

ORCA v6 [®]



THE REBREATHER SOLUTION





OPTIMISED TECHNOLOGY

Cutting edge electronics combined with failsafe mechanics and rugged practicality.

OPTIMISED DESIGN

Ergonomic and efficient design combines ease of use with high performance.

Silent, long duration diving. Unparalleled freedom of movement.

PERFECT FIT

Harness system giving an optimal fit for each diver.

Adjustable counterlung volume matched for every diver.

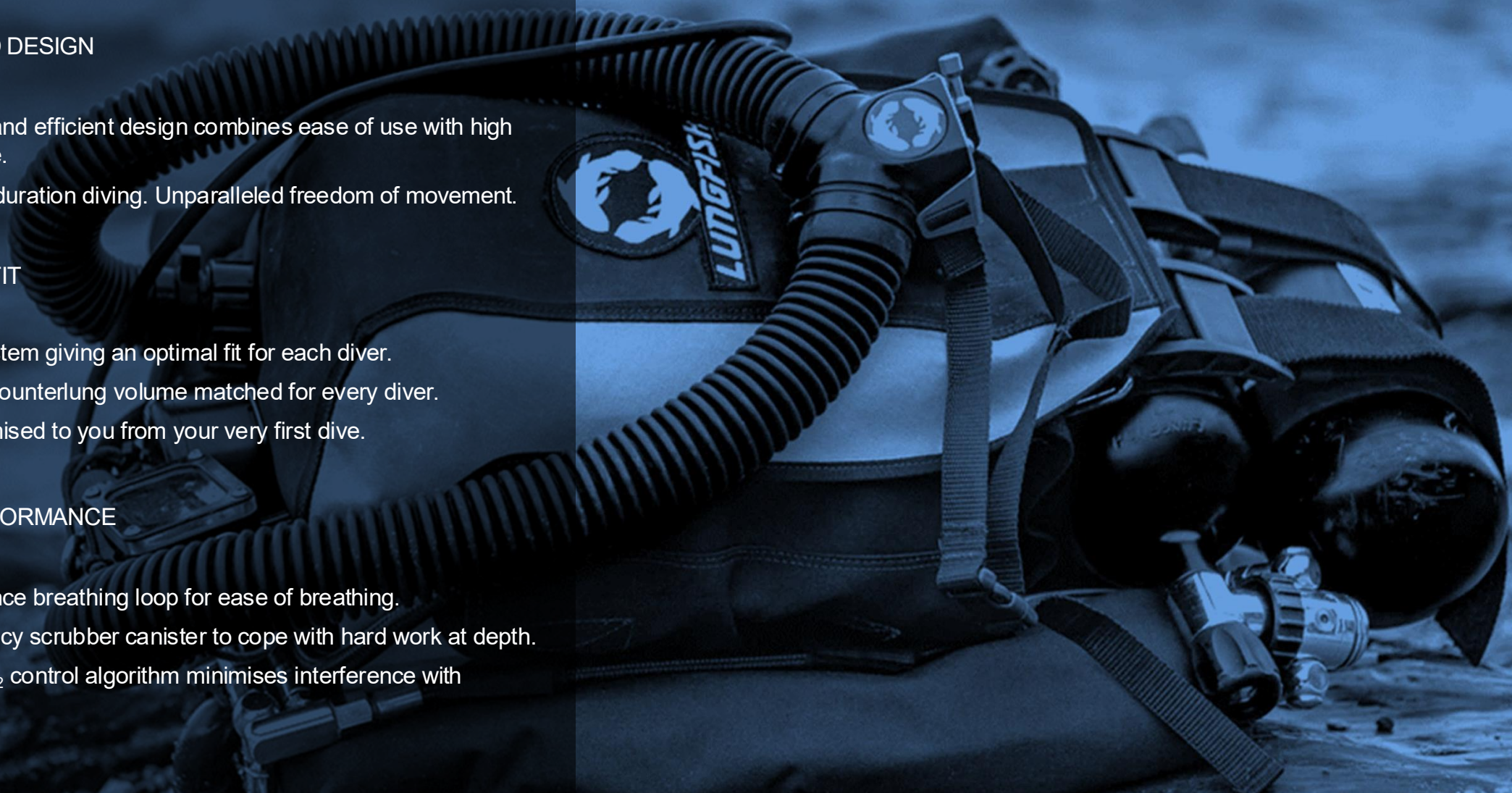
Fully customised to you from your very first dive.

