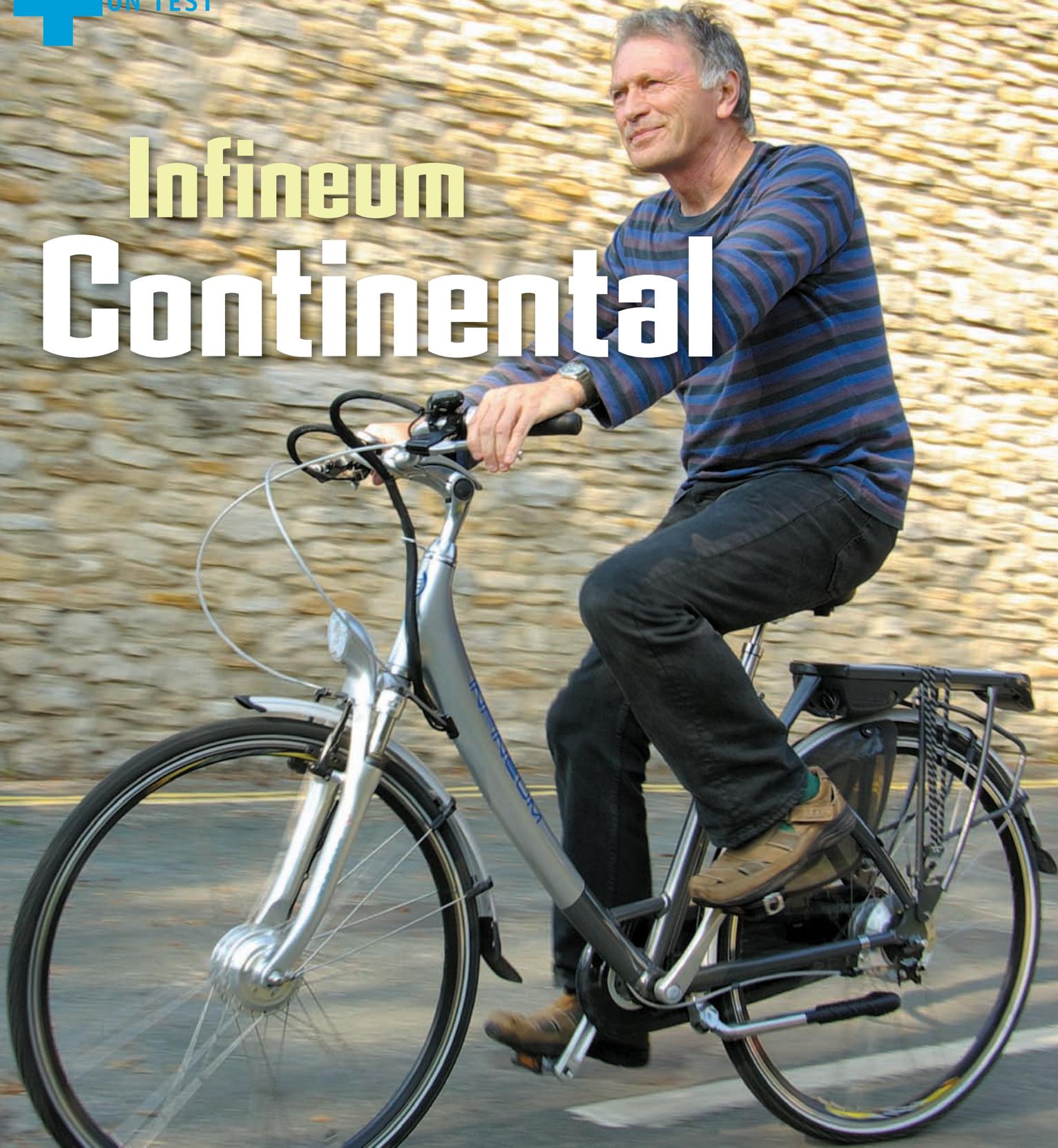


Infineum Continental



With its unique stackable battery system and, as the name suggests, a mainland European heritage, how does the Infineum Continental perform on the UK's roads? We rode it to find out.

The Infineum range of bikes is a high-end brand from established supplier Powacycle. Powacycle is one of the trading names of a large renewable energy company, Ultima Networks plc, who in turn are part of the £15 million-turnover Akhter Group plc. Powacycle have for several years now sold their own-brand range of bikes, tending towards the more affordable end of the price spectrum.

Three bikes make up the current Infineum range. The Continental models, apparently originally designed for the Netherlands market, come as the low step-through 'Continental' reviewed here, or as the 'Continental GT' with crossbar-style frame. Both are priced at £1699 inc VAT. The Infineum Extreme, which has more mountain bike styling but essentially the same drive system, costs £1299.

