



Waterblade

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[Waterblade Manual; Installation, Operation and Maintenance.](#)

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What is it and how does it work?

Waterblade is a water saving nozzle for taps. It works by taking a trickle of water and spreading it into a paper thin sheet, it is a remarkably efficient and effective way to wash your hands, or your toothbrush.



Can I Fit it to My Taps?

Waterblade can be fitted to most European mixer taps as they have metric removable nozzles. Taps must have Isolators in order to reduce the flow and prevent the possibility of overspray.

Benefits

- Reduces water consumption
- Reduces energy used to heat water
- Receives positive feedback
- Fast payback, 2-4 months
- Easy to fit, typically under 3 minutes
- Totally scalable; savings are per tap
- Claims fully supported by trial data
- Less likely to harbour pathogens
- Less likely to spread pathogens
- WRAS Approved
- Multi award winning

Data

Waterblade:

Design flow rate; 2.4litres/minute (l/m) giving a blade 100mm (4") wide.
Maximum flow rate; 3-4 l/m
Fitting; Compatible with M24 male housing and M22 female housing.

Aerator:

Typically; 5+ l/m

Standard tap

Typically; 10+ l/m

Case Studies

SonyDADC

Tried one and have placed three repeat orders to date.

Royal Bank of Scotland (Head Office)

Fitted to 30 basins and independently monitored

Water cost saving; £9.27 /tap/year (Scotland has particularly low cost water)

Water heating saving; £17.24 /tap/year. UK rollout now underway.

Anglian Water

Fitted to sensor tap. Originally operating at 5 l/m. Halved flow to 2.5 l/m. Received good feedback. Now rolling out to head office buildings

A Canary Wharf Corporation

Fitted to 13th floor, received positive feedback of 96%, 200 out of 250 people responded. UK rollout of 2500 basins.

Householders

Good feedback, see ecothriftyliving blog.

Water Utility Companies

Used currently by two water utilities 4 retrofit teams.

www.waterblade.co

Retrofitting Guide;

Waterblade Retro-fit Checklist/ Accreditation

Survey;

- 1) Do taps have removable M22/24 nozzles? Male M24 collar shown is same size as 10p. Feel free to send us a photo. (M24/ 24mm, 10p/ 24.5mm)
- 2) Do taps have isolating valves?
- 3) Can the existing collars and washers be reused?

We recommend to trial fit one tap before scheduling a building wide rollout.



Rollout;

- 4) Have suitable communications circulated in advance?
- 5) Are suitable signs ready to put up with rollout? We can supply these.
(We have found that items 4 & 5 improve feedback.)
- 6) Have installation staff access to necessary install guidance? Purging air and setting max flow are essential part of installation, this is a sensitive adjustment, and it is important to know the Waterblade works by efficiently distributing the water, not as a high pressure spray. (2.5 min video on website, written instructions included with orders)
- 7) Installation is quicker and more efficient as a two person task. (Particularly if flow cannot be seen while operating isolators.)

Accreditation. In order to be an accredited installer please email us confirming you have read the checklist and watched the video in the 'How To Fit' section of the website. We shall then contact you.

Full technical support available from;

Nigel Bamford

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Fitting Instructions;



- 1) Unscrew current collar and remove aerator/cartridge and rubber washer. Then Place Waterblade device in to collar * with rubber washer on top and screw on to tap spout.
 - a. If required, a wrench can be used.
 - b. Avoid scratching the collar.
 - c. Align Waterblade across basin.
 - d. Do not over tighten.



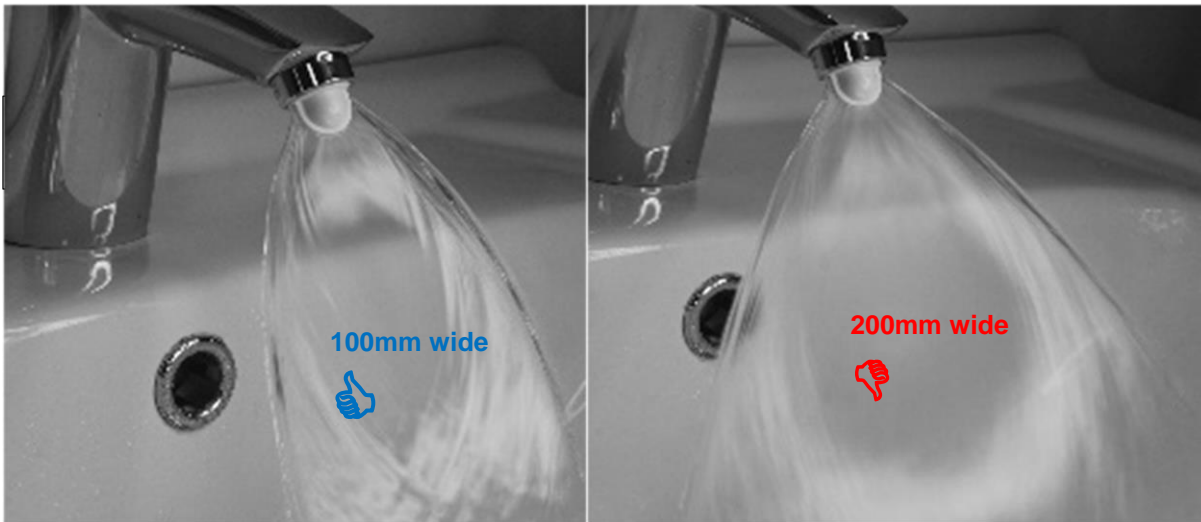
2) Flush out air by fully opening tap with cloth over spout.

