Preventing corrosion and improving energy efficiency in wet heating systems.

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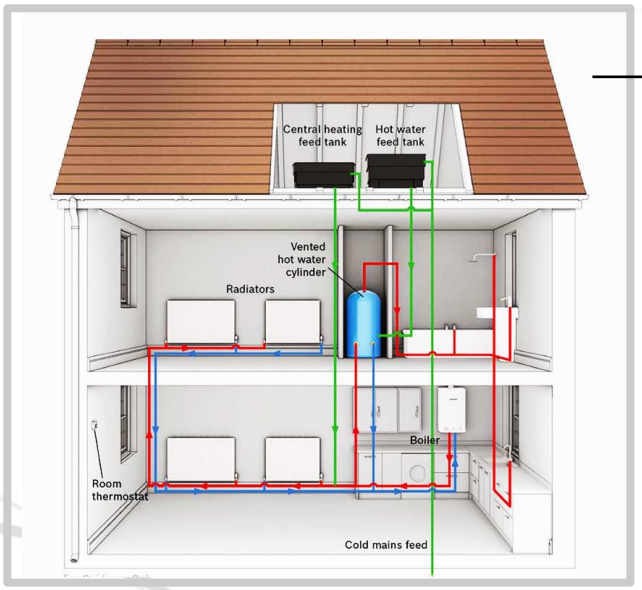
View our interactive Flipbook

www.airgon.co.uk

This is not a new phenomenon



Common Heating system issues include

- Pin Holing
- Radiators require constant bleeding
- Cavitation at pump - rattling pipes
- Magnetite build up caused by air in the solution creates leaks and heat failure
- Repeated pump failures due to corrosion
- End of line radiators and under floor not heating effectively

[The problem] is Air/O_2 and N in the system water

the dissolved Oxygen and gases react against the ferrous metals to produce magnetite

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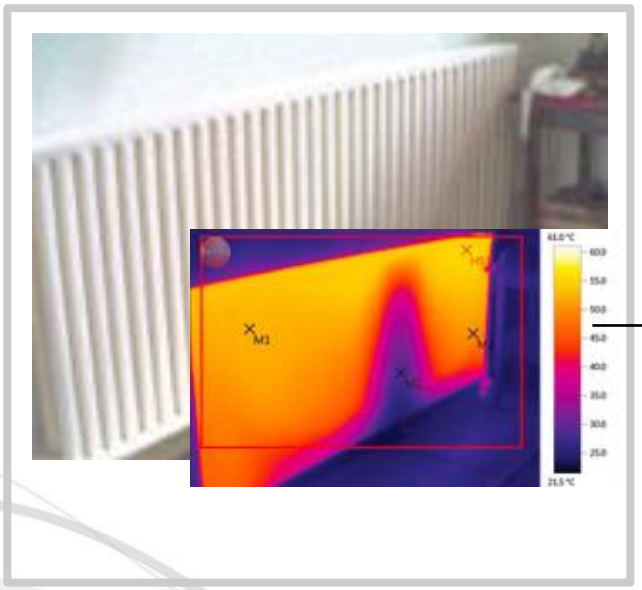
What is the impact of Air in a centralised heating system



The product of corrosion in a wet heating system is Magnetite

- Magnetite is a term used in plumbing to describe the dissolved metal held in the water of a wet heating system,
- Forms when air and water react with ferrous components
- Adversely affects the working parts of the boiler and radiators as it is pushed around the system water
- Micro-bubbles (Nitrogen) in the water lines pipes and rads and dissipates heat

[The Solution] is to make the water Inert .05ppm

by removing ALL the air and entrained gasses from the system water there is no problem

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Introducing Airgon A22 and A54

- Commercial energy saving technology that removes air and entrained gasses from the heating system water leaving it inert (.5ppm)
- Scientifically proven to work, Airgon is a patented design and application that retro fits to any wet heating system
- Reduces heating fuel consumption by around 15%-20% pa
- 20 year warranty, Lifetime guarantee
- 10% Minimum performance Guarantee or your money back
- Significantly reduces maintenance
- Extends life of an aged boiler by c. 7 years

