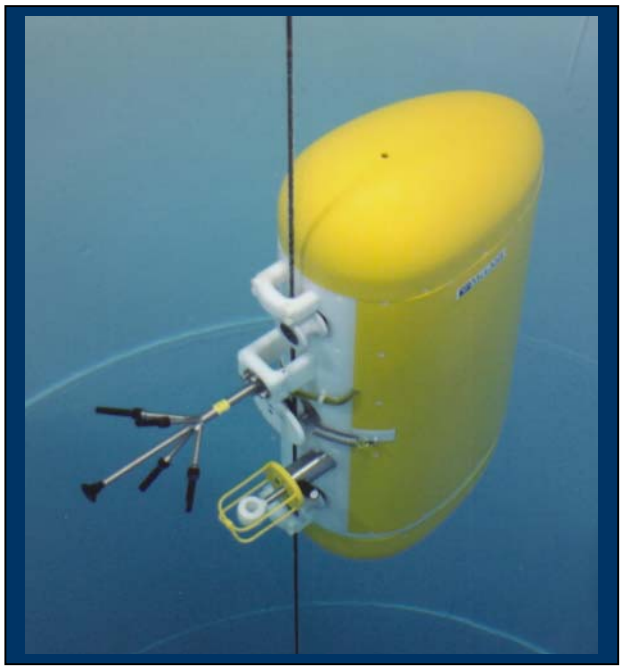
McLANE RESEARCH LABORATORIES, INC

McLane Moored Profiler (MMP)

Application: An autonomous time-series instrument that collects *in situ* profiles of data such as temperature, salinity, and velocity. The MMP collects data from the water column by following an operator-programmed schedule and trajectory along a mooring cable. The expanding suite of supported sensors includes Falmouth Scientific Inc. (FSI) ACM and CTD sensors, Sea-Bird CTD, Sea-Bird Underwater Inductive Modem, Seapoint fluorometer and turbidity sensors, Wetlabs CDOM fluorometer, and Aanderaa Optode oxygen sensor.

MMP Features and Benefits

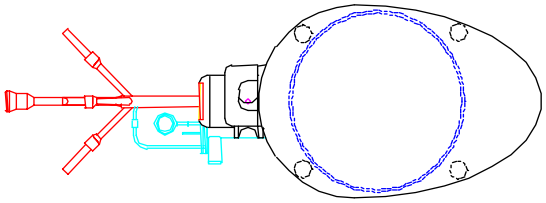


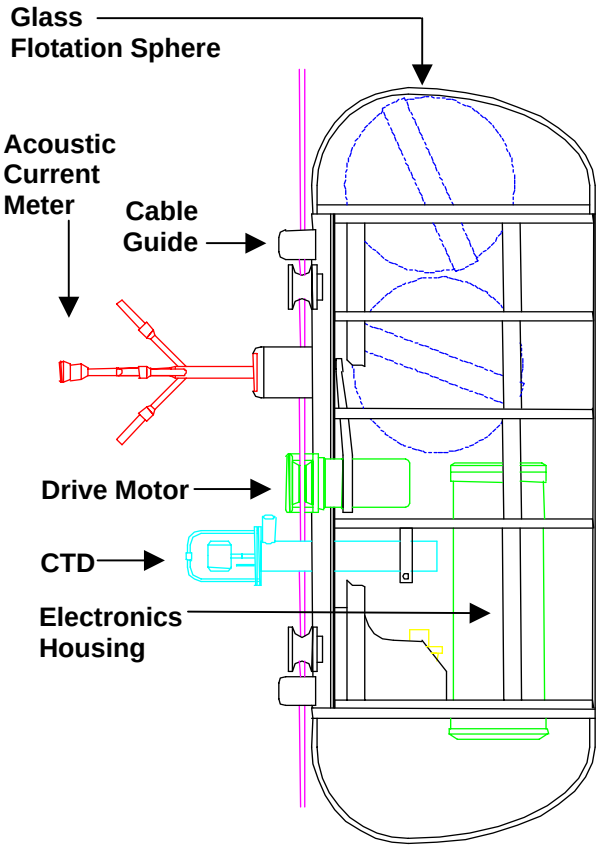
- Designed for **easy access** to sensors, electronics, and battery.
- **Robust**, field-proven **drive train** and **electronics**.
- **Energy-efficient** drive motor and bearings **resist fouling** on the mooring cable.
- Non-volatile flashcard **data storage**.
- **User-defined** pressure **stops** and profiling **intervals**.
- Standard **sensor suite** includes a **CTD** and an Acoustic Current Meter (**ACM**).

- **Real-time communication** via an optional underwater inductive modem (UIM).
- Ultra high molecular weight polyethylene **inner frame** provides **strength**, **durability** and **galvanic isolation** of metallic parts.
- A high-visibility **removable** polyethylene **skin** covers the frame.
- **Titanium** controller housing, motor housing and drive wheel.

**U.S. Patent No. 5,869,756*

MMP Specifications





Dimensions	131 cm x 33 cm x 51 cm 51 in x 13 in x 20 in
Weight	In air, w/sensors 71 kg/155 lbs In water neutrally buoyant
Depth/Temp Rating	Max depth 6,000 m Min temperature –35°C
Data Storage	Compact or ATA-flash non-volatile data storage
Power Requirement	120 mA (profiling) 300 µA (sleep)
Profiling Speed	25cm/sec
Endurance	240Ah battery
CTD/ACM Data Acquisition	~ 2 Hz
Fluorometer/Turbidity Data Acquisition	User defined
Pressure Housing	Titanium
Frame	Ultra high molecular weight polyethylene (UHMW)
Flotation Spheres	Borosilicate glass
Connectors	Glass reinforced epoxy
Hardware	Nylon, 316 stainless steel
Drive Wheel	Urethane-coated titanium
Guide Wheels	Ertalyte

Supported Sensors

Falmouth Scientific Inc. (FSI) ACM
FSI CTD
Sea-Bird 52MP CTD
Sea-Bird UIM (SBE 44)

Seapoint Turbidity
Seapoint Fluorometer
Wetlabs CDOM Fluorometer
Aanderaa Optode Oxygen

Specifications Subject to Change without Notice

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Pioneers of Time-Series Oceanographic and Environmental Instrumentation since 1983