



Kajak Sediment Sampler
Model 13.030

Manual

KC Denmark

Research Equipment

Limnology • Oceanography • Hydrobiology

Manual for Kajak sediment corer

Model no.
13.030

The KC Kajak Sediment Core sampler is based on the Kajak design and can be used as a line operated unit, as well as a hand operated sampler.

This model is a quick-change model and speeds up the changing of corer tubes; very useful if you need a lot of samples. This model can also be equipped with AISI stainless steel corer tubes.

The upper part of the sampler can be exchanged with a shaft in order to sample by manual insertion of the tube. The shafts are made of AISI 316 stainless steel tubes, each 1.5 metres. They can be assembled by means of the tent pole principle to a maximum length of 4,5 metres.



Caution

Do not use alcohol for cleaning acrylic parts

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.



Shown with accessories. (Optional)

Preparation before use

Place the upper part of the corer horizontally and insert the sample tube in the upper part.

Turn the quick lock in clockwise position. Be sure to fasten the handle to avoid losing the sample tube in the sea.

1




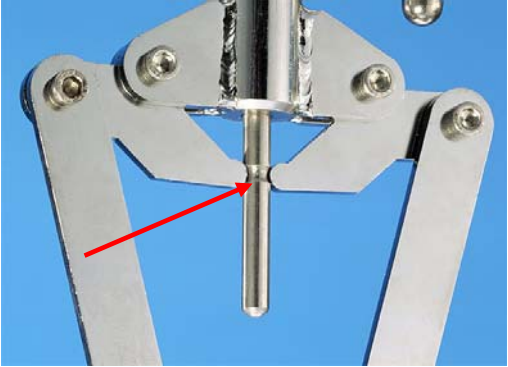


Caution

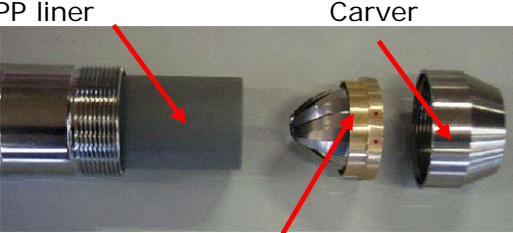



IMPORTANT

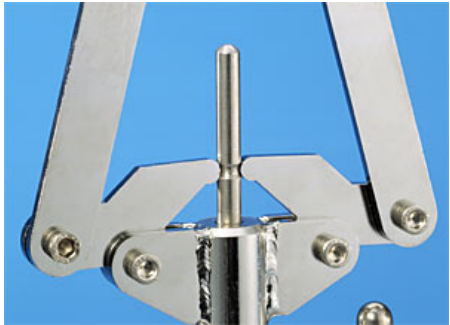
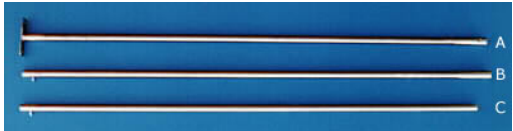


The rubber bung must be smeared with a thin layer of silicone grease before use.




Quick lock. (Model 13.030)

2	<p>Mount the necessary amount of weights and secure the bolts. Max. Mounting of 16 weights = 10,4 kg. Standard delivery includes 6 pcs of weights and threaded bars accordingly.</p> <p>Larger qty of weights requires 2 bars, ordering no. 13.007. See below.</p> <p>To ensure a permanent vertical position, you must mount an equal amount of weights to both sides of the weight station.</p>	
3	<p>Before you ease the Kajak corer over the rail, press the movable part (in which the yellow rubber bung is mounted) upwards, until the 2 lock-arms slide into the notch of the bar.</p> <p>The Kajak Corer is now ready for lowering into the sea.</p>	
4	<p>The correct penetration of the seabed is achieved during some tests, as it depends of several conditions:</p> <p>Type of seabed, the lowering speed and the amount of weights on the Kajak Corer.</p>	
5	<p>Taking samples in a hard seabed demands a carver to protect the sample tube. Mount the carver by turning clockwise and secure. You will need tubes with threaded ends to mount the carver.</p>	
6	<p>For soft bottom samples you might need the orange peel system to prevent the sample from exiting the tube. Can only be used with model 13.030 (Quick change) as it will only fit into stainless steel tube, model 13.533.</p>	


