



## 1 Shallow Water Bottom Dredge

2068

Ideal for obtaining most types of bottom material! The dredge's two-way mechanism prevents accidental closure while the dredge is in transit. A spring-loaded release mechanism is triggered once the dredge makes impact with the bottom. Stainless steel screening on the top reduces frontal shock wave and prevents loss of the sample. The 6" x 6" opening provides an effective sampling area of 36 square inches. Jaws, top screen, side plates, underlip plate, screen frame, and hinge pin constructed of stainless steel. Exterior weights and closing arms are powder-coated steel.

AMS Shallow Water Bottom Dredge 17.25 lbs. **77957**



## 2 Bottom Sampling Dredge

5002

For use on soft bottoms of sand or silt, this stainless steel sampler has a simple trigger which holds the sampler open while lowering to cover a uniform area. The scissor design closes the 3" x 3" x 7-1/2" 67 cu. in. sampler, retrieving sediment for analysis.

LaMotte Bottom Sampling Dredge 7 lbs. **76920**

## Ekman Dredge

5007

6" x 6" x 6" Dredge for sampling benthic communities inhabiting soft bottomed aquatic environments. Hinged upper doors swing open as dredge is lowered, allowing water to pass through and minimize shock wave. Stainless steel messenger closes dredge, preventing washout of sample. Cable release system, with bar grip, helps set dredge with greater safety. Dredge is constructed of stainless steel with special Hellarc welding for added strength and durability. A case, 100 feet of line, and messenger are included. Also available is a 5' aluminum handle with trip head that can be used in place of the line for shallow water work. Easily installed on Ekman dredge.

Dredge	10.5 lbs.	<b>77933</b>
Optional 5' Handle	10 lbs.	<b>77934</b>
Replacement Stainless Steel Messenger	11 oz.	<b>77937</b>

## 3 Heavyweight Deep Water Bottom Dredge

5005

Use this 6" x 6" dredge in all types of bottom substrates, except hard packed clays. Two-way mechanism prevents accidental closure while in transit, yet triggers dredge with a spring-loaded release mechanism upon impact with the bottom, eliminating the need for a messenger. Top is covered with stainless steel screening to reduce frontal shock wave and prevent escape of sample upon retrieval. Effective sampling area is 36 square inches. Jaws, side plates, underlip plate, screen frame, and hinge pin all made of #316 stainless steel. Top screen and fasteners are made from 18-8 stainless steel. Exterior weights and closing arms are constructed of powder painted mild steel. A 3/8" nylon rope is recommended for raising and lowering dredge.

Heavyweight Deep Water Bottom Dredge 25 lbs. **77931**

### Lightweight Shallow Water Bottom Dredge

Specifically designed for use from canoes or very small craft.

Lightweight Shallow Water Bottom Dredge 17 lbs. **77932**



1



2



3

## General Oceanics Mechanical Flowmeter

3397

Can also be used with a plankton net in determining water volume.

Use to determine velocity and distance information or use with plankton nets to determine water volume associated with each tow. Both models incorporate precision molded rotors coupled directly to six digit counters which record each rotor revolution. Supplied with a standard calibration curve (number of counts/unit time vs. velocity) sealed inside transparent body. A single pin and lanyard system located ahead of the lateral center of mass allows the flowmeter to maintain correct dynamic alignment with the fluid flow in which it is immersed.

**Materials:** Celcon rotor, nickel-plated brass nose piece, polycarbonate body, stainless steel main rotor and idler gear shafts, Delrin idler gears, and Delrin and nylon digit wheels. **Dimensions:** Overall length is 8-3/8" with a 1-9/16" dia. body. **Depth Rating:** Unlimited (free flooding). **Data Readout:** Six 10-digit counter wheels read 000,000 to 999,999; 10 counts per rotor revolution, non-resetting; read by noting difference in start and end readings (counter advances through 000,000). **Six-digit full scale count:** 999,999 counts equal approximately 14-1/2 nautical miles (1,852 meters/nautical mile). **Mounting:** Universal bridle allows single point connection for towing or two point connection within net mouth. **Response with standard 3" dia. rotor:** Threshold approximate 10 cm/sec. (1/5 knot).



