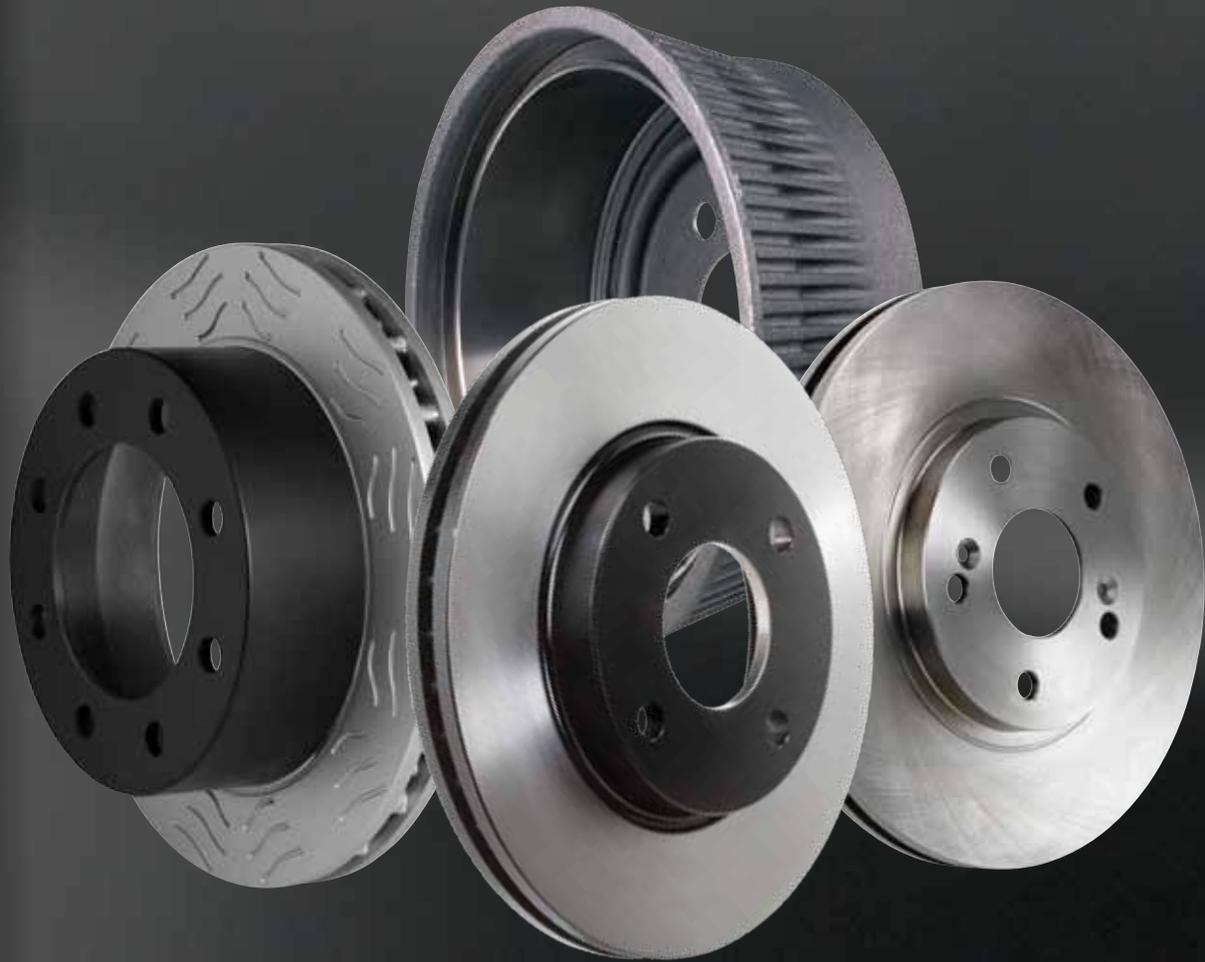


ADVANCED TECHNOLOGY® • PROFESSIONAL GRADE®

ROTORS AND DRUMS

BEST PEDAL FEEL, PAD LIFE AND RUST PROTECTION



Raybestos
The best in brakes®



RAYBESTOS ENGINEERING PUTS SAFETY FIRST

Raybestos
The best in brakes



BOOST CUSTOMER SATISFACTION WITH BETTER BRAKING PRODUCTS AND SERVICE

PRE-PURCHASE BENEFITS...

