McLANE RESEARCH LABORATORIES, INC

PARFLUX Mark 8 Sediment Trap

Application: The Mark 8 Sediment Trap is a time-series instrument that autonomously collects the flux of settling particles on an operator-defined schedule. The wide top funnel accumulates particulate specimens into individual sample bottles. Sediment sampling is part of ongoing global carbon cycle studies, paleoproxy and radionucleide investigations and environmental or pollution monitoring. At half the size of the traditional PARFLUX Mark78H Sediment Trap, this next-generation Trap is easy to deploy and performs well in both low and high flux environments.

PARFLUX Mark 8 Trap Features and Benefits

- Manufactured with the same **field-proven components** – electronics, rotator assembly, drive motor, baffle, collection cone – as the Mark 78H Trap.
- Collects **13 samples** in **250** ml bottles (optional **500** ml bottle frame is available).
- **Titanium** frame and pressure case **reduces weight** and **resists corrosion**.
- Performs well in both **low** and **high flux** environments.
- Cone interior is natural polyethylene to **preserve sample integrity**.
- Optional Wet Sample Particle Divider (WSD-10) divides wet specimens into **five** or **ten equal parts**.

Sample schedule options: Specify the date and time of each sample, or a start date and fixed time intervals, or equally space samples between start and end dates. Sample data includes collection date/time, battery voltage, and temperature before and after each sampling event.

Customized hardware and software: An optional Compass/Tilt sensor records a time history of tilt magnitude and direction. Other sensor options include high accuracy pressure transducers.

Deployment: Stand-alone mooring or a large high-tension vertical array.

PARFLUX Mark 8 Sediment Trap Specifications

Dimensions	Height and Diameter	116 cm (45.5 in) x 66 cm (26 in)
	Vertical Surface Area	0.66 m^2
Weight (w/out bridle)	In air, sample bottles full	42 kg (93 lb)
	In water	18 kg (40 lb)
Aperture/Funnel	Aperture Area	0.25 m^2
	Aperture Diameter	53.7 cm (21.1 in)
	Baffle Material	Polycarbonate, 1.0 mm wall thickness
	Number of Baffle Cells	Approx. ~ 420
	Baffle Cell Diameter	2.5 cm
	Aspect Ratio of Cell (h/d)	2:5
	Included Cone Angle	41°
	Internal Coating (liner)	Natural Polyethylene
Rotary Assembly	Number of sample bottles	13
	Standard Bottle Volume	250 ml (500 ml optional)
	Driving Motor Type	Electronic stepper motor
	Drive Train	Direct Gear Train
	Time to Shift a Bottle	38 s
	Gear Plate Diameter	34.5 cm (13.6 in)
Battery	Primary battery	14 “C” size alkaline cells
	Memory backup	9V alkaline battery
Frame	Material	Titanium, Ti-45 G-2
	Structure	Weldment
	Bridle Configuration	3 and 3 in-line
	Bridle eyes	1.29 cm insulated
Operation Conditions	Depth	10,000 m (Titanium pressure case)
	Minimum deployment period	One minute per bottle
	Max. continuous deployment	18 mos.
	Temperature	–2° to +50°C (electronics tested to –10°C)

Specifications Subject to Change without Notice

McLANE RESEARCH LABORATORIES, INC
Falmouth Technology Park
121 Bernard Saint Jean Drive
East Falmouth, MA 02536
Tel: 508.495.4000
Fax: 508.495.3333
Web: www.mclanelabs.com

09/08