



FLEET FAST TRACK Slash Maintenance Headaches

Executive Summary

Municipal Fleet Managers use triple-life new-tech brake parts to ease tighter maintenance budgets, cut shop costs and boost overall taxpayer value.



You're about to learn

the ONE secret used by fleet managers

to make them heroes among their budget, regain shop hours for other jobs,

and decrease cost per mile



for EVERY vehicle in the fleet.



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All views expressed in this white paper are written as a result of collaborative efforts among independent third-party research organization(s) and current customers of 300 Below, Inc. All testing data should be considered as accurate as possible given the source and timing of the information. All participants have provided their best effort toward creating a fair and unbiased testing environment without opinion or manipulation of data.

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oing more with less. It's a common theme that unites fleet managers today as we confront budget reductions, ultra-competitive global operating environment, and skepticism that change won't disrupt existing operations. Fear is driving business decisions as senior managers demand cost reduction to support their thinning margins on aging fleets. It's no surprise that fleet departments are among the first to be put under the gun.

One of the least disruptive changes to improve your overall fleet means finding creative ways to retain the hardest working mechanics, incentivizing your team to work smarter, and ultimately maximizing the life of your existing wearable vehicle components.

The Cryo Rotor team constantly listens to fleet managers all over North America to brainstorm new ways to reduce ongoing fleet expenses. The largest overall recurring fleet expenses remain fuel, tires, brakes. As fuel shifts and contracts emerge, tire companies continue releasing incremental improvements, brake rotors are the next logical target for fleet managers to maximize gains and save money.

The easiest way to reduce fleet brake-related expenses is to increase brake part life. Aside from physical costs of replacing brake rotors and pads themselves, the unobvious costs associated with braking components include vehicle downtime and labor charges incurred when changing vehicle components. When rotors and pads last longer, your vehicles stay on the road where they belong, freeing up your mechanics for more critical tasks beyond preventative maintenance and minor wearable part changeouts. Include these costs to identify true savings.

In order to understand the evolution of brakes, let's take a look back at history. Since 1902, when Frederick W. Lanchester patented the first disc brake, the world has seen brake rotors as cast-iron "pie plates" with an accepted short lifespan. This average braking system thrived with the adoption of ABS systems. Then drilled and slotted rotors emerged to reduce fade and minimize warping. But until recently, no significant technological breakthrough contributed to extending the life of this cast-iron part.

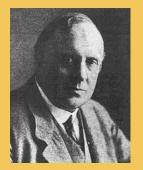
In fact, technology behind the good ol' rotor hasn't changed much (slotted/drilled) since Crosley introduced the first car featuring disc brakes in 1949. Brake discs in the first six months of production were short lived due to wear issues, and many fleets still struggle with wear related issues today. While many new ideas have helped enhance acceleration and top speed for fleet vehicles, like modified police cruisers, few formidable ideas ever surface to bake a better brake.

Cryo Rotor Braking merges a green technology with a unique manufacturing process to breathe life into purpose-- BETTER INGREDIENTS: BETTER BRAKES. We've discovered the ultimate recipe to make our brake rotors last longer than typical original equipment (OE) spec brakes and we'd love to share it with you!

1949

The world's first disc brake equipped automobile was released by the Crosley Corporation, founded by Powel and Lewis Crosley in Marion, Indiana. The four wheel caliper type disc brakes were created for aviation use, which proved troublesome due to repeated braking. Crosley switched back to drum brakes only six months later because of wear issues.

