



KC Multi-corer, 6 x \varnothing 100 mm
Model 70.000





Manual



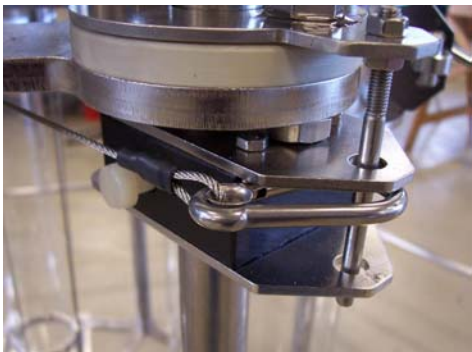
KC Denmark



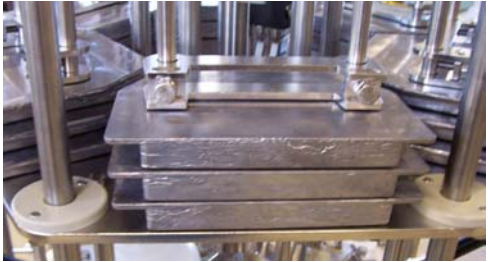
Research Equipment

Limnology • Oceanography • Hydrobiology



	<p align="center">Manual for multi corer, 6 x ø100 mm</p>	<p align="center">Model no. 70.000</p>
	<p> Caution This multi corer is very dangerous in unskilled hands and serious precautions must be taken to avoid accidents.</p> <p>The safety clamps must always be in the secured position and must only be released, when the multi corer is outside the rail of the boat. Except for item #5 (water filling of hydraulic damper).</p> <p>KC-Denmark is not, and cannot be held, responsible for any damage(s) made to equipment or to operators who ignore safety precautions or because of misuse or wrong operation.</p> <p>Never walk under the multi corer, when lifted up by the winch.</p>	
	<p>Preparation:</p>	
<p align="center">1</p>	<p>The upper part of the multi corer now has to be hitched on the lifting hook from the crane. Lift the multi corer out from the transport pallet.</p>	


2	 <p>Caution</p> <p>Check that both safety clamps are placed correctly.</p>	
3	<p>Raise the multi corer 10-20 cm above the deck and mount all legs. Secure all fastenings and the spacers between legs.</p>	
4	<p>Remove the white plastic $\varnothing 5$ mm line, which is applied to the top lids.</p>	



<p>5</p>	<p>Every time you use the multi-corer, after storage, you must activate the hydraulic damper.</p> <p>Before inserting the sample tubes, attach the two tubes to a bottle filled with water.</p> <p>Remove the safety clamps.</p> <p>Raise and lower the multi-corer until there are no more bubbles coming out. Now the damper is ready.</p> <p>Fasten the plastic tubes to ensure they do not get damaged during operation of the corer.</p>	
<p>6</p>	<p>Raise the top lids and insert the sample tubes. Secure the bottles by fastening the handle.</p>	
<p>7</p>	<p>Raise the top lid and mount the snap hook as <u>shown on photo</u>. Incorrect setting on upper side of the plate will cause malfunction.</p>	

8	<p>Behind the lid there is a handle, securing the wire to the bottom releaser. Press down the handle, ensure the wire is taut and release the handle.</p>	
9	<p>Push the plate of the bottom part all way back. Push down the small $\varnothing 5$ mm pin.</p>	
10	<p>Mount the necessary lead weights on the platform and do not forget to secure the position by fastening the 2 bolts.</p> <p>The amount of weights must be equal to all weight stations to ensure a properly lowering and penetration of the seabed.</p>	
11	<p>Now the multi-corer is ready for operation. Remove the safety clamps. Lower the rack to the seabed.</p>	

	Brief characteristic of the function:	
12	<p>While the multi corer is lowered into the water, there is a full flow through the sample tubes in order to obtain an undisturbed sample.</p> <p>At the top of each sample tube is mounted a spring-loaded lid, which is in open position during the sample taken. For each core a spring-loaded horizontally placed plate is mounted at the bottom plate and when the sampling is completed, they are pressed in position under the sample tubes. At the same time the 6 top lids will close. Both will function to secure the sample.</p>	

13	 <p>Caution</p> <p>After the sample has been taken and you raise the multi-corer, it is very important to mount the safety clamps.</p>	

14	<p>Before transportation or lowering into the transport box you must secure all top lids by mounting the white plastic line to avoid damage to the handles.</p>	
15	<p>When your work has been finished, the saltwater in the hydraulic cylinder has to be replaced thoroughly with fresh water.</p>	

16	<p> Caution</p> <p>Always remember to mount the safety clamps during transport or work with the multi-corer.</p>	
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Troubleshooting

When using the corer, you might encounter problems with the sampling.

If the sediment is too soft, it will not be able to take a correct sample, as you will need a "bung" of hard (er) sediment to hold the sample inside the core tube. Otherwise the soft sample will seep away because of the small space of app. 1 - 2 mm between the bottom of the sample tube and the moveable closing mechanism. (Will depend on the change of temperature from sea deck to bottom of the sea).

If the depth of penetration is too low, it will be necessary to add more weights to the weight station (the moving part of the corer) and to the top of the rack.





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When you raise the sampler, it is important to have a reasonable weight on the rack to ensure the closing mechanism will work correctly. If the weight of the rack is too small and you raise the sampler, the rack will begin to rise before the closing mechanism has locked and secured the sample. Please add more weights to the rack.

For a smoother operation we recommend regularly use of silicone grease on the vertical bars, where the parts move up and down.

In case you need a faster penetration, you can make a small modification to the hydraulic damper. Disassemble the valve in the hydraulic damper, and you will see a small plastic part with a hole. The hole herein might be enlarged to increase the flow for a faster penetration.

Other parts recommended

Order no.	Pcs.	Product	Net. weight		Prices - Euro
70.001	12	10 kg lead weight,	120 kg		
70.002	6	Polycarbonate sample tube,	1 kg		
70.003	1	Special carriage for transport	100 kg		
70.004	1	Special net mounted on frame for protection against infiltration from main wire	10 kg		

Spare parts

Order no.	Pcs.	Product	Net. weight		
70.005	1	Releaser wire with ø5 mm, pin length 1130 mm			

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