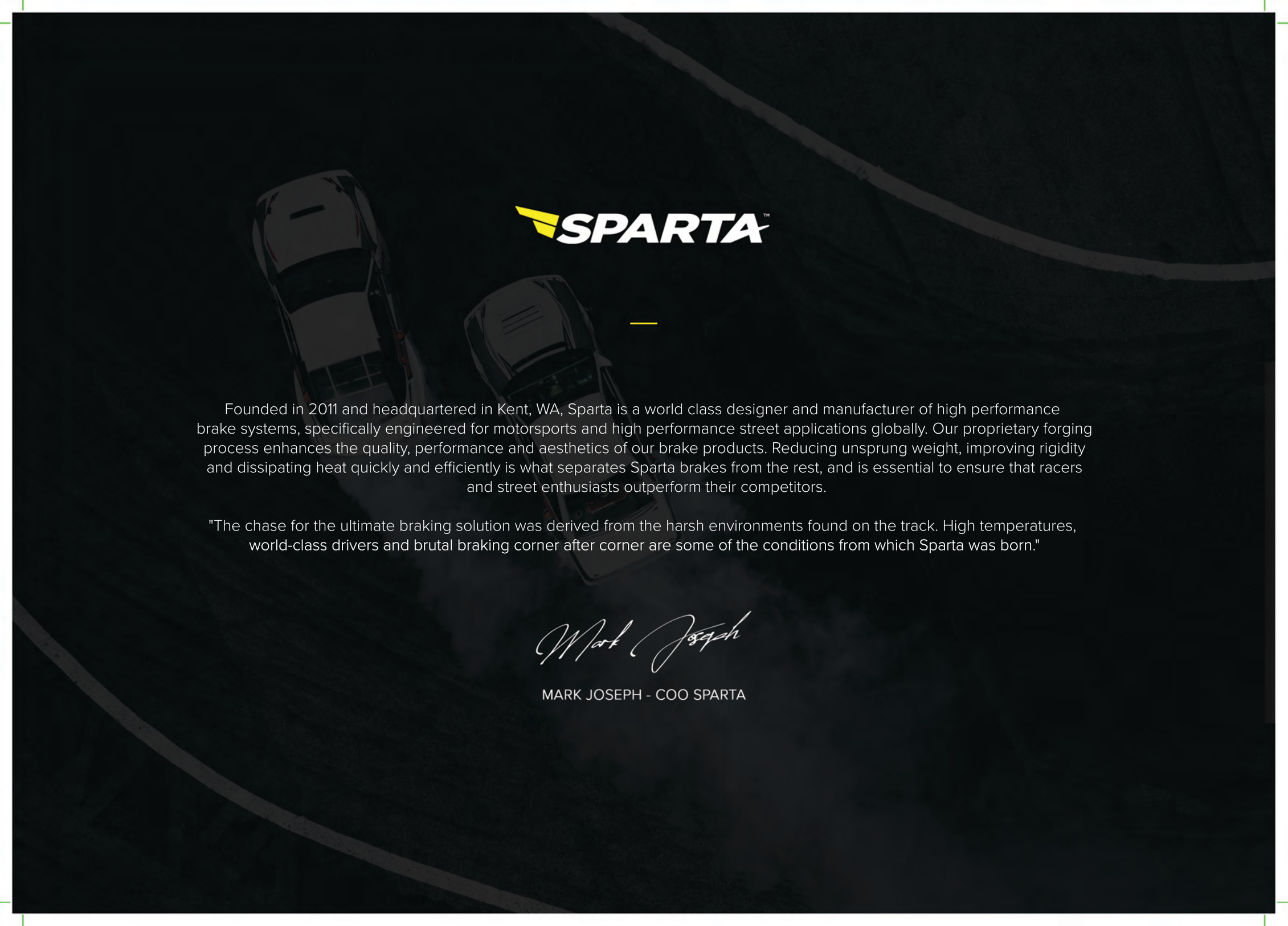
SPARTA™
BRAKE THROUGH



Founded in 2011 and headquartered in Kent, WA, Sparta is a world class designer and manufacturer of high performance brake systems, specifically engineered for motorsports and high performance street applications globally. Our proprietary forging process enhances the quality, performance and aesthetics of our brake products. Reducing unsprung weight, improving rigidity and dissipating heat quickly and efficiently is what separates Sparta brakes from the rest, and is essential to ensure that racers and street enthusiasts outperform their competitors.