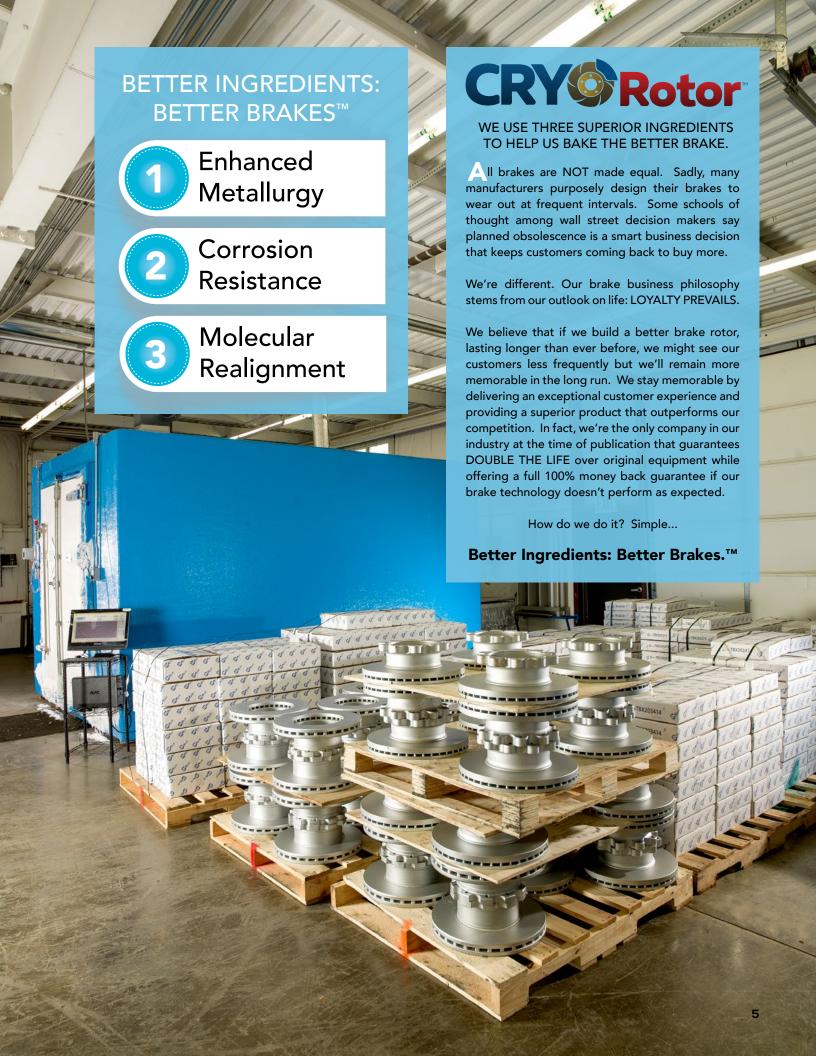
FREDERICK W. LANCHESTER



British Renaissance Man & Engineer Inventor of the World's First Disc Brake Born 23 October 1868 - Died 8 March 1946

LITTLE KNOWN FACTS:

Mr. Lanchester took an interest in predicting the outcome of aerial battles. He authored a book called "Aircraft in Warfare: the Dawn of the Fourth Arm" and became known for a series of equations "Lanchester's Power Laws" which are now applied in use for logistics and operations research in the United States.





very Cryo Rotor brake rotor shares a common foundation of metallurgy. Because all metals are not made equal, we approach baking our brake rotors with a no-nonsense philosophy about casting them to fit fleet vehicle requirements.

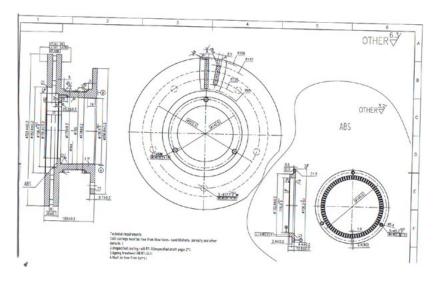
We have three priorities in metallurgical design:

A. Safety B. Compatibility C. Performance

Studying metallurgy might sound complex, but we're really just referring to principles of science and technology concerned with metal properties and production. Because we focus on brake rotors, we target a considerable amount of our R&D effort toward improving the quality and composition of the metal we're using to make our brake parts.

We've identified a material base that's incredibly hard and durable, but not so the material cracks or shatters upon applied friction.

Our castings use a higher carbon content to ensure they respond well to their graphitic phase transformation, further enhanced by our deep cryogenic treatment process. Experimentation goes beyond the 22 common grades of grey iron, leading our metallurgists to source only the best material base for the manufacturing of our brake rotors. We test every lot to ensure high quality.



