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# QUINTANA ROO SR SERIES WIND TUNNEL TEST



## Quintana Roo SRseries Aero Road: Proven Fast Against the Best

As producers of the fastest triathlon bikes in the world, Quintana Roo is no stranger to developing championship-caliber hardware. So as the company set to embark on another model for the QR product line, it only made sense that it use its development expertise to reimagine Quintana Roo into road bike realm. After all, triathletes need to ride a road bike too (as do a cadre of ITU professionals, and dyed-in-the-wool roadies looking for something fast). Quintana Roo wanted to create the fastest bike possible—and that meant an aero road bike.

But it couldn't be just any road bike. Quintana Roo developed a bike that meets UCI criteria for tubeset location and depth, and frameset weight. As such, the SR range has been certified by the UCI. After that, there was no other consideration; Quintana Roo had to make a machine fast enough to warrant emblazoning upon it the Quintana Roo logo.

The company decided it had a bike worthy of testing against its chief competitors. Quintana Roo took the SRseries bike to a place with which it was familiar in its triathlon bike development: the wind tunnel. And the results were clear: the SRseries has the proven aerodynamics that make it a true competitor to the fastest bikes available today.

What may be the differentiation is with how much you have to pay for proven speed. The SRseries are among the fastest bikes available—they are also one of the most aggressively priced. While many competitors have builds that run into the five figures, Quintana Roo prides itself on offering fast bikes to fast riders—without breaking the bank. An SRseries bike can be had complete starting at \$3,095. Watts for dollar spent, no other competitor offers a lower barrier to entry into the realm of tunnel-proven fast aero bikes. Simply put, the Quintana Roo SRseries bikes are the best value in aero road bikes today.

# TESTING

## Testing Protocol

After a year of development, Quintana Roo felt it had a machine that could compete with the high-dollar bikes presented by our top competitors. There was just one way to find out how fast the SRseries bikes were compared to them: taking them all to the tunnel. QR identified three chief competitors (as well as a standard round-tubed road bike as a baseline for testing) and normalized all testing elements in order to ensure fair testing.

## Test Location

A2 Low Speed Wind Tunnel, Mooresville, N.C.

## Bikes Tested

- Quintana Roo SRseries
- Cervelo S5
- Canyon Aeroad CF SLX
- Specialized SWorks SL7
- Traditional round-tubed road bike

## Standardization

The fit coordinates of all bikes were normalized, testing with wheel values adjusted based on individual bike component spec, each bike tested a single set of tires, and with bottles and cages independently. Save for the Cervelo S5, which came specified with a proprietary handlebar design, all bikes were set up with the same bar stack ( $\pm 2\text{mm}$ ), and reach based on delivered spec stem length. To eliminate other possible variables that could adversely affect the data, saddles were not used on any bikes tested—an almost imperceptible upward or downward saddle tilt due to seat angle can create significant drag variance. All bikes have the UCI's approval labels, meeting the organization's frame design standards.

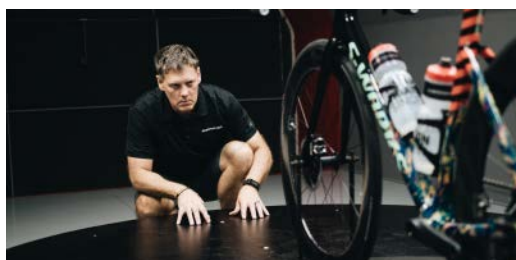
**Tires:** Continental GP5000 folding clinchers, 25mm, with butyl tubes

**Tire Pressure:** 95psi

**Bottles:** 26oz Purist, round, downtube and seat tube

## Wind Tunnel Testing Protocol

Starting at zero degrees yaw, the bike was tested at five key yaw points: 15, 5, 0, -5 and -15 degrees of yaw. Wind tunnel speed was set at 30 miles per hour. Each test was tared for atmospheric conditions.





# RESULTS

## Real World Conditions: Bikes With Downtube And Seattube Bottles

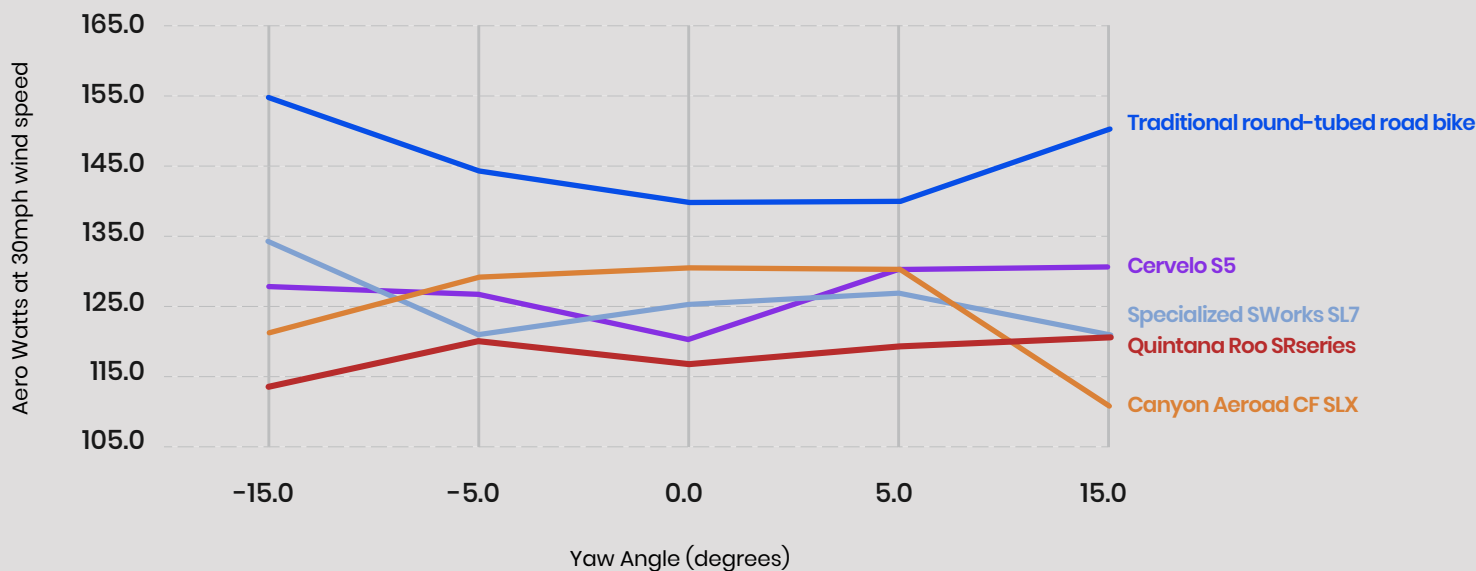
### Results:

