AIR DISC BRAKE PADS & ROTORS

DISCST



MARATHON AIR DISC BRAKE PADS & ROTORS

Over the course of the last 20 years, air disc brakes have begun to make inroads within the North American heavy duty industry. Transit buses were among the early adopters of this braking technology. Marathon Brake Systems, a heavy duty friction leader for more than 30 years, introduced its first air disc pad for transit applications in 2003. Now Marathon has applied its braking expertise to develop a complete line of DiscStar air disc brake pads and rotors for a wide range of heavy duty applications.

DISCSTAR PADS & ROTORS

An Unbeatable Combination

Marathon's DiscStar pads and rotors are engineered to exceed OE specifications and are manufactured in world class ISO certified plants. These products are designed to address a wide range of aftermarket air disc brake applications, including on-highway trucks and trailers, motor coaches, transit buses, school buses, fire trucks, and waste haulers. Fleets that use DiscStar pads and rotors together will have confidence in their stopping power while maximizing pad and rotor life, reducing noise and lowering maintenance costs.

- DiscStar pads and rotors engineered to exceed OE specifications
- Manufactured in World Class ISO certified plants
- Marathon air disc pads proven performers for more than 15 years
- Pad and rotor compatibility has been engineered into our friction materials and verified with RP628C and SAE J2115 wear testing standards
- Specific pad formulations and rotor designs for wide range of on-highway, motor coach, school bus, severe duty and transit bus applications



Get the longest pad and rotor life with low noise... only from Marathon

To address the continued growth of disc brakes in the heavy-duty industry, Marathon has developed the DiscStar family of high performance commercial vehicle disc pads. Designed specifically for air disc brakes, DiscStar pads are formulated using Marathon's years of friction expertise to exhibit less wear, more effective stopping power and high shear resistance. In addition, DiscStar features exceptional rotor compatibility and low rotor wear, showing up to 33% less brake rotor wear than the leading OEM linings. In addition, Marathon uses premium heavy duty hardware kits to prevent pad or caliper failures due weak hardware fixtures.

Fleets across the country count on DiscStar to provide dependable stopping power, a long pad and rotor life, and significant noise reduction.



DISCSTAR Pads Deliver

- Dependable stopping power
- Longer pad and rotor life
- Significant noise reduction
- High shear resistance
- Rapid heat dissipation
- DSHP DiscStar Highway Premium for on-highway commercial applications, including truck, motor coach and school bus
- DSTP DiscStar Transit Premium & Severe Service for heavy-duty severe service applications, including transit buses, fire trucks, refuse and concrete
- Insulative pad formation prevents damaging heat from transferring into caliper – saving seals and boots







MARATHON'S PAD ATTACHMENT TECHNOLOGY

A common problem for many commercial vehicle air disc pads is the shearing of the pad from its backing plate, both a safety and maintenance concern. Marathon has developed a proven, reliable attachment method to ensure a high mechanical bond between the friction material and the steel backing plate. As the photos at right illustrate, Marathon's backing plate features IM holes designed to allow the friction to be integrally molded into the backing plate. The design of the backing plate also utilizes a welded wire mesh to ensure the ultimate bond and prevent the shearing so common to other manufacturer's pads.

- Proven attachment technology
- High mechanical bond between friction material and backing plate
- Friction integrally molded into backing plate
- Welded wire mesh on backing plate ensures mechanical attachment
- Protect your fleet from shearing common with other disc pads



Dual stress relief cuts serve as a 5mm wear indicator and enhance pad flexibility and strength. They also reduce noise by channeling wear debris away from brake surface.



Welded wire mesh for stronger mechanical attachment





Two stress cuts strategically placed on each side of hold-down bracket allowing use of bore scope to inspect wear indicator without wheel removal.





DSHP - DISCSTAR HIGHWAY PREMIUM

Ideal for On-Highway Commercial Applications

DiscStar Highway Premium (DSHP) is a high performance commercial vehicle disc pad designed specifically for air disc brakes. DiscStar Highway Premium pads were created for on-highway truck, tractor steer and drive axles, motor coaches, and school buses. This premium low-metallic material is rated for 23,000 lbs. and provides long pad life, quiet stopping and high shear resistance.



FMVSS 121 Test Results



Testing conducted in accordance with F.M.V.S.S. #121 criteria @ 23,000# axle load: ADB22X caliper; type 18/24 chamber; and a 20.8 inch tire rolling radius. Shaded area indicates non-compliance.



DSTP - DISCSTAR TRANSIT PREMIUM & SEVERE SERVICE

Ideal for Transit & Severe Duty Applications

DiscStar Transit Premium and Severe Service (DSTP) is a high performance pad designed specifically for air disc brakes. DiscStar DSTP pads were created to handle the extreme conditions of severe duty disc brake applications such as transit buses, fire trucks, refuse, concrete and more. Formulated using Marathon's severe service ceramic expertise, DSTP is rated for 28,660 lbs. and provides a long life, more effective stopping power and high shear resistance.



FMVSS 121 Test Results



Testing conducted in accordance with F.M.V.S.S. #121 criteria @ 28,660# axle load: ADB22X caliper; type 24 chamber; and a 18.5 inch tire rolling radius. Shaded area indicates non-compliance.

DISCSTAR VS OEM Pads





Marathon's air disc rotors are manufactured to OE thickness specifications to resist warping and cracking issues caused by high temperature applications. The rotors feature an optimized venting design and maximized heat sink to further enhance their thermal resistance properties. These rotors are manufactured in an ISO 9000/TS16949 certified plant and are geometrically tested for design, metallurgical composition, hardness and balance. In addition, the rotors undergo a thermal integrity test at high loads. The resulting DiscStar rotor used with a DiscStar pad will provide smooth stopping and a longer service life to lower your maintenance costs.

DISCSTAR Rotors Deliver

- Engineered to ECE R90 European standards
- Pillar venting design for faster cooling, less "heat checking" and cracking
- Maximized heat sink
- Excellent resistance to warping and cracking caused by high temperatures
- Manufactured to OE thickness specifications
- Manufactured in ISO 9000/TS16949 certified plant
- Geometrically tested for design, metallurgical composition, hardness and balance
- Tested for thermal integrity at high loads

ROTOR IDENTIFICATION







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