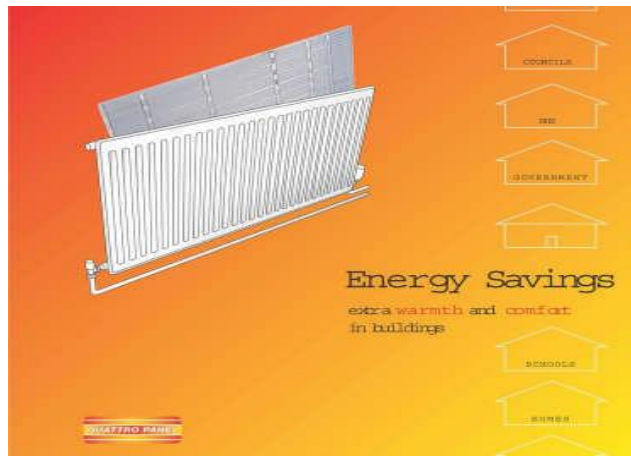


The Energy Savers

*Owners of the Intellectual Property Rights
ESTABLISHED 1991*



airOseal




TadpoleEnergy Ltd.

History

- ❑ Small Specialist Organisation
- ❑ 25+ years installing Quattro Seal –Est 1991
- ❑ Complete Project Management Survey > Invoice
 - ❑ Detailed Survey to Estimate
 - ❑ Payback Analysis for funding
 - ❑ Procurement process
 - ❑ Project Roll Out & Site Management
 - ❑ Quality Control
 - ❑ Client liaison
- ❑ Materials used
- ❑ Technical know how



Quattro Seal

A Rubber Polymer Compound which forms a High Quality Engineering Gasket



Energy Saving System

Before

Metal casement
Showing the gap



Preparation

Old flaky paint removed.
Sanded, dusted
degreased &
primed where
necessary



Application

Quattro Seal
being applied
so it absorbs
all of the gaps



Finishing

The finished
process. Checked,
opened, and now
eliminating all
draughts



Applications



- Will fill gaps up to 25mm
- Choice of colours
- Works on any fabric
- Any shape & style
- All windows operate as before sealing



Joint Sealing Applications

Frame to wall

Under sills

Short glazing

Glazing bars – Lead

Loft Hatches



Draughty UPVC Windows 3 Years Old



What To do When You Cannot Replace



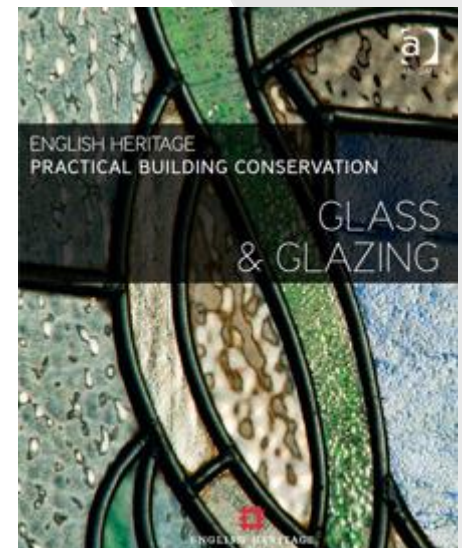
Before Treatment



After Treatment



Recognised by English Heritage for Listed Buildings
Fully reversible, Applied internally



Heritage Installations



Tower of London



City Hall Cardiff



National Maritime Museum



Natural History Museum



Carmarthen County Hall



Houses of Parliament



Belfast Castle



Oxford Town Hall



Hampton Court Palace



St Andrews University



National Trust



Queens Uni Belfast



Stormont



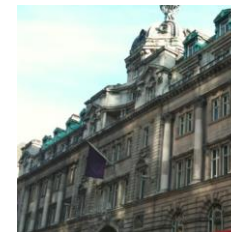
Royal College of Physicians



Wills Memorial Building



Waltham Forest Town Hall



LMU Moorgate



Tate London

Air Pressure Tests

- ❑ 1996 **BRE** **53%** reduction in air changes which translates into **27%** energy saving
- ❑ 2004 **BRE** **80%** reduction in air changes which translates into **25%** energy saving
- ❑ BRE for **EEC2**, (later CERT) on domestic properties which showed **2.3 times** the energy saving of traditional methods