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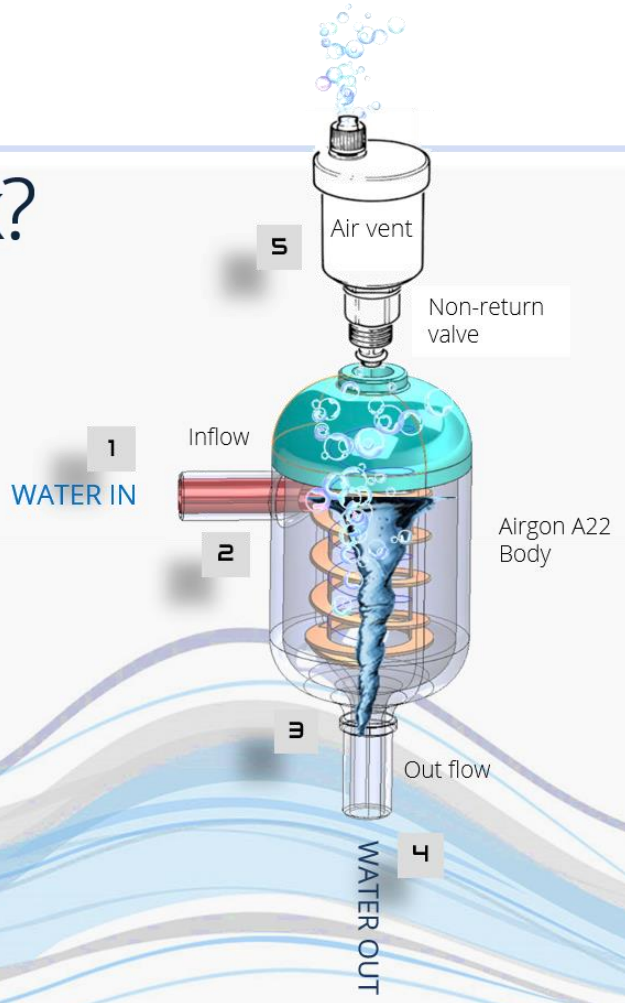
How does Airgon $_2$ work?

1. As the water enters the Airgon via the inlet, it swirls into a vortex within the chamber.
2. This creates a difference in pressure which encourages the entrained air and gasses in the water to leave.
3. As the water reaches the outlet of the Airgon the action of the vortex increases and the bubbles of air rise upwards.
4. The water is drawn out through the outflow to continue around the system but will now not cause cold spots in radiators and sludge cannot form and the cycle continues.
5. These bubbles are collected and released from the system through the one-way air vent.



Play Video

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Other remedies don't offer the same benefits

- **Magnetic Filtration**, requires annual maintenance - this is only collecting the product of corrosion and does not remove the air and dissolved gases
- **Inhibitors** require a regime and does not remove all the dissolved and entrained gases and can damage boilers
- **Air Emittance Valves**, these only expel trapped Free Air and not the dissolved gases that cause the biggest problems

Regular Maintenance and unexpected call outs are often an uncalculated annualised cost and can exceed the capex of a Airgon solution

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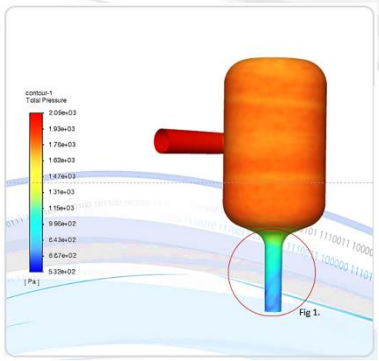
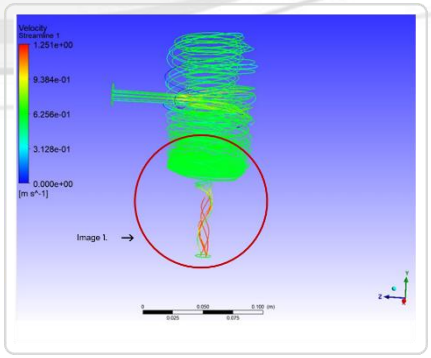
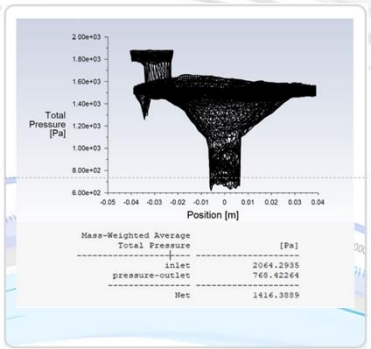
Formal measurement and SAP Accreditation

- Airgon Is engaged with TÜV SÜD National Engineering Laboratory as its partner on **Analysis for Innovators (A4I)** on projects using advanced Computational fluid dynamics (CFD) and Thermodynamic modelling to evaluate Airgon's ability to save energy and CO_2
- The bank of tests includes measuring the effectiveness of Airgons gas removal capabilities both physically and scientifically to measure energy performance improvements which in turn provides us with conclusive data on Energy cost and CO_2 reductions
- Our clear expectation is that the quality of these report will be sufficient to submit as part of our application to BRE for a Standard Assessment Procedure (SAP) rating, and as work packages are completed we will add these reports to the website. Please review their case study on Airgon **here** https://www.tuvsud.com/en-gb/resource-centre/case-studies







