

The watches review

Design in Society Air Powered Cars Analyzed_1

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A car that runs on air? At first glance, the idea of running a vehicle on air seems almost too good to be true. If we can use air as fuel, why think about using anything else? Air is all around us.

An innovative design which is pure genius was developed by Motor Development International in 2009. The design is the air-powered car, it is a monumental change. Specifically, the car is designed to run on compressed air. For the past ten years companies have claimed to be close to releasing a car that runs on compressed air and Motor Development appears to be knocking on the door. The compressed air vehicle is one of the first commercial applications for the zero-emission engine. The subcompact air car runs on compressed air instead of traditional automotive fuels. A set of carbon-fiber tanks sit underneath the passenger compartment, containing up with 2900psi of compressed air. The tanks power a tiny engine capable of 5.4 horsepower. It has a maximum speed of about 100km/h and a range of around 200-300 km per fuel charge, making it ideal for use within the city. The type of engine that is being used is a single energy engine, which works via a simple compressed-air technology. This car is said to be imported to the United States in the coming year and its retail price is anticipated to be 7,000 euro or about \$9,500.

In 2010 another credible compressed-air design surfaced from two engineering professors in India. The design is an air-compression motor about $\frac{3}{4}$ of a foot in diameter that would run a scooter. They focused on the scooter since more than half of the vehicles in India are two wheeled. The tank of compressed air fires into the turbine of the motor and the vanes of the turbine extend which allows the chambers to accommodate the volume of air as it expands. The engine can run off the pressure it takes to fill a tire at the gas station. Bharat Raj Singh and Onkar Singh, the two Indian professors who have designed the motor, spent the last four years developing their prototype. They expect to cut down about 50 to 60 percent of the carbine dioxide released from tailpipes.

These designs certainly appear to be the example of utopia for a world searching to find alternatives to fossil fuels and pollution. But utopia doesn't come quickly or easily and the production of a vehicle that runs on compressed air may still need to overcome a number of hurdles. For example, the air tank on the scooter designed by the Indian professors only provides enough "fuel" for about 18 miles before it needs to be refilled. Additionally, both air vehicles need electrical energy to compress the air into the tank. There will always be skeptics and obstacles to overcome when it comes to innovative design, but the important concept is to keep

coming up with the ideas that will help improve society. Necessity continues to be the mother of invention and the air car is born of necessity.

In the aspect of design when MDI's Guy Negre was inventing this new idealistic car he used Karl Asplunds' idea of the design process. His process consists of inspiration, identification, conceptualization, exploration and refinement, definition and modeling, communication and finally production. When creating something so creative such as the air powered car, there must be many steps of design put to the test to find the perfect design/model. A design always has to come from somewhere whether it comes from driving in a car to standing outside, anything can spark the beginning of a fantastic unified design. Then after many test and models you will find that you have brought yourself to the perfect product that has unified all of your ideas. To make the utopian design that is practical there are always many tests or models that a designer will end up going through to get to final product they were looking for.

The exploration, development and production of designs such as the compressed air vehicle are an example of what society needs to help with current, real problems such as pollution and the dwindling reserves of fossil fuels. Air vehicles on many levels meet the needs of society today. They have the obvious benefit of reducing local emissions, as well as freeing the consumer to use renewable power sources to compress the air that powers the car. In addition, the technology and design to build the vehicle is not complex and the cost to produce the vehicle is anticipated to be much less than an electric vehicles or hybrid electrics. This particular car is stable, extremely efficient, is intriguing and aesthetically pleasing, and is one of the best designs the world has seen so far.

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