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Core, Water & Particulate Multi-sampler		General Description Technical Specification
Applications - Hydrothermal vent studies - Biogeochemical fluxes - ROV and AUV missions - Landers - Time-series studies - Incubation studies - Pollution monitoring Photo gallery	Features 10 sample chambers - Filtered or unfiltered water samples - Suspended particulate samples - Sediment cores - Pre-programmable or real-time command and control Linear & rotary actuators Gear pump/flow sensor option	 Multi-sampler sample drum

General Description

This multi-purpose multi-sampler was designed and built to the tight specifications laid down in the EC funded [MAST III ARAMIS](#) project. Within ARAMIS, a sampler was required for an ROV tool sled to carry out both pelagic and benthic sampling. The tool sled was fitted to the medium sized ROV *ROMEO* ([IAN](#), Italy) and the large ROV *VICTOR* ([IFREMER](#), France).

The sample drum has 10 chambers that take core tubes and/or water bottles fitted with or without 47 mm filter holders. *All types of sampler can be fitted on one deployment.* The rotary actuator turns the drum until a chamber is aligned with the linear actuator that in turn enables the sampling process.

Technical Specification

Core tubes :	Clear acrylic; 40 mm i.d. x 300 mm as standard
Water bottles :	1 litre as standard. (Choice of material - acrylic, titanium, PVC, PTFE or glass)
47 mm filter holders :	Clear polycarbonate
Sample drum :	Number & size of samples to suit user application. Drum shown is 400 mm diam. x 300 mm high; 10 samples; titanium spacer bars; 316 steel bottom plate and core cutter
Linear Actuator :	Enables sampling; size to suit application; produces 80 kgf
Rotary actuator :	Turns the drum; 90 mm diam. x 280 mm long; titanium housing for motor/gearbox and control/comms. electronics (includes 16 I/O microprocessor)
Gear pump :	Option for filtration; generates 60 psi head
Flow sensor :	Electro-magnetic sensor; linear 50 to 2000 ml/min

Lap-top/PC control :	In-house Windows™ software as man machine interface. Comms. via either RS232 or LAN
Weight :	15 kg in air including gear pump and flow sensor but without samplers
Power :	12 to 24 Vdc at 2 Amp max.