THE NEW SPECIALIZED VENGE

......

SPECIALIZED VENGE: MORE BIKE THAN AERO



Venge in the A2 wind tunnel

Historically, aero road bikes compromise too much of the bike's performance simply to achieve aerodynamics - too much stiffness lost, too much weight added. At Specialized, we're not big on compromise.

Our Roubaix was born out of a need to blend vertical compliance with racing performance, and 3 back-to-back victories at Paris-Roubaix are clear evidence that we succeeded. So when we looked to develop a road racing bike with aerodynamic attributes, we never lost sight of the goal: find the winning formula of weight, stiffness, and aerodynamics. With the benefit of years of internal development, and a strategic partnership in materials design with the carbon experts at McLaren, we're proud to say we've succeeded again. Never before has a UCI-legal aerodynamic road bike been available with stiffness or weight numbers this low, or performance attributes this high. It's a premium addition to our road racing lineup, perfectly complementing our Tarmac bikes by adding a new level of aerodynamic performance to the pro peleton. But don't just take our word for it: on his first ride on the Venge, Mark Cavendish declared "I f@#*in' love it!"

The all-new Specialized Venge: more bike than aero.



Dear Dealers,

This story began almost five years ago when I was test-riding a modified Transition: I was just testing brakes on the Transition--built with drop bars like a road bike--and was blown away by the speed. That's when I realized how fast a road bike could be by blending the aero of a Transition and the stiffness and weight of a Tarmac. We knew with our vast expertise in both areas we could achieve the best of both worlds.

So, determined to hit unprecedented benchmarks for stiffness, weight, and aerodynamics, we began work on a prototype–in August, 2009 our first test frames were ready. Following athlete and wind tunnel testing, we continued to learn, innovate, and redesign. Over a year later we finally had a frame that did it all–we had created a truly no-compromise road bike.

The development of the Venge also awarded us the perfect opportunity to pursue a partnership with the legendary McLaren Applied Technologies-home of the McLaren F1 and new MP4-12C supercar. With their 30 years of expertise in composite technology, we could push the existing boundaries of design and engineering. While the S-Works Venge had already exceeded expectations, together we could make an even stiffer and lighter model, while learning from each other along the way. Over the next year, McLaren employed materials, fabrication processes, and exhaustive layup schedules never before used in the cycling world. It wasn't cheap, but the results are stunning: Early prototypes of the S-Works + McLaren Venge are over 100 grams lighter than the S-Works Venge.

Sincerely,

Chris D'Aluisio, Director of Advanced R&D

Dear Dealers,

With another racing season upon us, I'm super excited to introduce to you a whole new level of race bike, relentlessly developed and tested with the help of HTC-Highroad's Mark Cavendish and teams Saxo Bank and Astana. Over the years, we've introduced riders to entirely new categories of bikes and equipment. This approach resulted in the Endurance Road category and the iconic Roubaix, and now we're ready to pioneer another entirely new category: Complete Performance. Make no mistake-this is not another aero road bike. It is an absolutely no-compromise race machine. We are extremely proud to introduce the Venge: complete performance through the winning formula of weight, stiffness, and aerodynamics. We can't wait for you to ride it.

The Venge is a great example of why I am so proud of the team we have. When one of us says, "I am Specialized," it's not a slogan; it's something we all share. And we should all share the pride that comes with an accomplishment like this. This bike really completes our line-while Tarmac is still the mainstay of our road collection, the Venge is a premium addition for a particular buyer. The attached brochure should provide all the information you need to explain the Venge and connect it to riders who are seeking an aerodynamic road racing bike. Welcome to the new category of Complete Performance: We hope you're as proud and excited as we are about this awesome new bike. It is truly in a class by itself.

Sincerely,

e Angel

Mike Sinvard

SPECIALIZED VENGE: COMPLETE PERFORMANCE

THE THIRD CHAPTER IN THE SPECIALIZED ROAD RACING TRILOGY

After nearly five years of development, we are proud to introduce a new bike to the Specialized Road Bike family: the Venge. It's an entirely new platform that can only be described as Complete Performance. This premium offering completes our road racing line; we've created an aerodynamic race bike that does not compromise lateral rigidity, and we've got the data to prove it.



earned over 25 pro tour victories

in 2010 alone. The Tarmac is not

just race tested. It's race proven.

