

# Product Review: Zipp Vuma Quad Crankset

By TRP Staff



## Zipp Vuma Quad Crankset and Ceramic Bearing Bottom Bracket Cups

172.5 crank length, 53/39 chainrings  
Retail Price: around \$1200

Perhaps Zipp should change the slogan for these cranks to "Stealth Weaponry." Thanks to the understated graphics and the relatively plain appearance of the woven (rather than unidirectional) exterior layer of carbon fiber, these cranks are not particularly eye-catching, especially these days, where it seems like every other bike is draped in carbon fiber components.

This is a crank-set and bottom bracket designed more for function than for status appeal. Even the visually striking 4-bolt system and the bolt circle features are dictated more by function than aesthetics. First, should you decide you want a compact crank-set (or vice-versa) you already have one. And, like old C-record cranks, but taken one-step further, Zipp's 4-bolt system reduces weight and increases crank stiffness by integrating

an attachment point into the drive-side crank-arm. (They also improve the standard chain-ring bolt). While the carbon crank-arms get most of the attention, those chain-rings are hiding in plain sight: aggressively cut tooth-profiles and diligently machined and pinned surfaces promote excellent shifting and an engaged chain-feel on the bike.

As cool as these features are, the more significant features are hidden: the 30mm spindle and the insanely detailed carbon fiber lay-up that includes around 100 separate pieces of fabric assembled by, as Charles Manantan puts it, the "special forces" for Zipp into asymmetrical design profiles for each crank-arm. And then there's that most significant feature: the quarter-to half-pound of weight that you'll have lost compared to almost any other available crank in the world (with the possible exception of the THM Clavicula, IF you can ever get one . . .)

The result is astounding and immediately apparent: the smoothest spinning and stiffest crankset I've ever ridden.

Installation is straightforward and very much like the installation procedure for SRAM cranks, with a few exceptions. First, it's important to make sure that the bolt attaching your derailleur cable-guide to the bottom-bracket shell does not extend too far into the interior of the shell. This is not a problem with standard spindles, but it could be with the 30mm spindle. And you really don't want to groove your bottom-bracket spindle . . . Second, the spindle is attached to the non-drive side arm.

Thus, the crank bolt is placed in the center of the drive-side crank-arm. Whatever the engineering reasons for this change, it saves a small bit of time, since the mechanic doesn't have to move around the bike quite so much. Third, Zipp makes use of a series of steel spacers, aluminum washers, and a wave-spring to make sure that the side-loads associated with tightening the crank-bolt do not muck up the bearings. Follow the instructions carefully here.

As long as the bottom-bracket shell is clean and faced, the bottom bracket cups install easily, especially with the Zipp-labeled Pedro's BB tool that comes with the cranks. The installation

guide suggests checking the tightness of the cranks in the first 50k or so after installation, but given the torque that the crank bolt will take (and the simplicity of the design, which does not rely on pinch-bolts to hold a crank-arm on), loosening crank-arms seem pretty unlikely.

For those of you with BB30 frames—ignore most of the above: insert bearings into the bb-shell and attach the crankset. As I write this, I do not know whether the Zipp Vuma crankset is compatible with the integrated bb-shells on the new Trek Madones.

I have to admit, that once I had the crank installed and stepped back to drool in aesthetic stupefaction . . . I was a little disappointed. Then I rode the thing. Within 10 pedal strokes the difference was clear and amazing. I had assumed that I would not be able to feel a difference in stiffness, and perhaps the improvement in what I'm calling stiffness might actually be attributable to improved chain-ring design and the elimination of side-loading the bearings rather than the stiffness of the crank-arms themselves. At least, that's what it feels like accounts for the differences between my old crank-set and the Zipp's both in climbing and sprinting. Nevertheless, unlike some other carbon-fiber crank-sets, which are so notorious for their flexibility that sponsored riders (Fabian Cancellara . . .) choose the heavier and less-expensive aluminum versions for the rigidity they want, the Zipp Vuma crank-set delivers on its stiffness promise.

Describing the smoothness of the bottom bracket bearings almost demands poetry. For those of you still hanging on the fence about whether or not ceramic bearings make a difference—these certainly do. I suppose one could try to quantify the results in terms of wattage saved, but that's just another way of making the point that the smoothness makes you fresher in the last hour of a 3 or 4 hour ride.

But if the smoothness of the bottom bracket inspires lyricism, well, the difference that the Zipp Vuma crank-set makes in overall ride feel has left me at a loss for words. Seriously, if I hadn't ridden them for myself, if someone tried to tell me that a crank-set would improve the over-all ride of the bike there is no way I'd believe them. But it does.

What are the draw-backs of the Zipp Vuma cranks? Did I mention that all of this goodness doesn't come cheap? But most people are already aware that Zipp products are top-of-the-industry, so the cost is what it is. If I had to list a drawback, I'd suggest the proprietary 4-bolt chain-rings and the lack of other suppliers for those chain-rings. I hope that Zipp's participation in the new Cervelo test team means that we'll be seeing a lot of these cranks. What would be even cooler, though, would be that this technology carries over into the crank offerings of a certain Chicago-based company. Whatever the case, the Zipp Vuma cranks go well beyond simply being a "weight-weenie" add-on to providing a significant and immediately noticeable improvement in performance. P.s. Thanks, as always, goes to Gary Fraser at Biketown for expert advice . . .

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