- Research and Development:**
 All parts are developed from OE samples and form, fit and function are validated to meet ISO/TS quality system standards.
- Design and Production:**
 Every Raybestos rotor goes through an eleven-step product design cycle to ensure the best possible rotor for each application.
- Dedicated Team Of Quality Engineers:**
 Each global manufacturing facility continually analyzes, measures and tests the product; ensures optimal surface finish, minimal thickness variation, minimal lateral run-out and proper balance.
- Affinia's World Smart™ Strategy:**
 This business approach combines four key elements: a customer centric focus, involved Affinia people, continual improvement and building better supplier relationships.

POINT OF PURCHASE BENEFITS...

- Expanded Coverage:**
 Advanced Technology®, Professional Grade® and R-300™ performance rotors are available for import and domestic cars, light trucks and SUVs.
- 
- First to Market Strategy:**
 We first identify the growth potential of new products and then capitalize on the resulting sales opportunities.
 - Full Line Offering:**
 We continue to dominate the Aftermarket with first-to-market part numbers and industry leading coverage for rotors and drums; always delivering the best design for the application.



POST-PURCHASE BENEFITS...

- World Class Training:**
 Accredited courses are conducted by NATEF certified instructors. Training Center and Field Training Courses reach more than 8,000 technicians annually.
- Dedicated Technical Support:**
 The Raybestos® ACE™ Tech Hotline answers more than 132,000 calls every year. Call toll free, Monday thru Friday, 1-800-407-9263 between 8:00 am and 5:00 pm (CST).
- Raybestos Rewards™ Program:**
 The FREE Raybestos Rewards loyalty program includes the E-learning program, FREE unlimited access to the Raybestos ACE Tech Hotline and an optimized selection of POS materials. You also receive automatic enrollment in the "Gimme a Reward" box top program.
- Shop Cabinets and Raybestos Gear™:**
 The shop cabinets bring added visual excitement to your shop and come filled with FREE brake and chassis product. Purchase Raybestos Gear from the online apparel store, or earn items free through the Raybestos Rewards program.

RAYBESTOS BRAND ROTOR SELECTION GUIDE



	PERFECT FOR:	KEY DIFFERENTIATOR:
RAYBESTOS R-300	High performance vehicles, work trucks, fleets and family vehicles with towing capabilities	ULTIMATE UPGRADE – S-Groove slot designs maximize pad to rotor contact for stronger bite, smoother braking and increased pad life
ADVANCED TECHNOLOGY	Severe duty, fleet, enthusiast and high performance vehicles	BEST NOISE SOLUTION – meets or exceeds OE expectations to deliver best in class performance and durability
PROFESSIONAL GRADE	Every-day driving situations... includes many problem solver applications	FULL COVERAGE – the most complete application specific line of rotors on the market

Professional Grade Police and Medium Duty applications are also available. Please contact your local Raybestos DM or call 1-800-323-0354 for more information.



MORE BRAKING POW



GREY FUSION PROTECTIVE COATING

BLACK FUSION PROTECTIVE COATING



R-300™ PERFORMANCE ROTORS

Why we made this: Raybestos® racing brakes have delivered unrivaled race-day performance since 1902. Lessons learned from Raybestos racing rotors are translated into product improvements for work trucks, fleets, family vehicles with towing capabilities and high performance vehicles. Delivers less pedal effort and more braking power.