7	<p>Assembly of orange peel system and carver for the stainless steel tube. The PP (Polypropylene) liner can be inserted to hold the sample for later analysis.</p>	 <p>PP liner</p> <p>Carver</p> <p>Orange peel</p>
8	<p>When the sampling has been finished, you can seal it for later research by using rubber bungs at each end of the tube.</p>	
9	<p>Emptying of the sample tube can be done by use of an adjustable piston rod.</p>	
	<p>Mounting of adapter for 80 mm tubes</p>	
10	<p>Adapter for 80 mm tubes</p> <p>The adaptor for 80 mm tubes is mounted in the Kajak similar to the tubes, see item 1.</p> <p>The acrylic tube is inserted to the adapter and must be fastened by use of an Unbrako spanner (Allen key)</p>	

	Mounting of extension shafts	
10	<p>By operating in shallow lakes, the upper part of both samplers can be exchanged with a shaft in order to sample by manual insertion of the tube.</p> <p>Remove the lock mechanism (2 bolts) and insert the shaft (model A). Secure with 2 bolts.</p> <p>The shafts are made of AISI 316 stainless steel tubes, each 1.5 metres. They can be assembled by means of the tent pole principle to a maximum length of 4,5 metres.</p>	 
	Preparation after use	
11	 <p>Caution</p> <p>Wash all parts with fresh water.</p> <p>When the Kajak is not in use, please tie up the part as shown to prevent the bung from being jammed in the stainless steel top. Otherwise it is very difficult to separate the parts as the bung might expand a little.</p>	




The Kajak system and accessories

Order no.	Pcs.	Product	Net. weight		
13.030	1	<p>Kajak Corer Quick change, complete. Consists of:</p> <ul style="list-style-type: none"> • 1 pc corer body with quick change, • 1 pc 13.001 - 2" tube thread/sharpened, 50 cm, acrylic. Dim.: 60/52 mm • 6 pcs 13.310 – top lead weight, 650 g each. • Total length: 83 cm. • Can also be used with ø60 mm stainless steel core tubes or with an adapter for 80 mm acrylic tubes. 	8,1 kg		

Standard accessories for 13.030

Order no.	Pcs.	Product	Net. weight		
13.001	1	2" tube, acrylic , thread / sharpened. O.D./I.D. ø60/52 mm. Length 50 cm.	0,5 kg		
13.011	1	2" tube, acrylic , thread / sharpened. O.D./I.D. ø60/52 mm. Length 100 cm.	0,9 kg		
13.002	1	2" tube, acrylic , thread / thread. O.D./I.D. ø60/52 mm. Length 50 cm.	0,5 kg		
13.012	1	2" tube, acrylic , thread / thread. O.D./I.D. ø60/52 mm. Length 100 cm.	0,9 kg		
13.004	1	Carver. AISI 316 stainless steel. For ø60 mm acrylic tubes.	0,2 kg		
13.005	1	Rubber bung for ø60 mm acrylic tubes	0,1 kg		
13.300 A	1	Extension shaft, tent pole principle, stainless steel, 1 tube, L=1,5 m.			
13.300 B	1	Extension shaft, tent pole principle, stainless steel, 1 tube, L=1,5 m.			
13.300 C	1	Extension shaft, tent pole principle, stainless steel, 1 tube, L=1,5 m.			
13.310	1	Top lead weight, 650 g each. Maximum mounting: 16 pcs.	0,65 kg		
13.007	1	Threaded bar for mounting of additional top weights. Requirements 2 pcs.			





Ejecting the samples from acrylic tubes

13.003	1	Adjustable piston rod with silicone packing, length 65 cm. For acrylic tubes, O.D./I.D. ø60/52 mm.	0,5 kg		
13.013	1	Adjustable piston rod with silicone packing, length 115 cm. For acrylic tubes, O.D./I.D. ø60/52 mm.	1,0 kg		
13.006	1	Fraction tray for ejected sample. For acrylic tubes, O.D./I.D. ø60/52 mm.	0,4 kg		






Kajak 13.030 with stainless steel tubes and liners

For heavy performance the 13.030 Kajak can be equipped with stainless steel tubes and various equipment:

- Stainless steel tube + carver. (Piston rod cannot be used).
- Stainless steel tube + carver + orange peel system. (Prevents the sample from exit). (Piston rod cannot be used).
- Stainless steel tube + carver + orange peel system + liner. The sample will remain in the liner and can be stored for later analysis. Piston rod can be used to eject the sediment from the liners.





