

Vectrix Electric Maxi-Scooter

Green transport solution or not?



Pop to the local shop on your Vectrix?

With spiralling petrol prices will technology provide a cheaper, cleaner, means of personal transport that doesn't wreck your bank balance and the environment?

Vectrix think they have the answer, enter to the world of personal transport choices the Vectrix electric maxi-scooter. Vectrix may not be a familiar name in the scooter world, but they intend to change that. Formed in 1996, the Vectrix Corporation's aim is to develop commercially viable two wheeled zero emission vehicles to provide clean, efficient, reliable and affordable inner-city executive transportation.

Vectrix first production model is the Vectrix electric maxi-scooter, a battery powered, zero emission electric scooter that is claimed to have the performance of a comparable 400cc petrol scooter, whilst having impeccable green credentials and appreciably lower running costs.

We see if the Vectrix hits the mark or misses?

Starting requires a specific routine, the rear brake must be held on and the front brake lightly touched, before the scooter will start up. We found the ignition switch stiff to use, but reversing the scooter from our garage was very easy. It has reverse drive, if you momentarily make the scooter go forward you can then reverse the throttle direction and it will power backwards; a very unusual feature. However the diamond shaped mirrors do not provide as much rear view as conventional shaped mirrors.

Although the Vectrix is very much in the large maxi scooter mould with its utilitarian looks, its size belies its nimbleness. With the battery pack providing a low centre of gravity the scooter feels surprisingly light and has an

impressively tight turning circle. Manoeuvring in tight situations or filtering in traffic is aided by the complete smoothness of the throttle action; it doesn't suffer the throttle jerkiness that can be associated with some petrol engines at low speeds. But the convenience of the electric motor doesn't end there.



Equipped with Brembo brakes

Although the scooter is equipped with powerful Brembo brakes, you hardly need to use them because this scooter has a unique braking system. Turn the throttle in the opposite direction the electric motor in-fact acts like a brake. This system is known as DAaRT - an acceleration/deceleration control system.

Very quickly the braking throttle feels entirely natural, enabling you to enter corners at just the right speed or glide to a halt without touching the brakes. Soon you can't help wondering why all motorbikes and scooters can't be made this way.

Use of the braking throttle is preferable; we found the Brembo brakes somewhat aggressive in their application.

As the scooter doesn't have fixed gears, we would have liked to have seen some form of handbrake to assist parking on a slope.

The serenity of the overall ride experience is instantly noticeably and at gentle throttle applications the scooter is almost silent and has to be the smoothest scooter we've ever ridden. It's also eerie, sat at junctions with absolutely no engine noise. But wind the throttle on and a whine is emitted from the brush-less electric motor that is not dissimilar to that of a tube train. It has surprisingly brisk acceleration and Vectrix claim a top speed of 62MPH we achieved 65 MPH. It has more than sufficient speed to keep up with inner city traffic, however as the battery nears the end of its charge the top speed

drops. With only 2 bars left on the battery gauge we achieved a top speed of 55 MPH.

The throttle action is instantaneous, giving the ability to zip into traffic spaces easily, but don't rely on the electric horn to warn other road users of your presence, its sound is pitiful. A more beneficial safety feature is that the indicators have an audible warning, making it difficult to forget to cancel them.

The smooth ride is interrupted though when the suspension is caught out by short sharp bumps, however the overall handling is fine. The scooter can be cornered confidently on its near motorcycle size alloy wheels shod with grippy Pirelli GTS tyres and reacts quickly to changes of direction input from the rider. The stepped dual seat proved to be supportive and comfortable. The wide foot board area enables a relaxed riding position. The pillion passenger also has wide foot board platforms on the rear sides of the scooter.

An electrically adjustable as opposed to the manual screen is an omission however, in light of its executive transport pretensions.



The instrumentation

The instrument panel has an analogue speedo with digital mileometer in the middle flanked by two blue lit LCD information dials. The right hand LCD dial provides access to a host of information, including 2 trip meters and an estimate of the mileage range left, the right hand LCD panel effectively is an electric fuel gauge with bars which count down how much available electrical fuel is left in the tank, (the battery pack).

Breaking the speeds limits is easy, the speedo has the predominant calibration in KMPH, the MPH figures are much smaller in red print on the black background. With the clear plastic dial cover and a visor as well, it proved almost impossible to see the MPH figures, particularly if the sun was behind you, we ended up riding with our visor up to improve our ability to see the MPH figures.

Unfortunately the estimated range given varies widely, as the terrain and the speeds you ride at dramatically affect the calculation of range left. We found it impossible to get an accurate estimate of what range we actually had, Vectrix claim 68 miles on a full charge, but this is at a slow 25 MPH. However despite watching the battery life indicator and estimated range intently on one occasion the bikes range rapidly diminished leaving us stranded with no charge, the Vectrix had to be pushed to a nearby house to beg a charge-up!

It pays to carry an electrical extension lead with you under the seat in the good-sized storage area. Although there is a charging lead and plug under the seat that is several metres long, this may not be long enough in an emergency charge situation. However you will then give up the space in which more normally you could store your full face helmet and some waterproofs. In addition there is a small glove-box in the front fairing which also has a useful mobile phone charger point in it.

One noticeable piece of standard equipment missing is an exhaust system because this scooter is zero emission, so no noxious exhaust gases and carbon to pump out into the environment.

Although night-time riding may not be for everyone, we rode Vectrix on rural unlit roads at night. Unfortunately the headlight does not provide good illumination, though it will be adequate for well lit city roads.

We found the scooter's range to be nearer 30 -35 miles on a full charge, however our test area did have a large number of hills; maybe with inner city use on flat roads the 68 mile range could be achieved. However this is mileage at very minimal cost; a two hour normal charge costing approximately 20p in electricity, though to charge the nickel metal hydride battery pack to its maximum level an overnight charge is preferable. So the daily fuel running cost is incredibly low compared to a petrol scooter and the scooter requires no road tax, no MOT and no parking charges apply on car parking meters and pay and display bays when scooter parking spaces are full.

Does the Vectrix electric scooter deliver on its laudable aims? Yes, if you intend to use it in an inner city or town environment for fixed distance commuting with easily available recharging facilities, either at your place of work or street charging then the Vectrix scooter delivers. Providing zero carbon emission and cheap running costs, however against this you must offset the initial purchase price of approximately £5,998.

Use the Vectrix electric scooter outside of the town or city environment and then the range and recharging availability is an issue. Green transport yes, but with some limitations.



Environment friendly transport

Specifications

New price*:	£5,998
Engine:	Brushless DC, radial air-gap motor
Engine Size:	400 cc petrol equivalent
Peak Power:	20.2 kW
Transmission:	Coaxial integrated rear-wheel mounted planetary gear drive
Weight :	210 Kg

* Suggested Retail Price - Includes PDI, delivery, number plate, VAT and 1st registration fee.
Note all performance figures, weights and technical specifications are as claimed by the manufacturer

Article and Photos by Jon Booth – <http://www.inter-bike.co.uk> – The UK Biker Site

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Thanks to [Vectrix UK Ltd](#) for the loans of the Vectrix electric maxi-scooter