CHARACTERISTICS FOR OPTIMAL BRAKE ROTOR METALLURGY

- Exceptional machinability (holds tight tolerances)
- Minimal thermal expansion
 (minimizes performance variability)
- High strength and durability
 (sustains torque loads under applied friction)
- Stable mechanical / frictional properties
 (inside of expected service operating temperatures)
- High capacity to dampen component vibration (minimizes noise, vibration and harshness [NVH] issues)
- High resistance to wear and surface deterioration (among expected range of service temperatures)
- High thermal conductivity characteristics (transfers frictional heat from brake surfaces)
- High heat absorption capabilities (absorbs energy from braking)





arly rust should never be the cause for replacement of rotors in your fleet, yet our conversations with fleet managers always seem to uncover the same recurring pain: rust issues.

Corrosion damage to brake rotors may cause costly premature replacement because of so-called "idle spots," which may appear when a vehicle is not driven frequently, potentially cause rubbing vibrations that adversely affect braking smoothness and reduce braking performance.

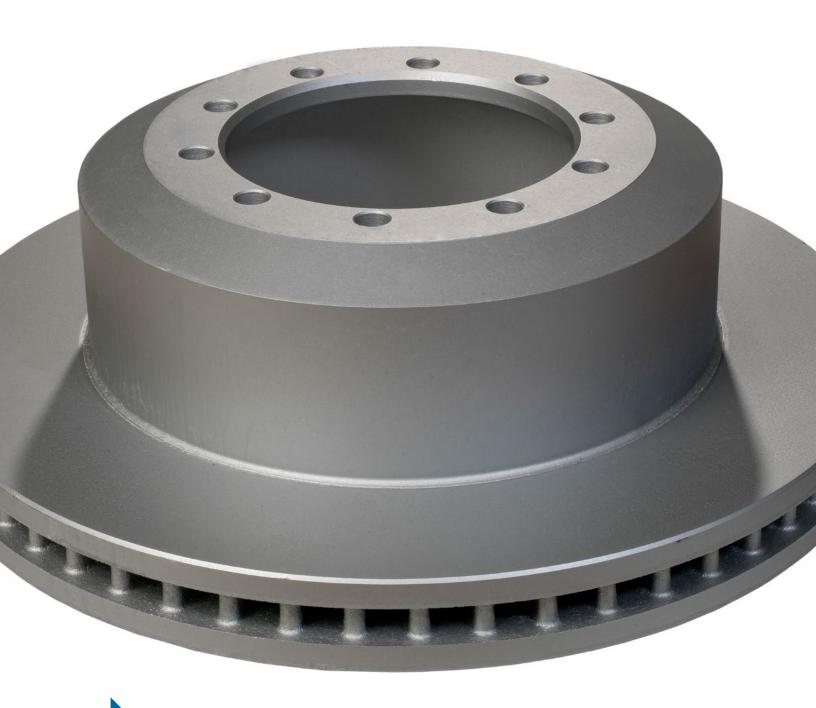
If your vehicles are seasonally deficient and rust out before the winter is through, road salt becomes your #1 enemy for issues surrounding preventative maintenance and part replacement.

For vehicles that experience winter weather conditions and are expected to handle the most demanding environments, we say worry no more. Our rotors are designed with harsh climates in mind, and with a 600 hour corrosion rating, Cryo Rotor will handle all kinds of nasty muck. That's 200 hours longer than the SAE industry standard test of 400 hours.

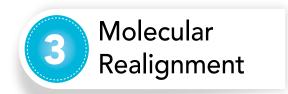


Do you have rust issues in your fleet? **RESET YOUR ROTORS** Switch to Cryo Rotor for maximum performance in winter weather conditions and other wet environments where corrosion is known to compromise performance and reduce brake component life.





A NORMAL ROTOR? IT FITS THE SAME. CRYO ROTOR'S MOLECULAR STRUCTURE? WE'RE REFINED TO RESIST THE NORM.



100% FRIENDLY NITROGEN-BASED PROCESS

DEEP CRYOGENIC PROCESSING

Tech speak for cast-iron components: we reduce stress and impart molecular changes.