Brush Strips VS Quattro Seal

Test 1: Existing window temporary sealed with tape
Volumetric Air Flow, Q_{50} : 616.6 m³.h⁻¹ @ 50 Pa

Test 2: Windows As-found
Volumetric Air Flow, Q_{50} : 1,153 m³.h⁻¹ @ 50 Pa

Test 3: Existing window brush seals removed
Volumetric Air Flow, Q_{50} : 1,215 m³.h⁻¹ @ 50 Pa

Test 4: After immediate application of Quattro Seal
Volumetric Air Flow, Q_{50} : 582.0 m³.h⁻¹ @ 50 Pa

Difference between Test 4 and Test 2 = Reduction in airflow through window

Volumetric Air Flow, Q_{50} : 571.0 m³.h⁻¹ @ 50 Pa

The reduction in air leakage equates to 49.5%, which has all been attributed to the freshly applied Quattro Seal.

Guaranteed



**A Written Five Year unconditional
Guarantee on Every Installation
(Includes Labour and Materials)**

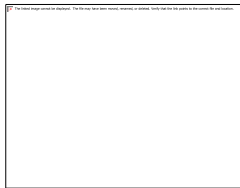
Verified by OFGEM with many installations over 17 years old



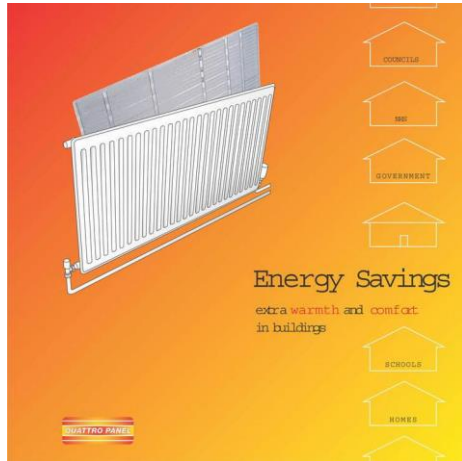
Ask about our options to extend to 15 years

Funding & Procurement for Our Services

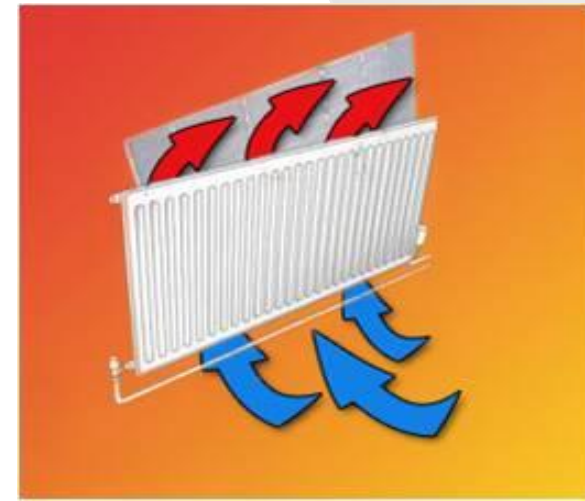
- ☐ Salix Funding
- ☐ Construction line
- ☐ Exor
- ☐ Chas



QUATTRO PANEL



- A metalized reflective radiator insulation panel
- Radiates heat back to the room
- Insulates directly behind the wall
- CERT – SALIX
- Salix No1 low cost, quick win technology
- DIY Fitting
- Low cost
- 5% Energy Saving





TadpoleEnergyLtd.

