Gear up

COMPONENTS, KIT, AND MEDIA SELECTED

AND REVIEWED BY BIKE JOURNALISTS AND CYCLING UK STAFF

Put to the test

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Vecnum

FreeQENCE stem

Expensive suspension stem with a performance to match

£299 vecnum.com, projektride.co.uk

n road, perhaps the most remarkable aspect of the impressive performance of Vecnum's FreeQENCE suspension stem is the absence of any indication that it is doing anything. The lumps and troughs of even the roughest of 'dual cabbageway' back lanes barely register, yet there's no real hint, visual or palpable, of movement.

Bumps too big for the stem's 20mm of positive travel get through, of course – this is a suspension stem, not fork – but for riding that stops short of serious off roading, the degree of shock absorption is exceptional.

It does depend on fine tuning

the four elastomers that provide the suspension medium but this is easy. Turning a 3mm Allen bolt in the right-hand side of the stem adjusts for a rider weight from 50-120kg and for preferred comfort level. The factory setting is five-to-six turns in, and even half a turn makes a noticeable difference in ride firmness.

The elastomers soak up high frequency vibrations and dampen movement, eliminating bounce. The system offers up to 10mm of 'sprung' upwards handlebar movement from the neutral position in addition to the downwards movement that absorbs shocks. This ensures that



the stem does not 'top out' over repeated bumps. Instead, the handlebar simply floats around some intermediate point, with upward movement only seen when pulling up on a climb.

All three stem lengths use the same parallelogram mechanism, springing and geometry, which gives a notional +3° orientation and ensures there's no change in handlebar angle, or nod through the stroke. Different rear sections incorporating the 28.6mm steerer tube clamp provide the 90mm, 105mm and 120mm reaches. The FreeQENCE accepts handlebars with a 31.8mm centre bulge and installation is as simple as with a regular stem, although it requires at least 42mm of exposed steerer tube length.

Machined from 7075 aluminium and fitted with titanium hardware, the Vecnum has a two-year warranty. It's robust – there's no flex when climbing out of the saddle – and not unduly heavy at 317g for the 120mm sample. If not exactly exposed, the mechanism might collect dirt when riding in muddy conditions.

Richard Hallett

Other options



REDSHIFT SHOCKSTOP £189.99

Simple, effective and unobtrusive single-pivot stem that's adjusted by swapping elastomers. redshiftsports.com



TRANSX ANTISHOCK STEM £45

Lightweight stem with limited movement that suits vibration damping. tranzx.com

Verdict

The Vecnum FreeQENCE recalibrates the suspension handlebar stem. The parallelogram geometry, simple one-key adjustment over a wide range and elastomer suspension medium eliminate 'nod', soak up vibration and dampen vertical motion for a supersupple ride.



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