• Patented S-Groove Slot Designs for Improved Pedal Feel*

Maximizes pad to rotor contact for stronger bite, smoother braking and increased pad life; prevents brake fade and promotes simultaneous out-gassing for superior panic-stop braking; less prone to cracking than traditional drilled rotor designs

• Vehicle Specific Vane Configurations

Match OE cooling vane configurations for optimal cooling, reduced brake fade and increased pad life

• Application Specific Iron

Enhanced iron maximizes noise suppression... long, thick carbon fibers absorb noise; higher thermal conductivity keeps brakes running cool, quiet and vibration free

• Rotors meet SAE Standard for tensile strength

OE-matched, G3000 qualified material for structural integrity and maximum service life

• Black Fusion Coating

Improves appearance for a clean, finished look



• Grey Fusion Coating

Corrosion resistant coating can withstand 300 hours of saltwater exposure (as proven by salt spray test regulation STM-B117); keeps rotor edges and vanes clear of rust for optimal airflow and cooling

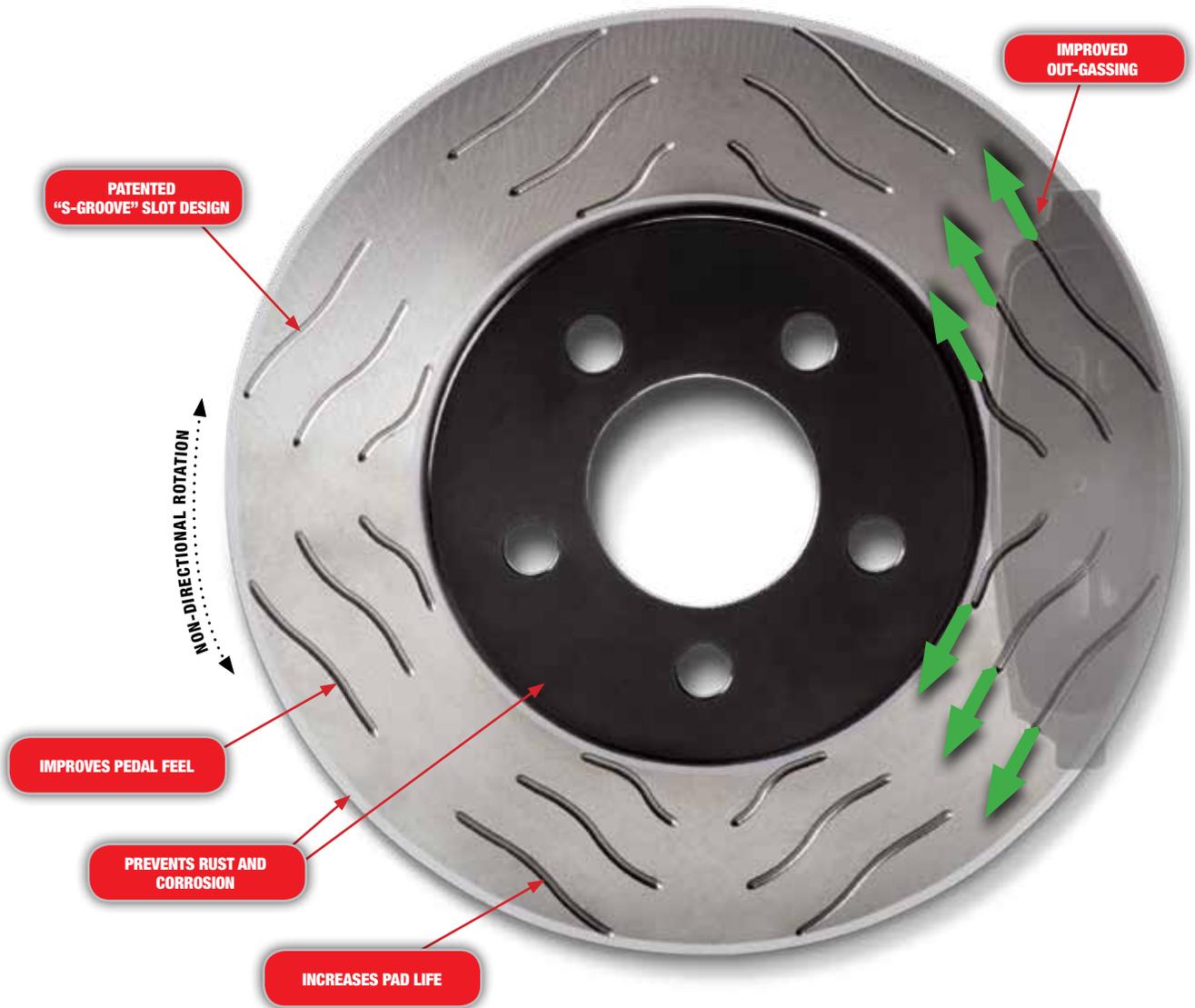


• Non-Directional Rotation

Can be used on all four corners of the vehicle to simplify ordering; eliminates the need for unique right and left part numbers

* Patent: D640,620

POWER, IMPROVED PEDAL FEEL



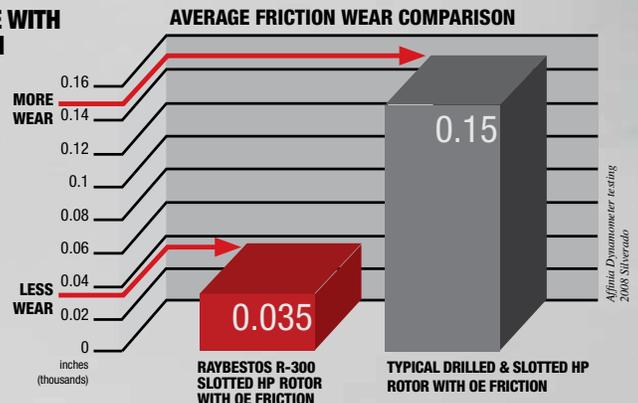
- **Tightest Lateral Run-Out**
0.002" or less for less pedal pulsation and brake noise; extended pad life
- **Minimal Thickness Variation**
Rotors thickness variation is less than 0.0004"; minimizes pedal pulsation and brake noise
- **Mill Balanced**
