



# Waterblade



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## Water saving Calculation

### **Based on;**

Tap used 20 times per day for 15 seconds, gives 5 minutes per day, times 365 days per year gives 1825 minutes per year (as per Envirowise water management leaflet. This is domestic usage, an office cloakroom could be significantly higher)

Water supply and wastewater charges of £3.74/m<sup>3</sup> ( Southern water domestic bill April/May 2015)

Waterblade flow rate of 2.5 liters/minute (l/m)

Aerating tap flow rate of 5 l/m

Standard tap flow rate of 10 l/m

Device Name	Annual Usage in Litres per year 1825mins/year x l/min	Annual Usage m <sup>3</sup>	Annual Cost m <sup>3</sup> x£3.74/m <sup>3</sup>	Annual Saving compared to standard tap £'s	Annual Saving compared to Aerating Tap £'s
Waterblade	4562.5	4.6	17.05	51.20	17.08
Aerating tap	9125	9.1	34.13	34.12	0
Standard tap	18250	18.3	68.25	0	-

**Water and wastewater saving of Waterblade, £51.20 compared to standard tap and £17.08 compared to aerating tap.**

## Energy/Carbon saving Calculation

### Energy Usage;

Based on

It takes 35 Kw Hours to heat 1,000 litres of water by 30°.

One Kwh costs 5p. (electricity could cost more than double this)

Efficiency losses not included

Assumes CO2 Emissions of 0.5kg/ kWh (rounded up) (DEFRA 2007)

Device Name	Annual Usage in Litres per year 1825mins/year x l/min	Annual Usage in Kw Hours for +30°. Annual usage in 1,000s x 35Kwh	Annual Cost @ £ 0.05 per Kwh	Annual Saving compared to standard tap £'s	Annual Saving compared to Aerating Tap £'s
Waterblade	4562.5	161.0	8	24	8
Aerating tap	9125	318.5	16	16	0
Standard tap	18250	640.5	32	0	-

**Annual Combined Water, Wastewater and Energy saving of Waterblade, per tap, could be £75 compared to standard tap and £25 compared to aerating tap.**

**Annual CO2 saving per tap could be 240kg compared to standard tap, and 80kg compared to an aerating tap.**

Envirowise Leaflet (Very informative) available at [EnvirowiseLeaflet](#)

The CO2 emission factor used is **0.527 kg / kWh** [DEFRA (June 2007) *Act on CO2 Calculator: Public Trial Version Data, Methodology and Assumptions Paper*

[www.defra.gov.uk/environment/climatechange/uk/individual/pdf/actonco2-calc-methodology.pdf](http://www.defra.gov.uk/environment/climatechange/uk/individual/pdf/actonco2-calc-methodology.pdf) ].

'Carbon savings are relatively high due to reduced household emissions from water heating.'  
(Greenhouse gas emissions of water supply and demand management options .Environment Agency .Science Report – SC070010 . Page 57. Thursday, 04 June 2015, online [GovCarbonSavingsWater](#) )