



# NEWS RELEASE

RCV Engines Limited

For publication release on 12 January 2006

## World's first 125cc RCV scooter engine to be showcased at Auto Expo

The centrepiece of RCV Engines Ltd presence at Auto Expo, Asia's largest automotive show, will be displays describing the prototype of a new 125cc scooter engine based on its patented Rotating Cylinder Valve (RCV) technology. The RCV concept offers the potential for premium performance coupled with low fuel consumption, emissions and manufacturing cost compared with current small two- and four-stroke engines. Produced for Motive Power Industry (MPI), one of Taiwan's most innovative motorcycle and scooter manufacturers, the new 125cc RCV engine has exceeded all performance expectations and is intended to be further developed to form the basis of a family of new, high performance and low emissions products

The new 125cc RCV scooter engine was produced at the R&D centre of RCV Engine Ltd at Wimborne, UK, and is the first purpose-designed scooter engine intended to be carried forward to production by one of the company's technology licensees. Commenting on the announcement that the 125cc RCV engine, developed for MPI of Taiwan (which markets its scooter products under the PGO brand), has exceeded its performance targets, Eric Hill, RCV Engines Ltd managing director, said:

*"The impressive performance and potentially low manufacturing cost of the 125cc RCV engine developed for MPI demonstrate the potential of RCV technology as an enabler for products with premium performance coupled with high standards of fuel-efficiency and low exhaust emissions".*



**The new 125cc RCV scooter engine developed by RCV Engines Ltd for MPI**

Michael Hwang, the CEO of Motive Power Industry said:

*"MPI has invested in the research and development of 2-stroke and 4-stroke scooter engines for several decades and has built up a great deal of experience in this field. The quality of product is affirmed by our customers. To achieve enhanced engine properties and reduced costs, MPI is making a significant investment to co-operate with RCV Engines Ltd, UK and to apply RCV technology to the PGO 4-stroke scooter engine. MPI believes that the competitive ability of PGO products will be strengthened outstandingly by the new 4-stroke rotating-cylinder-valve engine."*

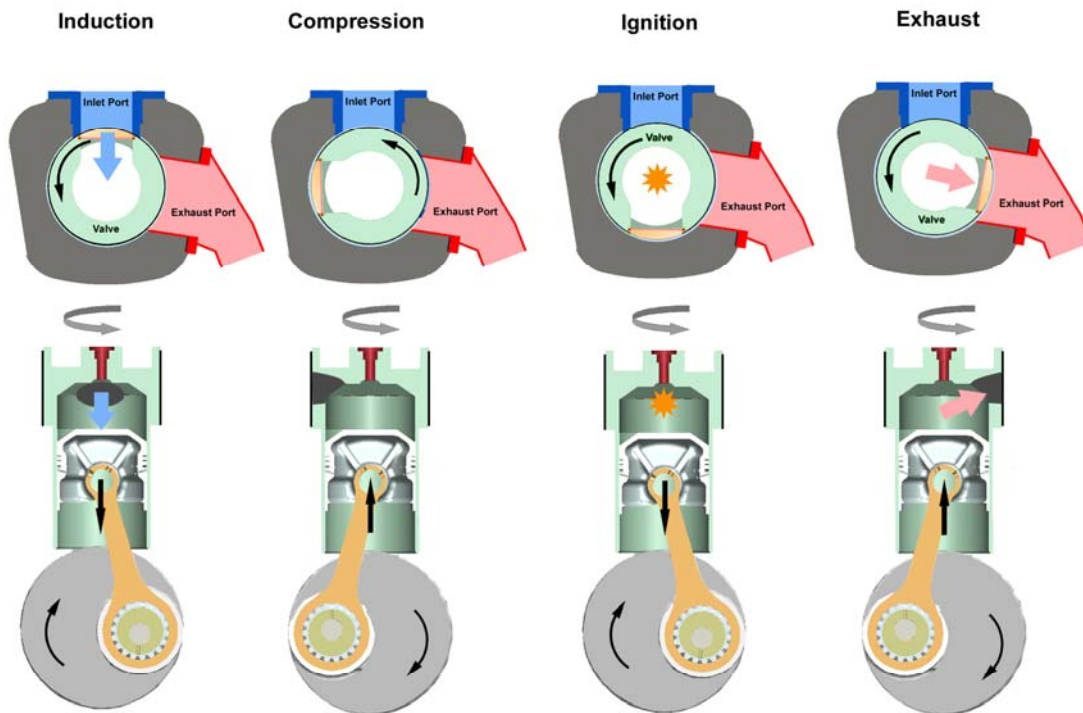
Media Office: MediaTechnical Ltd  
4 Hampden Road  
Brighton  
BN2 9TN UK