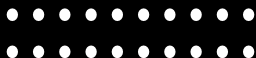
HIGH PERFORMANCE

Low resistance breathing loop for ease of breathing.

High efficiency scrubber canister to cope with hard work at depth.

Efficient PO₂ control algorithm minimises interference with buoyancy.





ADVANCED ELECTRONICS

Mono block for simplicity, quickly removable after use.

No exposed wiring, sensors protected from moisture and damage with hard cover and two independent seals.

Robust solid state CO₂ monitor for ample warning of scrubber depletion. Proven in naval use.

High pressure sensor validation as standard giving assurance of cell range prior to diving.

Highly visible displays. Wide angle viewing and status indicator.

Plug-and-play wet-mateable cables all round

Upgrade ports enable secondary computers and head up displays on isolated output, an independent 4th oxygen sensor, and other devices configured to your needs.

Simple charging and log download with USB connection.

HIGH PERFORMANCE FULL FACE OPTION - ALLIANCE

Unrestricted Breathing

Unrestricted Head Movement

Noise-Free Communications

Fog Free Vision

Inbuilt Bailout Valve

No Liquid in Breathing Hoses

Retaining system for comfort and safety





PRACTICALITY

Natural trim and positioning in water.

Ease of breathing in any position.

Flexible cylinder options offering mounts on base, sides, or as stages.

Tool-free assembly.

Highly configurable to user requirements.

Lightweight: easily transportable in airline luggage.

OPTIMISED MOUTHPIECE

Wide airway for easy breathing.

Easy one handed operation.

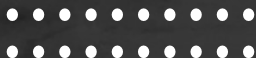
Minimum internal volume to reduce CO₂ retention.

Hoses directed out of field of view.

Unrestricted head movement preventing jaw fatigue.

DSV (Dive Surface Valve) allows surface breathing and complete purging of water.





SAFETY

Hypoxia Prevention

Optimised counterlungs sized to match user prior to use make any gas injection fault obvious.

Intrinsic property of unit, not dependent on electronics.