Additional lithium polymer batteries cost £325 each; as we'll see in a moment you can easily 'stack' extra packs to provide extra range; they simply slot on top of the single 36V, 6.5Ah pack which is supplied with the bike.

There's a commendable two year warranty on bike, electrics and battery. The bikes can be bought through dealers, or from Infineum direct. Our review bike was sent boxed direct from Infineum, requiring just very minor assembly.

» ON THE BIKE

Dutch cyclists have distinctly high expectations of their bikes: it's a country where cycling for transport in all weathers is taken for granted, so bikes are expected to be equipped to cope. So you need mudguards to keep spray off your clothes, a full chaincase to keep the muck off the transmission and so that there's no need to tuck trousers into socks, a pannier rack to carry luggage, and a lighting system for year-round commuting.

All of these and more are present and correct on the Continental. It's built around an aluminium alloy frame, nicely finished with smoothly blended frame joints, gracefully curved tubes and a rather distinguished sparkly grey-black paintjob. The whole look is a rather modernist take on the Dutch roadster, with the plastic chaincase, battery casing and rear light particularly nicely styled for a modern, streamlined look.

Skirt guards provide even more clothing protection, preventing flapping items contacting the spokes of the rear wheel. And an excellent prop stand swings out wide so the bike is stable when parked.

Another typically Dutch accessory is the frame lock, an AXA Defender (a good brand) which is attached to the frame below the saddle, curving around the back wheel. When locked, a steel bar goes across through the spokes of the wheel, immobilising the bike. It's a handy way to prevent opportunist theft, though not a substitute for locking the bike to something solid.

BELOW: A super-wide kickstand means the Continental stands securely. The name reflects its very European-style specification.

Specification

Weight overall (inc batteries): 25.95 kg
Battery weight: 1.77 kg
Bike only weight: 24.18 kg
Charger weight: 0.65 kg (inc. mains cable).
Battery type: Lithium polymer.
Battery capacity: 234 Watt hours (6.5Ah 36V).
Gearing: 8-speed Shimano Nexus hub gear.
Brakes: V-brake front, roller brake rear.
Lighting: front LED, rear LED, battery powered.
Other accessories fitted: frame lock, mudguards, carrier rack, luggage elastic, stand, bell.
Price as tested: £1699 inc VAT, delivery extra.



The transmission uses the 8-speed Shimano Nexus hub gear, a good low-maintenance choice, easy to use via a twist shifter and with enough range for most users. Fitted to the hub gear is a roller brake, which provides reliable all-weather braking. As with most such bikes, all of the 'stuff' fitted to the back wheel does make removing it for tyre changes or puncture fixing a somewhat extended procedure – but it's straightforward enough if you take it methodically and have some mechanical competence. Or leave it to a dealer...

Suspension is also provided at both ends, in the form of a Suntour suspension fork (with a lock-out function) and a telescopic type suspension seatpost – I didn't spot a brand name, but it was better than many I've seen, nicely made in aluminium. It supports a wide comfort saddle.

The other main contact point, the handlebars, is also well done with large ergonomic rubber grips, on swept-back bars supported on an adjustable stem. So you can quickly vary your riding position, or adapt to different-sized riders.

The Continental comes with LED lights front and rear, both with stylishly curved plastic housings, the rear apparently specially designed for the Infineum rack. The front even has a neat adjuster for beam angle. On this Dutch-style machine I'd expected the lights to be dynamo-powered, or driven from the main e-bike battery, so I was flummoxed at first in that I couldn't see an obvious way to turn them on. I soon realised they're powered by separate AA batteries, neatly tucked within those housings. If you do a lot of night riding, replacing the batteries could get annoying, but for occasional use it's fine.

So to the electrical system. Let's start at the back, with that clever stackable battery system. The base battery is neatly built into the rear rack, and looking from the side, it's so slim that casual onlookers would be hard pushed to spot it's not just a standard rack – especially with panniers in place. There's a charger socket built into the side of the rack, and a black braid takes the cable to the frame, where it runs internally to the front hub motor and the handlebar controls. The same braid



ties the cables at the handlebar – a neat solution.