"The chase for the ultimate braking solution was derived from the harsh environments found on the track. High temperatures, world-class drivers and brutal braking corner after corner are some of the conditions from which Sparta was born."

MARK JOSEPH - COO SPARTA

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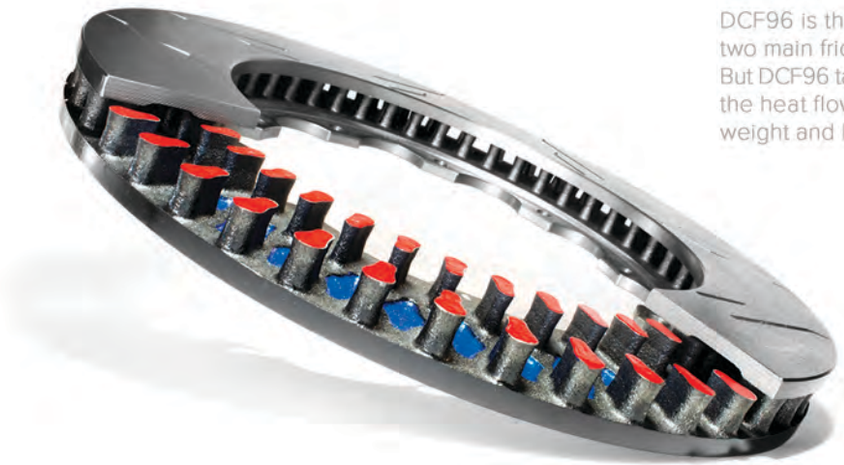
BRAKE ROTORS

UNIQUE FEATURES, DESIGNED FOR DRIVERS



DCF96

DCF96 is the next generation of post and pillar vane design. The pillars are designed to hold the two main friction plates together with minimal added weight, and allow movement with heat cycles. But DCF96 takes it a step further, by adding diamond shaped pockets, we are able to better manipulate the heat flow through the rotor while also reducing the number of pillars resulting in lower overall weight and better heat expulsion.

TW3 Slot Pattern

Sparta's innovative TW3 slot design is a complete departure from common slot applications, and for good reason. Today's marketing message has led us to believe that the more slots the better, and that the slot shape isn't all that important. But in brake systems, moving heat effectively is the name of the game. Our Thermal Window 3, or TW3 slots, are sparsely spread around the rotor allowing for an extremely balanced thermal gradient across the entire rotor. This alleviates hot spotting and pad transfer problems, while still allowing dust, gas, and debris to escape during hard braking applications.

GX3.0

GX3.0 is our proprietary iron blend for street performance and heavy load vehicles. When used with our DCF96 vane design you end up with a robust rotor that has low wear properties making for a great value in a high performance brake rotor.

CX3.5

Sparta's CX3.5 formulation was developed specifically for motorsport use. Incorporating a high carbon make up, the CX3.5 iron excels at harmonic dampening, and better overall thermal properties culminating in a rotor designed for abuse.

Full Floating Two-Piece Rotors

When brakes are doing their job, they will expand and contract with heat. Iron and aluminum used in two piece rotor hats tend to expand and contract at different rates. So we use a floating mounting system to allow them to move independently to reduce stress at the mounting points that can cause cracking or other distortions.

E-met Coating

Durability and long life are key indicators of a good value, and we strive to provide the best value in all of our brake products. One way we do this is by applying an E-met coating to the non-contact areas of our rotors. This coating protects the iron from corrosion and rust, leading to a rotor that maintains its visual appeal for a longer period.

