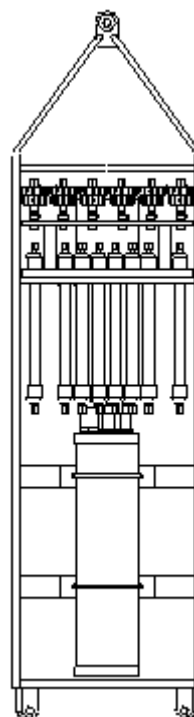


WTS 6-24-47EC
Water Transfer System*

The **WTS 6-24EC Water Transfer System*** (WTS) is designed to extract *in situ* dissolved matter such as metals, organic components, and radionuclides in an aquatic environment. A dual multi-port valve directs the water through 24 specific extraction columns for a time-series operation. The positive displacement pump is placed downstream from the columns to prevent sample contamination. Both the multi-port valve and the positive displacement pump are controlled by an internal computer, and can be accessed by an external computer via serial communications (RS-232 port).

The menu-driven software allows the user to enter the initial flow rate, total volume, maximum pumping time, and minimum flow rate. The software is designed to decrease the flow rate as back pressure on a column increases. This conserves the battery life and does not crush the particulate matter. The internal computer records the instantaneous flow rate and total volume at a user selectable time interval for each filter.

The WTS can be connected to optional sensors such as current meters, fluorometers, and transmissometers. These sensors can automatically activate the extraction process. The internal computer will then recalculate the extraction schedule for the remaining columns. The WTS can be deployed as a component of either an in-line mooring (standard) or of more complex deployments such as an underwater laboratory.



*U.S. Patent #5,341,834 and Japan #248282

Three-year warranty on parts and labor

Physical	Length	165 cm
	Width	45 cm
	Height	45 cm
	Weight in air	48 kg
	Weight in water	29 kg
	Type of deployments	In-line mooring or as a component
Multi-port valve	Number of ports	Dual 25 port valves
	Drive	High torque stepping motor with gearhead
Filters	Holder material	Polypropylene
	Filter size	47 mm diameter
	Filter type	GFF or membrane filter
	Column material	High density polyethylene or TFE Teflon®
	Column size	25 mm diameter x 370 mm length
	Column types	Metals, specific dissolved organic compounds, or radionuclides.
Pump	Flow rate	50-125 ml/min; optional 100-250 ml/min
	Maximum volume	10 liters/filter (<10 µg/liters water) Total 250 liters (optional 500 liters)
	Volume error	Average ± 3% total volume
	Drive	Brushless DC motor
	Controller	Housing material
Main battery		31.5 VDC alkaline battery pack
Current consumption		165 mAh pumping; 120 µAh sleeping

Frame	Communications	Serial (RS-232); external computer
	Material	316 Stainless Steel, electro-polished
	Structure	In-line mooring, weldment
	Bridle configuration	4 in-line
	Frame & bridle eyes	19 mm diameter, insulated
Operation Conditions	Maximum depth	5,500 m
	Max. deployment length	14 months
	Operating temperature	0 to 50°C, Electronics tested to -10°C