

Van Dorn Water Sampler Model 11.xxx series

Manual

KC Denmark A/S

Research Equipment
Limnology • Oceanography • Hydrobiology

Van Dorn Water Samplers – 2, 3 and 5 L.



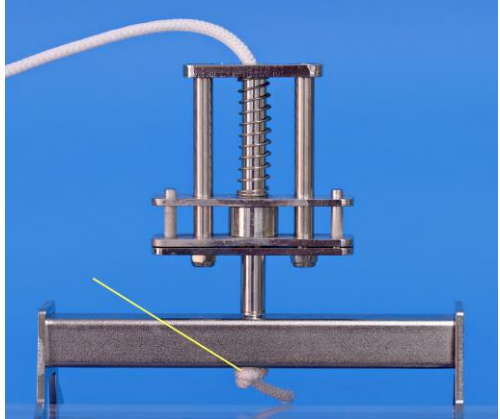


Caution



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.

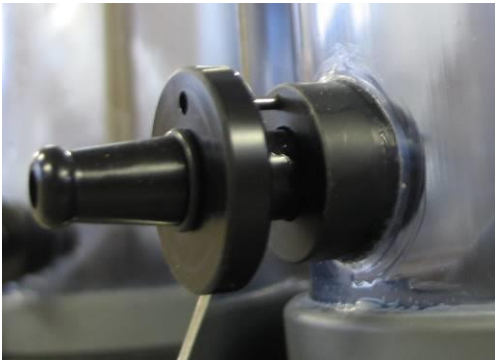
Standard delivery of the Van Dorn sampler ("Alpha") comes with stainless steel parts inside the sampler and it is not suitable for chemical analysis of contents due to the potential for contamination.


When ordering the Van Dorn sampler you can update to the "Beta" version (add item 11.320 for no internal metal parts); this version is recommended for chemical analysis.




Both models are ideal for sampling at the thermocline, at other stratification levels, or just above the bottom sediments.


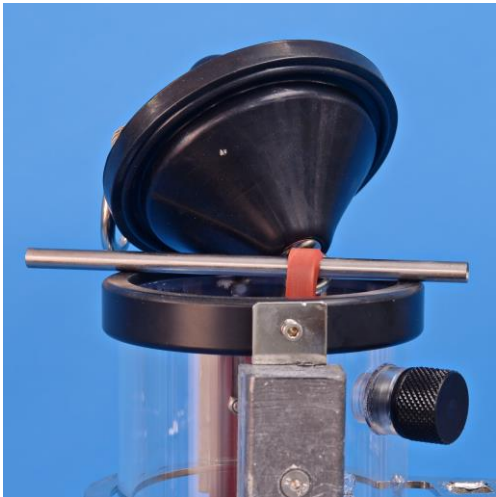


Item	Preparation	
1	<p>Pull the line through the tube on top of the water sampler and tie up a tight knot. If the knot fails during deployment, you may lose the water sampler on the seabed. We can highly recommend adding a drop of super glue to the knot itself for better stability.</p> <p>Before deployment, you must check that the line has no wear and tear.</p> <p>Recommended line: Ø5 mm.</p>	
2	<p>Open the Van Dorn water sampler by pulling the elastic bands and lids back and secure the snap hooks as shown.</p> <p>Make sure that you secure both lines into the mechanism, so it will release the lids by means of the weight of the drop messenger.</p> <p>Make sure that both valves on the sampler are closed.</p>  <p>Caution</p> <p>Do not place hands inside or on the seal of the container; this could contaminate the sampler. To reduce chances of contamination, wear powder-free latex laboratory gloves.</p>	

3	<p>Attach the free end of the messenger line to the boat. Rinse the open sampler by immersing it in the water column.</p>	
4	<p>Lower the sampler to the desired depth. Pull the sampler sideways just before closing; this ensures a representative water sample for that specific depth.</p>	
5	<p>The internal thermometer shows the water's temperature. In order to get a correct read-out, hold the water sampler for a short time before releasing and raising the sampler to the surface.</p> <p>For a sample depth below 70 m, dismount the thermometer and close the mounting holes with 2 screws.</p>	
6	<p>Release the sampler by sliding the messenger down the line.</p>  <p>Caution The sampler must be covered by water when the drop messenger is released. Releasing the sampler in free air (height > 2 m) may cause damage to the release system on the sampler.</p>	


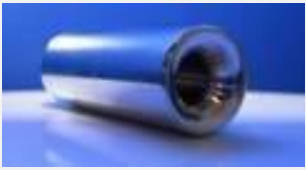




Emptying the sampler		
7	<p>Raise the full sampler out of the water. Place the sampler on a clean, flat surface in an upright position.</p> <p>To avoid any contamination, do not place the sampler in the bottom of the boat.</p> <p>Empty the water sampler by releasing the tap at the bottom of the tube.</p>	


