



- Number of samples: Single event sampler.
- 30Ah high capacity battery pack.

**Deployment:**

- Specially designed cable clamps facilitate fast and easy attachment to an oceanographic wire for deployment.
- Non-volatile memory stores critical deployment data.

**Options:**

- Deep model available with 7,000m rated housing.
- Standard radial filter holder or vertical intake filter holder (as used in GEOTRACES studies).
- Filter holder types include: multiple tiers, and zooplankton style (for filter holder option details see [WTS-LV Filter Holder Specifications chart](#)).
- For more information about this sampler, see the [WTS-LV](#) pages at [mclanelabs.com](http://mclanelabs.com).

## WTS-LV - High Capacity Model

**Application:**

The Upright Large Volume Water Transfer System (WTS-LVUP) is a large volume, high capacity single-event sampler that collects suspended and dissolved particulate samples *in situ*. Ambient water is drawn through a modular filter holder onto a 142mm membrane without passing through the pump. Standard 2-tier filter holder for prefiltering and size fractioning. Other options are available. Collection targets include chlorophyll maximum, particulate trace metals, and phytoplankton.

**Features:**

Different flow rates and filter porosity support a range of specimen collection. (pump head must be compatible with filter material, see [WTS-LV Filter Types and Recommended Pump Heads chart](#)).

Flow is regulated by user-defined values for total volume, flow rate, and sample collection time.

Sampling can be programmed to start at a scheduled time or begin with a countdown delay. Triggered countdown start synchronizes multiple samplers.

Dynamic pump speed algorithm adjusts to protect the sample as material accumulates on the filter.

Mechanical flow meter confirms total volume pumped per deployment.

**Pump options:**

LV04	*Flow rate	1-5 liters/min
	Max volume	12,000 liters (30Ahr battery)
	Filter type	Nuclepore <sup>®</sup> or other membrane filters
LV08	*Flow rate	4-10 liters/min
	Max volume	22,000 liters
	Filter type	GF/F <sup>®</sup> , QMA <sup>®</sup> or other membrane or mesh filters
LV30	*Flow rate	12-30 liters/min
	Max volume	36,000 liters
	Filter type	Large opening mesh filters

*\*Based on filtering clean water. Field results will vary depending on filter type and particulate load.*

# WTS-LV High Capacity Sampler Specifications

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**DIMENSIONS  
(UPRIGHT MODEL):**

Height: 91 cm ( 36 in)  
Width: 61 cm (24 in)  
Depth 33 cm (13 in)

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**WEIGHT (APPROX):**

In air: approximately 73.0 kg  
In water: approximately 45.2 kg

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**COLLECTOR:**

Number of samples: Single event sampler  
Filter holder material: Black Acetal/142mm diameter

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**CONTROLLER:**

Housing material: Aluminum, 6061-T6 hard coat anodized  
Power: 30 Ah high capacity battery pack  
Communications: Serial (RS-232)

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**OPERATIONS:**

Maximum depth: 5,000m (7,000m model is available)  
Battery: 30Ahr battery pack  
Operating temperature: -4°C to 35°C

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**FRAME:**

Material: Strong back with wire clamps /Type 316 electro polished stainless steel weldment