BRAKE CALIPERS

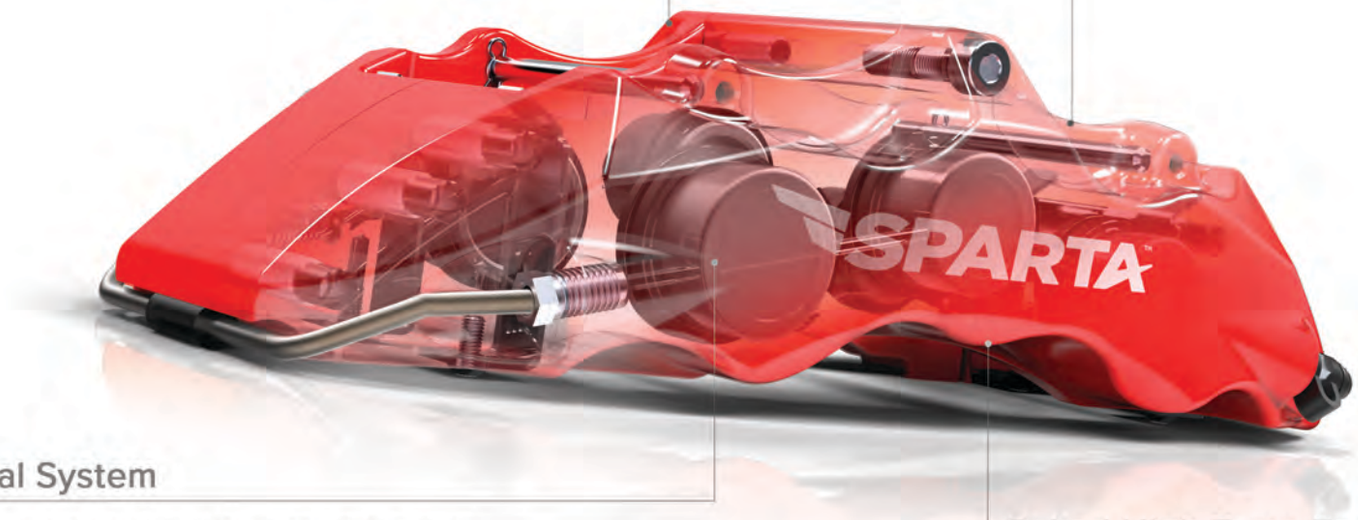
OPTIONS FOR STREET, RACE AND OFF-ROAD

Forged Aluminum Caliper Bodies

Sparta calipers are built around a precision forged aluminum casting, then machined to reduce weight and to provide optimal strength and heat resistance, while maintaining a low overall sprung weight.

Two Piece and Monoblock Designs

Sparta offers multiple caliper options for different use and at different price points. Each caliper has its own feature set and is designed specifically for the needs of that vehicle.



Dual Seal System

When used for racing, typical dust seals would melt or burn, so we utilize an internalized dual square seal design. One seal acts as a pressure seal to make sure the pedal effort directly connects to the piston motion, and the second is a more traditional dust seal to keep contaminants out.

Baked High Temp Enamel Finish

Sparta's Saturn range of brake kits features our forged and precision machined calipers that feature a durable baked high temperature enamel finish and is available in red, blue, yellow and black.

Silver Nickel Alloy Finish

The Triton-R calipers are a no frills, get the job done brake kit. To support this usage, the finish is a simple all-business nickel alloy that will look great even after that endurance race you signed up for.

High Tensile Fasteners

We utilize only the highest quality fasteners in our calipers. Maintaining optimal rigidity is paramount in a high performance caliper to allow for balanced clamping force and even pad wear. In the case of the Triton family calipers, we utilize a through-bolt assembly system for maximum strength

Hard Anodized Castellated Pistons

Caliper pistons are really the workhorse of the caliper, so with the Triton family we spared no expense on piston design. Already using hard anodized materials we also go a step further by using a castellated design that reduces the amount of heat transferred from the pad into the caliper. This helps maintain low overall brake system temps, for more consistent braking.

Powdercoated Finish

The calipers in Sparta's Triton brake kits feature a metallic powdercoated finish that will maintain its look regardless of the environment or use. This finish is available in red, yellow, black and our signature blue.

SPARTA

SATURN

STREET & TRACK BIG BRAKE KIT

Our Saturn brake kit consists of lightweight forged brake calipers, true 2-pc floating rotors and a set of our Sparta Performance Pads (SPP1.0). This is the perfect blend of components for daily driving that ensures low dust, great initial bite and dependable braking even under high temperatures. Combine that with the athletic appearance of the caliper body for a set of big brakes that compliment any set of wheels.

