

THIS OGURA PRODUCT REALLY BLOWS

For 2007 Kawasaki has introduced their Jet Ski® Ultra® 250X personal watercraft as the most powerful production personal watercraft in history. The 250X achieves amazing 250 horsepower from only a 1.5 liter engine.

The Ogura Supercharger compresses the air up to a maximum of 11.4 PSI. This gives the Jet Ski® almost instantaneous acceleration.

To achieve this phenomenal increase Kawasaki is using Ogura's high efficiency Supercharger. The Ogura Supercharger compresses the air

up to a maximum of 11.4 PSI. This gives the Jet Ski® almost instantaneous acceleration. Unlike turbochargers, which are more efficient at high speeds, the Ogura Supercharger is very efficient at low speed.

The Ogura Supercharger is a Roots type positive displacement blower that works by pulling air through a pair of smoothly meshing rotors. These rotors are connected to each other by gears and are set 90 degrees from each other. As the rotors turn in opposite directions, air is trapped in the pockets formed between the rotors and the housing. For every revolution of the rotor a volume of air (depending upon the supercharger's size) gets pumped from one side to the other.

By feeding the Kawasaki engine 2 liters of air with every

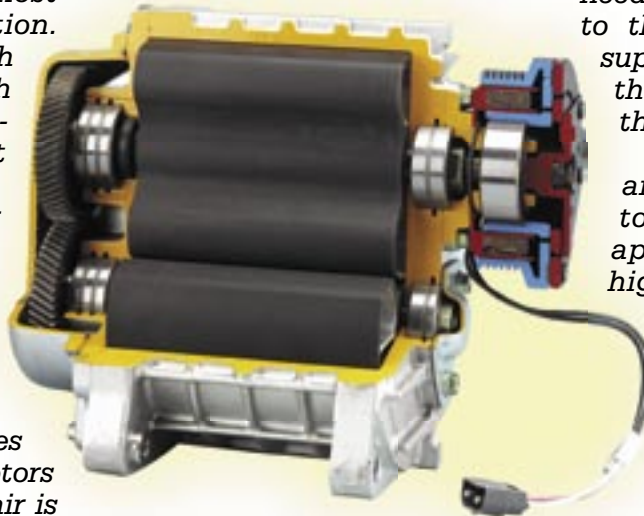


The Ogura Supercharger is custom built into the Kawasaki engine



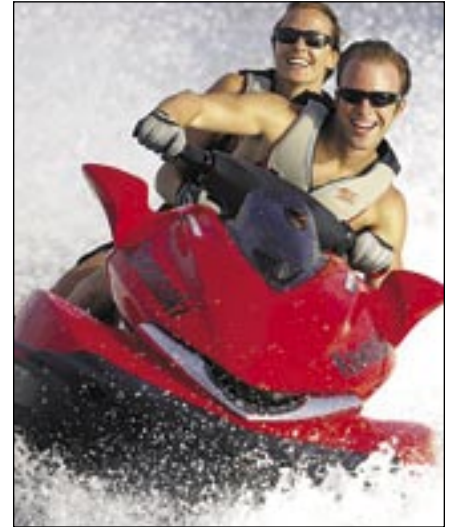
Air flow chart

revolution the Supercharger provides stable, high pressure air intake at all speeds avoiding any lag normally associated with turbochargers.



Cutaway of Ogura Supercharger with electric clutch showing high efficiency coated rotors

In other applications the rotors are driven by an electric clutch with a pulley as its input; the clutch pulley is driven by a belt connected directly to



The Ogura Supercharged Kawasaki Jet Ski boosts the 1.5 liter engine to 250 horsepower

the engines crank shaft. When supercharging is needed, the electric clutch is engaged to drive the supercharger. When supercharging is no longer needed, the power is shut off to the clutch and the clutch/supercharger is disengaged. So there are no parasitic losses on the engine.

Ogura's Superchargers are ideally suited for small to mid horsepower engine applications that require higher horsepower output but want to limit either the engine size or weight. Ogura's high efficiency Superchargers can also act as industrial blowers and/or vacuums. These have been used in

everything from elevating shuttle trains via an air curtain or as a vacuum for carpet cleaning equipment. In more recent applications the Ogura Superchargers have found their way into fuel cells where air handling efficiency is extremely important.