100% validation ensures proper balance; minimizes vibration

EXPERIENCE THE ULTIMATE BRAKE UPGRADE PACKAGE

The search for the perfect performance rotor is over. The Raybestos R-300 Performance Rotor delivers everything serious drivers expect... improved pedal feel, lasting rust prevention and increased pad life. Towing and high performance vehicles experience stronger bite without sacrificing smooth braking.

IMPROVE FRICTION LIFE WITH RAYBESTOS R-300 HIGH PERFORMANCE ROTOR

Friction wear is dramatically reduced when compared to typical drilled and slotted rotor designs. Based on dynamometer testing results, the Raybestos R-300 high performance rotor can extend friction life up to 30%.





INSTALLATION READY



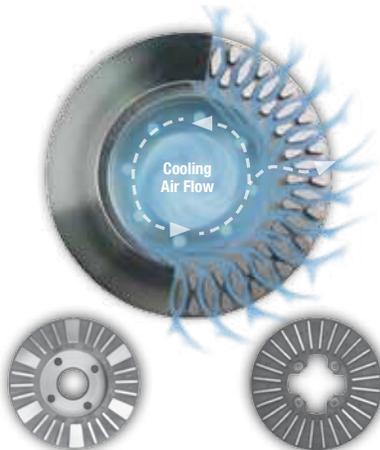
ADVANCED TECHNOLOGY®

ADVANCED TECHNOLOGY ROTORS

Why we made this: Developed for demanding situations like severe duty, fleet, enthusiast and high performance. Meets or exceeds OE expectations to deliver best in class performance and durability.

- **Vehicle Specific Designs**
Match OE form, fit and function for ultimate strength
- **Black Fusion Coating**
Protective coating improves appearance for a clean, finished look
- **Mill Balanced Edges**
100% validation ensures proper balance; minimizes vibration

- **Vehicle Specific Vane Configurations**
Match OE cooling vane configurations for optimal cooling, reduced brake fade, less noise and increased pad life



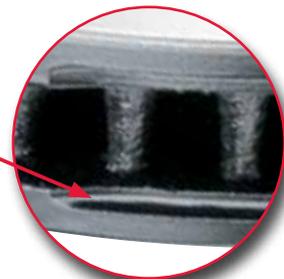
- **Application Specific Iron**
Enhanced iron maximizes noise suppression... long, thick carbon fibers absorb noise; higher thermal conductivity keeps brakes running cool, quiet and vibration free