Saturn brake calipers have been designed specifically for the performance enthusiast and are suitable for both street and light track use. Available in both 4 and 6 piston configurations, our Saturn caliper bodies are produced from the same T6061 forged aluminum material as our top of the line Triton and Triton-R. The caliper halves are then joined utilizing high tensile strength alloy bolts for maximum strength.

High tensile aluminum caliper pistons are installed with our dual seal system to ensure a long lifespan through the harshest winter months and toughest road conditions. In our effort to maintain the lowest possible overall brake system weight, Saturn brake kits are supplied with lightweight aluminum mounting brackets and all necessary mounting hardware.

SPARTA

TRITON

STREET & TRACK BIG BRAKE KIT

Our Triton brake kit consists of lightweight forged brake calipers, true 2-pc floating rotors and a set of our Sparta Performance Pads (SPP1.0). This is the perfect blend of components for daily driving that ensures low dust, great initial bite and dependable braking even under high temperatures. But more importantly, our Triton BBK is just as capable on the track thanks to it's lightweight yet robust design, a 'through-bolt system' designed to reduce caliper deflection and castellated pistons to reduce heat transfer.

In addition to an already impressive feature list. the Triton calipers are available to order with various piston combinations to ensure optimal brake bias is achieved. A durable metallic powder coat finish is applied to each brake caliper body, with a range of color options to ensure the aesthetics match the performance.

High tensile aluminum caliper pistons are installed with our dual seal system to ensure a long lifespan through the harshest winter months and toughest road conditions. In our effort to maintain the lowest possible overall brake system weight, Triton brake kits are supplied with lightweight aluminum mounting brackets and all necessary mounting hardware.

SPARTA

TRITON-R

FAST ROAD, TRACK & COMPETITION

Our flagship brake kit, the Triton-R has been developed specifically for motorsport use and represents the pinnacle of Sparta's racing technology. A lightweight forged two piece caliper that utilizes titanium hardware and includes features such as cas -tellated pistons as standard. With the Triton-R you can brake harder, brake later and shave more time with total confidence, lap after lap.

The challenge to develop any high performance brake system hangs on the success of the design. Weight reduction is a key component in motorsports, but so is the ability to retain reliable and consistent braking corner after corner. We've met that challenge, and you can experience it with our Triton-R kit.

Assembled utilizing lightweight titanium hardware, the Triton-R carries a slender lightweight caliper body in order to achieve maximum weight reduction, while the through-bolt system ensures minimum deflection under extreme pressures. Add this to our hard anodized aluminum castellated pistons that help to reduce heat transfer into the caliper body and you have the formula for a race winning brake system.

Available in four or six piston configurations and utilizing our quick release pad retainer design, we have race days covered; maximum use, minimum effort!

SPARTA
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Jeep
SPORT
WRANGL
UNLIMIT
AT51

ATHENA

TRUCK, SUV AND OFF-ROAD

Our Athena series calipers are a perfect example of state of the art monoblock engineering. New high strength aluminum alloys and a generative body design maximizes stiffness in the most extreme applications while maintaining a low overall weight.

The unique monoblock caliper body is machined from a single piece of aluminum, and features our unique Aero-vent open chassis design that enables air to freely flow through and around the brake system reducing peak temperatures and lowering the risk of brake fade. The use of a dual seal system, one inboard pressure seal and one external dust boot protect the pistons in any conditions. The Athena is built and thoroughly tested to OEM standards to provide a quiet ride, but with the performance you expect from a race thoroughbred. Available in red and black.

Our Athena brake kit consists of cast monoblock heavy duty calipers paired with our true floating 2-piece rotors. Included in the kit are specially formulated brake pads designed for the Athena system. Athena also excels on the trails thanks to its unique cooling properties and high clamping force.

1BK

FAST ROAD, TRACK & COMPETITION

Sparta's 1BK kits are our entry level brake upgrade all in one box. The kit contains a pair of rotors, a set of brake pads and a bottle of fresh high performance brake fluid. The rotors supplied are our GP1 high carbon rotors with Sparta's unique TW3 slot design.

Also included in the kit are our SPP1.0 brake pads that are a jack of all trades. They provide increased driver feedback and im -proved initial bite over a wide temperature range, without being noisy or overly dusty. They are a great high performance brake pad with no downsides.