4) To avoid sudden splash of water, adjust maximum water flow by turning hot & cold isolation valves under sink until water is completely off. Then very slowly turn on to obtain desired output, see below. Max flow recommended is 1.2 litres per minute (l/m) on each hot and cold, giving combined Max flow of 2.4 l/m.

Note:

A blade 50mm wide = 1.2 l/m

A blade 100mm wide = 2.4 l/m



6) Enjoy your tap!

*If Waterblade does not fit into your M24/22 collar we can supply (ex-stock). email us info@waterblade.co

Operation and Maintenance;

Operation:

Waterblade is supplied in the form of a white injection moulded plastic nozzle, suitable for fitting to a wide range of taps. After fitting the tap is operated normally.

Maintenance:

- 1) Waterblade should be cleaned externally as part of the regular cleaning routine, as and when the tap body is cleaned. We recommend using a soft bristled brush which shall ensure the more detailed features are reached.
- 2) Three monthly / as required; Waterblade should be checked for i) spray, if the 'Blade' is wider than 125mm and creating spray the flow needs re adjustment as per fitting guidance. ii) if the blade is 'Broken' then the blade may be blocked with debris, this shall require removal and clearing.
- 3) Lime scale; Because of its laminar flow and absence of metal parts in contact with the water, Waterblade has a low propensity to attract lime scale. Should it be necessary to clean, it can be easily removed for this purpose. It is made from robust ABS plastic.

Some evaporative lime scale accumulation is possible externally along the slit, this can be removed with proprietary cleaners.

Compliance

Waterblade has WRAS (UK) approval.

Approval # 1512334

Other compliances are in progress. Please ask.

Legionella

Waterblade has laminar flow which is considered better from a legionella/hygiene point of view.

Waterblade does not mix the water with air which can pose additional health risks.

Our RBS trial report looked at the L8 testing and concluded; 'Looking at that data it would appear that the installation of the Waterblade has made little difference to the water temperatures so should be fine to install as long as not fitted to little used outlets as that could create problems with the flushing of those taps identified as low usage.' MB (Head of Water & Air Quality, Carillion Services)

Water and Energy Saving Calculations

Background and context:

This report summary is from RBS Head office on Scotland Edinburgh. The building is only 10 years old and has good environmental credentials. The taps originally had aerators at 6 l/m. Scotland has amongst the cheapest water costs in the UK. London costs would be double and Devon triple.

Thursday, 02 June 2016

RBS Head Office, Gogarburn, Edinburgh. Trial Summary.

WATER:

Overall cloakroom tap water usage reduced by 60%

Waterblade water saving; 5.2 m³ per tap per year.

Waterblade water cost saving; £9.27 per tap per year

ENERGY

Overall cloakroom tap energy usage reduced by 60%

Waterblade energy cost saving; £17.24 per tap per year

COMBINED water and energy cost saving; £26.51 per tap per year

PAYBACK PERIOD of under 3 months @ £8.50 per Waterblade.

WHOLE BUILDING reduction in water consumption of 4% plus 1.25% of the buildings gas consumption plus .25% of the whole building electricity consumption.

30 TAPS were fitted with the Waterblade in 6 separate cloakrooms on 3 floors. It took under one and a half hours, less than 3 minutes per tap.

ORIGINAL FLOW Aerators @ 6 Litres per minute(l/m) max. Waterblade flow 3 l/m max.

LEGIONELLA RISK 'Looking at that data it would appear that the installation of the Water Blade has made little difference to the water temperatures so should be fine to install as long as not fitted to little used outlets.'

REPORT 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)

Trouble shooting

Spray from tap, basin: The water from Waterblade does not leave the tap any faster than a regular tap. Correct adjustment of the flow is essential to prevent overspray. See fitting instructions.

Splutter: If air is retained behind the nozzle it may prevent the blade forming properly, and cause 'splutter'. See fitting instructions for flushing out air.

Sensor Taps: Waterblade is compatible with many types of sensor tap. Fitting can be more involved. Generally we recommend isolating the tap before fitting the Waterblade, following the normal procedure, then resetting the sensor time if required once fitted and the flow is set.

Non Percussion Taps: Waterblade is compatible with a wide range of percussive taps. Once fitted and the flow set it may be necessary to adjust the timing.



Winner. Big Innovation Pitch 2016



Winner RBS Gogarburn Challenge

INTERNATIONAL
WATER SUMMIT

PART OF ABU DHABI SUSTAINABILITY WEEK

15-18 JANUARY 2018
ABU DHABI NATIONAL EXHIBITION CENTRE

Exhibitor and Winner of Innovation Award 'Real Estate Category' 2017

 **Rushlight Awards**
Winner 2015/16

WATER
INDUSTRY
ACHIEVEMENT
AWARDS

2016
WINNER



ecoconnect's
CleantechInnovate
Finalist 2016