

Sustainable mobility is intelligent mobility: the choice of the best possible transport method for local journeys. Matra, the only manufacturer of 100% electric vehicles, offers a comprehensive range of vehicles adapted for all short distance use, from two to four wheels, including bicycles, scooters and electric quadricycles.



## An electric quadricycle for everyone

### New: MATRA GEM eM – the distribution solution

The Matra GEM eM version has been especially developed to meet the requirements of delivery and distribution professionals in urban areas. Compact, easy to handle and remarkably well-equipped, it is designed for intensive delivery use in town centres.



With its compact size (only 2.97 m long, 1.41 m wide, and 1.80 m high) facilitating on-board access, an exceptional load capacity for its size, and a loading surface of 1.17 m<sup>2</sup> for a load capacity of 1.2 m<sup>3</sup>, the GEM eM is an 100% green solution adapted to the constraints of deliveries in town centres.

The MATRA Gem eM goes up to 46 kph and has autonomy of 75 km, meeting requirements for short distance travel in urban areas. With charging times reduced to 4 hours for 80% of the charge, it possesses a regenerative braking system, making it possible to recharge the battery up to 18% in situations where it makes frequent stops.

Feature-wise, it has all the equipment required for comfort, ease of handling and safety for deliverymen in town: an adjustable steering column and an especially adapted rack, 13-inch wheels, a hand-brake positioned out of line to facilitate exits on the pavement side, a fascia especially designed to hold documents and parcels, front bumper and back buffers, wide wing mirrors, and a boot with a recoil spring vertical shutter. Remote locking is available as an option.

Like all electric models, it is silent and discreet. To signal its presence effectively without being intrusive, the MATRA GEM eM is equipped with a warning sound that can be activated at any time.

With its many assets and the solutions it provides to professionals, the GEM eM was chosen by the La Poste Group, one of the most demanding principals around, when it issued its invitation to tenders for postal distribution electric quadricycles.

Price: €12,990.00 excl. VAT (with a €3,000 ADEME subsidy deducted)

## New: the **Matra Solar Roof**

Presented at the UV car show in 2008 during the previous Paris Motor Show, the MSR Matra Solar Roof is now offered by Matra as an accessory for its entire range of electric quadricycles, thus enabling it to dispense with conventional electric installations.

Far from being a simple gadget on a light vehicle, the translucent integrated roof captures solar energy through its poly-crystalline cells, thus obtaining either 5 to 15 km of autonomy (which varies according to the exposure), or energy needed for the daily travel requirements of users.

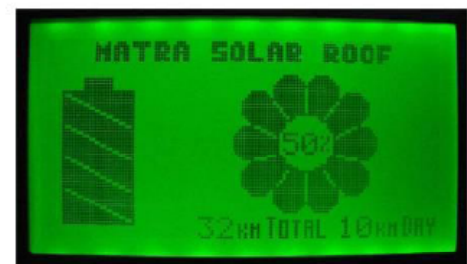


In this way, the vehicle **has no need for a charging terminal**, as it recovers lost solar energy rather like a rainwater collector on a roof, and recharges the batteries when the vehicle is at rest so that it can use the energy later on.

A control panel especially installed on the dashboard shows the efficiency and yield of the solar roof.

The appealing display takes the form of a sunflower with ten petals and a battery cell.

- The centre of the flower indicates the solar roof's percentage of efficiency depending on the amount of sun or instant brightness.
- One petal takes on colour for every kilometre of autonomy recovered. When all the petals are coloured, it means that the vehicle has recovered 10 extra km of autonomy.
- A totaliser indicates the number of kilometres recovered per day and the grand total since the MSR went into action.
- The battery pictogram indicates the charge level.



Price and availability: €2,000.00 excl. VAT on the two-seater version – to be marketed to companies in December 2010 and to private individuals in April 2011

## GEM – The highest-selling 100% electric 4-wheel range in the world

Comfortable and easy to access, Matra's GEM electric quadricycles offer a particularly user-friendly travel solution. Their electric motor enables rapid acceleration even with four passengers and a luggage boot at the back, so it is easy to travel around in any traffic situation. These 100% electric vehicles have already won over more than 40,000 users throughout the world. Since they came into service, the GEMs in circulation have travelled around 320 million km, saving 64,000 metric tons of CO<sub>2</sub> emissions and nearly €50 million's worth of petrol.

Resulting from the collaboration between Matra and the American manufacturer GEM (Global Electric Motorcars), the GEM quadricycle category covers a wide range of 100% electric vehicles meeting the needs of private individuals, professionals, companies and authorities.

Adapted by Matra to the demands of the European market, this range is divided into two categories: passenger transport (from 2 to 4 people) and goods transport (loads from 298 to 652 kg). To assemble its vehicles, Matra uses the "lean manufacturing" system, a reactive production organisation using little energy and implementing the most rational means aimed at delivering a high quality product to the customer. For this, the brand drew on 45 years of feedback resulting from the assembly of over a million cars at its Romorantin-Lanthenay site (Loir-et-Cher): industrial expertise that is maintained at a high level of excellence.