To round out the 1BK kits, we also include our P518 DOT4 brake fluid that offers a higher boiling point than more common DOT3 fluids which enables it to perform better under extreme temperatures.

1BK+

FAST ROAD, TRACK & COMPETITION

Sparta's 1BK+ kits take our entry level brake upgrade one step further by including Sparta stainless steel braided brake lines. The kit contains a pair of rotors, a set of brake pads, a bottle of fresh high performance brake fluid and a set of braided brake lines. The rotors supplied are our GP1 high carbon rotors with Sparta's unique TW3 slot design.

Also included in the kit are our SPP1.0 brake pads that are a jack of all trades. They provide increased driver feedback and im -proved initial bite over a wide temperature range, without being noisy or overly dusty. They are a great high performance brake pad with no downsides.

As mentioned, the 1BK+ kits also have a full set of silicone wra -pped stainless steel braided brake lines to replace your worn and stretched rubber lines. These lines provide a more direct application of pressure to the caliper as well as a firmer pedal feel.

To round out the 1BK+ kits, we also include our P518 DOT4 brake fluid that offers a higher boiling point than more common DOT3 fluids which enables it to perform better under extreme temperatures.

BRAKE PADS

YOUR GUIDE TO SPARTA BRAKE PAD OPTIONS

Selecting the correct pad material for the intended application is vital to ensure peak performance and longevity. Learn more about Sparta's brake pad range to determine which pads are best suited to your driving style or desired performance.

One of the crucial factors of any braking system is the effectiveness and reliability of clamping pressure. Our direct replacement, 1BK and 1BK+ brake kits include appropriate OEM pad shapes for that vehicle in our SPP1.0 compound.

SPP1.0 - Street Application

Designed for everyday use our SPP1.0 pad offers a host of features tailored to everyday street use, from early initial bite at low temperatures to reduced brake dust.

SPP3.0 - Street / Track Application

Suitable for street use but also able to withstand higher operating temperatures to accommodate track use. Releases more dust than the SPP1.0 but retains a good initial bite.

SRP100 - Race Application (low bite)

Specifically designed for lightweight vehicle applications or RWD tuning, the SRP100 pad offers a relatively low bite with a flat/declining torque curve. This pad material has a wide operating range all the way up to 850F.

SRP200 - Race Application (mid bite)

Unlike the SRP100 the SRP200 pad offers a slowly rising torque curve with a mid-range pad bite. This pad material has higher temperature sweet spot maxing out at approximately 1100F.

SRP300 - Race Application (high bite)

The SRP300 brake pad has been developed to tackle the harshest braking conditions and performs best in the higher temperature ranges.

SPP1.0 - Street Application

Torque	Cold	■■■■□□□□	Hot
Dust	Low	■■□□□□□□	High
Noise	Low	■■□□□□□□	High
Operating Temperature Range	0F	■■■□□□□□	1400F

SPP3.0 - Street / Track Application

Torque	Cold	■■■■■□□□	Hot
Dust	Low	■■■□□□□□	High
Noise	Low	■■□□□□□□	High
Operating Temperature Range	0F	■■■■□□□□	1400F

SRP100 - Race Application (low bite)

Torque	Cold	□■■■■□□□	Hot
Dust	Low	□□■■■■□□	High
Noise	Low	□□■■■■□□	High
Operating Temperature Range	0F	□■■■■□□□	1400F

SRP200 - Race Application (mid bite)

Torque	Cold	□□■■■■□□	Hot
Dust	Low	□□□□■■■■	High
Noise	Low	□□□■■■■□	High
Operating Temperature Range	0F	□□■■■■□□	1400F

SRP300 - Race Application (high bite)

Torque	Cold	□□□□■■■■■	Hot
Dust	Low	□□□□■■■■■	High
Noise	Low	□□□□■■■■□	High
Operating Temperature Range	0F	□□■■■■■■■	1400F

GP1

ONE PIECE SLOTTED ROTORS

Our GP1 rotors are engineered to endure extreme conditions and undergo stringent quality inspection procedures before leaving our factory. Laboratory and on track analysis have proven that our rotor alloys are more durable and provide more stable friction profiles across a broader range of temperatures. All GP1 rotors are manufactured utilizing our GX3.0 alloyed iron to increase wear resistance and heat cycling capabilities. Coated in our own E-Met formulation, our GP1 rotors are protected against rust and corrosion better than the leading coating on the market. These features paired with our patented thermal window (TW3) slot pattern.