For the past three years, the Roubaix has been ridden to victory across the famed and feared cobbles of the Paris Roubaix. Three straight years of proof that smoother is actually faster. For long rides on rough roads, there is still no equal.



VENGE

leading up to it's racing debut at the 2011 Milan San Remo. A new premium offering in the Specialized road racing family, the Venge is Complete Performance: an unprecedented blend of light weight, stiffness, and aerodynamics. Now available in limited quantities to the worlds best racers, and to riders worldwide.



VENGE VS COMPETITION



Torsional frame stiffness and light weight translate directly to maximum efficiency and nimble handling. Combined with its exceptional aerodynamics, the complete performance Venge stands alone







Even with all it's aerodynamic advantages, the torsional stiffness of the S-Works Venge measures higher than many non-aero competitive race bikes.



As we learned when developing the Tarmac SL3, rear triangle stiffness is crucial for fast acceleration and handling performance.



"I rode the Venge and Tarmac back to back on a velodrome. Working with the guys at SRM, we measured my power output at different speeds, and the results were clear: At every speed, I was using fewer watts on the Venge."

-Chris D'Aluisio, Director of Advanced R&D

VENGE

EXPERIENCE: Competitive Road

Flyers off the front. Monster pulls. All-out sprints to the line. Venge riders absolutely live for this stuff-that's why they demand complete performance: the winning formula of weight, stiffness, and aerodynamics. The Venge's competition-crushing combo of Tarmac-inspired stiffness and light weight with SHIVinspired aerodynamics keeps them ahead of the competition.

WHY IT'S GREAT

FACT IS 11R CARBON FRAME

WHAT:

High modulus carbon aero frame utilizing our most advanced carbon construction method.

WHY:

Gives the Venge the best complete performance package of aerodynamics, stiffness, and light weight.

HOW:

Each tube and junction has been optimized for maximum stiffness and minimum weight, while maintaining aerodynamic advantage. For instance, head tube assembly is extra wide at crown for increased stiffness but remains narrow at the waist and tapers quickly to airfoil shape for weight savings and aero advantage. And we employed stiffening plies of our highest modulus carbon in strategic areas throughout the front triangle to further increase torsional stiffness.

INTERNAL CABLE ROUTING

WHAT:

Full internal cable routing for brake and shifter cables on all frames. Compatible with standard and electronic components.

WHY:

Maintains cleanest lines for optimal aerodynamics, while also keeping grit and grime from affecting shifting and braking performance.

HOW:

Cables are routed from the handlebars through the frame and exit at the top tube, BB, and chainstay.

CAMBERED AIRFOIL X-SECTION SEATSTAYS

WHAT:

Slightly cambered, FACT carbon, asymmetrical seatstays.

WHY:

To optimize the crosswind aerodynamics of the seatstays without sacrificing stiffness or headwind performance.

HOW:

Airplane-wing shaped stays are asymmetrically designed with a flat outer surface and a smooth, rounded inner surface to calm crosswind airflow before passing by the wheels. Since cyclists most often face crosswinds (approximately 15% yaw on average), we've cambered out slightly the leading edge of the stays. This allows the wind to hit directly on the leading edge of the upwind stay, minimizing air disturbance and wrapping airflow around stay and smoothly out the back.

TAPERED HEAD/STEER TUBES WITH INTEGRATED TOP CAP

WHAT:

FACT IS 11r carbon frame delivers Complete Performance:

Measured 22 watts of free power at 40km/h during closed

Race-bike handling with tapered head/steer tubes and

the winning formula of light weight, stiffness,

track testing when compared to Tarmac SL3

RIDER BENEFITS

stiff FACT carbon blade fork

and aerodynamics

Strategically designed head tube/steerer assembly that tapers from 1-1/8" at the top to 1-3/8" at the crown, with an integrated, aero spacer.

WHY:

Increases strength and stiffness for greater steering precision, while optimizing airflow from steerer to top tube.

HOW:

The wider base creates a naturally stiffer junction, and the gradual transition of carbon fiber from top to bottom eliminates the potential for weak spots due to sharp angles (carbon is at its best when it keeps a smooth line). The top cap curves gracefully into bevel in top tube for seamless interface, and turns with steer tube for best aerodynamics even while steering.







REVERSIBLE/ADJUSTABLE CARBON SEATPOST

WHAT:

UCI-legal, bladed carbon seatpost flips between 20mm and 0mm setback, with a wide range of vertical adjustability.