Why You should Choose Airgon

✓ Reduces heating fuel consumption	→	Save £ and reduce CO^2 emissions (AMR)
✓ Measurable performance	→	A/B testing with DD analysis
✓ Reduces unplanned maintenance	→	Stops corrosion No Magnetite
✓ Extends the life of the boiler	→	Conponents no longer conponent
✓ Maintenance Free (Fit and forget)	→	Airgon has NO moving parts
✓ Rental Model	→	Spread the cost and retain the CO2
✓ Rapid Payback & ROI	→	Most commercial sites less than 12 months
✓ Referral programme	→	Charitable donation/Re greening Project
✓ 20 years warranty	→	Lifetime replacement

"MONEY BACK GUARANTEE"

If Airgon does not reduce your consumption by 10% over 12 months from installation we will give you your money back

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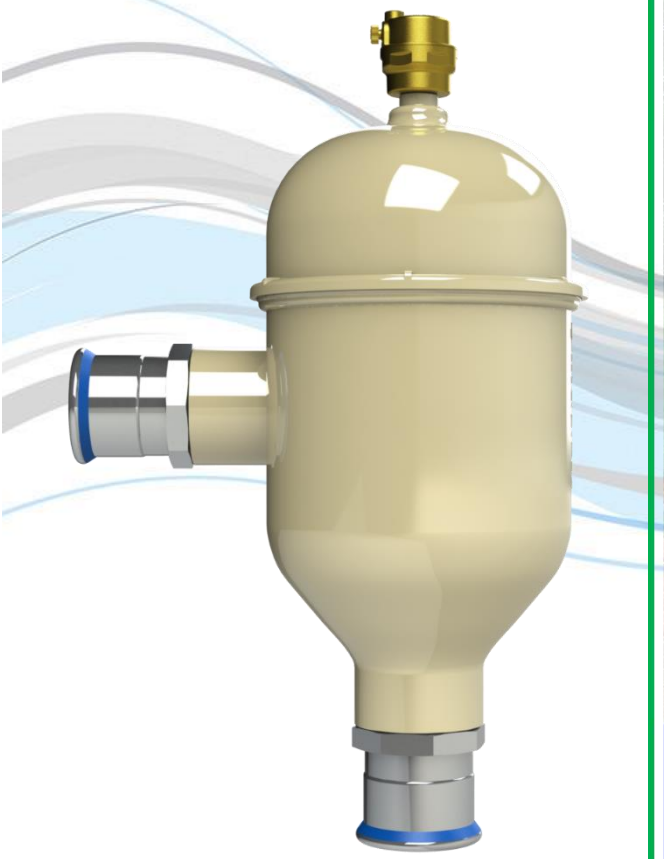
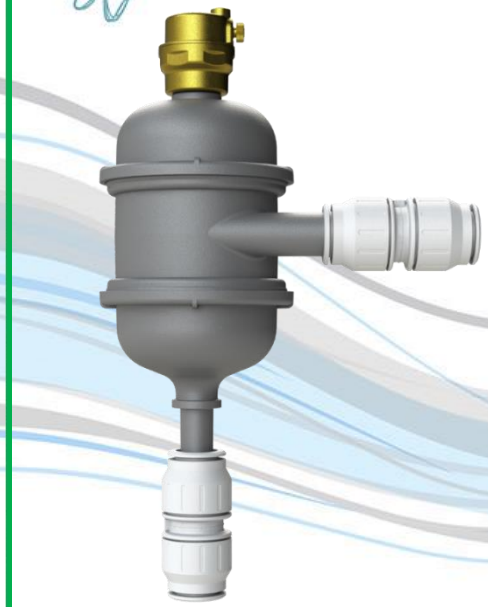


DID YOU KNOW...

A single Airgon A54 removes more CO_2 in 1 Year that 2,200 mature trees

A large (72 bed) care home consuming 1,176,470.5 kWh of Gas each year @ 0.085p will save a projected £20,000 every year at 20%.

This equates to a an annual reduction in their carbon footprint of 235,000 kWh each year /44.5MT CO_2 e Which is the equivalent to the abortion rate of 2,200 mature trees!!!



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TÜV SÜD Report Number: 2023_274. and 2023_304

100% MONEY BACK GUARANTEE

20 YEAR WARRANTY

ZERO Carbon Company

WE ARE CERTIFIED