

# Scrubber Duration

The duration of the Classic KISS scrubber canister is based on independent testing done at the ANSTI test facilities in the United Kingdom. Testing was conducted to the CE standard of EN14143.

The CO<sub>2</sub> duration for this design of rebreather has been tested in accordance with EN14143 and at a depth of 40 m (131 ft), water temperature of 4° C (39.2° F), 40 liter/minute breathing rate, and a 1.6 liter of CO<sub>2</sub> generation, was found to have a duration of 2 hours and 37 minutes to 5 millibar of CO<sub>2</sub> and 2 hours and 50 minutes to 10 millibar of CO<sub>2</sub>. Two tests were conducted.

We believe that the design of the Classic KISS scrubber canister is one of the most efficient axial canisters, per weight of absorbent, available today.

As gas density (depth), water temperature, and CO<sub>2</sub> generation (divers work rate) vary, the canister duration will either improve or degrade.

While most divers can't maintain a breathing rate of 1.6 liters of CO<sub>2</sub> per minute, don't dive in 4° C (39.2°F) water, and/or deep dive, these tests are still good indicators of scrubber duration. They show that scrubber duration should not be rated as a single value; that the type of diving that is being done must be taken into consideration. Also, it shows that any test results, from testing done at the surface, will not provide realistic canister durations.

All testing was conducted using Sofnolime 797 grade.

Any diver who use an absorbent which changes colour, should not use the colour-change as an indicator for time remaining on the canister.