Rebreather Day 1

a tool for the citizen scientist revolution

Rebreather Day 1 (RD1) is a simple oxygen rebreather purpose built for long duration shallow water dive excursions.

- simple enough to dive from ‘day 1’ basic scuba training
- long durations for marine harvesting, aquaculture, photography, science
- only one day of training
- a newly immersive underwater experience

systems built to order

RD1 [rebreather day 1]

The RD-1 (Rebreather Day 1) is an automatically regulated closed circuit oxygen rebreather permitting long duration shallow water dives. The system is easily upgraded to enable deeper diving.

The RD-1 is assembled from mostly off the shelf and industrial quality components, with full assembly by the end-user being required as a portion of training prior to use.

An educational program surrounding the platform has been developed to emphasize the utility of rebreathers in working applications.

Units are available and built to order, with training provided directly by the manufacturer.

Features & Specifications

Chassis & Build Materials

- system is back mounted via an aluminum 'spine', which is fitted to a standard backplate/harness or conventional backpack

Breathing Loop

- breathes right to left, diver's choice of DSV/BOV
- 1.5" breathing hoses
- MSR bag counterlung, two x 4L, one on each on inhale and exhale side of scrubber

Scrubber

- variable volume Axial design
- water dump on exhale side of scrubber

Oxygen Side Gas Distribution

- AL13 cylinder, RH DIN valve, green knob
- Piston first stage, depth compensated (not modified) with OPRV and HP gauge
- Oxygen introduced to exhalation side of breathing loop via automatic addition valve

Diluent Side Gas Distribution (bailout only)

- AL13 cylinder, LH DIN valve, black knob
- Piston first stage, depth compensated (not modified) with OPRV and HP gauge
- Not introduced directly into the loop
- Provides OC bailout only and BC inflation if/as needed
- BOV or independent 2nd stage, divers choice

Electronics & Monitoring (Optional)

- two Teledyne R22 or equivalent cells (3 cell optional)
- 6-pin wet-mateable Subconn micro connector
- Cell mV's are optionally distributed through sensor isolation board
- 1, 2, or 3 monitoring devices can be incorporated, diver's choice

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