



## WTS-LV - Standard Model

### Application:

The Standard Large Volume Water Transfer System (WTS-LV) is a large volume single-event sampler that collects suspended and dissolved particulate samples *in situ* onto a 142mm membrane filter. Collection targets include chlorophyll maximum, particulate trace metals, and phytoplankton. Three models are available including the Standard WTS-LV, the High Capacity WTS-LV, and the Bore-Hole WTS-LV.

### Features:

Different flow rates and filter porosity support a range of specimen collection. Up to 5,000 liters of seawater can be pumped and filtered using the standard model. Adaptive sampling option provides event-based sampling. Non-volatile memory stores critical deployment data.

### Sample schedule options:

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.

### Customized hardware and software:

Customizable hardware and software includes options to add an external temperature sensor, pressure transducer or fluorometer.

### Deployment:

Specially designed cable clamps facilitate fast and easy attachment to an oceanographic wire for deployment.

### Pump options:

LV04	Flow rate	1-4 liters/min
	Max volume	2,500 liters (10Ahr battery)
	Filter type	Nuclepore or other membrane filters
LV08	Flow rate	4-8 liters/min
	Max volume	5,000 liters (10Ahr battery)
	Filter type	GFF, QM-A or other membrane to mesh filters

- Number of samples: Single event sampler.
- Power: 24 user replaceable “D” cell alkaline batteries.
- Ambient water is drawn through a modular filter holder onto a 142mm membrane without passing through the pump.
- Flow rates from 2 to 8 liters per minute.
- Dynamic pump speed algorithm adjusts to protect the sample as material accumulates on the filter.
- Optional filter holders can accommodate a 293 mm filter or a 3-tier filter.
- Synchronize multiple samplers with 2-pin trigger.
- Mechanical flow meter confirms total volume pumped per deployment.
- For more information about this sampler, see the [WTS-LV](#) pages at [mclanelabs.com](http://mclanelabs.com).

# WTS-LV Standard Sampler Specifications

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**DIMENSIONS  
(STANDARD MODEL):**

Height: 69 cm (27 in)

Width: 36 cm (14 in)

Length: 64 cm (25 in)

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**WEIGHT (APPROX):**

In air: ~51 kg

In water: ~34 kg

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**COLLECTOR:**

Number of samples: Single event sampler

Filter holder material: Black Acetal/142mm diameter

Cartridge: Cartridge or pleated filter

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**CONTROLLER:**

Housing material: Aluminum, 6061-T6 hard coat anodized

Power: 36 VDC

Communications: Serial (RS-232)

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**OPERATIONS:**

Maximum depth: 5,500m

Battery: 24 user replaceable "D" cell alkaline  
batteries pump ~5,000 liters of seawater

Operating temperature: 0° to 50° C

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**FRAME:**

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