As expected, all bikes widely outperformed the round-tubed road bike, proving across the board that aero road bikes provide a tangible speed benefit over traditional frame designs. When choosing a new road bike, an aero road bike is going to be the fastest option, every time.

The SRseries platform—with bottles—was consistently faster than all bikes it tested against, with just one

bike—the Canyon Aeroad CF SLX Disc— drawing lower drag at one single yaw angle of 15 degrees. From the baseline zero yaw to the outliers at -15 and 15 degrees, the SRseries bikes delivered as little as the margin of a single watt, and upwards of 20 watts of aerodynamic advantage over all its competitors.

Road Bikes with DT + ST Bottles



# RESULTS

## Non-real World Conditions: Bikes with No Bottles

The testing team replicated the above test, but without bottles or bottle cages. Wind tunnel speed was again set at 30 miles per hour, with each test was tared for atmospheric conditions.

### Results:

While in this test, the SRseries bike wasn't the fastest aero road bike without water bottles, the data proves that it's clear: the SRseries bikes are truly competitive, in laboratory conditions, among the most popular aero road bikes on market today. The Cervelo S5 was the bike exhibiting the lowest drag when tested without any frame bottles. Additionally, it was the only model that featured a proprietary stem/handlebar design, which favors aerodynamics at the expense of adjustability. Yet the SRseries had demonstrably lower drag numbers than several other competitors at low wind angles.

That established, the SRseries bike remained consistently close to its remaining competitors. Interesting among our test findings: At low wind angles, the SRseries bike was faster than the Canyon Aeroad CF SLX Disc. Between -5 and 5 degrees of yaw, the SRseries was better by over seven watts at zero yaw, and was consistently faster out to -15 degrees (non-driveside) of yaw.

Road Bikes without Bottles



### Interesting findings include:

- At zero yaw (a dead headwind), the SRseries beat all bikes by nearly five watts, and upwards of 12 watts versus the Canyon Aeroad CF SLX.
- The SR is remarkably faster than all other bikes with a 15-degree non-driveside crosswind, delivering at least 7.8 watts of savings over the Canyon, and over 20 watts of drag versus the Specialized Tarmac SL7.

### In Short:

While all bikes were adversely affected by the addition of bottles, the Quintana Roo SRseries bike saw the least detrimental effect, pulling ahead of its competitors to become the fastest bike in the test. The Quintana Roo SRseries simply moves through the wind quicker than our competitors when ridden as intended, in real world instances: with bottles on board

# THE QR VALUE PROSPECT

## Aero Road Bikes

If these aero road bikes are close within just a few grams of drag, does a larger dollar spend translate directly across to speed? Not necessarily. While the Quintana Roo SRseries platform is among the fastest aero road bikes, it's also the least expensive option among them... by a long shot. The biggest point of differentiation can be seen in the below price chart.

**Quintana Roo SRseries:** \$3,095–\$10,949

**Cervelo S5:** \$7,000–\$11,500

**Cervelo S-Series:** \$4,500–\$6,000

**Canyon Aeroad:** (integrated and non-integrated cable versions) \$3,999–\$9,000

**Specialized Tarmac SL7:** \$5,500–\$13,500

The SRseries starts as low as \$3,095, beating all of the tested competitors' prices. The SRseries range tops out at \$10,949, with the SRsix outfitted in Shimano's top-shelf Dura-Ace Di2 groupset and a set of premium-built Zipp 404 NSW Disc wheels. For reference, many competitors' bikes in the five-figures feature house-branded wheels. At the other end of the cost spectrum, the SRseries can be made as affordable as you like. The SRfive can be built with Shimano's 105 groupset and Shimano RS370 Disc wheels for just over \$3,000. A consumer will need to spend another \$1,900 just get to another brand's base level model.

In short, fast bikes should be available not just to those who have deep wallets; Quintana Roo want them to be available to all cyclists.

## Customization

While each brand among those tested has at maximum four colorway options (and in many instances, no color options beyond a base offering) Quintana Roo prides itself in its ability to make your bike—your way. That means choice from among over 40 paint and graphic color options with the SRseries bikes—including an exclusive Toro Red livery available only on the SRsix. Even further, with a call or live chat conversation with their team of experts, Quintana Roo can tailor your ride spec to your exact demands—stem and crankset length, bar width, seatpost setback, even gearing requests can be achieved. No one even comes close to building your aero road bike, exactly your way like QR.

**FOR MORE INFORMATION ON QUINTANA ROO'S SR SERIES BIKES—THE SRfive AND SRSIX—VISIT [WWW.QUINTANAROOTRI.COM](http://WWW.QUINTANAROOTRI.COM)**