**Preventing corrosion, reducing unplanned maintenance &
Saves Energy in wet heating systems**

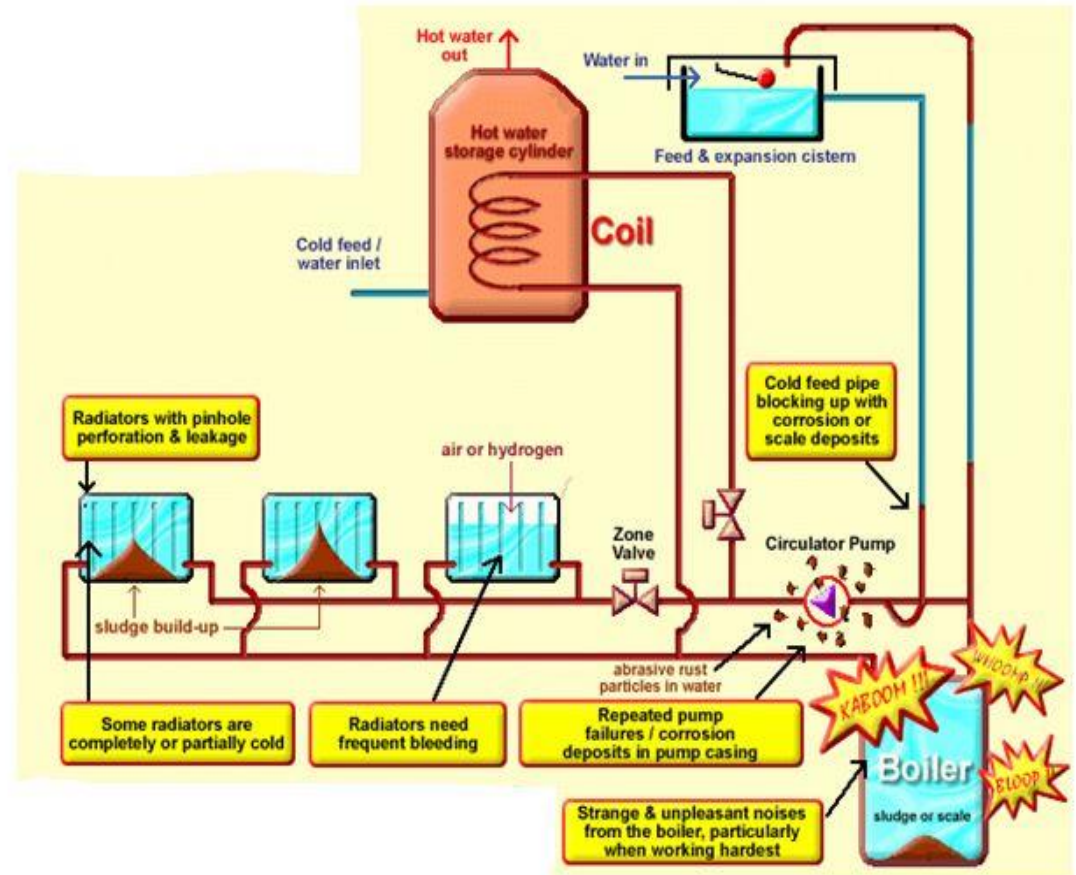
**Patent Application Number: EP 07848490.4
(Granted 26.09.17)**

www.tadpoleenergy.com



Imagine:

- No more pin holing
- No more bleeding of radiators
- No more rattling pipes
- No more sludge build up-caused by oxygen in solution
- No more repeated pump failures due to corrosion
- No more cold spots



And now imagine lower bills and reduced call outs!

