consolidated silty or clayey sediments. The advantage of this system is that it operates in any water depth. The length of the cores is limited by the deck space of the survey vessel only. In the Atlantic Ocean for instance cores have been obtained with a recovery of 22 m.



The operating principle of the piston corer is based on a free fall of appr. 3 metres which is triggered by a tripper weight which is releasing the piston corer as soon as the tripper weight hits the sea bed (see scheme). At the bottom of the core barrel a piston with a leather seal is mounted. The piston is connected to the releaser by a stainless steel wire. The wire which has a slack of about 3 metres, allows the piston corer to fall free until the piston inside the core barrel is activated just before the barrel penetrates the sediment. The penetration depth

can be regulated by the total weight load.

Dimensions:

Coring head:

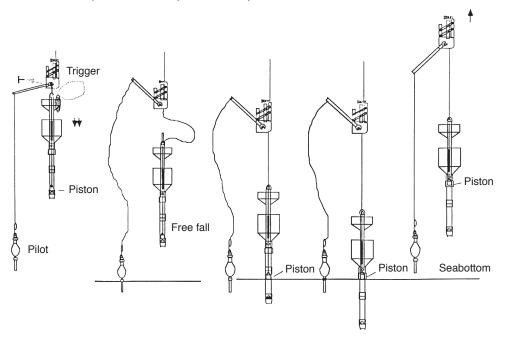
- Weight appr. 750 kg

Core barrel length:

- 3 and 6 metres 98 mm wich can be connected by a connector
- PVC liner outer diameter 90 mm and inner diameter 87.3 mm

Core barrel tripper weight:

- Appr. 90 kg





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