WITH A NO TURN GUARANTEE

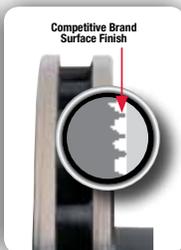


MILL BALANCED

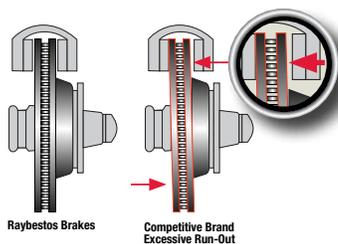


- **Rotors meet SAE Standard for Tensile Strength**
OE-matched, G3000 qualified material for structural integrity and maximum service life

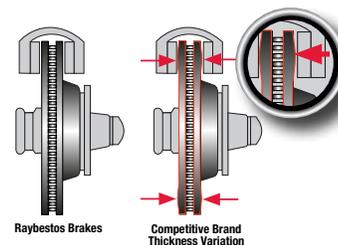
- **Turned Finish**
Ready to install right out of the box, helps further minimize noise and improve responsiveness for smoother stops



- **Tightest Lateral Run-Out**
0.002" or less for less pedal pulsation and brake noise; extended pad life



- **Minimal Thickness Variation**
Rotors thickness variation is less than 0.0004"; minimizes pedal pulsation and brake noise



YOUR BEST POSSIBLE NOISE SOLUTION

Raybestos Advanced Technology rotors offer the best solution for noise-prone applications. Vehicle specific cooling vane configurations and application specific iron combine to dampen noise and improve responsiveness for braking that's super smooth and ultra quiet.

**Advanced Technology®
Professional Grade®**

CRITICAL DESIGN FEATURES: RAYBESTOS VS. "LIGHTWEIGHT" ROTORS

Raybestos rotors match the original plate mass, air gaps and vane size. Many competitors sacrifice mass, which changes the rotor's heat resistance and can lead to premature failure.

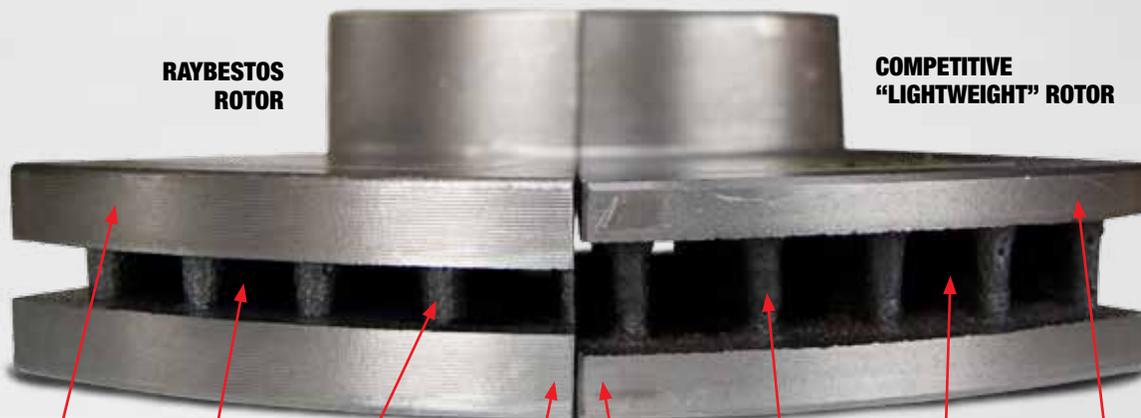


PLATE MATCHES ORIGINAL EQUIPMENT (OE)
Maximum rotor life; can be machined; resistant to premature "warping"

AIR GAP MATCHES OE
Properly dissipates and absorbs the heat

VANE SIZE MATCHES OE
Maximized cooling and proper harmonic design reduces brake noise

MATERIAL MATCHES OE SPECIFICATIONS

COST SAVING MATERIAL CHANGES
Inhibits noise reduction capabilities and causes brittleness

VANE SIZE CHANGES
Reduced vane size can lead to early product failure

AIR GAP INCREASED
Leads to "warped" rotors

THINNER PLATE
Increases the likelihood of heat checking and can lead to premature failure



BETTER NOISE CON



PROFESSIONAL GRADE®

PROFESSIONAL GRADE ROTORS

Why we made this: Developed for everyday driving conditions... includes many problem solver applications; provides highest level of dependability, safety and performance. Delivers the most complete application specific line on the market.

