

Royal Bank of Scotland – Hauptsitz von RBS Gogarburn – Edinburgh - Scotland

Donnerstag, 02. Juni 2016

Hauptsitz von RBS, Gogarburn, Edinburgh.

Versuchs - und Verbrauchszusammenfassung

WASSER:

Gesamter Leitungswasserverbrauch der Waschbecken um 60% gesenkt

Waterblade Easy Wasserersparnis: 5,2 m³ pro Hahn und Jahr

Waterblade Easy Wasserkosteneinsparung von £ 9,27 pro Hahn pro Jahr

ENERGIE:

Gesamter Energieverbrauch der Waschbecken um 60% gesenkt

Waterblade Easy Energiekosteneinsparung von £ 17.24 pro Hahn pro Jahr

Kombinierte Wasser- und Energiekosteneinsparung von £ 26,51 pro Hahn pro Jahr.

- Dies ergibt einen Ausgleich der Kosten des Erwerbs von **Waterblade Easy** von unter 3 Monaten @ £ 6.00 pro **Waterblade Easy**.

- Reduzierung des Wasserverbrauchs im gesamten Gebäude um 4%
plus 1,25% des Gebäudegasverbrauchs plus 0,25% des gesamten Gebäudestromverbrauchs

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- Insgesamt wurden 30 Wasserhähne mit **Waterblade Easy** in 6 separaten Toiletten auf 3 Etagen ausgestattet.

- Es dauerte weniger als 30 Minuten bzw. weniger als 1 Minute pro Hahn um **Waterblade Easy** zu installieren.

- Zuvor installierte Wasserspareinsätze an den Wasserhähnen hatten einen Durchfluss Durchfluss von 5 Litern pro Minute (l / m) max.

Waterblade Easy Durchfluss 2,5 l / m max.

- Legionellenrisiko: „Wenn man die Daten analysiert, scheint es, dass die Installation von **Waterblade Easy** sich nicht auf die Wassertemperatur ausgewirkt hat.
- Die Installation ist ausnahmslos zu befürworten, solange sie nicht an kaum genutzten Waschbecken erfolgt.
- Dieser Bericht basiert auf Daten, die von RBS-Vertragsingenieuren und -Partnern gesammelt wurden.
- RBS Facility Management, Carillion. Genehmigung von RBS Technische Aufsicht
- Benutzer-Feedback RBS: Sie werden erfreut sein zu wissen, dass die Mitarbeiterbefragung abgeschlossen ist und sehr positiv und befürwortend für **Waterblade Easy** ausgefallen ist. Daher rechnen Sie einem baldigen Großauftrag.
(JS RBS Workplace Services)

Übersetzung

(Original – Versuchs -und Verbrauchsbericht auf Anfrage oder via der englischen Version der Webseite).

Full Report

Water

Using the data supplied by CD (RSP), engineers.

We have an initial baseline rate of 1m³ per week cold and 3.5 m³ hot. That gives 4.5 m³ per week combined.

After fitting we measured .31 m³ per week cold and 1.2 m³ hot. That gives 1.51m³ per week combined.

This gives 3 m³ per week saving. Times 52 gives 156 m³ per year. Divided by the 30 taps in the trial gives a saving of 5.2 m³ per year per tap.

Multiplied by the cost of supply and waste of £1.7828 per m³ gives a saving of £9.27 per tap per year (water).

Waterblade water saving; 5.2 m³ per tap per year.

Waterblade water cost saving; £9.27 per tap per year.

Energy

Hot water saving of $3.5 - 1.2 = 2.3$ m³ per week. Times 52 gives 119.6 m³ per year. Divided by the 30 taps in the trial gives a saving of 4 m³ per year per tap.

Using the data provided by AC, RBS we have an average annual cost of energy of £6.09 plus £2.53 per m³ per year, gives £4.31 per m³ per year. Times 4 gives £17.24 per tap per year energy cost saving.

Waterblade energy cost saving; £17.24 per tap per year

Waterblade combined water and energy cost saving; £26.51 per tap per year.

This gives a payback period of under 3 months @ £6.00 per Waterblade.

If rolled out to all business houses it would save 30 (taps per house) times 7 (houses) times £26.51 gives £5,567.10 per year every year for a cost of under £1,260.00.

It would save (30 x 7 x 5.2 gives) 1,092,000 litres of water per year, that's a 4% reduction (1,092,000/28,648,000), which may also be possible for the whole campus. This would reduce the whole campus by 4% of 36,718,000L gives nearly 1.5 million litres of water per year. (Figures from GS, Carillion)

In terms of energy saved, saving 1,092,000 litres of water per year equates to (3.5/4.5 x 58kwh/m³ x 1,092m³ = 49,261Kwh) nearly 50,000 KWH per year for the main office. To give this some rough context, that is 1.25% of the buildings gas consumption. (178,000m³ /year (GS Carillion) gives 2 million KWH/year, 25,000 is 1.25%) plus 0.25% of the buildings electricity consumption.(14 million Kwh p/a entire campus, (GS Carillion) say 10 million the main building, 25,000 is .25% of 10 million.)

Installation

The 30 taps were fitted with the Waterblade in 6 separate cloakrooms on 3 floors. It took less than a minute per tap and less than 30 minutes for all 30 taps to be installed.

Legionella risk

Based on comparable before and after L8 temperature data supplied by GS (Technical Services Manager Carillion) and evaluated by MB (Head of Water & Air Quality, Carillion Services) 'If you analyse this data it appears that the installation of the Waterblade has made no difference to the water temperatures so should be fine to install as long as not fitted to hardly used outlets as that could create problems with the flushing of those taps identified as low usage.

This report is based on data collected by RBS contracting engineers and RBS Facilities Management, Carillion. It has been approved by RBS Technical oversight.

User Feedback

You will be pleased to know that the staff survey we completed was very favourable to Waterblade, so expect a large order very soon.' (JS RBS Workplace Services)