Telephone: +44 (0)1273 382710  
Fax: +44 (0)1273 880218  
E-mail: [avsmith@mediatechnical.com](mailto:avsmith@mediatechnical.com)  
RCV web site: [www.rcvengines.com](http://www.rcvengines.com)

**NOTES TO EDITORS:**

**How the RCV engine concept works**

The ability of a reciprocating internal combustion engine to empty and fill its cylinder efficiently is fundamental to its successful operation. The RCV engine shares the same induction, compression, power and exhaust strokes as found in a conventional four-stroke engine, but its principal difference lies in the manner in which intake air and exhaust gases are respectively induced into and expelled from the cylinder. In a conventional engine gasses enter and leave the cylinder via poppet valves in the cylinder head which are operated via a mechanical valve train. While most of the major components of an RCV engine are identical to those of a conventional four stroke, the principal difference lies in the cylinder. This is mounted on bearings and rotates at exactly half of the crankshaft rotational speed and is driven from the crankshaft either via a gear train or toothed belt drive system similar to those used on automotive engines. A single large cross-sectional area port and combustion chamber is combined within the cylinder, the entrance to which forms the rotating cylindrical valve together with the openings of the external intake and exhaust ports (see diagram below).



***Operation of an RCV engine (available as high resolution image)***

While the large valve area offered by this configuration is similar to that of the high performance sleeve-valve aircraft engines of previous decades, RCV technology overcomes the durability and cost limitations of its forerunners and offers a simple to manufacture, high performance and low emissions alternative to the conventional two- and four-stroke engine. The primary benefits of RCV technology are its potential to deliver small (sub-250cc capacity) engines with:

- Improved performance
- Improved fuel consumption
- Low engine-out exhaust emissions
- Stable high speed operation
- Low cost of manufacture
- High power to weight ratio



RCV Engines Limited

### **About RCV Engines Ltd:**

RCV Engines Ltd has developed its patented Rotating Cylinder Valve (RCV) internal combustion engine technology since its formation in 1997. This revolutionary technology provides distinct potential benefits over conventional two- and four-stroke engines in terms of increased performance, reduced emissions and improved fuel consumption. RCV technology is particularly well suited to small engine applications including motorcycle, forest and garden, and Unmanned Aerial Vehicles (UAVs). The company has exported engines to over 50 countries and has a customer list which includes many prestigious clients. It has also engaged in development programmes with a wide range of customers who wish to incorporate the benefits of RCV technology on a licensed basis in their own products. RCV Engines Ltd is a well resourced technology-focused company which boasts a team of highly qualified automotive design and production engineers, as well as advanced manufacturing and engine development facilities at its south of England location at Wimborne, Dorset. The company currently manufactures a range of 5 model aircraft engines from 9.5cc to 20cc with over 8,500 operating worldwide. RCV Engines Ltd is privately held and is fully independent.

### **About Motive Power Industry Co. Ltd:**

Motive Power Industry Co. Ltd. manufactures scooters and ATVs in Taiwan under the PGO brand. PGO, founded in 1964, had a technological cooperation with Piaggio of Italy from 1972 to 1982 followed by investment from the Taiwan Tea Corporation in 1996 to form Motive Power Industry Co Ltd (MPI). Through continuous investment in R&D, MPI is one of the few manufacturers in Taiwan capable of developing new products. MPI was the first scooter manufacturer in Taiwan to launch a scooter with fuel injection and collected the 2003 Taiwan Symbol of Excellence Award for its i-Charge series. MPI exports 80% of its production to over 34 countries including; Japan, Europe and North America.

### **MEDIA CONTACT:**

Anthony Smith  
MediaTechnical Ltd

Tel: +44 (0) 1273 382710  
Fax: +44 (0) 1273 880218  
E-mail: [avsmith@mediatechnical.com](mailto:avsmith@mediatechnical.com)

### **CONTACT INFORMATION AT AUTO EXPO:**

RCV Engines Ltd will be at stand No 12.03 in Hall No. 12

---

**Media Office:** MediaTechnical Ltd  
4 Hampden Road  
Brighton  
BN2 9TN UK

**Telephone:** +44 (0)1273 382710  
**Fax:** +44 (0)1273 880218  
**E-mail:** [avsmith@mediatechnical.com](mailto:avsmith@mediatechnical.com)  
**RCV web site:** [www.rcvengines.com](http://www.rcvengines.com)