- **Original Equipment Designs**
Developed from OE samples; form, fit and function are validated to meet TS16949 quality system standards

MATCHES OE FORM, FIT AND FUNCTION

- **Rotors meet SAE Standard for Tensile Strength**
OE-matched, G3000 qualified material for structural integrity and maximum service life
- **Industry Leading Coverage**
99.8% coverage... most options available for import and domestic cars, light trucks and SUVs; first to market on select applications
- **Non-Directional Ground Finish**
Ready to install right out of the box
- **Tight Lateral Run-Out**
0.004" or less for less pedal pulsation and brake noise; extended pad life
- **Minimal Thickness Variation**
Rotors thickness variation is less than 0.0005"; minimizes pedal pulsation and brake noise
- **Mill Balanced Edges**
100% validation ensures proper balance; minimizes vibration

Advanced Technology® Professional Grade®

CRITICAL DESIGN FEATURES: RAYBESTOS® VS. THE COMPETITION

Many competitors take manufacturing shortcuts, but Raybestos rotors utilize more than 400 vane designs to match the form, fit and function of the original rotor.

The OE rotor:

- Utilizes a "heat dam" to prevent heat from migrating into the hub
- Uses a rounded radius, which is stronger than a square cut radius



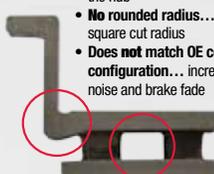
The Raybestos rotor:

- Also uses a heat dam to prevent heat migration
- Also has a rounded radius for added strength
- Matches the OE cooling vane configuration



Competitor #1:

- **No heat dam...** heat can migrate to the hub
- **No rounded radius...** uses weaker square cut radius
- **Does not match OE cooling vane configuration...** increased heat, noise and brake fade



Competitor #2:

- **No heat dam...** heat can migrate to the hub
- **No rounded radius...** square cut radius offer less strength



TROL AND STOPPING POWER



MATCHES OE FORM, FIT
AND FUNCTION

COMPOSITE PLATES
(WHERE SPECIFIED
BY OE)

MATCHES OE FORM, FIT
AND FUNCTION

PROFESSIONAL
GRADE®

PROFESSIONAL GRADE DRUMS

Why we made this: Developed to bring industry leading category coverage to trucks, police, taxi and fleet-type vehicles that require severe duty performance. Delivers OE or better quality for extra long service life.

- **Drums meet SAE Standard for Tensile Strength**

OE-matched, G3000 qualified material for structural integrity and maximum service life

- **Vehicle Specific Designs**

Match OE form, fit and function for best operation and ultimate strength; consistent with ISO/TS16949 quality system standards

- **Optimal Harmonics**

Drums are 100% inspected for balance; resulting in smooth brake operation and noise reduction

- **Industry's Most Complete Line of Premium Drums**

The best coverage in the industry for vehicles requiring drums

- **Critical Balance**

Each drum is 100% validated for balance to ensure proper braking performance.

BEING FIRST TO MARKET CREATES A COMPETITIVE ADVANTAGE

The full coverage, first-to-market strategy for Raybestos Professional Grade rotors and drums gives you exclusive access to the Aftermarket's latest products. This increases your sales opportunities, helps you exceed customer expectations and primes you to become the leading expert in your local market.



RAYBESTOS® MEDIUM DUTY ROTORS AND DRUMS MAXIMIZE THE USEFUL LIFE OF YOUR FLEET

Developed for hardworking truck, police, taxi and fleet-type vehicles that endure extreme conditions and require extra long life. They deliver best in class performance, ultra smooth braking and maximized friction life.