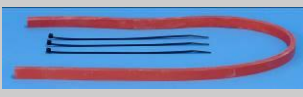




8	<p>When emptying the sampler, you can adjust the amount of water through the tap by the upper air valve.</p> <p>For 2- and 3- L models, you must allow a slightly opening of the valve to empty the bottle. For the 5 L model, we recommend to keep the upper valve closed at the beginning to avoid a heavy flow at the tap.</p>	
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Storing and Maintenance		
9	<p>Before storing, you must rinse the sampler with fresh water. Store in open position, so the inner parts will become dry.</p> <div style="text-align: center;">  <p>Caution</p> </div> <p>Do not use alcohol for cleaning acrylic parts. After emptying, rinse the water sampler thoroughly using fresh water.</p> <p>Do not use alcohol for cleaning acrylic parts.</p> <p>Items, like PP/PVC/acrylic tubes, rubber seals, motor houses with or without Fluorinert, etc., and a long exposure to direct sunlight or lack of clean up for salt water might affect the durability and stability of the products and will remain uncovered by the warranty.</p>	
10	<p>Replacing the rubber band (68.004 A): For an easy replacement, the band comes inclusive 2 stainless steel hooks as shown.</p> <p>When ordering the band, please inform for the size of water sampler.</p>	
11	<p>Disassemble both handles.</p> <p>Insert the new rubber band with the hook into the rubber lid and attach the handle.</p>	

12	<p>Pull the rubber band through the sample tube; while holding the rubber band tight, assemble the second lid. A simple hook or similar is useful for holding the band in position while the lid is secured.</p>	
14	<p>Instead of the hook use a bar or screwdriver to hold the band in fixed position while the lid is screwed on to the hook.</p>	
15	<p>Alternatively, you may order the 68.004 rubber band; it comes with 3 plastic strip but no hooks or glue for the assembly.</p> <p>When ordering the band, please inform for the size of water sampler.</p>	
16	<p>Disassemble both handles and insert the rubber band into the old hooks.</p> <p>Apply some fast-drying glue to the end of the rubber band, make an overlay of 5 cm, and use the plastic strips for securing the rubber band. Once finished, it looks like item 10.</p> <p>Assemble the band and lids as per item 11-12.</p>	

Spare parts/other parts recommended

10.001	<p>Drop messenger</p> <ul style="list-style-type: none"> • Brass (standard delivery) • Weight 500 g 		
10.002	<p>Drop messenger</p> <ul style="list-style-type: none"> • AISI 316 stainless steel • Weight 500 g 		
60.001	<p>Drop messenger, 400 gr.</p> <ul style="list-style-type: none"> • Construction: Open/close • Stainless steel • Max. Ø6 mm wire • To be attached to the line at any point. Turn one part of the messenger, insert the line and close the messenger • For all Van Dorn water bottles 		
11.007	<p>Thermometer</p> <ul style="list-style-type: none"> • Non-mercury • Range: -10 °C +60 °C • Inclusive 2 fixing devices and 2 nylon screws • Length: 205 mm 		
11.325	<p>Lids for Van Dorn water sampler</p> <ul style="list-style-type: none"> • 2 lids manufactured from seawater resistant EPDM rubber • Comes with handle inclusive the hooks and the Para rubber band • Upon ordering pls. inform for size of sampler • Weight: 0,6 kg 		
68.002-V	<ul style="list-style-type: none"> • Plastic air valve • With seal and O-ring 		

68.003-V	<ul style="list-style-type: none"> • Plastic valve for water outlet • With O-rings and stop ring 		
68.004	<ul style="list-style-type: none"> • Para/Latex rubber band (sea water resistant) with 3 strips but no glue • By ordering please inform for the size of water sampler 		
68.004 A	<ul style="list-style-type: none"> • Para/Latex rubber band (sea water resistant), 3 strips and 2 hooks • By ordering please inform for the size of water sampler 		
Tran-01	<p>Transport box</p> <ul style="list-style-type: none"> • Supports 11.100 and 11.200 water sampler • Room for deployment line • IPPC certified • Inner dimensions: L x W x H: 670 x 250 x 250 mm • Outer dimensions: L x W x H: 690 x 280 x 300 mm • Weight: 4,5 kg 		
Tran-02	<p>Transport box</p> <ul style="list-style-type: none"> • Supports 11.200 and smaller models • Room for deployment line and more accessories • IPPC certified • Inner dimensions: L x W x H: 740 x 245 x 300 mm • Outer dimensions: L x W x H: 810 x 290 x 330 mm • Weight: 7,6 kg 		
Tran-136	<p>Transport box</p> <ul style="list-style-type: none"> • Supports 11.300 and smaller models • Room for deployment line and more accessories • IPPC certified • Inner dimensions: L x W x H: 1000 x 370 x 320 mm • Outer dimensions: L x W x H: 1050 x 410 x 360 mm • Weight: 10,8 kg 		

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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