

## Ice Tethered Profiler (ITP)

**Application:** An autonomous time-series instrument that vertically profiles the water column under the ice and collects *in situ* measurements of salinity and CTD temperature data. Data is automatically transmitted near real-time via inductive modem.

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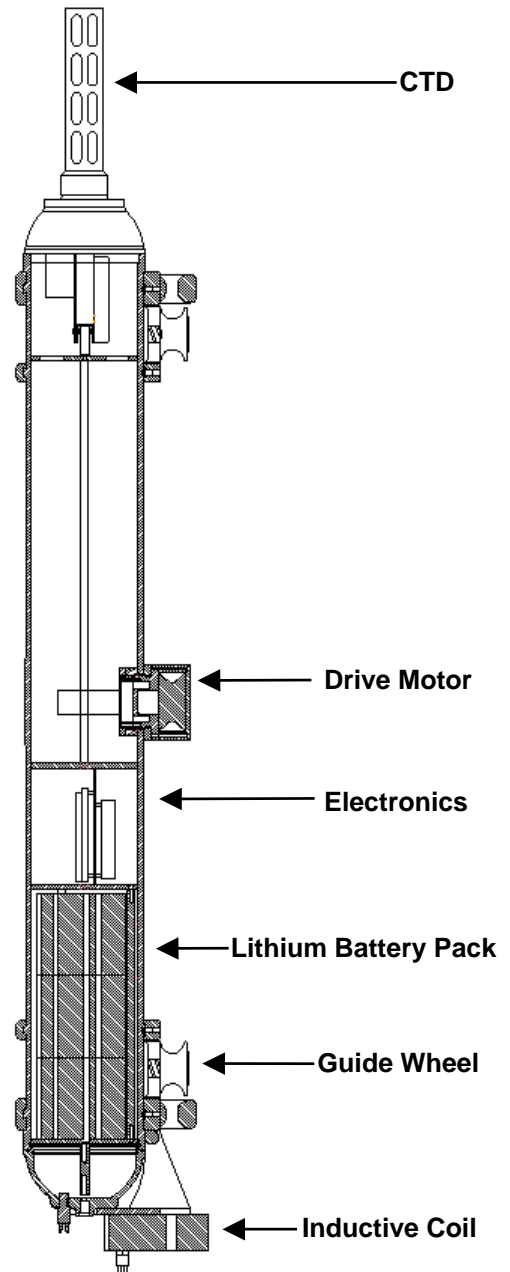
### ITP Features and Benefits

- ❖ Robust, **field-proven** drive train, electronics and inductive modem technology.
- ❖ Anodized aluminum housing similar to **ARGO float**.
- ❖ Streamlined shape for **efficient profiling** and **long battery life**.
- ❖ **User-defined** profiles and scheduled sampling.
- ❖ **Continuous** data collection while profiling.
- ❖ Drive motor provides smooth, **steady ascent/descent** at 25cm/sec.
- ❖ Time-series vertical profiles at **known location**.
- ❖ **Primary** sensor is a Seabird **41CP CTD**.
- ❖ 240Ah or 360Ah battery provides sufficient energy for **multi-year deployments**.
- ❖ Near **real-time data telemetry** with non-volatile flashcard data storage backup.
- ❖ Integral subcomponent of the **WHOI Ice Tethered Profiling System**.



# ITP Specifications

<b>Dimensions</b>	171 cm (long) x 26 cm (max diameter) 67 in (long) x 10 in (max diameter) (fits through an 11 inch ice hole)
<b>Weight</b>	In air, w/sensors      28 kg (61 lbs) In water                    (neutrally buoyant)
<b>Depth/Temp Rating</b>	Max depth                1,000 m Min Temperature      -35°C
<b>Data Telemetry</b>	SBE 44 UIM or IMM at 1200 bps
<b>Data Storage</b>	Compact flash backup data storage
<b>Battery Endurance</b>	240Ah or 360Ah lithium battery pack
<b>Profiling Speed</b>	25cm/sec
<b>CTD Data Acquisition</b>	~ 2 Hz (SBE 41CP)
<b>Power Requirement</b>	120 mA (profiling) 300 $\mu$ A (sleep)
<b>Pressure Housing</b>	Anodized aluminum
<b>Drive Wheel</b>	Urethane-coated titanium
<b>Guide Wheels</b>	Ertalyte
<b>Optional Sensors</b>	Seapoint Turbidity Seapoint Fluorometer Wetlabs CDOM Fluorometer Aanderaa Optode Oxygen



*Specifications Subject to Change without Notice*



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