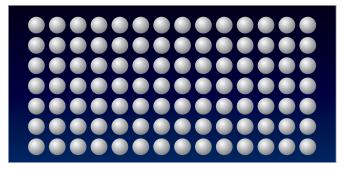
uilding a better brake rotor means finding a smarter way to fully transform its molecular structure. Our goal is to create less tears and cracks in the microstructure of grey iron in order to create a more uniform surface area that responds better to the application of friction. This allows the metal to maintain a consistent surface area longer than other brake rotors, ultimately improving their performance on the road.

In order to achieve this, we use a liquid nitrogen process to slowly cool brake rotors down to -300°F and hold them there for several hours. We then bring them back up to room temperature and apply a triple heat temper. This process helps our brake pads last 40% longer than manufacturers who pair their pads with untreated rotors.

GAPS TEARS

OVERLAPS
TEARS

Molecular structure formation with flaws from out of phase solidification

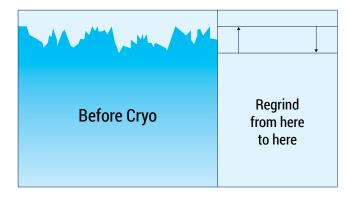


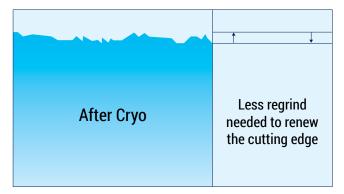
Denser, realigned molecular structure resulting from cryogenic processing

Our computer controlled temperature change utilizes a "dry" process so that liquid nitrogen is vaporized above LN2's boiling point, meaning liquid never touches parts, which risks thermal shock. Our process occurs only once, and lasts for the lifetime of the part; in other words this is a permanent and irreversable process. Because we're using liquid nitrogen from the air we breathe, our process is green and environmentally friendly.

One misunderstanding of molecular realignment is based on erroneous one dimensional thinking. Cryogenic processing is not a surface coating; our treatment process affects "through" the entire molecular structure of an object, improving wearability and other factors. If you decide to resurface your rotors, you remove less metal, too.

Simulated Microscopic Views







ARAMARK FLEET: 218% IMPROVEMENT

hen our fleet clients approach us, they want to know the strengths we bring to the table. AraMark started out no differently, wondering what the Cryo Rotor advantage could offer to their fleet. Bill Kindler, Aramark's Regional Fleet Manager, stopped in at our tradeshow booth in Indianapolis at the NTEA Work Truck Show and realized how Cryo Rotor brake parts would save millions of dollars in fleet expenses over the next decade.

"Using Cryo Rotor is a no brainer."
- Bill Kindler
Aramark Regional Fleet Manager

Running a quick calculation on a sample of 100 vehicles from Aramark's truck fleet showed that Bill's fleet stood to save \$373,250 from these vehicles over the next 7 years alone. And since Aramark has several thousand vehicles to take care of every year, these large numbers made Bill very happy.

To date, Aramark is one of our closest allies to aid other fleet managers in realizing the value of embracing Cryo Rotor.

As organizations like Aramark seek to distinguish themselves as compliant with green initiatives, cutting costs must balance with protecting the environment. For many managers, vehicle fleets are constantly targeted for improvement because of variable energy consumption and waste potential.

I'm proud to know that there are leaders out there, like Bill, who are willing to try new initiatives that prove deviating from the norm to embrace "green" innovation is both acceptable and practical. Our team is excited to see gains like this for our clients, as we know how much they appreciate conserving budgeted resources making them heroes not just for management, but best for their mechanics and drivers.

Our guys in the shop are our family, plus every team member at our firm spends time in the shop before they earn the right to serve our clients directly. When you call us with questions about a Cryo Rotor product, we will know the answer with calloused hands. We're a family owned and operated business, and have been since our inception in 1966. At the end of the day, fleet gains are only as good as the relationships backing them. With a handshake extended, we look forward to including you in our Cryo Rotor family.