WHY:

Provides the maximum UCI-legal aerodynamic shape. Plus, unlike seatmaststyle posts it provides a wide range of adjustability--without the need for cutting the seatpost--for riders or all sizes and allows riders to optimize their positions depending on event.

HOW:

Seatpost is designed with 10mm setback, which, when combined with angle of the seat tube, becomes either a 20mm total setback or 0mm, depending on which direction it is installed. And the seat tube has room for the post to slide up or down before it curves in to make room for the wheel.



FACT CARBON 3:1 AIRFOIL FORK

WHAT:

4th generation, UCI-legal, aero carbon fork with 3:1 shaping and straight profile.

WHY:

To improve stiffness over traditional curved aero forks while remaining ultralight. Provides road-bike handling and quickness with aero advantage.

HOW:

Our 3:1 X-Section fork blades present a narrow edge to the wind, and run in a straight line from crown to dropouts optimizing lateral stiffness. An ultra-light carbon layup is employed on the blades and dropouts, which are co-molded with steel inserts for durability when taking wheels on and off.

PERSONAL TIP

"The seatpost is reversible offering a 0 mm offset in the forward position. With this post flipped forward and some clip-on aerobars, it's easy to do some simple mods and dial this bike for triathlons!"

-Mark Cote, "The Aero Pharoah"

S-WORKS VENGE DA



KEY FEATURES

- UCI-legal, FACT IS 11r Aero Race Design, full-monocoque carbon frame with one piece carbon OSBB/chainstay, internal cable routing, and tapered head tube provides the complete performance formula for weight, stiffness, and aerodynamics
- UCI-legal, carbon fork with 3:1 airfoil shaping and straight profile for best combination of aerodynamics and stiffness; carbon dropouts with co-molded steel inserts for added durability
- Legendary Shimano Dura-Ace 10-speed drivetrain is the benchmark for immediate, precise, and quiet shifting
- Specialized S-Works FACT carbon crankset with OSBB, removable carbon spider, and ceramic bearings has the highest strengthto-weight ratio for unparalleled efficiency and power transfer
- Ultralight Roval Rapide SL 45 wheelset with carbon/alloy hybrid rims for low aerodynamic drag with the durability of an alloy brake track
- New Body Geometry Romin Evo carbon-reinforced saddle with hollow Ti rails features contoured profile and turned-down nose for comfort and power in aggressive position
- Stiff, light, UCI-legal bladed carbon seatpost flips between 20mm and 0mm setback; also wide range of vertical adjustability.

PART NO.	MODEL	COLOR	SIZE
9728-0449	SW VENGE DA X2	CARB/RED	49
9728-0452	SW VENGE DA X2	CARB/RED	52
9728-0454	SW VENGE DA X2	CARB/RED	54
9728-0456	SW VENGE DA X2	CARB/RED	56
9728-0458	SW VENGE DA X2	CARB/RED	58
9728-0461	SW VENGE DA X2	CARB/RED	61

BIKE SPECS

FRAME	S-Works FACT 11r, Aero Race Design, FACT IS construction, internal cable routing, 1-3/8" lower HS bearing, carbon OSBB shell
FORK	S-Works FACT carbon monocoque, OS race for 1-3/8" bearing
HEADSET	1-1/8" upper and 1-3/8" lower Cr-Mo cartridge bearings w/ custom integrated Venge spacer
STEM	S-Works ProSet Stem, 3D forged 7050 alloy, carbon-wrap top and front cap, Ti front bolts and alloy top bolt, alloy shim
HANDLEBARS	S-Works SL Carbon, shallow drop
TAPE	Specialized Grip tape
FRONT BRAKE	Shimano Dura-Ace
REAR BRAKE	Shimano Dura-Ace
BRAKE LEVERS	Shimano Dura-Ace STI, flight deck compatible
FRONT DERAILLEUR	Shimano Dura-Ace
REAR DERAILLEUR	Shimano Dura-Ace
SHIFT LEVERS	Shimano Dura-Ace STI, flight deck compatible
CASSETTE	Shimano Dura-Ace, 10-speed, 11-25t
CHAIN	Shimano Dura-Ace
CRANKSET	S-Works FACT carbon, removeable carbon spider, 53x39T
CHAINRINGS	53 x 39T
BOTTOM BRACKET	Press-in OSBB cups, ceramic bearings
PEDALS	Nylon flat test ride pedal
FRONT WHEEL	Roval Rapide SL 45
REAR WHEEL	Roval Rapide SL 45
FRONT TIRE	S-Works Turbo, 220TPI, Black Belt protection, 700x23c
REAR TIRE	S-Works Turbo, 220TPI, Black Belt protection, 700x23c
INNER TUBES	Super Light Turbo, 80mm presta valve
SADDLE	Body Geometry Romin Evo, hollow Ti rails
SEATPOST	SW Venge FACT carbon, flippable 20/0mm offset
SEAT BINDER	Venge seatclamp assembly
NOTES	

All specs are subject to change without notice.