### Savings worth up to €1,500 each year!

GEM 100% electric vehicles cost less than 1 euro per 100 km, have limited maintenance, are silent and emit no pollutants, meaning that they have every advantage over thermal vehicles, even the least greedy types.

In this respect, they benefit from the approval of ADEME (Agency for the environment and energy control) for the entire range of GEM 100% electric vehicles. ADEME approval leads to a purchase subsidy of up to €3,000<sup>(1)</sup> for each purchase of a vehicle in the range, whatever the buyer's status.



### GEM QUADRICYCLES: COMPARISON OF ANNUAL COSTS FOR USE

	Gem 2- and 4-seaters + Utility vers.	2-seater Diesel vehicle 5L/100	4-seater Diesel saloon 7L/100	Diesel Light utility 8L/100
Fuel/100 km (based on €1.20 for thermal vehicles)	€0.77	€6	€8.4	€9.6
Fuel (based on 15,000 km/year)	€115.50	€900	€1260	€1440
Maintenance <sup>(2)</sup>	€100	€200	€200	€200
Annual cost	€215.50	€1 100	€1 460	€1 640
Savings generated by GEM		- €884.50	- €1 244.50	- €1 624.50

## An electric scooter for everyone

New: **MATRA e-MO XP – Xtra Power** for business users (more power for pros)



The **e-MO XP scooter** belongs to the e-MO category marketed in 2009, at the top of electric scooter sales in France with over 30% market share.

Developed by Matra alongside the e-MO and its more powerful e-MO+ version, the **e-MO XP** provides a response to the needs of delivery and distribution professionals. Possessing all the assets that made the e-MO and e-MO+ so successful (compactness, lightness and ease of handling), the e-MO XP version has been boosted in terms of **motorisation, on-board energy, equipment and accessories** to match requirements for professional delivery and distribution utility use.

- **New motorisation**

The e-MO XP has a 2kW (2.7 hp) engine – i.e. twice as powerful as its smaller sibling the e-MO, giving it powerful acceleration and a constant speed that can be selected at 30 kph or 45 kph whatever the load or road profile.

The **safety and comfort** of the driver have also been factored in, with the provision of profiled wing mirrors, a protective apron, tubeless 12-inch tyres, a new-look front headlight, and 165 mm disc brakes.

The e-MO XP is guaranteed **for two years** or 12,000 km. It will be marketed in 2011 at under €3,000 incl. VAT in its 15 Ah version.



## Matra i-step: the Sport and Leisure range

Thanks to their efficient motors, the models in the i-step range provide assistance proportional to the pedalling effort, on the flat or on hills, and charge themselves up during descents. Powerful, reliable and maintenance-free, this direct drive motor provides a silent ride and flexible pedalling. The innovative regenerative system offers a genuine sports training programme, meaning that any change in level can be simulated while charging the battery. A sporting session thus increases the bicycle's autonomy. Depending on the type of journey and objective in mind, users can choose either to improve their physical shape or reach their destination without undue effort or perspiration. The Matra i-step line comes in seven Sport and Leisure versions adapted to each person's morphology, requirements and lifestyle. The collection's flagship models are the **i-step Tourer**, voted **the electric bicycle of the year in 2010**, and the **i-step Racer**, the lightest and sportiest in the range, which was given an award by the Germany-based association Extra-Energy.



### **i-step city: the 9-speed bike for towns**

THE ideal electric bike for moving around in the urban jungle. To prevent theft, it has an integrated ringlock and a 1.40 metre plug-in chain. For carrying belongings, it has a Pletscher luggage rack and a cunning storage box under the stem. For comfort, the wide Royal gel saddle is associated with the SKS mudguard. And for the performance, a comprehensive Shimano system with nine speeds and V-Brakes is combined with reinforced Continental tyres.

i-step city starting at €1,799 (+€200 LiMn version; recommended retail price).



### **i-step runner: the 27-speed sports hybrid**

Developed to respond to sporting aspirations, the i-step Runner has 27 speeds, a 48-36-26 chainset and a V-Brake system, all provided by Shimano. Its reinforced tyres come in addition to the double butted aluminium frame for dynamic use. Its clean lines and light weight enable more energetic use, whatever the profile of the road. The upright handlebars have been especially designed to offer the user a more dynamic, sleek position.

i-step runner starting at €1,599€ (+€200 LiMn version; recommended retail price).



### **i-step force: The electric street mountain bike**

A real performance tool, the i-step Force is perfect for sport and town use alike. This electric mountain bike has a decidedly sporting character, with its Matra Sports Dual Power hydraulic disc brakes, 100 mm hydraulic fork with lockout and flat pedals with spikes. Equipped with 26" anti-puncture tyres, the i-step Force provides incomparable ease of handling and can cope with any situation. Its great innovation comes from the booster trigger, which provides instant, maximum electric power if needed.

i-step force starting at €2,290 (+€200 LiMn version; recommended retail price).