

# Valeswood News

Environmental Technology from Valeswood ETD Ltd.

[www.valeswood.com](http://www.valeswood.com)

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## Welcome to Valeswood News

Welcome to the Autumn edition of Valeswood News. Our range of Hydrogen Fuel Cells continues to develop very quickly. In the Spring we focused on our Hydrocell range of alkaline fuel cells. They made a big impact at Sustainability Live at the NEC and we have received many enquiries.

Now we are delighted to announce that we have been appointed the sole UK distributor for the exciting range of Pearl PEM fuel cells, which we are launching in London and Birmingham. Pearl fuel cells are made in Shanghai and represent the very latest in hydrogen technology as well as being excellent value for money.

Do look out for more information in the press and on our website over the next few months.

John Turner  
Managing Director

## Valeswood at Birmingham University

Valeswood has developed a strong research and development relationship with the University of Birmingham.

We are working with the Departments of Chemical Engineering and Metallurgy to develop our products and their commercial applications.

We are very grateful to Professor Rex Harris and to Professor Kevin Kendall and their teams for all the support they have given us.

*John Turner with the  
Birmingham University team*



## Pearl Bike goes Active!

We are now able to supply the new Pearl hydrogen electric bike powered by a 24v Pearl fuel cell. This is a great new model which is bound to be popular.

The Pearl bike has a top speed of 25km per hour and a range of 100km on two small cylinders of hydrogen stored as metal hydride. It folds in half and will fit neatly in the boot of an average estate car without folding down the rear seat. As with all our bikes it is EU-compliant and does not need insurance or a licence for road use.

*Tomas Urban rides the Pearl bike*

# Pearl Fuel Cells — New Hydrogen Gems

Valeswood is pleased to offer the entire range of ready made and bespoke Pearl fuel cells in the UK. We are happy to supply them as individual units or fitted to electrical goods such as the Pearl bike.

Here are some of the technical details of the 12v and 24v Pearl fuel cells and the Pearl bike.

## RECTS120 Air-cooled 20 cell PEM fuel cell stack

Rated power/voltage/current:	120W/12V/10A
DC Voltage range:	10-19V
Efficiency:	≥50%
Fuel:	Hydrogen ≥99.95% at 0.3 –0.4bar
Oxidant/coolant:	Air at ambient pressure
Mass:	580g
Length×height×width:	102×106×53mm
Environment temperature:	-10°C—40°C
Relative Humidity:	20%—95%
Stack temperature:	-10°C—60°C



## RECTS240 Air-cooled 40 cell PEM fuel cell stack

Rated power/voltage/current:	240W/24V/10A
DC Voltage range:	20-38V
Efficiency:	≥50%
Fuel:	Hydrogen ≥99.95% at 0.3 –0.4bar
Oxidant/coolant:	Air at ambient pressure
Mass:	760g
Length×height×width:	180×106×53mm
Environment temperature:	-10°C—40°C
Relative Humidity:	20%—95%
Stack temperature:	-10°C—60°C

## Pearl Fuel Cell Powered Electric Bicycle

Driving distance:	≥60 Km
Max driving distance:	100Km
Max speed:	≤25Km/h
Power source:	PEM fuel cell
Hydrogen consumption:	3L/min
Hydrogen storage:	600L
Dimensions (mm):	1580×565×1075
Wheel:	20"
Weight/Rated Loading:	32Kg/75Kg
Noise:	≤62dB
Motor type/power/voltage:	Brushless/180W/24V
Low voltage Protection:	21.5±0.5V
Over-current protection:	14A±1A



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