

# Oxijet For Water Pressure-Savings-Safety

-A novel water saving shower product based on CSIRO Innovation

-Distributed by Shower-Aeration Technology Pty Ltd

Technical: Dr Jie Wu 2015

# Oxijet Shower Insert



- Venturi nozzle insert to entrain air in shower developed in CSIRO laboratory in 2004 and successfully engineered into Oxijet shower insert product by Felton in 2012.

## Established Benefits

- A feeling of increased flow over what is actually consumed, due to water stream volume expansion under aeration.
- Air and water combine to give luxurious shower and save water (up to 50%) and energy.
- Allows replacement of conventional “restrictor” *while still enjoying a comfortable shower.*
- Allows dosing with cleaning agent (e.g. kitchen lime remover) to remove stain from poor water quality, *conveniently from air inlets.*
- Avoids shower head (restrictor) blockage caused by poor water quality. *Oxijet allows free flow.*
- Easily fits into existing shower heads in most Australian households in minutes, thus no need to change the original shower head.

# Reduced Risk of Legionella Disease in Shower

- Based on CSIRO flow field analysis

Oxijet provides a better fluid dynamics condition to suppress growth of bio film, thus potentially reducing Legionella Disease Risk:

- Due to air-inlet holes in the Oxijet, water evacuates more easily from the hose and shower head when the tap is off. This minimises the risk of bio film growth in the shower head.
- Flow visualization study in CSIRO concludes there are stagnant flow regions (dead zones) in a flow restrictor. Such dead zones are more likely to grow bio film over time. The Oxijet does not have dead flow zones.
- Due to increased shearing from higher velocity and more intense turbulence under aeration, bio film is less likely to grow.

# Thank you

## Scientific and technical contact

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