

How to Use

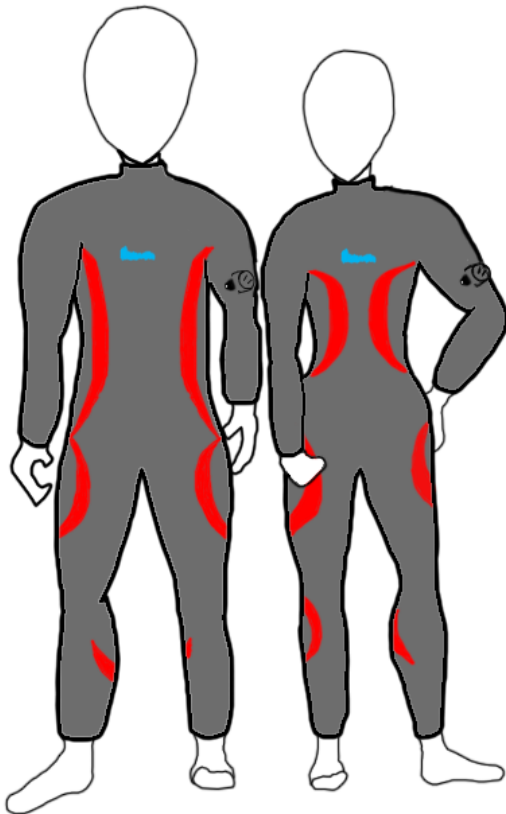
Breathe Underwater in 3 Easy Steps:

Step 1: place mouth around mouthpiece and create an airtight seal

Step 2: clear water out of the regulator by exhaling through the purge valve or pressing the purge button

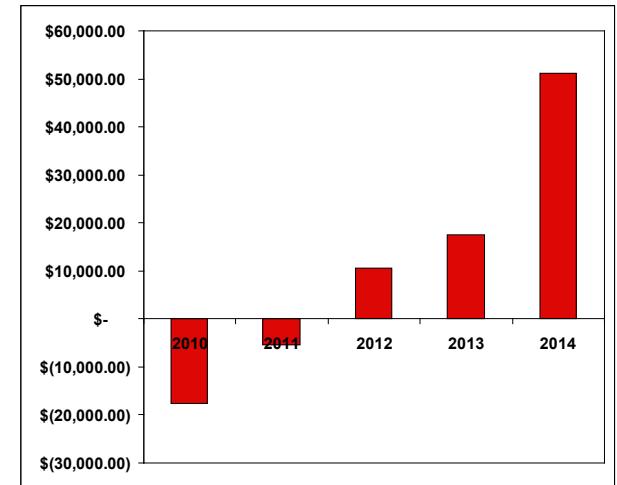
Step 3: breathe naturally

It's That Simple



Business Plan

Five Year Profit



Unit Cost: \$100

Unit Price: \$400

Target Customers: Big Wave and Experienced Surfers

Market: 1000 surfers

Partners: Wetsuit manufacturers and big wave surfing competitions

Product Differentiation: safety, integration into wetsuit, aesthetics

Safety

Must be SCUBA certified to purchase, to reduce the risk of unregulated filling and misuse.

Pulmonary barotrauma are avoidable by exhaling on ascent, which lets out the expanding air inside the lungs. This is also covered in SCUBA certification.

Decompression sickness (“the bends”) is not an issue for correct use of Airware. The effects of decompression at 70 ft, which is the deepest depth a surfer may encounter, only start to occur after 50 minutes at that depth.

The regulator is designed so that any excess pressure is relieved via the purge valve.

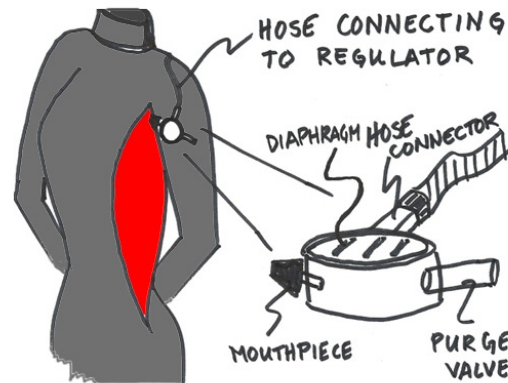
Special Thanks

Thanks to our instructors, Prof. David Wallace, Matt Duplessie, Juhan Sonin, and Jane Kokernak, and to the mentors, Ming Leong, Jessie Linnell, and Dave Tardiff, for their help and expertise all semester.

Thanks to the Pappalardo Staff: Dick Fenner, Steve Haberek, Jimmy Dudley, Joe Cronin, Bob Nuttal, and Fred for all their invaluable help and advice.

To Paul M Bazinet of Inland Divers, Bill Sharp of Billabong XXL Big Wave Awards, the Northeast Surfers LLC, John McNerney, and Ronnie Lees for their feedback.

How It Works



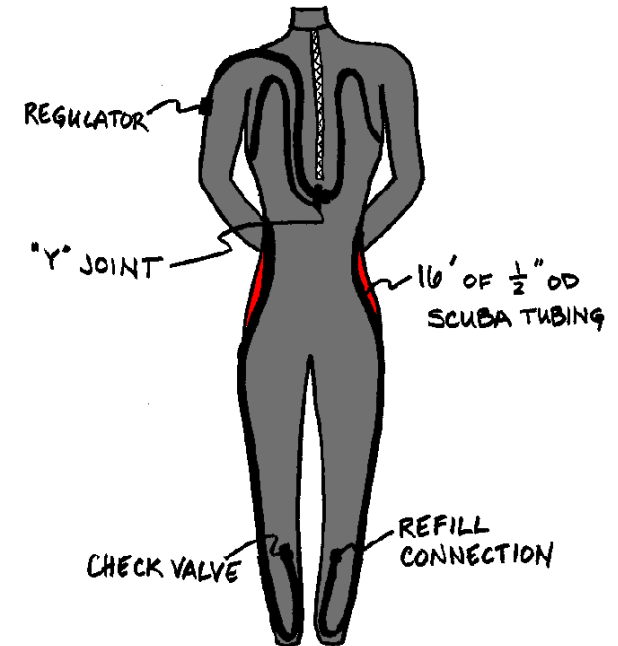
Regulator

The air in the system is stored at 250 psi. When the user inhales, the pressure drop inside the regulator will depress the diaphragm.

The diaphragm presses down on a trigger's lever arm, allowing the air to flow.

When the user stops inhaling, the airflow stops due to backpressure inflating the diaphragm.

This allows the user to regulate the airflow simply by breathing naturally.



Pressure Vessel

The pressure vessel is a flexible hose that runs along the back and down the legs of the wetsuit. Using a hose means retaining flexibility in order to make it unobstructive to the user.

Refilling

The pressure hose terminates with a female quick-disconnect valve. Connecting the included male adapter will connect the pressure vessel to the refill station or a standard SCUBA tank.