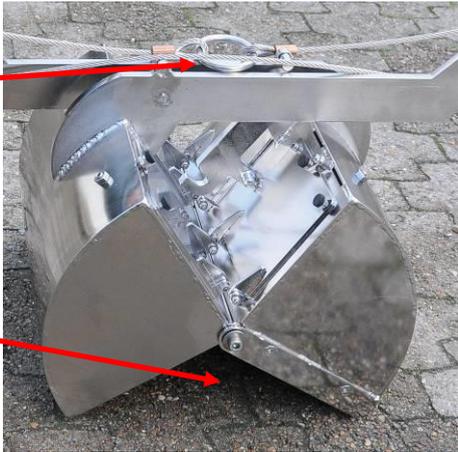


12.410  
Van Veen Grab – 2500 cm<sup>2</sup>

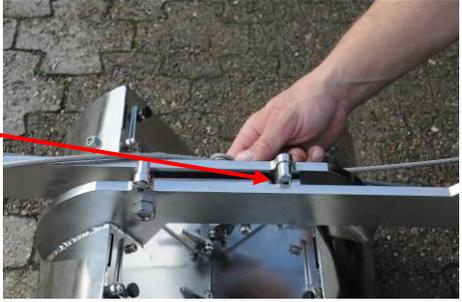
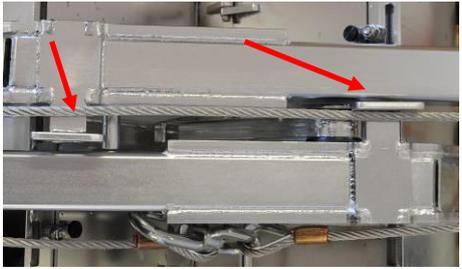
# Manual

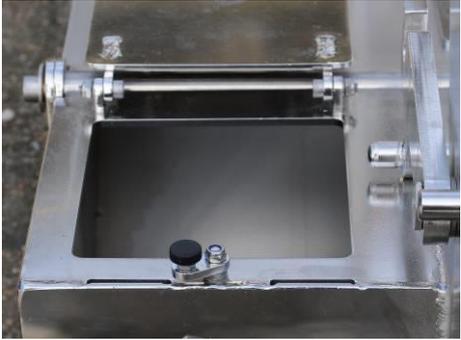
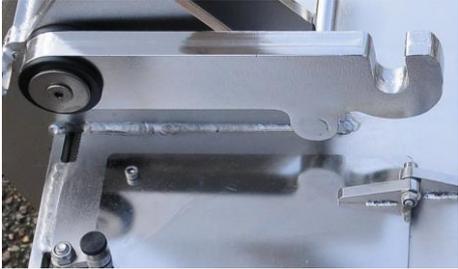
**KC** Denmark A/S

Research Equipment  
Limnology • Oceanography • Hydrobiology

	<p align="center"><b>Manual for Van Veen grab 2500 cm<sup>2</sup></b></p>	<p align="center"><b>Model no. 12.410</b></p>
	<p> <b>Caution</b> <b>This Van Veen grab is very dangerous in unskilled hands and you must take serious precautions to avoid accidents and injury to personnel.</b></p> <p><b>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.</b></p>	
	<p><b>Preparation:</b></p>	
<p>1</p>	<p> <b>Caution</b></p> <p>Handle the grab with care to prevent injury to personnel. Fingers and hands may be stuck at the arms or by the jaws.</p>	
<p>2</p>	<p> <b>Caution</b></p> <p>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.</p>	

<p>3</p>	 <p><b>Caution</b></p> <p>Inspect the wire locks at both ends. It has to lock the wire to avoid the grab from hanging askew.</p>	
<p>4</p>	<p>Place the grab on a plain, stable surface. Force down both arms to horizontal position so the grab is open.</p>	
<p>5</p>	<p>For larger performance, you can add a maximum of 4 lead weights, 12,5 kg each. (Optional).</p> <p>Fasten the lead weights (optional) beneath the drainage holes. Use a M10 nut placed at the inner side of the grab.</p>	
<p>6</p>	<p>The locking pawl is shown in open (non-secured) position</p>	

7	<p>Press the locking pawl upwards to lock the arms.</p>	
8	<p>From the upper side you can see, if it is locked properly. Hold the steel wire straight to hold the pawl in its lock-position.</p>	
9	<p>The grab is ready and attach the wire for deploying to the eye of the wire. The photo shows a smaller grab with thinner wire and accessories for lifting the grab.</p> <p> <b>Caution</b></p> <p>The wires on the grab must be kept straight to avoid an unintended release of the locking mechanism.</p> <p>Recommended wire for the deployment: Minimum 6-8 mm</p>	
10	<p> <b>Caution</b></p> <p>Align the wire at the inner side (towards the middle of the grab) of the two guiding rails; otherwise, the wire may be stuck at the arms upon release of the grab.</p>	

11	<p>Lower the grab to the seabed at a reasonable speed. When the grab hits the seabed, the wire will slacken and the locking pawl is released. Upon retrieving the grab, the shovels will close, and the sample is done.</p>	
<b>Emptying the grab</b>		
12	<p>The grab has 4 lids and turning the knob counter clockwise, the appropriate lid can be open and you can take out a small sample without emptying the whole sediment sample.</p> <p>Emptying the whole content of the grab is done by forcing the arms of the grab into horizontal position.</p>  <p><b>Caution</b></p> <p>Each time you handle the grab, take care to avoid any injury. See item #1</p>	
<b>Maintenance</b>		
13 A	<p>All parts of the Van Veen grab can be rinsed using salt water or fresh water. Regular cleaning with fresh water is recommended and all moveable parts must be moved individually to ensure all dirt has been removed.</p> <p>A. The locking pawl for the releaser and the hinges.</p>	
13 B	<p>B. The steel net and the rubber flaps must also be free of sediment.</p>	

13 C	C. The wheels at the end of the arms.	
------	--	--

<b>Technical information</b>		
	<b>Materials:</b>	
	All metal parts:	AISI 316 stainless steel. Finish: Electro polish.
	Wheels for wire:	Brass
	Wire:	Stainless steel wire
	Weights:	Lead, 12,5 kg each. Maximum mounting: 4 pcs.
	<b>Dimensions and weight:</b>	
	Overall dimensions, open. L x W x H:	
	Overall dimensions, closed. L x W x H:	
	Weight, exclusive lead weights	125 kg net
	Weight, inclusive 4 lead weights	175 kg net
	Sieves for the drainage:	Stainless steel, mesh size 500 µ
	<b>Operational depth:</b>	
	Full oceanographic depth,	>6000 m (No limits).

Rev.: April 10, 2014 – lkj

**KC** Denmark A/S

Research Equipment  
Limnology • Oceanography • Hydrobiology

E-mail: [kc@kc-denmark.dk](mailto:kc@kc-denmark.dk) website: <http://www.kc-denmark.dk/>  
Holmbladsvej 17-19, DK 8600 Silkeborg, Denmark. Tel. +45 86 82 83 47. Fax +45 86 82 49 50  
Bank: Sydbank. SWIFT: SYBKDK22 IBAN DK5070460000104832  
VAT no. DK 29 61 96 62