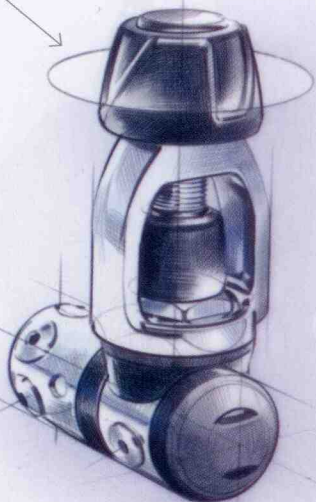


REGULATORS

Modern regulators run the gamut in size, style, features and price, but all of them offer reliable air delivery. The key is to find the reg that provides the best breathing performance at the depths you normally dive, with the features that fit your diving style.

GENERAL You can't breathe directly from a scuba tank because the high-pressure gas would damage your lungs. Hence, the need for a regulator. A reg is made up of the first stage, which reduces gas from high pressure to intermediate pressure, and the second stage, which reduces intermediate pressure to ambient pressure for on-demand delivery to the diver.

FIRST STAGE Made from chrome-plated brass and sometimes titanium, the first stage attaches to the cylinder via either a yoke or DIN fitting, and reduces tank pressure from around 3,000 psi to an intermediate pressure at an average of 125 to 145 psi.



THE HOSE First and second stages are connected via an interstage hose. These hoses commonly have a rubberized outer layer, but braided hoses have recently become popular because they are lightweight and flexible, and coil easily.

MATERIALS Second-stage casings are normally made of thermoplastic polymers, although metal or partial-metal casings are not uncommon. Internal hard parts are usually made from stainless steel. Some higher-end models use titanium, which is corrosion-resistant and lightweight.

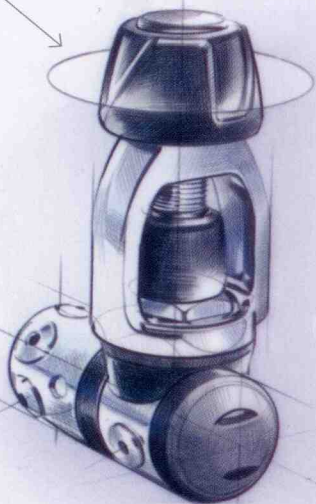
USER CONTROLS The dive/pre-dive switch is useful in preventing free-flows on the surface. The breathing-resistance knob can be used to tune out positive pressure and free-flows caused by current, or modulate work of breathing as depth increases.

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