# Parflux 78H Sediment Trap

## Application:

The Parflux 78H time-series Sediment Trap collects the flux of settling particles in a wide, hexagonal topped collection funnel and stores samples in individual sealed bottles. Samples from oceans and lakes support biogeochemical studies including paleoproxy or radionucleide investigations, carbon cycle studies, and environmental or pollution monitoring.

Samples are pre-programmed or triggered adaptively from another computer or on-shore device. Pre-programmed samples can each have a different start date/time, collection at fixed time intervals from a start date, or be automatically spaced at equal intervals between a start and end date. Sample data includes collection date/time, battery voltage and temperature before and after each sample event.
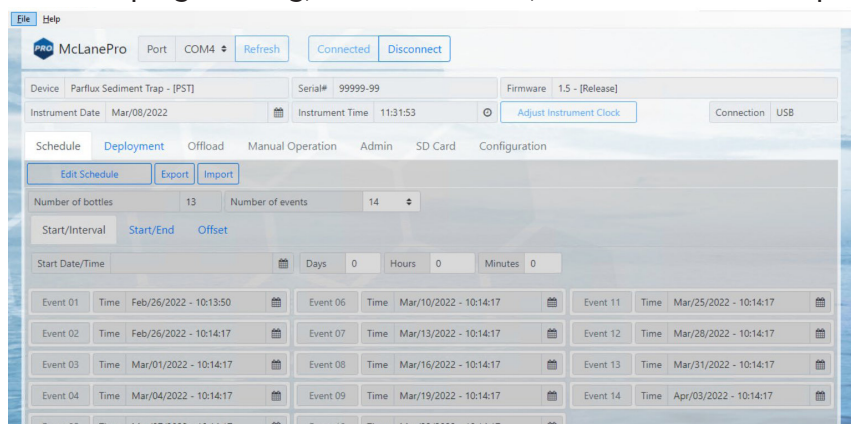
## Features:

A 13 cup and a 21 cup version are available. The 21 cup model holds 250ml or 500ml sample bottles. The 13 cup model holds 500ml sample bottles. Optional Wet Sample Particle Divider (WSD-10) splits wet specimens into five or ten equal parts. Designed for in-line mooring applications, bridles optional.

## Options:

Options include commands for adaptive, external control of sampling, external temperature and depth sensors, and external power connection.

## McLanePro:

Sediment Traps use McLanePro, a graphical user interface built for McLane's Gen3 electronics. McLanePro eases the steps of event programming, data offload, and firmware updates.

- Number of samples: 21 with 250 ml or 500 ml bottles or 13 (wider bottle) with 500 ml bottles.

- Power: 14 commercially available, user replaceable "C" cell alkaline batteries.

- Depth-rated to 7,000 m (10,000 m option available).

- Titanium frame reduces weight and resists corrosion.

- For more information about this sampler, see the Sediment Traps pages at mclanelabs.com.

# 78H Sediment Trap Specifications

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**DIMENSIONS:**

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| Diameter: | 91 cm (35.8 in) |
| Height: | 164 cm (64.5 in) |

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**WEIGHT APPROX (NO BRIDLE):**

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| In air, 500 ml bottles full: | 72 kg (159 lbs) |
| In water, 500 ml bottles full: | 25 kg (55 lb) |

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**SAMPLE COLLECTION:**

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|---|---|
| Number of samples: | 21 or 13 (wider bottle) |
| Bottle volume: | 250 or 500 ml (21 samples)<br>500 ml (13 samples, wider bottles) |
| Aperture area and diameter: | 0.5 m$^2$, 80 cm |
| Baffle material: | Polycarbonate, 1.0 mm wall thickness |
| Cone material: | Natural polyethylene internal coating |
| Baffle cells: | Approx. 368, 2.5 cm diameter |
| Aspect ratio of cell (h/d): | 2:5 |
| Included cone angle: | 41° |

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**ROTARY ASSEMBLY:**

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| Drive motor type: | Electronic stepper motor |
| Drive train: | Direct gear train |

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**CONTROLLER:**

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| Pressure housing: | Titanium, 316 SS fasteners |
| Communications: | Serial (RS-232), Ethernet (optional) |

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**OPERATIONS:**

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|---|---|
| Maximum depth: | 7,000 m (10,000 m model is available) |
| Battery: | 14 user replaceable "C" cell alkaline batteries |
| Maximum deployment time: | 18 months |
| Operating temperature: | -4°C to 35°C (in water nonfreezing) |
| Storage temperature: | -20° to 45°C (in air) |

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**FRAME:**

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|---|---|
| Material: | Titanium, Grade 2 |
| Bridle eyes: | 16 mm (5/8"), insulated |
| Fasteners: | 316 SS isolated |