S-WORKS VENGE SRAM



KEY FEATURES

- UCI-legal, FACT IS 11r Aero Race Design, full-monocoque carbon frame with one piece carbon OSBB/chainstay, internal cable routing, and tapered head tube provides the complete performance formula for weight, stiffness, and aerodynamics
- UCI-legal, carbon fork with 3:1 airfoil shaping and straight profile for best combination of aerodynamics and stiffness; carbon dropouts with co-molded steel inserts for added durability
- SRAM's pro tour-proven RED group is smooth and feather-light, featuring carbon shifters with "double tap" technology for simple intuitive shifting and reach adjustment
- Specialized S-Works FACT carbon crankset with OSBB, removable carbon spider, and ceramic bearings has the highest strengthto-weight ratio for unparalleled efficiency and power transfer
- Ultralight Roval Rapide SL 45 wheelset with carbon/alloy hybrid rims for low aerodynamic drag with the durability of an alloy brake track
- New Body Geometry Romin Evo carbon-reinforced saddle with hollow Ti rails features contoured profile and turned-down nose for comfort and power in aggressive position
- Stiff, light, UCI-legal, bladed carbon seatpost flips between 20mm and 0mm setback; also wide range of vertical adjustability

PART NO.	MODEL	COLOR	SIZE
9728-0149	SW VENGE SRAM RED X2	WHT/NEON RED	49
9728-0152	SW VENGE SRAM RED X2	WHT/NEON RED	52
9728-0154	SW VENGE SRAM RED X2	WHT/NEON RED	54
9728-0156	SW VENGE SRAM RED X2	WHT/NEON RED	56
9728-0158	SW VENGE SRAM RED X2	WHT/NEON RED	58
9728-0161	SW VENGE SRAM RED X2	WHT/NEON RED	61

BIKE SPECS

FRAME	S-Works FACT 11r, Aero Race Design, FACT IS construction, internal cable routing, 1-3/8" lower HS bearing, carbon OSBB shell
FORK	S-Works FACT carbon monocoque, OS race for 1-3/8" bearing
HEADSET	1-1/8" upper and 1-3/8" lower Cr-Mo cartridge bearings w/ custom integrated Venge spacer
STEM	S-Works ProSet Stem, 3D forged 7050 alloy, carbon-wrap top and front cap, Ti front bolts and alloy top bolt, alloy shim
HANDLEBARS	S-Works SL Carbon, shallow drop
TAPE	Specialized Grip tape
FRONT BRAKE	SRAM Red
REAR BRAKE	SRAM Red
FRONT DERAILLEUR	SRAM Red
REAR DERAILLEUR	SRAM Red
SHIFT LEVERS	SRAM Red
CASSETTE	SRAM OG 1090, 10-speed, 11-25t
CHAIN	KMC X10SL
CRANKSET	S-Works FACT carbon, removeable carbon spider, 53x39T
CHAINRINGS	53 x 39T
BOTTOM BRACKET	Press-in OSBB cups, ceramic bearings
PEDALS	Nylon flat test ride pedal
FRONT WHEEL	Roval Rapide SL 45
REAR WHEEL	Roval Rapide SL 45
FRONT TIRE	S-Works Turbo, 220TPI, Black Belt protection, 700x23c
REAR TIRE	S-Works Turbo, 220TPI, Black Belt protection, 700x23c
INNER TUBES	Super Light Turbo, 80mm presta valve
SADDLE	Body Geometry Romin Evo, hollow Ti rails
SEATPOST	SW Venge FACT carbon, flippable 20/0mm offset
SEAT BINDER	Venge seatclamp assembly
NOTES	

All specs are subject to change without notice.