The 'base' battery can be removed, for charging off the bike in the 'docking station' charger or if you want to swap it. Naturally a key is needed to unlock it first. You also need to unlock the unit if you're adding one or more extra batteries on top: the single key locks the whole stack. Actually stacking a battery on

HIGH POINTS:

- Silent assistance
- 'Normal' Dutch bike looks
- Very full specification
- Low maintenance equipment including full chaincase
- Good suspension comfort
- Stacking battery system is versatile
- Two year warranty includes battery

LOW POINTS:

- Capacity and hence range moderate with just the single battery
- Front mudguard a bit short
- Lights could be upgraded

GOOD FOR:

- All weather riders who want Dutch-style functionality
- Those wanting to ride unobtrusively with unassisted companions, or who just enjoy silence
- Comfort-oriented cyclists

Available from:

Infineum or their dealers: Tel 01279 821243 or see www.infineumbike.co.uk

is very simple: just slide its contacts into the sockets on the battery below after removing the rubber contact caps, relock and you're done.

How many you stack is limited only by the rear rack capacity of 15 kg (and your budget!). Each battery (36V, 6.3Ah) weighs around 1.8 kg, and adds a couple of inches to the height. The whole stack can be charged 'as one' in situ on the bike, although charge times will extend according to how many units are in place.

At the other end of the machine, the handlebar display unit is a straightforward unit providing the usual buttons for a six-step assistance adjustment, and an LED display of battery capacity remaining. All nice and clear. There's also a '6 km/h' button which when pressed, provides motor power to help you push the bike along, walking up a hill for example – for which you don't have to be pedalling.

The front wheel motor is a 'Tongxin' brushless, geared unit, but using smooth rollers rather than gears for quieter running – indeed, it's basically silent. These motors are known to be a good, lightweight choice.

Finally, at just under 26 kg complete with battery the bike isn't exactly a featherweight to lift (though it's not bad for an electric bike with Dutch-type specification), but if you do need to, the little reinforcing bar at the bottom of the main frame makes a great handle right on the balance point.

» ON THE ROAD

The electric power activates after a half turn or so of the pedals, and the motor then assists confidently to whisk you up to speed. It swiftly became apparent that what I thought were power levels, set by the handlebar control, are in fact speed settings (which on closer reading of the manual is what Infineum call them, too). So at full power, the motor will tail off at 25 km/h or so, the legal limit for all e-bikes in the EU, but at lower settings the tail-off point varies, down to a lowly 10 km/h in full 'eco' mode. I'm pretty sure the assistance intensity was much the same in all modes, just the cut-off speed changing.

It's not a bad control strategy, letting you conserve battery by only having the motor help when your pedalling can't keep up the

TOP LEFT: A tidy metal bracket attaches the rear rack. Note also the frame lock and skirt guard.

CENTRE LEFT: The braided cable ties keep the handlebar area neat.

LEFT: A simple control console, fairly easy to reach. A bell nestles between the grip and the control.



pace. But unless you're deliberately loitering (to stay with unassisted riding companions, perhaps) or saving battery charge, it's very tempting just to leave it at full power.

The motor will struggle as gradients get steeper unless you contribute through the pedals; moderate hills are no problem,



ABOVE: The stacking battery system can be charged in place, or the charger unit connected to a separate 'dock' into which you can plug batteries away from the bike.

though, and the acceleration it provides is at a good level for use in traffic, too. The silent motor is a pleasure as ever, not least because it doesn't draw attention to the bike when cycling away from traffic.

The bike itself performed without drama, as expected perhaps. I did find the front mudguard a bit short, so more spray hits your feet than perhaps should, but that's a pretty minor quibble. Suspension front and rear was fairly good, and I didn't feel the need to use the lockout function much. It comes into its own on longer hills, usually, when eliminating suspension 'dive' can be welcome.

With what is by modern standards a fairly modest capacity of 234 Wh, the basic battery still comfortably coped with a couple of days commuting to my office per charge, five flattish miles each way with a somewhat heavy rider, and with a little in reserve. I was pedalling, though, to keep warm! For this sort of distance, on the flat, the single battery is fine as long as you keep on top of the charging routine.

» SUMMARY

The Continental was a very enjoyable machine to ride – with a comfortable upright position and all of the practical accessories you'd expect on a Dutch-style bike. The silent electrical assist performed well too; not a hill-climb specialist perhaps but easily capable of whisking even a heavyish rider along smartly.

The stacking battery system is clever, looks good, and it gives plenty of flexibility. The single 6.5 Ah battery supplied is likely to be sufficient for a lot of riders, given typical patterns of commuting. For those with a longer commute or regular hills to contend with, doubling the capacity to 13Ah with a stacked extra battery should be more than adequate – at a certain cost of course.

Overall I couldn't find too much to fault on the Continental. If you want power assist in a bike which looks and sounds 'normal', and which is fully accessorised for daily use, put this one on the shortlist.

Peter Eland

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