Order no.	Pcs.	Product	Net. weight		
13.533	1	2" tube, thread / machining, AISI 316 stainless steel , O.D./I.D. ø60,3/ø53 mm. Length 50 cm. <u>Only for Kajak quick change, model 13.030.</u>	3 kg		
13.534	1	2" tube, thread / thread, AISI 316 stainless steel , O.D./I.D. ø60,3/ø53 mm. Length 100 cm. <u>Only for Kajak quick change, model 13.030.</u>	6 kg		
13.524	1	Orange peel closing system prevents the sample from exiting. Inner diameter: Ø46 mm. <u>Can only be used for 13.533 or 13.534 core tube.</u> To be fastened with 13.525 carver.	0,2 kg		
13.525	1	Carver with cutting edge. For stainless steel tubes. Inner diameter: ø46 mm	0,2 kg		

Plastic liners for stainless steel tubes

13.526	10	PP liner, (Polypropylene). ø50 x ø46 x 475 mm. Price each, 13,- Euro. <u>Can only be used for 13.533 core tube.</u>	0,15 kg each		
13.526 A	10	PP liner, (Polypropylene). ø50 x ø46 x 995 mm. Price each, 20,- Euro. <u>Can only be used for 13.534 core tube.</u>	0,30 kg each		
13.425	1	PMMA acrylic liner, transparent, ø50/ø46 x 475 mm. <u>Can only be used for 13.533 core tube.</u>	0,15 kg		
13.427	1	PMMA acrylic liner, transparent, ø50/ø46 x 995 mm. <u>Can only be used for 13.534 core tube.</u>	0,3 kg		
13.527	1	Steering ring for PP and PMMA liners. To centre the liner without mounting the 13.524 orange peel system. To be fastened with 13.525 carver. Inner diameter: ø46 mm	0,1 kg		

Ejecting the sample from PP and PMMA liners

The internal design of the stainless steel tubes does not allow the adjustable piston rod to be used for ejecting the sample. It is necessary to use PM or PMMA liners inside the steel tube.

13.528	1	Rubber bung for PP and PMMA liners, ø50,3/46 mm	0,1 kg		
13.531	1	Fraction tray for ejected sample. For ø50,3/ø46 mm PP or acrylic liners only.	0,4 kg		
13.532	1	Adjustable piston rod with silicone packing, length 65 cm. For PP or acrylic ø50/46 mm liners only.	0,5 kg		
13.537	1	Adjustable piston rod with silicone packing, length 115 cm. For PP or acrylic ø50/46 mm liners only.	1,0 kg		








Extension for ø80 mm acrylic tubes









This adapter is designed for Kajak 13.030 only. You can easily mount an ø80/72 mm acrylic tube to the sampler. Available lengths: 50 or 100 cm.

Manufactured from AISI 316 stainless steel. Finish: Electro polish.

Piston rods and fraction trays as options.

Order no.	Pcs.	Product	Net. weight		
13.050	1	Adapter for ø80/72 mm acrylic tubes. AISI 316 stainless steel. For Kajak 13.030 only. Exclusive sample tube.	1,2 kg		
13.055	1	Sample tube, acrylic, sharpened, ø80/ø72 mm, length 50 cm.	0,6 kg		
13.056	1	Sample tube, acrylic, sharpened, ø80/ø72 mm, length 100 cm.	1,2 kg		
13.060	1	Rubber bung for ø80/ø72 mm acrylic tube.	0,2 kg		
13.061	1	Fraction tray for ejected sample. For ø80/ø72 mm acrylic tubes.	0,7 kg		
13.065	1	Adjustable piston rod with silicone packing, length 65 cm. For ø80/ø72 mm acrylic tubes.	0,6 kg		
13.066	1	Adjustable piston rod with silicone packing, length 115 cm. For ø80/ø72 mm acrylic tubes.	1,0 kg		

Stuff winches and lines

Order no.	Pcs.	Product	Net. weight		
17.200	1	Stuff winch, O.D. 30 cm (without line) made of strong Beaver Nylon, with two stainless AISI 316 rings inserted. Capacity: 40-50 m of ø5 mm polyester line.	0,3 kg		
17.201	1	Stuff winch, O.D. 40 cm (without line) made of strong Beaver Nylon, with two stainless AISI 316 rings inserted. Capacity: 100 m of ø5 mm polyester line.	0,4 kg		
Lines					
17.300	1	5 mm polyester line, unmarked, each meter			
17.399	1	5 mm polyester line, marked with figures, each meter, length 10 m			
17.400	1	5 mm polyester line, marked with figures, each meter, length 15 m			
17.401	1	5 mm polyester line, marked with figures, each meter, length 20 m			
17.402	1	5 mm polyester line, marked with figures, each meter, length 25 m			
17.403	1	5 mm polyester line, marked with figures, each meter, length 30 m			
17.600	1	Mounting of AISI 304 stainless steel thimble and snap hook is optional			

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