Peter J. Paulin
Chief Executive Officer
300 Below, Inc.
(Parent Organization of Cryo Rotor Braking)

Total Brake Cost Per Vehicle (Fleet) \$900 **Jollars Spent On Brake Rotors** \$800 (in thousands) \$600 Purchased \$400 **New Trucks** \$200 **Total Miles Driven** 35,000 70,000 105,000 | 140,000 | 175,000 | 210,000 | 245,000 35,000 35,000 Annual Miles 35,000 35,000 35,000 35,000 35,000 Life of Truck (Yrs.) 2 3 5 7 4 Total Expediture Standard 113,500 227,000 363,000 495,000 608,500 780,500 894,250 Total Expediture TruBlue 113,250 149,500 | 230,250 | 299,000 | 335,250 | 484,750 | 521,000 **Total Savings Fleet** 132,750 273,250 373,250 250 77,500 195,000 296,000

Source: Bill Kindler / Aramark



et's do a little math. That's what the NYPD's fleet manager did when he visited the Cryo Rotor Booth at the NAFA Expo.

To many, Cryo Rotor seems more expensive, because upfront, it is. But since Cryo Rotors last longer, they quickly pay for themselves. For the New York Police Department to switch over to Cryo Rotor, it didn't require much more than running a few numbers to see that on 1500 police cruisers, they would save \$300,000 per year.

ASSUMPTIONS FOR FORD POLICE CRUISERS

Current [MAJOR US Brand] Untreated Brake Rotor Cryo Rotor Treated Brake Rotor \$56

NYPD In-House Testing & Evaluation = 236% Improvement (when using Cryo Rotor)

Multiply [MAJOR US Brand] by 236% \$106 Subtract the cost of a Cryo Rotor Treated Part \$56 **IDENTIFY THE TOTAL SAVINGS PER ROTOR** \$50

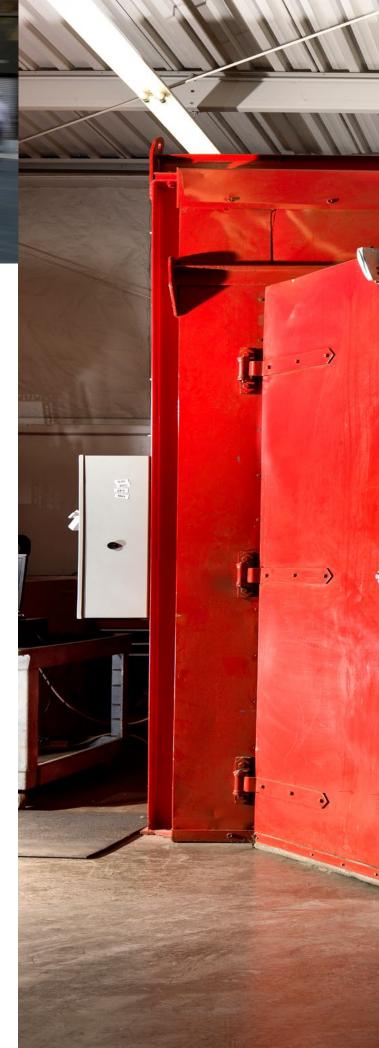
Identify the sample size for projected vehicle application: 1500 Identify the total number of brake rotors (X4 per vehicle): 6000 MULTIPLY ANNUAL ROTOR USAGE BY SAVINGS: (6000 x \$50)

\$300,000 in annual savings.

Sound pretty good? We think so, too...



** Names of competing major brand names have been redacted from this case study due to ongoing fleet relationships that preclude us from mentioning other candidates in testing by this government organization. In the interest of U.S. national security, we have also used generic numbers that have no direct correlation with the actual vehicle roster of the New York City Police Department.



