

PRODUCT NEWS

A forward step in the design of deaerators

Engineering Appliances has helped to pioneer the use of deaerators in the UK for both commercial and domestic systems. Now, with the introduction of a more advanced design, the company is confident that the market can be expanded. We spoke to MD Rob Vissers about the thinking behind the new product.

Fifteen years ago the use of deaerators in the H&V market was largely unknown in the UK. Today, they have become a standard component in virtually every heating and chilled water system and, in the last few years, their benefits are being accepted in more and more domestic applications. Sunbury-on-Thames based Engineering Appliances first introduced its range of deaerators back in 1988, but has now launched what it describes as a 'second generation' of products to help further expand the market.

"It's a product that needs to be demonstrated and explained," says MD Rob Vissers, "but the encouraging thing is that those who have used it continue to want to use it. When people understand the benefits and recognise how it can help to reduce maintenance costs, it's not hard to win them over."

So what exactly are the benefits of installing a deaerator on a central heating system? As the name implies, a deaerator is designed to remove air from the system. The existence of air and other gasses is a major cause of corrosion and nuisance noise. Gurgling in radiators is proof of air presence and suggests a lack of water in the system. For optimum efficiency, the radiator needs to be completely filled as any air bubbles can create a hindrance to the circulation of the water.

Oxygen in the water leads to corrosion and the formation of rust particles, which can ultimately result in the malfunction of

the installation. Its removal will help to avoid any need to introduce chemicals into the system. When combined with a dirt separator, a deaerator can help to prevent the build up of sludge and ensure that a system operates at optimum efficiency – all the more important for condensing boiler installations.

"If you fit a deaerator onto a new system, you should never have any reason to power flush the system at a later date," says Vissers. "Similarly, once a system has been cleansed of any impurities, and then fitted with a deaerator, there shouldn't be a need to treat the system at a later date. For local authorities and housing associations, this can produce a significant saving in maintenance costs."

Engineering Appliances estimates that it has sold around 30,000 units since it introduced a domestic version of the product six years ago, but it is confident that the size of the market could be much bigger than at present. Whilst the public sector has been the primary focus for the company in marketing these products, Vissers predicts that, in time, more and more installers will come to appreciate the benefits of not having to return to a job to deal with the problems of an under performing system.

"While we are more than happy to encourage installers to buy the products, they have not been our target audience. We have concentrated more on local authorities and other public bodies, mainly because the economies of scale mean that the specifier concerned can see the benefits of their installation in a reasonably short period of time. Also, it's worth pointing out that it can take as much effort to sell one deaerator to one installer as it can to sell a hundred to a local authority."

Naturally enough, as the interest in deaerators has increased, other companies have entered the market – a fact that has encouraged Engineering Appliances to look to further improve its own product offering. Now, having teamed up with a Swiss manufacturer, Pneumatex AG, the company is confident that it has at its disposal a product that is a step ahead of the competition.

The new Zeparo deaerator is said to combine the various methods of getting air out of water into one single system. It

features a Helicoidal insert that effectively speeds up the deaerating process and means that the commissioning of a new system can be achieved that much quicker. A further benefit of the new product is its modular design which means that it can be installed with or without a combined dirt separator. One option could be to install the Zeparo deaerator and then to add a dirt separator at a later date.

"At Engineering Appliances we've always looked to market products of the highest quality and, with the new products from Pneumatex, we have a range that offers some significant advances in design," says Rob Vissers. "Its products are simply the most effective on the market."

A total solution

The complete Pneumatex product range includes high performance pressurisation systems designed to offer a total solution for preventing corrosion in heating and cooling systems. Products include expansion vessels, compressor systems, automatic air vents and combined solutions to ensure completely sealed systems.

"The importance of pressurisation is something not widely understood in the UK," says Vissers, "but incorrectly pressurised systems is the main cause of air entering into the system and is, therefore, the underlying cause of corrosion. All Pneumatex expansion vessels use butyl bags which offer the best barrier against diffusion – this will provide the highest levels of gas-tightness. However useful a deaerator might be, it can only really deal with the symptoms of the problem, but the correct design of pressurisation system will ensure that no significant quantities of air will enter the system in the first place."

The impact of pressurisation and air ingress in a system is something that is now recognised as a problem that needs to be addressed. However, Rob Vissers argues that the latest products will not only provide a cure for any 'sickness' in a heating system but they will also go some way to addressing the cause of the illness. Time will tell if installers are ready to discard their old remedies in favour of a new 'drug free' approach.

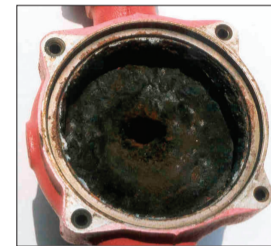
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The new Zeparo Deaerator showing the Helicoidal insert



Familiar sludge in a system radiator



Corrosion inside a system pump