As many of us know almost all performance disc rotors are supplied with a slotted face, in addition some also include drilled holes or dimples. The purpose of these features is primarily to help with increased pad bite by deglazing the pads and by expelling gas, dust, and debris trapped between the brake pad and rotor face.

Slots are typically milled at an angle across the rotor face so the internal vanes can supply additional support at the slot, thus trying to avoid fractures on the rotor face. Some manufacturers choose to utilize large numbers of slots across the rotor face, however, more is not always better, in fact too many slots can cause numerous braking issues and complaints. To create the perfect rotor there needs to be a balance of available friction surface combined with the correct amount of slot area. Our TW3 slot design balances these needs perfectly for long pad life and maximum braking performance.

GP2

FLOATING TWO PIECE SLOTTED ROTORS

Engineered to endure extreme conditions, Sparta's GP2 rotors feature a true free-floating two-piece design. All GP2 rotors undergo stringent quality inspection procedures before leaving our factory, from the center hat to the rotor ring. Our rotor hats are machined from billet aluminum to ensure maximum strength and greatest weight savings. Laboratory and on track testing have proven that our CX3.5 high carbon rotor alloy last longer and provides more stable friction profiles for a consistent brake feel. GP2 rotors are coated with our own E-Met formulation, this coating protects our rotors against rust and corrosion better than the leading coating on the market. These features paired with our patented thermal window (TW3) slot pattern and dynamic continuous flow (DCF96) and pillar/post vane design lead to a bolt on brake rotor un-challenged in the market.

To create the perfect rotor there needs to be a balance of available friction surface combined with a limited number of slots. Too many slots will leave less friction surface, therefore reducing brake efficiency. It can also cause an excess of pad resin deposits across the friction surface which if left to build-up can lead to 'hot spots'. Resin build-up can become so severe that it can cause brake shudder, pedal pulsation and severe vibration through the steering wheel. In most cases these symptoms are mistaken for a warped brake disc.

Sparta's engineers have studied the ramifications of pad resin build up on the rotor face and the effects it has on the braking system. These studies led to the creation of our patented TW3 (Thermal Window 3) slot design. By machining our TW3 strategically on the rotor face, the resin spread is far more even across the friction surface reducing the chances of 'hot spots' and providing a smoother and more consistent brake feel.

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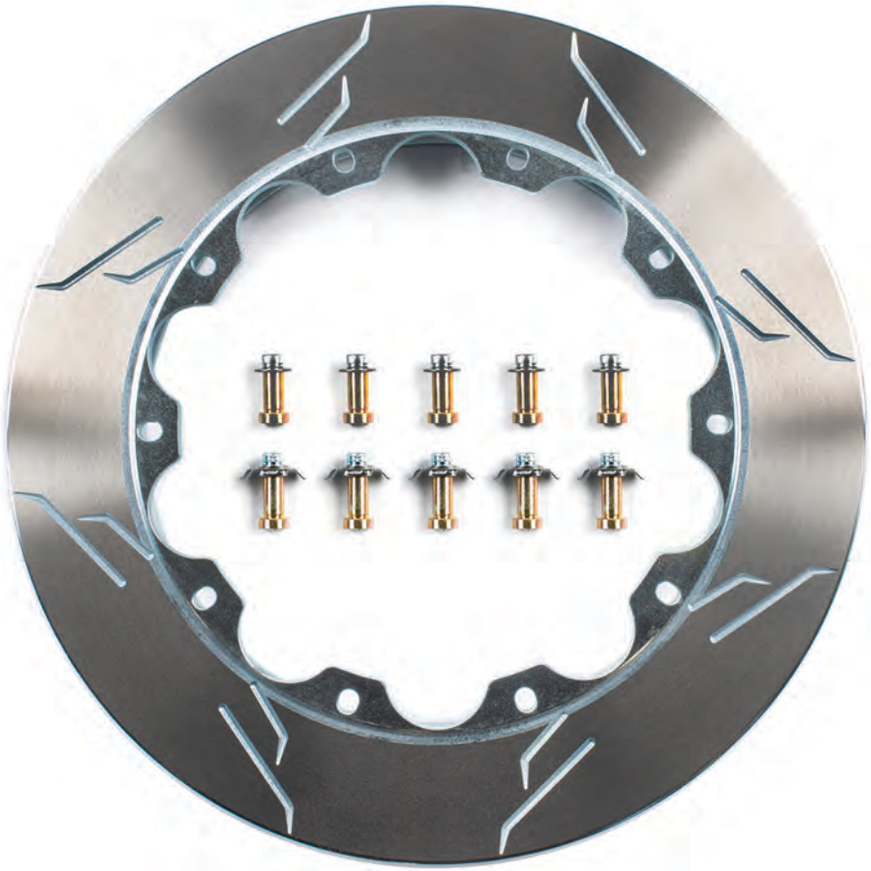
RACING