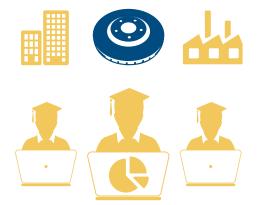


THE FUTURE HAS ALREADY ARRIVED. IT'S JUST NOT EVENLY DISTRIBUTED YET. -WILLIAM GIBSON





TRUSTED BY DETROIT'S AUTOMAKERS AS THE LEADING TESTING FACILITY FOR BRAKE COMPONENT RESEARCH



CRYO ROTOR WINS AGAIN

in a head to head test of brake wear



IN LABORATORY TESTING

Improvement of Cryo Rotor parts vs. MAJOR national brand brake rotors

Greening Labs Brake Test (with 8219 lb. per wheel load)

Cryo Rotor vs. Untreated Test **CRYO UNTREATED Total Wear** .0004 .002 Cycles Completed 1000 866 (To Failure) **Brinell Hardness** 212

% Improvement over STOCK brakes 400% 0% (Control)

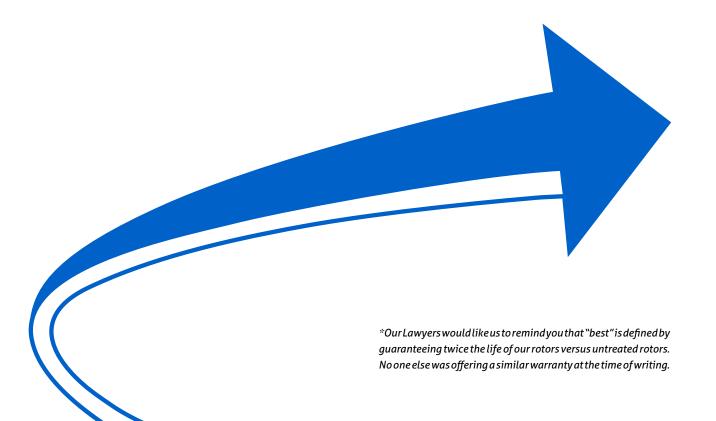
"With tight tolerances on rotor quality and proper cryogenic treatments, brake rotor life may be extended as much as three times over comparable, non-treated parts."



Charles W. Greening, Jr. **Greening Testing Labs**



WE HAVE THE BEST WARRANTY IN THE BRAKE BUSINESS!! YES, GUARANTEED.



CRYO ROTOR BRAND BRAKE PARTS LIMITED WARRANTY



CRYO ROTOR BRAND BRAKE PARTS COVERED BY THIS WARRANTY

Cryo Rotor Brake Rotors; Cryo Rotor Brake Drums; Cryo Rotor Brake Pads (collectively, "Parts").

WHAT THIS WARRANTY COVERS

This limited warranty ("Limited Warranty") is issued by 300 Below, Inc. ("300 Below")

300 Below, Inc. ("300 Below") warrants all Cryo Rotor brand parts to provide Double Lifespan (defined below) over non-cryogenically-treated brake rotors and, additionally, Parts will be free from defects in materials and workmanship for 90 days from initial purchase by original verified purchaser from an authorized installer or retailer. This Limited Warranty is limited only to the exchange of the warranted Part with a replacement or comparable Part, should a Cryo Rotor part be determined to be defective in material or workmanship. 300 Below warrants to the original buyer of any Cryo Rotor part (the "Buyer") that it will repair or replace, free of charge, the Cryo Rotor part which has a defect in material or workmanship within the warranty period described below, provided the purchase has been registered over the internet via FleetSupplier.com. The Limited Warranty is not transferable beyond the initial purchaser and is only valid against eligible claims for a period of 12 months from the date of purchase. The Limited Warranty does not cover any loss due to neglect, abuse, misuse, alteration, accident, normal wear or improper installation of a Part.

This Limited Warranty does not apply to Parts installed on vehicles or equipment used for the following: racing, off-highway recreational, off-highway competition, off-highway equipment, towing, or if used in any marine, aviation, or aircraft applications. The Limited Warranty does not cover any loss or liability for incidental or consequential damages that may be caused by a breach of this written warranty. This Limited Warranty is voided by Part modification; misuse; damage including by accident, fire and chemical corrosion; or use in a manner not recommended by 300 Below or, where applicable, by vehicle manufacturer. No other warranty, express or implied, shall exist. No cash refunds are available. 300 Below is not responsible for original equipment warranties or how they are administered. "Double Lifespan" is based on mileage previously obtained from a vehicle's service record over the original equipment on the vehicle, in the sole determination of 300 Below. Illinois law shall govern this Limited Warranty, and any unresolved dispute shall be referred to exclusive and binding arbitration in Decatur, Illinois, pursuant to rules of the American Arbitration Association.