Hypercapnia Prevention

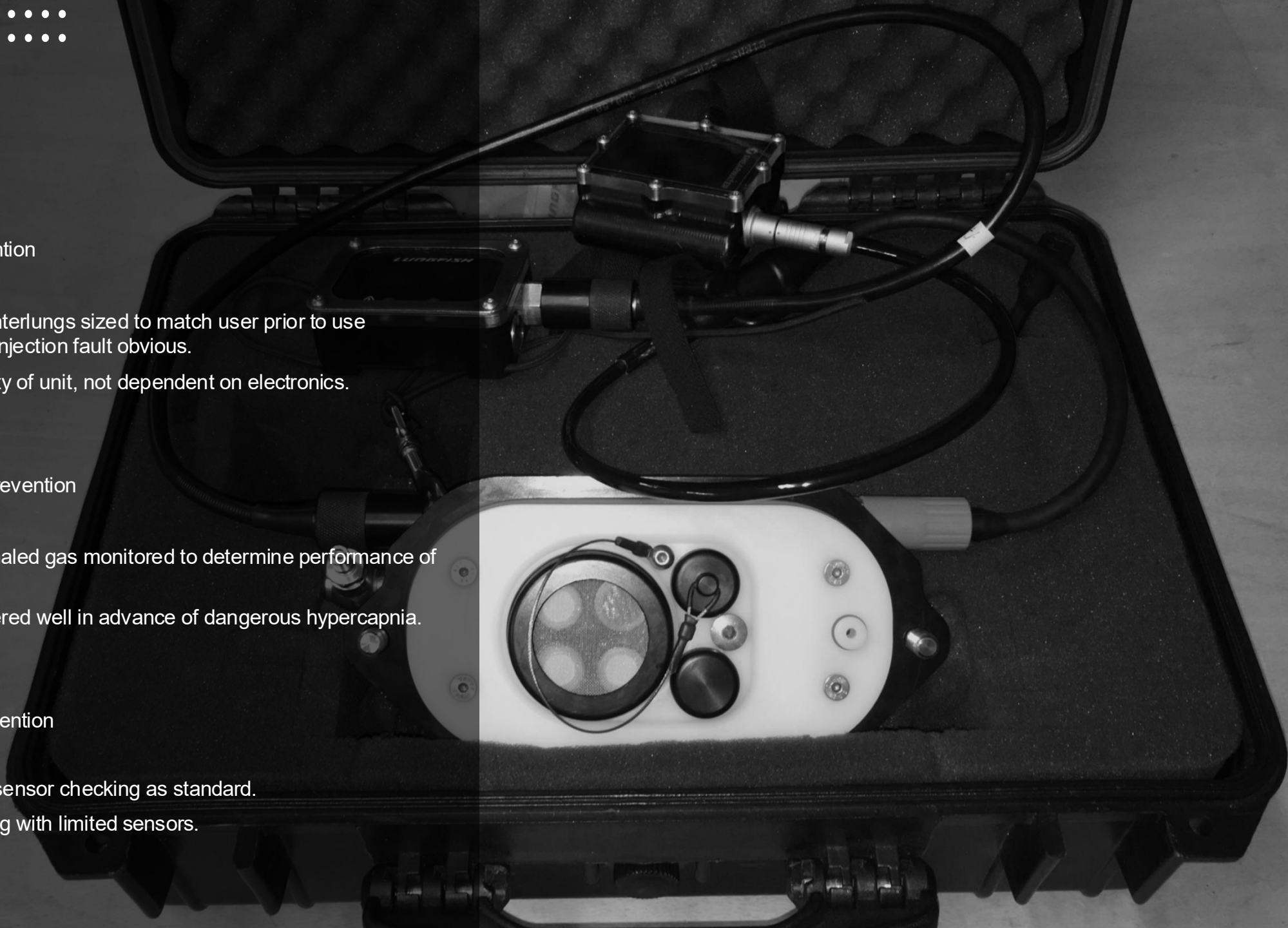
CO₂ level of inhaled gas monitored to determine performance of scrubber.

Warnings triggered well in advance of dangerous hypercapnia.

Hyperoxia Prevention

High pressure sensor checking as standard.

Never risk diving with limited sensors.





SAFETY (Continued)

Flood Resistance:

Hard to flood and easy to empty; CO₂ monitor allows verification of scrubber.

Electronics position minimizes risk of immersion, sealed sensors survive a flood.

Fault Detection & Redundancy:

System monitors its own condition, can shut off damaged parts to stay functional.

Triple oxygen sensors in main system with optional 4th independent O₂ cell output.

Isolated output allows you to read the main sensors with up to two external dive computers of your choice, all completely independent.

Manual operation:

Always an option in any circumstance.



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TECHNICAL SPECIFICATIONS (standard unit)

Dimensions:	Overall :	60cm X 45cm X 20cm
	Central unit :	32cm X 30cm X 20cm
Bare Weight:	(without cylinders or CO2 absorbent) ~	11 KG
Transport Weight:	(no cylinders, CO2 absorbent or electronics) ~	10 KG
Diving Weight:	(with Absorbent & Standard Cylinders) ~	18 Kg
Buoyancy:	Unit alone ~	2Kg negative
	Standard Buoyancy Compensator	16 Kg lift
Gas Supply:	2l 200 bar Steel cylinders at base as standard	
	(Larger cylinders can be fixed to sides, or hung as	sidemounts)
CO2 Scrubber:	2.2Kgs Sofnolime 797 or Divelime 812	
	Typically 3 hours duration	
Sensors:	Standard 3 O2 sensors, 1 CO2 sensor,	depth sensor 0-130msw. Optional 4th O2 sensor
Control System:	Automatic and manual PPO2 control	
Options:	Isolated outputs to additional displays and computers,	extra cylinders and offboard gas supplies, and hardware.
	Front mount configurations.	

[Learn more here](https://www.divelungfish.com)



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