- Rotors and drums meet SAE standard for tensile strength; OE-matched, G3000 qualified material for structural integrity and maximum service life
- Vehicle specific designs match OE form, fit and function for ultimate strength
- Industry leading coverage; OE applications include Hino, Workhorse Chassis and International Truck
- 100% inspected for balance; resulting in smooth brake operation and noise reduction

tone ring "COAT-OF-ARMOR"

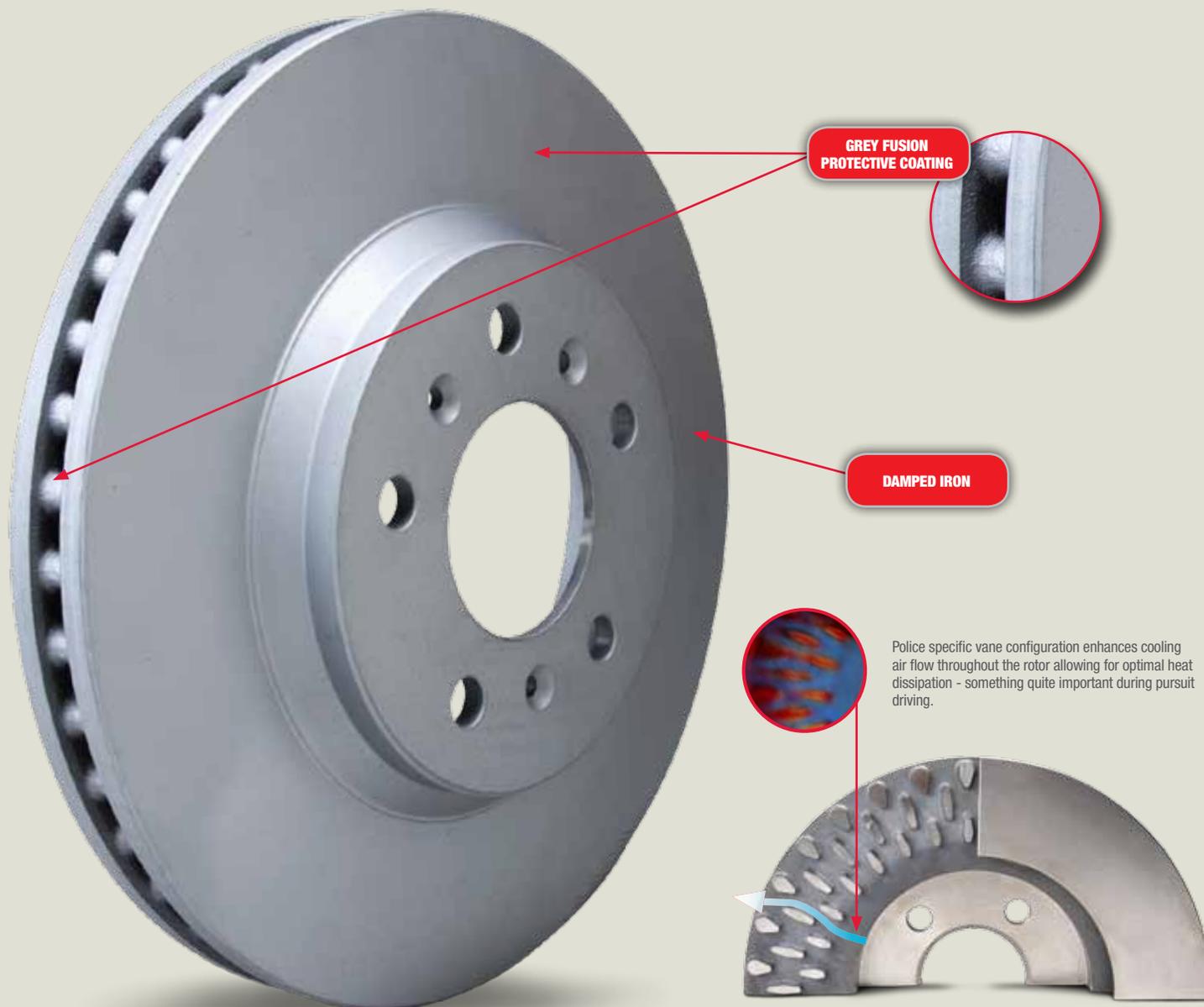
This polymer coating serves as a "coat of armor" against the elements, protecting the ABS tone ring from corrosion and preventing unnecessary downtime.

