



ProTec
FRICTION GROUP

Diamond Rotor Solutions

Safety, Performance & Economy

The Diamond treatment offers at least 40% lower brake system operating costs, yielding significant savings per mile, along with higher safety and security on the road and in the field.

The Diamond process was developed over the last 10 years by a team of leading metallurgists focusing on heat displacement alloy technology. Originally developed for aerospace heat shield technology, Diamond rotors are now adapted and certified for vehicle use in the U.S. and Europe.

The proprietary Diamond process is NOT a coating, plating or cryogenic treatment. Diamond uses extreme pressure and temperature to introduce various alloys into working surface of the rotor, creating significant hardness and reflectiveness.



FEATURES that drive costs down and productivity up

- Proprietary metallurgy and surface structure
- Proprietary infusion process
- Available in all passenger car, van, light, medium, and heavy truck applications
- Integrated anti-corrosion treatment
- Meets or exceeds OEM performance requirements
- Eco Friendly: 250–5,000 lbs of reduced CO₂ emissions into the atmosphere for every brake job eliminated, depending on vehicle weight



RESULTS that benefit heavy duty, severe service, and motorsports performance, and assure safety and economy

SAFETY

- ✓ Renders rotors virtually impervious to heat fade and wear
- ✓ Dramatically lowers brake interface temperature, favorable to brake pad material wearlife
- ✓ Boosts stopping power and safety
- ✓ Offers a rust- and corrosion-free performance and appearance

LIFE-CYCLE COST REDUCTION

- ✓ Multiplies wear-life 2–8 times, depending on application—the more extreme the usage the higher the multiple
- ✓ Increased fleet productivity, freeing up maintenance hours and shop space
- ✓ Unparalleled hardness eliminates surface cracking, chunking-off, and rust-up
- ✓ Eliminates scoring caused by contamination and road debris
- ✓ Displaces heat, yielding lower operating temperatures for extended component life (seals, springs, hardware)

DRIVABILITY

- ✓ Eliminates brake judder
- ✓ Diminishes drag and sharpens modulation
- ✓ Builds front-to-rear, side-to-side brake balance

SUCCESSSES

Transit Authority

As tested at Palm Tran, Florida, the Diamond rotor measured 1mm of wear after 100,000 miles. After 30,000 miles the OEM baseline had worn 5mm.

Elite Enduro Racing

As one Champ Car Club driver reported, "We can run faster laps with no pulsation or brake roughness of any type. The brake performance is consistent all the way to the flag."

Fire/Rescue

Provides 15% shorter stopping distances and eliminates brake fade during emergency runs in Dade County, Florida and on all pursuit and emergency service vehicles.



SAVINGS

Higher temperatures, lower costs

Since disc brakes have essentially taken over for passenger car and light truck use, the word rotor has become synonymous with commodity, until now.

Change has come about with the development of a proprietary process that converts the working surface of the rotor to a metal alloy. The purpose of this alloy is to increase both the rotor's hardness and reflectiveness. The result is a safer brake in two ways.

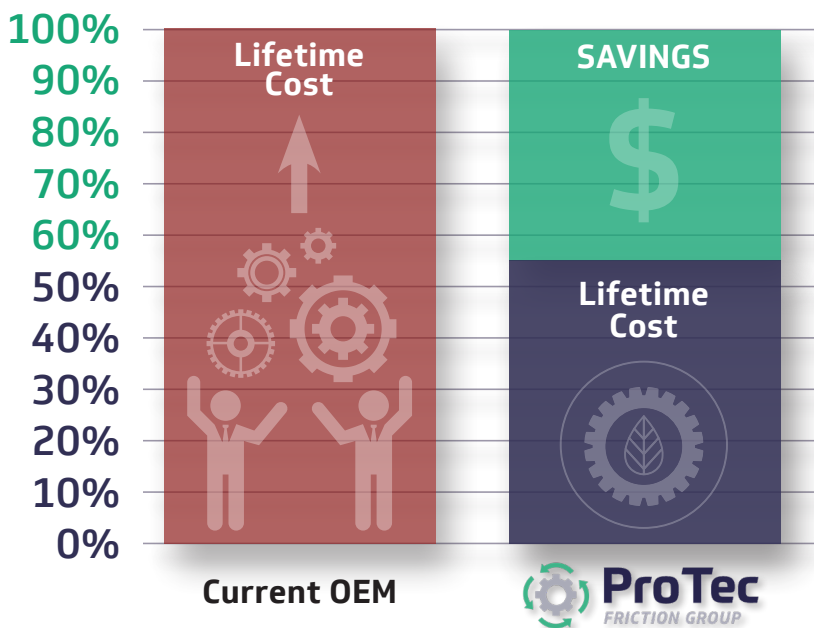
First, the brake pads generate more braking force in contact with the enhanced rotor surface. Second, the increased reflection of heat mitigates the tendency for brake fade in extended brake usage.

While the increased hardness significantly extends the rotor life, the lower operating temperatures also extends the brake pad life. For northern climates the rotors have a baked coating on the nonworking surfaces to make them impervious to rust from contaminant exposure.

Work Truck Projected Savings

Lower Your Maintenance Costs

The brake system repairs necessary for fleet maintenance are a costly and wasteful process. Diamond treatment technology is a unique process that dramatically lowers direct and indirect costs associated with brake system repair.



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