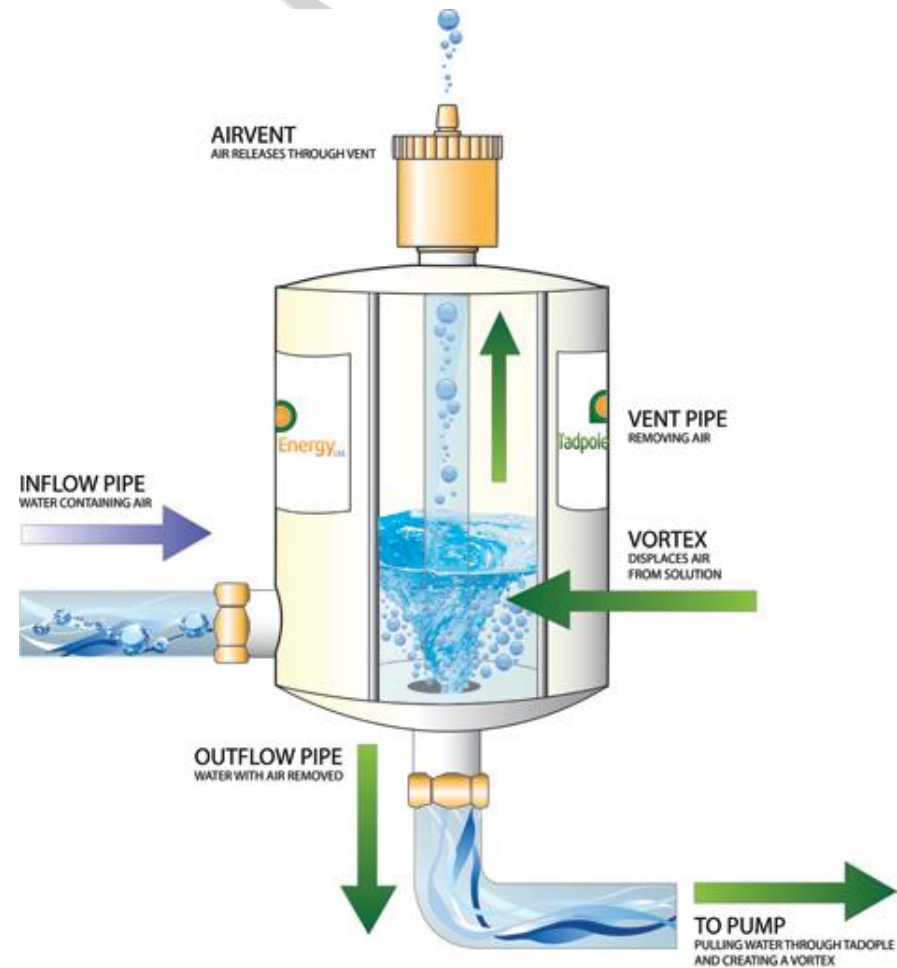
CORROSION

DO YOU WANT THE PILL OR THE CURE

DEALING WITH THE SYMPTOMS

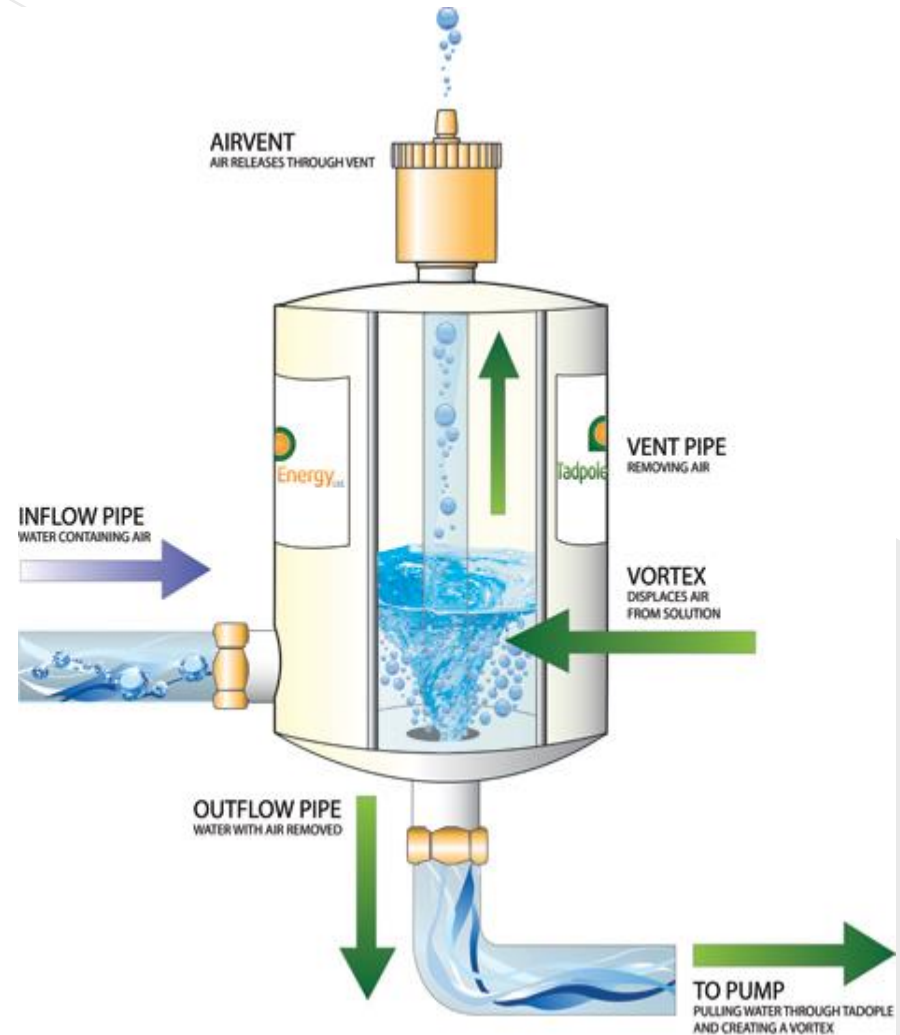
- **Magnetic Filtration**, only collects the elements of corrosion & requires annual maintenance!
- **Inhibitors**, which over the passage of time dilutes as fresh water enters the system & will have to be topped up!
- **Air Emittance Valves**, these only expel trapped air and not the dissolved gases !

THE CURE



HOW TADPOLE WORKS

- Boiler comes on and the pump kicks in
- A **Vortex** is created in the chamber
- In the middle of that there is a **Low Pressure Zone**
- Gases & **oxygen** are drawn out of solution
- This is expelled via a dip tube to an automatic air-vent



FORMAL TESTING

Tests by Tralee Institute of Technology (UKAS Accredited)

- **Energy Savings of over 20%**
- **Oxygen in solution down to below 0.5 parts per million**



TRALEE COMMERCIAL TESTS

**The Holy Family Primary School 300 Pupils
54mmTadpole**



CASE STUDIES

- **University of St Andrews, Fife:** 27% saving in energy use.
- **Driving Standards Agency, Nottingham:** Average of 19% saving in energy use.
- **Notting Hill Housing Trust, London:** 15%, possibly 20% saving in energy use.
- **Emotion Energy, Millnathort:** Radiator temperatures rose from 49°C to 55°C.
- **Lister Housing Cooperative, Edinburgh:** Boiler setting had to be reduced by 20% immediately.
- **Harrogate Borough Council, Copt Ewich:** 29% saving in energy use.

TYPES & SIZES AVAILABLE

Domestic/Small Commercial

- **22MM & 28MM**



Commercial

- **54 MM**



- **Guaranteed 10 years**
- **Price list available on request**

WHY TADPOLE

- **Easy install for both new and retrofit market**
- **Reduction in unplanned maintenance**
- **Less wear and tear which extends life of the boiler**
- **Manufactured in the UK and can be scaled up very quickly**
- **Totally Maintenance Free**
- **Fit and forget**
- **Zero Carbon Foot Print once installed**
- **Average pay backs range from 0.9 months to 3 years and Money Back Guarantee if Tadpole does not save you 10% on your heating bills in year one**