THE **ABS** SOLUTION

Check commercial brochure for more information.

Where applicable.

ROTORS AND DRUMS



**ADVANCED TECHNOLOGY
POLICE ROTOR**

RAYBESTOS® POLICE ROTORS ARE POLICE AGENCY TESTED TO EXCEED YOUR EXPECTATIONS

More than 1,500 law enforcement fleets trust Raybestos brand Police disc brake rotors for their patrol and pursuit applications. They deliver unmatched noise control on city streets, and unmatched stopping power during highway pursuits.



- Damped iron metallurgy reduces vibration and suppresses noise for “Quiet on Arrival” (QOA®) for noise-free braking
- Specialized vane configurations increase air flow to improve cooling and resist brake fade
- Polymer coating serves as “coat of armor” against elements
- Years of research and testing ensure industry-leading performance
- Offers the most complete front and rear coverage for police vehicles

Check police brochure for more information.

THE RAYBESTOS® BRAKES COMMITMENT TO QUALITY

Raybestos® Advanced Technology® and Professional Grade® rotors are consistently manufactured to meet OE quality standards and TS certification requirements. Global engineering expertise ensures that all testing requirements are consistently enforced, ensuring the rotor you install will deliver extended service life with quiet, safe, consistent performance.

Reverse Engineering

- Raybestos rotors are reverse engineered from OE samples to maintain the action and geometry of their critical design features.
- The rotors are digitally reconstructed to generate a 3D model that can be used for tooling or design; and to correct any interference or fitment issues.
- This confirms each new rotor can be accurately inspected and measured to validate form, fit and function.
- Reverse engineering ensures the best possible product right out of the box.

Metallurgy – Application Specific and Enhanced Iron

- The highest quality raw materials are required. This allows for the best chemistry in every rotor produced.
- Each application is different and may require specific metallurgy to fit the vehicle platform. This is based on gross vehicle weight (GVW) and brake performance requirements.
- Increased carbon with long thick flakes absorb noise better and are perfect for high noise platforms and performance vehicles.

What TS16949 Certification Means to You

- This technical specification applies to the professional quality system standard of the entire automobile industry.
- The product's design, development and production process conform to the requirements of this registration. This provides the best guarantee for business success and customer satisfaction.
- Certification provides for continual improvement, emphasizes defect prevention and reduction of variation and waste.
- Certification improves speed to market and late model coverage.
- Raybestos rotors provide first to market coverage for more than 139 2013 model year vehicles.

Quality Assurance

- CMM /Coordinate Measurement Equipment
- OBLF Spectrum Analysis and Microstructure Analysis (on every foundry pour)
- Brinell Hardness Test

Raybestos
brake & chassis



RAYBESTOS ENGINEERING PUTS SAFETY FIRST

- RIGOROUSLY RESEARCHED
- EXTENSIVELY TESTED
- FLEET PROVEN

AFFINIA GLOBAL BRAKE & CHASSIS | 4400 PRIME PARKWAY | MCHENRY, IL 60050 | 800-323-0354 | WWW.RAYBESTOS.COM

 **AFFINIA**
affiniagroup.com
Affinia Group Family of Brands

 **WIX**

 **Raybestos**

 **NAKATA**

 **AIMCO**

 **M-H**

 **FILTRON**

 **WARNING**
Do not use this product if you are unsure of its condition.

 **ADVERTENCIA**
No utilizar este producto si no está seguro de su estado.

 **MISE EN GARDE**
Ne pas utiliser ce produit si vous n'êtes pas sûr de son état.