SPECIAL CONSIDERATIONS

IN THE UNITED STATES AND IN OTHER NAFTA REGIONS WHERE PERMITTED BY LAW THE REMEDY IN SECTION I IS THE SOLE AND EXCLUSIVE REMEDY OF YOUR BREACH OF WARRANTY CLAIM. THIS LIMITED WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. 300 BELOW EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES. TO THE EXTENT PERMITTED BY LAW, 300 BELOW DISCLAIMS LIABILITY FOR ANY AND ALL CONSEQUENTIAL AND INCIDENTAL DAMAGES. This Limited Warranty gives you specific legal rights, and you may also have other rights which may vary by state and province. This is the only express warranty made by 300 Below. No employee of, retailer to, or dealer for 300 Below has the authority to make any warranty, representation, promise or agreement on behalf of 300 Below except as expressly written in this Limited Warranty. 300 Below reserves the right, at its sole discretion, to provide a monetary refund instead of replacement. 300 Below also retains full discretion in determining if its Parts satisfy the warranty.

REPLACEMENT GUIDELINES

A defect is defined as a condition within the Part that would render the Part inoperable under normal conditions of use and service. 300 Below's responsibility under this Limited Warranty is limited to the repair or replacement, at 300 Below's option, of any warrantable Part returned prepaid with a complete service history and proof of purchase. Complete service history must delineate (1) Buyer's name and phone number, (2) part number, (3) vehicle make-model-year, (4) detailed explanation of the alleged non-conformity, (5) date vehicle was serviced, (6) mileage and/or engine hours at time of service, (7) signature of installer where service was provided. A valid proof of purchase is a dated bill of sale or receipt. A Return Material Authorization (RMA) number, obtained in advance from 300 Below, and dated bill of sale or receipt, must accompany any Part returned by Buyer for warranty determination. 300 Below will be the final authority on the approval of all warranty claims hereunder. The issuance of an RMA number does not represent approval of a warranty claim. All repaired or replaced Parts will be returned to the Buyer freight collect. Accepted warranty Parts, which have been replaced, will become the sole property of 300 Below.

Claims submitted falsely for the purposes of receiving improper credit (e.g. knowingly submitting worn, old, or improperly installed Parts) will be considered fraud and prosecuted accordingly.

CRYO ROTOR BRAKING

A DIVISION OF 300 BELOW, INC.

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OUR NO-RISK INVITATION TO EXPERIENCE CRYO ROTOR FOR YOUR FLEET

ou have now seen the power of Cryo Rotor brake rotors through the eyes of other fleet managers and testing conducted by the most respected brake lab in the world. So, only one question... Why not try Cryo Rotor for YOU?

If you manage 500+ vehicles, we're willing to take on your fleet braking challenge by supplying you with a set of Cryo Rotor brake rotors and pads for 3 fleet vehicles at our expense. You heard right: there's absolutely no risk to experience the power of Cryo Rotor Braking.

All we ask is that you be willing to share you testing data with us so that we can continue to improve our product offering. In addition, we ask that you commit to obtaining your next 50 sets of braking components IF (and ONLY if) you see double the life of what you're obtaining from your current untreated rotors. (Offer is limited to our current inventory.)

We're so confident that our products are superior that if you don't see any results from our test together, we'll also compensate you for the time and labor you invested putting Cryo Rotor brake rotors on your vehicles, for up to \$300 in total labor for the three vehicles you commit during testing.

What have you got to lose? With this invitation, we make sure there is absolutely everything to gain either way.



CERTIFICATE FOR FREE TESTING CRYSPROTOR



This certificate may be redeemed by an accredited fleet manager of 500+ vehicles for three sets of Cryo Rotor brake rotors and pads at no charge to the organization in exchange for the sharing of testing and evaluation data with a commitment to obtain the next 50 sets of braking components from 300 Below when testing results show 200%+ longer life over current untreated braking components in the fleet.

To redeem this certificate, please send with your contact information via postal mail to the address indicated on the rear side. You may also call or email us as indicated.



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