



TUV SUD Scientific Analysis of Airgon A22

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18/05/2023

Report Number: 2023_274

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01/06/2023

Report Number: 2023_304

The summary below presents key findings from the above reports

Summary

A typical heating system environment was used as the basis for temperature, pressure and flow rates. Various flow rates, pressures and temperatures were used to ensure a good range of usage was covered.

These varied from 60C, currently being presented as the lowest temperature setting for saving energy, up to 80C which is traditionally the highest temperature usually found used in a domestic heating system.

Applying different flow rates enabled the Airgon performance to be tested on small, medium sized and large systems.

The reports were also able to show what the condition of a heating system would be in terms of efficiency and energy usage before and after the installation of Airgon. This included both how much energy could be saved on a new, clean installation, as well as how much energy could be recovered on an older, badly maintained system

Conclusions

- The Airgon A22 is highly effective at removing air from with a wet heating system.
- The thermal barrier without Airgon installed, even in new systems, starts to build immediately and even a small amount of air coating the interior surface of radiators can reduce the amount of energy transferred from the water by around 4%. This rises to 20% and higher if the air in the system is not removed.
- Removing the air from the water improves viscosity (flow) and heat transfer at 60C by approximately 15.47%. This means that even on brand new boilers, Airgon will reduce heating costs considerably.
- On older systems where an insulating layer of air has built up, Airgon can double this figure to around 31% dependant upon the state of deterioration and level of efficiency that can be recovered. Typically we expect to see between 18% and 23% improvement, which means bills are reduced by this amount, as is the amount of carbon being released.





- Magnetic sludge (Magnetite) and rust is prevented by removed the dissolved oxygen from the water. This stops decay from taking place and building up, which prevents boiler breakdowns and reduces call out repair costs.

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15th June 2023

