LiteBrake
www.litebrake.com

Lighter, Cooler, Better and Greener Brake

Steel Clad Aluminum Brake Rotor

Lighter Weight, Greater Braking Power, Less Pad Drag, and No Duct Air Blow for Cooling to Increase Your Chance of Winning in Race

Advantages:

- 30% to 50% weight reduction
- Less brake pad drag
- Increase gas mileage about 3% on average
- Faster heat dissipation and lower braking temperatures
- Greater corrosion resistance
- No heat dissipation degradation due to rusting
- Approximately 30% less wear on brake pads
- Lasts over 10 years or 100,000 miles
- Shorter stopping distance
- Faster car acceleration
- More precise steering due to un-sprung weight reduction

LiteBrake Tech, LLC

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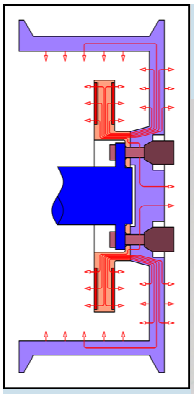
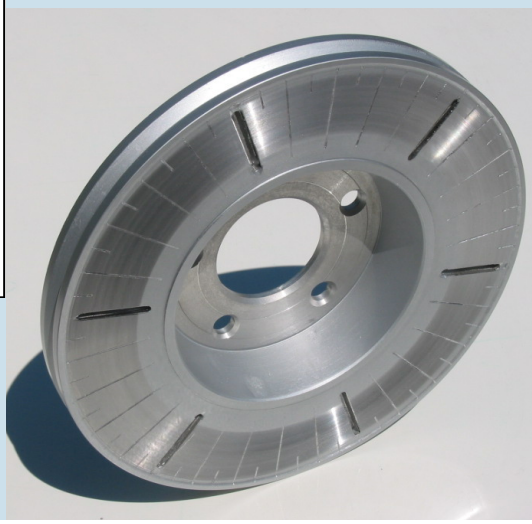
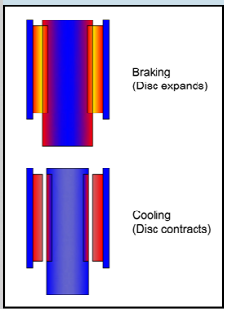


Uses connected aluminum rim as the brake heat sink and radiator to lower brake temperatures.

Incorporates a better steel with dozens of slots to increase the braking friction.



Utilizes greater thermal expansion coefficient of aluminum to create a "force free pad return" -reducing pad drag and increasing gas mileage.



The steel cladding and use of the aluminum rim as the major heat sink and radiator lower the brake temperatures a few hundred degrees and there is no need to introduce blowing air for cooling. The selected steel with dozens of slots for the cladding increases the brake friction. The unique pad drag reduction is equivalent to increase your engine power. See reverse side for more information.

Currently Available Rotors for:

- Ford Escape
- Mercury Mariner
- Chevrolet Equinox
- Saturn VUE
- Toyota Camry
- Toyota Prius
- Toyota Corolla
- Toyota Sienna
- Toyota Solara
- Toyota Avalon
- Lexus ES300
- Honda Accord
- Honda Civic
- Honda CR-V
- Honda Element
- Dodge Caravan
- Chrysler Town & Country

More coming soon!

Check www.litebrake.com for update information

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Brake rotors are structured usually with ventilation channels for quick heat dissipation. The braking heat is absorbed by the material mass between the two rubbing surfaces of each rotor. The heat is dissipated, as the rotor spins, through a) air convection on the two rubbing surfaces, b) air convection in ventilation passageways, and c) heat radiation of the two rubbing surfaces if the surfaces become red hot. A high surface temperature reduces a brake pad's life and friction coefficient dramatically and is therefore highly undesirable.

The SCA disc brake is a solid rotor and has the same convective and radiative cooling of rubbing surfaces, but replaces the convective cooling of ventilation channels with conductive cooling to a connected aluminum wheel. The aluminum wheel's large volume and much larger surface area, compared to that of a vented rotor's ventilation surface area, makes it an excellent heat sink and a great radiator. These properties result in much lower brake temperatures. Usage of steel cladding further increases the capability of the SCA rotor to withstand higher surface temperatures. The steel cladding also functions relatively as a thermal barrier to the aluminum underneath. The combined design makes the SCA rotor suitable for racing applications if a thermal coupler is used to increase the rotor and wheel contact area, No duct air is needed for rotor cooling.

SCA rotors have the freedom to select the optimal steel for its cladding surfaces to increase friction coefficient while maintaining usage of commercially available pads.

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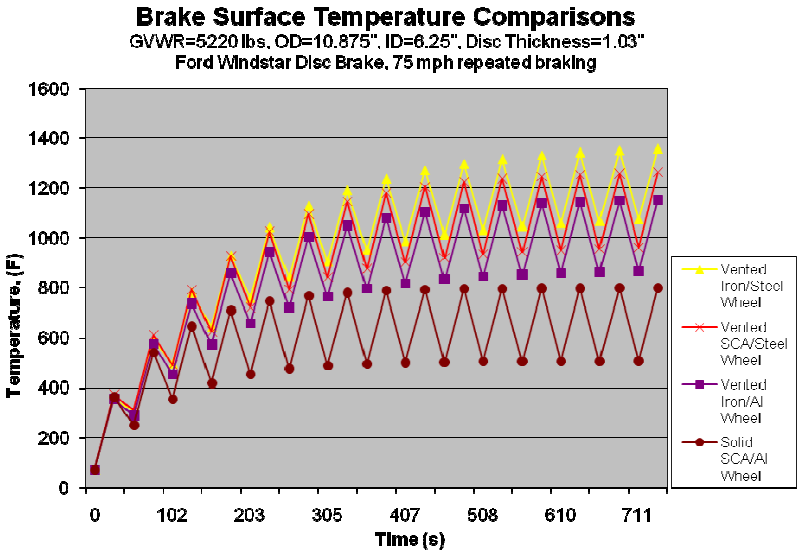
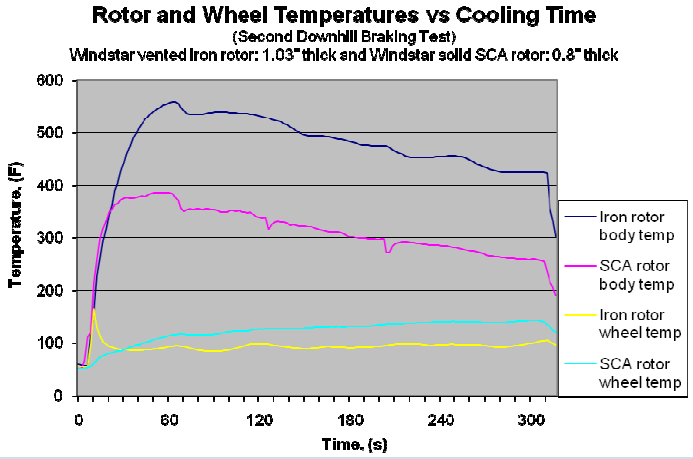


Thermal Analyses on Conventional and SCA Rotors



Downhill Road Test on a Car with Cast Iron and SCA Rotors on Different Sides

Braking Friction Coefficient Comparison*		
Rubbing Surface	**Average Friction Coefficient**	**Increase**
Cast iron rotor	0.378	0
SCA rotor with type #2 steel cladding	0.433	14.5%
* Dyno test results with identical pads		