

Sampler Name	Max # of samples	Max sample vol	Sample vol range	Design	Size	Weight	Sampling rate	Power	Cost	Notes
EnviroTech, AquaLAB Gas-tight deep ocean water sampler	50	1L	75mL - 1L	Syringe, multi-port valve	Length = 26" Diam = 7"	Air = 39.6 lbs (plus 11 lb controller)	200cc/min	V = 13.5 VDC I _{peak} = 740 mA, I (motors still) = 140 mA, I _{sleep} = 125uA	\$37k	Gas tight (titanium foil bags) 2 stroke acquisition (inhalation and pump to bag) Rated to Full ocean depth Slow Reusability of bags? Cost?
EnviroTech, AquaMonitor Smart Water Sampler	50	3L	100mL - 1L	Syringe, multi-port valve	Length = 24.5" Diam. = 5.7"	Air = 17.6 lbs Water = neutrally buoyant	200 cc/min	V = 12 VDC I _{peak} = 740 mA, I _{mean} = <2mA	\$23-30k	Similar issues to Aqualab Handling issues potentially problematic
McLane Remote Access Sampler	48	500 mL	100-500mL	Pump with multi-port valve	Length = 65" Width = 17" Height = 17"	Air = 240 lbs (containers full- >325 lbs) Water = 125 lbs	75 mL/min (also have 150 mL/min pump)	31.5 VDC <1A when pumping	\$27k	Heavy Expansion system = clean Collects particulates Bag reusability issues (\$13/bag) Full ocean depth 25 port valve available Configurable for smaller package
Challenger Oceanic Multi-sampler	10	1L	1L	rotary and linear actuators. Flow sensor.	Length = 11.8" Diam. = 15.7"	Air = 33 lbs	1L/min max (syringe) 1L/30 sec (pump)	12-24 VDC at 2A max	~\$10k	Hard bottles (not as clean) Fewer samples (may need >1) Small Single stroke acquisition More mechanically complex Simple control input Could put together bag/valve/pump system Much faster sampling if there is no filter
Chelsea Technology group, Autonomous Plankton Sampler (Collects particles)			Uses standard 270 um mesh silk or 80 um nylon gauze	Updated Hardy mechanism	5.5" x 9.25" x 11.5"	28.1 lbs	Can operate in towed vehicle at 25 knots	6 x 1.2v cells	\$18k	Just collects particles May be good solution for those wanting large volumes

