

# 12.210/12.211 Van Veen Grab – 1000 cm<sup>2</sup>

Manual



Research Equipment Limnology • Oceanography • Hydrobiology

## Van Veen Grab – 1000 cm<sup>2</sup>



The Van Veen grab is very dangerous in unskilled hands, and you must take serious precautions to avoid accidents and injury to personnel.

KC Denmark A/S 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.

Item	Preparation	
1	Handle the grab with care to prevent injury to personnel. Fingers and hands may be stuck at the arms or by the jaws.	
2	<b>Caution</b> Inspect the thimbles and talurit ferrules for any damages or weakness. Replace if necessary. Otherwise, there may be a risk of losing the grab in the sea.	

3	<b>Caution</b> Inspect the wire locks at both ends. It must lock the wire to avoid the grab from hanging askew.	
4	Place the grab on a plain, stable surface. Force both arms down to horizontal position so the grab is open.	
5	For larger performance, you can add a maximum of 4 lead weights, 5 kg each (optional). Fasten the weights with a bolt placed beneath each lid.	
6	The locking pawl is shown in open (non-secured) position.	

7	Press the locking pawl upwards to lock the arms.	
8	From the upper side you can see if the grab is locked properly. Hold the steel wire straight to hold the pawl in its position.	
9	The grab is now ready and the wire for deploying the grab must be attached to the eye of the wire. <b>Caution</b> Keep the wires straight to avoid an unintended release of the locking mechanism. Recommended wire for deploying: Minimum 5-6 mm.	<image/>
10	Lower the grab to the seabed at a reasonable speed. When the grab hits the seabed, the wire will slacken, and the locking pawl releases. Upon retrieving the grab, the shovels will close, taking the sample.	

### **Emptying the sampler**

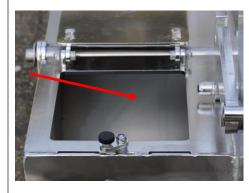
The grab has 4 lids and turning the knob counterclockwise, the corresponding lid can be open, and you can take out a small sample without emptying the whole sediment sample.

Emptying the whole content of the grab is done by forcing the arms of the grab into horizontal position.



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When handling the grab, take care to avoid any injury. See item  $\#\mathbf{1}$ 



Upgrading the sampler to Norwegian ISO Norm		
12	<ul> <li>All 12.210 Van Veen grabs, delivered after August 14, 2014, can easily by upgraded to accommodate Norwegian ISO standard (16665 Water quality – Guidelines for quantitative sampling and sample processing for of marine soft-bottom macro fauna).</li> <li>Order no. 12.211 L consists of 4 preassembled lids ready for mounting.</li> </ul>	
13	The upper side has a flexible rubber mat and beneath a stainless steel net, mesh size 500 µm.	
13	Replace the standard lids with the new lids.	

### **Storing and Maintenance**

All parts of the item can be rinsed using salt water or fresh water. Before storing, we recommend a thoroughly cleaning with fresh water.

Technical Specifications			
 Materials:			
All metal parts:	AISI 316 stainless steel. Finish: Electro polish.		
Wheels for wire:	Brass.		
Wire:	Stainless steel wire.		
Weights:	Lead, 5 kg each. To be ordered separately. Maximum mounting: 4 pcs.		
Dimensions and weight:			
Overall dimensions, open. L x W x H:	137 x 36 x 38 cm.		
Overall dimensions, closed. L x W x H:	36 x 42 x 87 cm.		
Weight, exclusive lead weights:	25 kg net.		
Weight, inclusive 4 lead weights:	45 kg net.		
Recommended steel wire for deployment:	Diameter: 4-6 mm		
Operational depth:			
Full oceanographic depth	>6000 m (No limits).		

#### Safety Regulations

KC Denmark A/S 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.

An expert maintenance technician fully familiar with the attendant hazards must only do all maintenance, inspection and repairs.

When working with the unit in areas, which are difficult to access or hazardous, ensure to take adequate safety precautions for the operator and others in compliance with the provisions of law on health and safety at work.

Replace worn component with original spare parts.

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