Model 2030R – Flowmeter with standard 3" dia. rotor (10 to 790 cm/sec.), SS axle pin and towing bridge 2 lbs. **94460**

Model 2030R6 – Flowmeter with gray PVC slow speed, low velocity (6 to 100 cm/sec) 6-3/4" dia. rotor 2 lbs. **94463**

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## SBS Sediment Sampler Kit

2733

### Soggy Bottom Sampler

Use this manually-driven, end-filling sampler for discrete interval sediment sampling in rivers, lakes, wetlands, and estuaries. To obtain a sample, the sampler is lowered to the surface as a dual tube or driven down to the desired depth where sampling is to begin below the surface. Upon reaching the desired sampling depth, the inner rods attached to the internal drive tip are retracted and removed, and additional extensions are added. Then, the internal drive tip is released and retained in a chamber at the top of the sampler. Next, the slide hammer is attached, and the sampler is driven down to collect the sample. Once the sample has been collected, the rods and sampler are back-hammered out of the bore hole. If sampling in harder or tighter sediments, the rods and sampler can be jacked out of the sample boring using the optional removal jack and pull cap if a suitable platform is available. After removal, the sampler disassembles easily to allow access to the sample liners which can then be capped off for transport to the lab. Depending on your sampling requirements, 1-1/2" O.D. liners in either 4' or 2' lengths can be used. Two o-rings are used on the internal drive tip to minimize the chance of cross-contamination from other material entering the sampler prior to reaching the desired sampling depth. The core catcher helps prevent the loss of the sediment sample. The sampler can take continuous or discrete samples from the sediment surface to 4' in depth. The complete kit includes the sampler, one 4' x 1-1/2" O.D. plastic liner, two 2' x 1-1/2" O.D. plastic liners, one top metal catcher, one plastic basket retainer, three 3' rod extensions, one 30 lb. slide hammer, cleaning brushes, and a deluxe padded carrying case.

SBS Sediment Sampler Kit 106 lbs. **77505**

### Replacement Parts and Accessories

1-1/2" x 4' Plastic Liner	10 oz.	<b>77506</b>
1-1/2" x 2' Plastic Liner	5 oz.	<b>77507</b>
Plastic Cylinder Retaining Caps, 1-1/2", pk. of 100	12 oz.	<b>77862</b>
Basket Retainer	.5 oz.	<b>77508</b>
Top Metal Catcher	1 oz.	<b>77509</b>
3' Internal Rod	1 lbs.	<b>77510</b>
1-1/8" x 3' DP Rods	7 lbs.	<b>77511</b>
O-Ring Kit	1 oz.	<b>77524</b>
Removal Jack	30.25 lbs.	<b>77646</b>



## Hand Core Sediment Sampler

5004

For obtaining sediment core samples from the bottom of streams, rivers, and lakes.

Handle allows use in shallow water or by divers. Attach line to Clevis when taking deeper samples. Clevis is removable to attach extension handle for sampling from a pontoon boat, dock, or bridge. Simple, automatic valve for good seal. #304 Stainless steel core tube is 2" in dia. and 20'L. Sampler includes screw-on Lexan™ nose piece, a plastic eggshell-type core catcher to hold sample intact during extraction, and a plastic liner tube which receives the sample and is easily removed from the core tube serving as a sample storage container.



Sampler with Liner Core Tube, two Liner Tubes, three Eggshell Core Catchers, two Lexan Nosepieces, and Carrying Case	16 lbs.	<b>77258</b>
Same as 77258, without Carrying Case	10 lbs.	<b>77259</b>
10' Extension – includes one 5' Extension with T-Handle, and one 5' Extension without T-Handle	15 lbs.	<b>77408</b>
15' Extension – Includes one 5' Extension with T-Handle, and two 5' Extensions without T-Handles	20.5 lbs.	<b>77409</b>

Replacement Liner Tube w/end caps, 20'L, clear plastic	7 oz.	<b>77260</b>
Replacement Eggshell Catchers, 2" dia., pack of 3	2 oz.	<b>77261</b>
Repl. Nosepiece, 2" dia., Lexan	3 oz.	<b>77262</b>
Optional Nosepiece, 2" dia., stainless steel	10 oz.	<b>77263</b>
Core Sample Removal Tool – 30" rod with plastic ends, hand knob on one end, 1-3/4" dia. plunger on other end, for pushing sample out of Hand Core Samplers above	1.75 lbs.	<b>77264</b>
Optional Stainless Steel Eggshell Core Catcher	1 oz.	<b>77304</b>

Ⓞ Oversize. Ships UPS 30 lb. rate. See Shipping Information for details.



