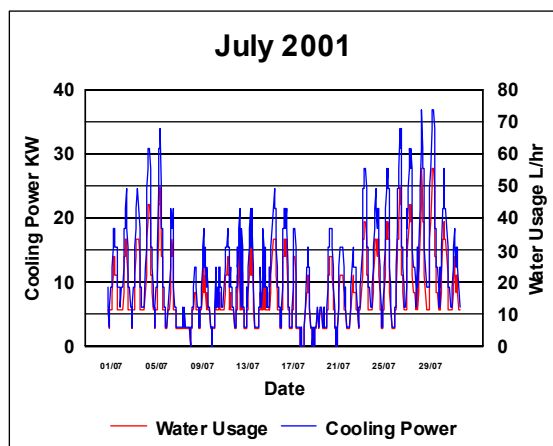




## Evaporative Cooler Running Costs



### Electricity and Water Consumption

When an ECP16000 cooler is run at its maximum output the electrical consumption is constant at 1.5KW. The water usage is dependent upon the relative humidity of the air passing over the filter pads. The adjacent graph shows the water usage per hour over the hottest month of 2001. This averaged 21 L/hr for the month.

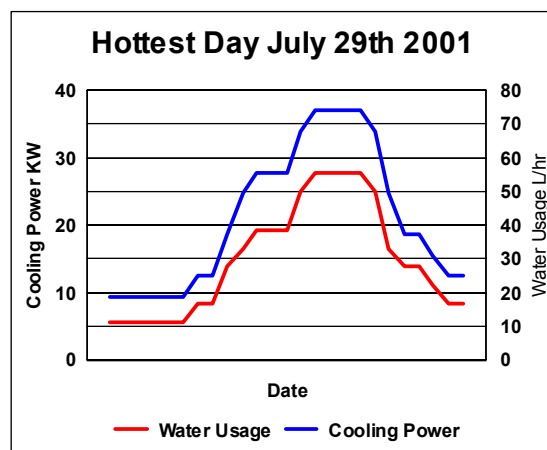
An average cooling duty of 18KW is achieved by a unit in these conditions.

### Usage During Extreme Conditions

The hottest day of 2001 was the 29<sup>th</sup> July. On this day the average water consumption was 30 L/hr with the maximum being 74 L/hr.

The relationship between cooling power and water usage is fixed – the more water is evaporated the greater the cooling effect.

It can be seen that at its peak a unit would provide 37KW of cooling.



### Cost of Utilities and Consumables

Based on a single unit with an average airflow of 14,000 m<sup>3</sup>/hr.

Note that the total water usage includes the quantity which is automatically drained.

| Utility/Consumable                                    | Usage and Cost per Hour |                     |      |
|---|-------------------------|---------------------|------|
| Electrical consumption                                | 1.5KW                   | @4p/KW hr           | 6.0p |
| Water Consumption (typical average during hot period) | 35L                     | @60p/m <sup>3</sup> | 2.1p |
| <b>Cost per Hour</b>                                  | <b>8.1p</b>             |                     |      |

| Shift Pattern | Cost Per Day |       | Cost Per Week |        |
|---------------|--------------|-------|---------------|--------|
|               | Hours Run    | Cost  | Hours Run     | Cost   |
| Single        | 8            | £0.65 | 37.5          | £3.04  |
| Double        | 16           | £1.30 | 75            | £6.08  |
| Three         | 24           | £1.94 | 115.5         | £9.11  |
| Continuous    | 24           | £1.94 | 168           | £13.61 |