

## CASE STUDY: Hotel in Manchester

Encore installed our revolutionary cisterns in Manchester with a global hotel chain to demonstrate that condensate does play a major role in sustainability, even here in the U.K. Recovering condensate waste that is normally sent to drain will not only save users money, it will also help achieve water conservation goals, saving billions of litres of water each year.

Installing our cisterns and linking them to data loggers and flush counters to record the performance, data obtained from August 2019 clearly highlights the cistern's water-saving abilities. In less than one month, a single room had saved an incredible 495 litres.



WATER SAVING OF OVER  
**1.3 MILLION LITRES**

FINANCIAL SAVINGS OF  
**£4302.05**

To calculate the amount of condensate used to flush the toilet, the following equation can be used:

$$\text{(Number of recorded flushes} \times 4.5\text{/flush)} - \text{Volume of water} = \text{Condensate used}$$

Using the data obtained (identified in the image above) during August 2019, we calculated the following water savings:

$$(350 \times 4.5) - 1080 = 495$$

Over a period of 28 days, a total of 495 litres of mains water was saved by using condensate to flush the toilet. This equates to 110 "free" flushes i.e. nearly 4 "free" flushes a day.

If you had to pay for the mains water used for 350 flushes, the water bill would have increased by approximately 46%.

$$\text{(Total water used} - \text{Mains water used)} / \text{Mains water used} \times 100 = \text{Percent increase}$$

$$(1575 - 1080) / 1080 \times 100 = 45.83\%$$

The hotel had 209 rooms which would provide a potential annual saving of £4302.05, and, significantly, 1.3 million litres of potable water saved.

In warmer and more humid climates, these headline figures increase exponentially.

### Product Summary:

Encore cistern. A revolutionary cistern that utilises waste condensate from air conditioning units to flush toilets. It's 18 litre twin chamber tank enables multiple free flushes before the need for mains water back up. Suitable for any new construction building type using air conditioning and also great for retro fit.



**Using a sustainable water source previously drained to waste Encore will achieve BREEAM Credits under WAT01 and is also LEED compatible.**

### Example Benefit Analysis Based on a 209 Bed Hotel in Manchester:

Product	Unit cost	Water cost including waste	Condensate Generated (L)	Condensate used (L)	Value of water saved	Payback
Encore cistern™	£160.00rrp	£3.19	1,773,517	1,348,608	£4,302.05	1.3 years

Reflects potential water cost savings post installation of Encore cistern™. Annual calculations are based on condensate produced from local Air conditioning units offsetting the mains water usage. Water rates including waste @ £3.19m<sup>3</sup> and cistern compared to a similar priced quality product costing £135.00.

### Additional Benefit:

#### Client Benefits

- ROI 12 – 36 months.
- No maintenance required.
- Reduced water costs.
- Providing immediate payback.
- Contribution to a sustainable planet.
- Proven 200,000 cycle test with no drips or parts failure.

#### Value Added Features

- Tested by Thomas Dudley and KIWA
- FREE estimated ROI projections
- Advice on project suitability
- General lead time 5 – 7 days
- Applicable to new and existing buildings
- Easily scalable
- No alternative in the market

### Supplier Contact Details & Information:

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