S-WORKS VENGE FRAMESET

WHITE / NEON RED





PROJECT BLACK



CARBON / RED

KEY FEATURES

- UCI-legal, FACT IS 11r Aero Race Design, full-monocoque carbon frame with one piece carbon OSBB/chainstay, internal cable routing, and tapered headset provides the complete performance formula for weight, stiffness, and aerodynamics
- UCI-legal, carbon fork with 3:1 airfoil shaping and straight profile for best combination of aerodynamics and stiffness; carbon dropouts with co-molded steel inserts for added durability
- Stiff, light, UCI-legal bladed carbon seatpost flips between 20mm and 0mm setback; also wide range of vertical adjustability.

PART NO.	MODEL	COLOR	SIZE
7728-0349	SW VENGE OSBB FRMSET	CARB/RED	49
7728-0352	SW VENGE OSBB FRMSET	CARB/RED	52
7728-0354	SW VENGE OSBB FRMSET	CARB/RED	54
7728-0356	SW VENGE OSBB FRMSET	CARB/RED	56
7728-0358	SW VENGE OSBB FRMSET	CARB/RED	58
7728-0361	SW VENGE OSBB FRMSET	CARB/RED	61

7728-0249	SW VENGE OSBB FRMSET	WHT/NEON RED	49
7728-0252	SW VENGE OSBB FRMSET	WHT/NEON RED	52
7728-0254	SW VENGE OSBB FRMSET	WHT/NEON RED	54
7728-0256	SW VENGE OSBB FRMSET	WHT/NEON RED	56
7728-0258	SW VENGE OSBB FRMSET	WHT/NEON RED	58
7728-0261	SW VENGE OSBB FRMSET	WHT/NEON RED	61
7728-0152	SW VENGE OSBB FRMSET	PROJECT BLK	52
7728-0154	SW VENGE OSBB FRMSET	PROJECT BLK	54
7728-0156	SW VENGE OSBB FRMSET	PROJECT BLK	56
7728-0158	SW VENGE OSBB FRMSET	PROJECT BLK	58

FRAME SPECS

FRAME	S-Works FACT 11r, aero race design, FACT IS construction, internal cable routing, 1-3/8" lower HS bearing, carbon OSBB shell
FORK	S-Works FACT carbon monocoque, OS race for 1-3/8" bearing
HEADSET	1-1/8" upper and 1-3/8" lower Cr-Mo cartridge bearings w/ custom integrated Venge spacer
BOTTOM BRACKET	Press-in OSBB cups,
SEATPOST	SW Venge FACT carbon, flippable 20/0mm offset
SEAT BINDER	Venge seatclamp assembly
NOTES	

All specs are subject to change without notice.

S-WORKS + McLAREN VENGE



KEY FEATURES

- Current prototypes are over 103g lighter and tests show an 11.6% improvement in stiffness-to-weight ratio, compared to S-Works Venge
- Specialized and McLaren engineers employed materials, fabrication processes, and exhaustive layup schedules never before used in the cycling world
- Through FEA optimization, and custom software, McLaren were able to design layup schedules and fabrication methods resulting in 15% better optimization than anything previously seen in cycling
- Individual ply patterns were designed to eliminate overlap then cut using CNC fabric cutters to further minimize excess material and shave every gram possible
- Another McLaren advancement borrowed from F1 allowed us eliminate an entire ply of non-structural laminate. With this layer no longer necessary we saved approximately 40 more grams
- Extremely precise plies, an exhaustive layup schedule and computer modeling allowed us to pinpoint the ply position improving stiffness
- Available Autumn 2011

S-WORKS VENGE

SIZE	49	52	54	56	58	61
Seat-Tube Length, B-B Center to Top	467	487	507	527	547	577
Top-Tube Length, Horizontal	518	537	548	565	582	600
B-B Drop	71.5	71.5	69	69	67.5	67.5
Chain-Stay Length	405	405	405	405	407	410
Seat-Tube Angle	75.5	74	73.5	73.25	73	72.5
Head-Tube Angle	72.25	73	73	73.5	73.5	74
Fork Rake	45	45	45	43	43	43
Trail	62	57	57	56	56	53
Front-Center	576	576	583	590	605	612
Wheelbase	970	970	978	986	1003	1013
Stand-Over Height	741	766	789	809	834	860
Head-Tube Length	100	120	140	160	190	210
Reach	385	385	386	395	401	407
Stack	506	528	544	566	593	614