GPX

REPLACEMENT ROTOR RINGS

While developing our brake rotors, we perfected certain features that are now included in every rotor we offer, and the GPX replacement rotor rings are no exception. These full featured rotor rings are available as replacement rotor rings for your existing original equipment (OE) Brembo brake system.

We applied our TW3 slot design, and DCF96 pillar/post internal vane system to our proven CX3.5 alloyed iron, to produce the perfect replacement rotor ring. Beautiful slots surrounded by precise surface finishing presents your brake system in the best possible light. Then when you are ready to push the limits, our GPX rotor rings can handle anything you can throw at them, a track day, a canyon carving session, or just a late night street blast.

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BRAKE FLUID & LINES

BRAKE LINES & BRAKE FLUID

To further enhance the performance of your OEM brake system, Sparta offers replacement stainless steel brake lines and our P518 and R622 DOT4 brake fluid. You may be wondering what the advantages of replacing your existing brake lines and fluid are? Find out more below.

Sparta Braided Brake Lines

One important aspect when considering any improved braking system is the ability to provide stable and consistent pressure from the brake pedal down to the brake caliper. A firm pedal will provide an improved braking response and pedal feedback for the driver which is why we recommend our stainless steel braided brake lines.

P518 DOT 4 Brake Fluid

Our P518 brake fluid is a high performance hydraulic brake fluid for use with disc and drum brake systems. Based on polyethylene glycol ether technology, our P518 fluid carries a higher boiling point than the more common street based DOT3 fluid which enables it to perform better for longer under increased temperatures.

R622 DOT 4 Brake Fluid

Sparta R622 racing brake fluid is a high performance fluid suited for high temperature applications. Featuring a dry boiling point of 622°F, R622 racing fluid is the easy choice for high load track cars that are subject to the extreme heat generated by repeated hard braking from on-track use.

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ULINE
SPARTA
BRAKE SYSTEMS

Founded in 2011 and headquartered in Kent, WA, Sparta is a world class designer and manufacturer of high performance brake systems, specifically engineered for motorsports and high performance street applications. Our proprietary forging process enhances the quality, performance and aesthetics of our brake products. Reducing unsprung weight, improving rigidity and dissipating heat quickly and efficiently is what separates Sparta brakes from the rest, and is essential to ensure that racers and street enthusiasts out perform their competitors.

Housed in a state of the art facility, our headquarters features engineering and manufacturing capabilities that utilize the latest in CAD software and CNC machines to produce the finest quality components, from initial design and prototyping to final production.

Whether it is a new component or a complete braking system, we understand that each part must be optimized for the vehicle that it is going on. We take into account not only the braking performance of a vehicle but the overall vehicle dynamics as well. The frequent use of CAD software to run analyses like FEA, CFO and thermal analysis ensures that our braking components are as strong, lightweight and efficient as possible before prototyping and production.

To achieve these goals, the materials we use are equally as important. Sparta only utilizes the best in materials, from forgings to billets of aluminum to produce various components from our CNC machines. Following stringent quality control protocols, each component Is visually inspected before undergoing precise measurement and validation, with accuracy down to two microns. This level of detail translates to not only better products but higher reliability, durability and consistency.

The key to our success is that we're able to oversee the entire process in-house, in the United States.

For further information on our company or products, please do not hesitate to contact us

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