## WATER·MARK® Universal Core Head Kit Sediment Sampler

7012  
For water sediment sampling.

Recover high quality cores of water-sediment interface with this universal core head kit. The core head drives clear, virtually unbreakable polycarbonate barrels into sediments, resulting in long cores with minimal effort and sample compression. The one-way check valve permits the barrel to free flush during deployment and also retains the core sample, without using core catchers and nosepieces. To obtain a sample, attach a polycarbonate core barrel to the core head and push or lower the sampler into the sediment. If sampling in compact deposits, use the optional slide hammer. To adjust sampler weight, use the bronze gravity weights (sold separately) for even easier penetration. Next, haul the sampler to the surface and insert a core extruding plug inside the barrel before the barrel breaks the surface. Loosen the rubber coupler sleeve and remove the barrel from the core head. With the core extruding plug in place, you can attach the barrel directly to the optional incremental core extruding apparatus (sold separately) which allows samples to be incrementally pushed from the bottom up if desired. In shallow water (less than 6 m), the sampler is manually-driven using the "T" handle and the optional aluminum extension rods. In deeper water, the corer is gravity/slide hammer-driven. Use separate lines for sampler deployment and slide hammer operation. Select the optional extensions for even deeper sampling. Universal core head kit contains polyethylene and stainless steel corer head, "T" handle, one clear polycarbonate core barrel (68 mm x 71 mm x 120 cm), two polycarbonate end caps, one core extruding plug, 15 m calibrated line with line reel, hexnut driver, carrying case, and directions.

Watermark Universal Core Head Kit	Ⓞ	14 lbs.	<b>77279</b>
60 cm Polycarbonate Core Barrels with Poly End Caps		1 lbs.	<b>77280</b>
120 cm Polycarbonate Core Barrels with Poly End Caps		1.25 lbs.	<b>77281</b>
Bronze Slide Hammer Assembly		16 lbs.	<b>77219</b>
Bronze Gravity Weight		12 lbs.	<b>77282</b>
Core Extruding Rod with Extruding Plug		5 lbs.	<b>77283</b>
Incremental Core Extruding Apparatus		16 lbs.	<b>77286</b>
Core Extruding Plug		1 lbs.	<b>77287</b>
1.2 m Aluminum Holobar Extension Rods		3 lbs.	<b>77237</b>
2.4 m Aluminum Holobar Extension Rods	Ⓞ	3.25 lbs.	<b>77238</b>



## WATER·MARK® Russian Sediment Borer

7011  
Discrete Interval Sampler

This manually-driven, side-filling sampler collects discrete, uncompressed samples from rivers, lakes, wetlands, and estuaries. The single-moving part, chambered-type borer collects quality samples which are not compressed or shortened during recovery, unlike samples taken with end-filling core samplers. Sampling is easy. Simply deploy the borer (in the closed position) to the desired depth. The bore is rotated clockwise 180° so that the sharpened edge of the chamber cuts a semi-cylindrical sediment core which is contained by the pivotal cover plate. During retrieval, the cover plate's counterclockwise rotation extrudes the undisturbed sample. Ideal for use in woody peat, sand, silt, and clay. Borer measures 5 cm in diameter and 50 cm in length with a sample volume of 10 ml/cm. The optional bronze slide hammer assembly (sold separately) helps you drive and retrieve the borer in compact deposits. Use the lightweight, buoyant aluminum holobar extension rods for one-man operation of the sampler from a boat. Additional rods (4.0 cm diameter) are available in two lengths, 1.2 m and 2.4 m. Borer includes stainless steel borer head, two 1.2 m aluminum holobar extension rods, turning handle, carrying case, and reference materials.

Watermark Russian Sediment Borer	20.5 lbs.	<b>77218</b>
Bronze Slide Hammer Assembly	16 lbs.	<b>77219</b>
1.2 m Aluminum Holobar Extension Rods	3 lbs.	<b>77237</b>
2.4 m Aluminum Holobar Extension Rods	Ⓞ 3.25 lbs.	<b>77238</b>

## Integrating Sediment Sampler

5008

Small, lightweight, cast aluminum sampler is designed to obtain sediment samples in shallow water with a wading rod. An exhaust tube is cast into the body of depth integrating-type sampler and allows air in one-pint sampler bottle to escape down stream as it is displaced by the accumulating sample. Includes two 1/4" sampler nozzles, one 1' wading rod with handle, a case of 24 one-pint

sample bottles with caps, and adhesive labels.  
**Dimensions (with nozzle and rod):** 12" x 23"

DH-48 Sediment Sampler	9.5 lbs.	<b>77950</b>
3' Extension Rod for DH-48	3.5 lbs.	<b>77951</b>
Case of 24 Replacement 1-pint Bottles with Caps and Labels	3.25 lbs.	<b>77952</b>



Ⓞ Oversize. Ships UPS 30 lb. rate. See Shipping Information for details.