



Blackstone Tek

*Engineering the future
with carbon fiber*

About BST

Established in 1992, BST is based near Johannesburg, South Africa. Blackstone Tek engineers and manufactures the world's finest carbon fiber motorcycle components; from wheels and frames to fuel tanks and fenders; to the highest international standards. On the world stage, BST wheels have been proven at every level of FIM Grand Prix roadracing competition and have won 12 national championships. BST has sold more than 16,000 carbon-fiber wheels around the world.

BST carbon fiber wheels may be coveted based on looks alone, but like the high-performance bikes they're bolted to, it's what under the skin that is really impressive. BST wheels are built on extensive experience in the aerospace industry. This, combined with real-world success in world-championship-level roadracing, dragracing and in setting numerous land-speed record, today's BST products have undergone decades of research, development, testing and the most stringent certifications processes. They've been flogged at Rim Technology, Eurotype Test Centre and have passed all lab and street tests for certification: from Germany's TÜV to the U.S. Department of Transportation—with flying colors.

BST in Action

In the first weekend using BST carbon-fiber wheels on his BMW Superbike, Nate Kern (2008 National ASRA Champion and BMW North America S 1000 RR ambassador) won the Unlimited Superbike and GTO races, confirming the many competitive advantages provided by BST wheels ultra-lightweight design.

"Compared to stock, it takes half the muscle to turn the bike, so at first I was apexing too early. Once I got a feel for the wheels, their advantages were dramatic. The bike now steers with less effort, turns in much quicker, gets off the corners better and accelerates faster. If I had to choose one thing about the BST wheels' advantage, I'd have to say how remarkably they transformed the bike in turning transitions. They're unbelievable. They save a lot on fatigue, don't beat me up, and I'm not as tired at the end of a race."

- Nate Kern



Design

Using a highly advanced process pioneered in the aerospace industry, BST wheels are manufactured in a single molding operation. This technique produces a wheel that is far superior in strength and much lighter than any aluminum or magnesium wheel, and one that is light and strong enough for racing and street use.

BST wheels are a unique monococque (single unit) design with hollow spokes. The end result is wheels with unsprung weight reduced 40-60 percent compared to stock wheels. This delivers the lowest possible moment of inertia - a critical factor that affects all aspects of motorcycle performance.

Maximizing the molecular and structural properties of carbon fiber, BST has reduced spoke and rim weight without compromising their strength. Mass is therefore concentrated in the hub, reducing rotational inertia. This results in quicker acceleration and braking, allowing faster corner entry and exit speeds.

To help reduce tire slip, 6.25" and 6.625" BST wheels come standard with BST's exclusive Ultra-High-Speed Coating technology, a mixture of chemical adhesive and abrasives which create a sandpaper-like surface to reduce tire slippage on the rim. The UHS technology can be applied to any BST wheel.

Wheels Available

BST Wheels are available for select models by these popular manufacturers

- Aprilia
- Benelli
- Bimota
- BMW
- Ducati
- Harley-Davidson
- Honda
- Kawasaki
- KTM
- MV Agusta
- Suzuki
- Triumph
- Yamaha



Comparative Weight and Moment of Inertia (Mol)	lbs		lbs. in		Mol Front BST improved performance	Mol Rear BST improved performance
	Front	Rear	Mol Front	Mol Rear		
BST carbon fiber	5.50	10.38	217	304		
Forged magnesium	6.54	11.12	276	373	21%	18%
Cast magnesium	7.46	12.16	327	437	34%	30%
Forged aluminum	8.82	13.80	362	496	40%	39%
Forged aluminum	7.96	13.44	346	489	37%	38%
Forged aluminum	9.14	13.16	380	498	43%	39%
Other carbon	7.30	12.38	301	406	28%	25%
Suzuki stock cast aluminum	10.28	16.80	480	880	55%	65%

Weights and Moment of Inertia measured by Sport Rider and published in their February 2004 edition. All relate to Suzuki GSX-R1000.

Materials

Carbon Fiber - BST uses 3 different carbon fiber materials in their wheels, all supplied by ACG who are the main suppliers to F1 Racing, both ACG and BST are ISO 9001 certified. A proprietary, UV-stabilized and color corrected clear coat was developed to prevent yellowing of exposed-weave carbon fiber composite allowing the cosmetic appearance of the weave to look great for years to come.

Aluminum - Utilizing 6082 T6 aircraft grade aluminum, this high strength and lightweight aluminum alloy does not rust, so from a materials point of view this will not be a limiting factor in the life of a wheel.

Bearings - As standard equipment all BST wheels come with steel bearings manufactured by Worldwide Bearings. Ask for details about upgrading your wheels to ceramic bearings for increased performance and durability.

Performance

Weighing between 40 and 60 percent less than OEM wheels, BST wheels bestow sportbikes with sharper corner-carving abilities, faster acceleration and quicker braking by weighing less than their production-bike counterparts. Lighter wheels are also easier for suspension systems to control over bumps and irregular surfaces, yielding more traction and unimpeded acceleration. Less rotating mass also equals less rider fatigue.

A lighter rear wheel is easier for the shock to control properly, which leads to superior power application and much higher trap speeds in competition and track days.

Low mass and lowest Moment of Inertia results in a lower unsprung mass; this means faster cornering, later braking, improved acceleration – in all, faster lap times. Imagine the difference you'll experience from dropping 13.9 lbs off the weight of your bike! That's the difference in weight between the stock ZX-14 wheels and the BST's.



Black Panther

The Black Panther design uses a 7 straight spoke wheel for the BMW K and R series and is manufactured with thicker spokes for these heavier bikes. The rear wheel is not fully offset, so the spokes are slightly different in shape to the Black Mamba.



Black Diamond

The Black Diamond style uses 5 slanted spokes, featuring a slender swept spoke design for both front and rear wheels. This style is most common for Japanese sport bikes; utilizing the conventional double sided swingarm.



Black Mamba

The Black Mamba style also uses the 7 straight spoke design. The spokes are fully offset, designed for use with the single sided swingarm. This style is most commonly seen on European sport bikes.

Manufacturing

BST designs the tooling, molds, wheel and hubs, then manufactures them in its state-of-the-art factory. Precision cutting machines, like those used in the aeronautical industry, ensure that the process is repeatable and meets the highest certification standards.

BST uses only the finest “prepreg” carbon fiber, which is embedded in a top-secret resin matrix epoxy. Carbon-fiber layup is done in a dust-free and temperature controlled “clean room.” The wheels are cured in a superheated steam oven, or autoclave, at 260° Fahrenheit at 85 psi. This produces the best material compaction and smoothest surface finish.

Every step of this process is logged, the entire history of each wheel is stored and stamped with a unique serial number. To ensure the highest possible quality manufacturing processes and components BST’s entire operation is managed under strict, new ISO 9001 industry standards.

Fitment

Direct OEM replacement using stock hardware although an aftermarket sprocket is required.

Approvals

DOT approved, TÜV certified facility

Warranty

The BST warranty covers all workmanship for a period of 2 years from date of sale.

Contact

Contact your dealer for further information, pricing and availability. Imported by Brock’s Performance Dayton, Ohio.



www.BrocksPerformance.com

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