



WTS-LV - Dual Filter Model

Application:

The Dual Filter Large Volume Water Transfer System (WTS-LVDF) is a large volume, high capacity single-event sampler that performs parallel filtration to collect suspended and dissolved particulate samples *in situ*. Ambient water is drawn onto dual, 142mm membrane filters without passing through the pump. Standard 2-tier vertical intake filter holders provide prefiltering and size fractioning. Other filter holder options are available. Collection targets include chlorophyll maximum, particulate trace metals, phytoplankton and other suspended particulates.

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](#)).

Vertical intake filter holders (as used in GEOTRACES studies).

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

Dynamic pump speed algorithm adjusts to protect the sample as material accumulates on the filter. Independent mechanical flow meters record total volume pumped per deployment and total volume pumped through each filter holder.

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

Pump options:

LV08	*Flow rate	4-10 liters/min
	Max volume	22,000 liters
	Filter type	GF/F [®] , QMA [®] or other membrane or mesh filters

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

- Number of samples: Single event sampler with dual filter holders.

- 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.
- Filter holders can include multiple tiers (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.

WTS-LV Dual Filter Sampler Specifications

**DIMENSIONS
(DUAL FILTER MODEL):**

Length: 79 cm (31.25 in)
Width: 38 cm (15 in)
Height: 74.9 cm (29.5 in)
w/debubbler 90.1 cm (35.5 in)

WEIGHT (APPROX):

In air: approx. 78 kg
In water: approx. 43 kg

COLLECTOR:

Number of samples: Single event sampler/dual filter holder
Filter holder material: 142mm diameter, HDPE/Acrylic

CONTROLLER:

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

OPERATIONS:

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

FRAME:

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