

# Boiling Point



**Hamworthy**

Heating *at work.*

## ARE YOU IN CONTROL?

How our built-in controllers make life a little easier

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RIVERSIDE CHILDREN'S CENTRE  
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Sam Boshier

Editor/Marketing Manager

# FROM THE EDITOR

## Commercial catches up with domestic

We have often seen regulations and funding schemes implemented for the domestic heating sector eventually making it to the commercial sector, too. In 2005, Building Regulations saw condensing boilers become mandatory in domestic installations, and from 2015, the Energy-related Products Directive (ErP) also forced the demise of the atmospheric boiler in the commercial sector (boilers under 400kW). This meant condensing boilers have become the norm for replacements and new builds. So, I was really pleased to hear about the London boiler scrappage scheme being launched for commercial, after the success of the domestic scheme. Two years ago in Boiling Point we asked if this scheme could be replicated:

**Financing energy efficiency improvements** – with the end of the Green Deal and uncertainty over other financial schemes, the Government will need to set out simplified packages for funding energy efficiency improvements in non-residential buildings.



### Hamworthy says:

London has been leading the way with schemes such as the re:fit programme that has saved 103,000 tonnes of carbon from 607 public sector buildings. The scheme is now on its third framework and is being rolled out across England and in to Wales.

Plus, Boris' London boiler scrappage scheme has gone down a storm – could we see this replicated in the commercial sector?

### What do we know about the scheme so far?

The Greater London Authority has been awarded £10 million through the Government's Growth Deal 3 to deliver a rolling three-year pan-London commercial boiler scrappage scheme. The scheme will provide around 900 businesses (SMEs and other potential local enterprises), each with cashback on replacement of a working low efficiency boiler, with a new efficient low emissions boiler or renewable heating generation. The aim of the scrappage scheme is to boost non-domestic energy efficiency retrofit activity and reduce the level of NOx emissions in the capital to improve air quality and help deliver the Mayor's ambition to make London a zero carbon city by 2050.

## Not just carrots but sticks, too

On the other side of this is legislation. Our Marketing Communications Executive, Julia Maul, attended the CIBSE policy briefing to get the lowdown on what legislation is coming and how Brexit may affect this.

You can read her summary of the event on **page 8** and how the uncertainties of Brexit may not be as uncertain as the media make them out to be!

## Looking beyond the boiler

With 'Boiler Plus' coming for domestic installations this month (April 2018), requiring an additional energy efficiency measure (such as weather compensation, smart controls) to be put in place, will we see this for commercial next? In the Building Regs Part L you can already get a 1% heating efficiency credit point for sequential control of multiple boiler systems when replacing in existing buildings. As we know, boilers are getting as efficient as they can, so we now must look at how we 'drive' and install them to get the best out of the product. These additional measures are what makes the difference. This is something we cover in more detail on **pages 4-5** showing how our boilers' built-in controls go beyond the capability of most standard controls giving you the means to use your equipment most efficiently.

You can also see how this was implemented in practice at a children's centre in Kent: controlling a hot water cylinder and underfloor heating circuit using only the boiler's built-in controls. Read the full case study on **page 6-7**.

## Hot water hasn't been left out

ErP requirements are tightening for water heaters again this year. With the new rules coming into force in September 2018, it effectively means that atmospheric water heating units can no longer be manufactured. We know this makes refurbishment projects more complex, so we look at the choices you have (indirect vs direct fired) on **pages 10-11** and introduce you to our recently launched condensing water heater, the small but powerful Dorchester DR-CC.

As always, we hope you find this useful to help you keep ahead of changes coming in the commercial heating and hot water market.

Best Wishes

Sam Boshier

Editor/Marketing Manager

## We are @

### Hamworthy CPD event

**18TH APRIL**  
**HAMWORTHY HEAD OFFICE, POOLE**

A joint CIBSE-accredited CPD event with Sentinel Commercial. Learn about water treatment and methods of hydraulic separation.

### H&V News Awards

**19TH APRIL**  
**GROSVENOR HOUSE, LONDON**

The Oscars of our industry. Our new Upton space saving boiler is shortlisted for an award (find out more on the back cover).

### CIBSE Patrons lunch

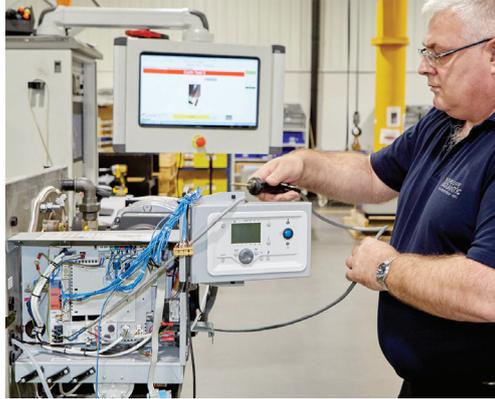
**24TH APRIL**  
**HOUSE OF LORDS, LONDON**

We'll be at the annual CIBSE Patrons lunch at the prestigious House of Lords.

# Boiling Point

SPRING/SUMMER18

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- Facebook: hamworthy
- Twitter: @heatingatwork
- LinkedIn: hamworthy-heating-ltd
- YouTube: HamworthyHeating

### CREDITS

Cover: Close up of our boiler controls

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## Got a question?

With commercial heating and hot water knowledge on tap, don't hesitate to get in touch:

**Sales:** 01202 662552

**Service:** 01202 662555

**Spares:** 01202 662525

**Technical:** 01202 662505

## Looking for technical info?

You can visit the online technical library to download full product info including CAD files, BIM objects & data tables.

**hamworthy-heating.com**  
**/technical-library**

Find all current and past issues at  
**hamworthy-heating.com/boiling-point-magazine**

# ARE YOU IN CONTROL?

Boiler controls have come a long way from a simple on and off switch.

With today's modern platforms, not just one boiler but a whole installation can be operated from the built-in controls.

How can they be used to their full potential? We're taking a look at the factors that impact heating behaviour and the technology which can help to optimise system performance.



## Heating zones – one method doesn't fit all

Some of the questions to consider when planning a heating system are: "What are the actual heat requirements? Could there be some areas of a building that require less heat than others?" If you take a kitchen as an example, there are ovens, hobs, kettles. In an office environment, people are present, lighting is on and IT equipment, such as servers and computers, is running. One of the outside factors is solar radiation coming in through windows. All these "free contributors" generate or radiate heat which influence the overall temperature. This means heating requirements can be lower compared to what they would be looking at room space in isolation.

On the other hand, there are spaces that are only used intermittently, such as corridors, where people pass through to get from one part of a building to another. However, the building envelope, separating the building from the outside which is made up of walls, floors, the roof, windows etc., is an area where a building loses heat, and from gaps in it where cold air can come through.

### For this reason, it is essential to

- a) monitor air temperature and external contributions
- b) divide a building into different heating zones to avoid unnecessarily heating one area or overheating other areas.

This effectively reduces the energy required, which lowers the costs to warm the building - heat is provided when it is needed, where it is needed, and at the right intensity.

## How can these free contributions be 'tracked'?

Sensors can help with detecting temperature (fluctuations) and then 'talk' about their findings to the boiler or a Building Management System (BMS). Internal space temperature sensors monitor the temperature in a heating zone such as the performance of heat generators and various heating circuits.

Additionally, they provide information about free contributors, That's why sensors should be installed in a "neutral" location – away from direct sunlight or other factors that affect measurements.

## How can you get the best out of your boiler?

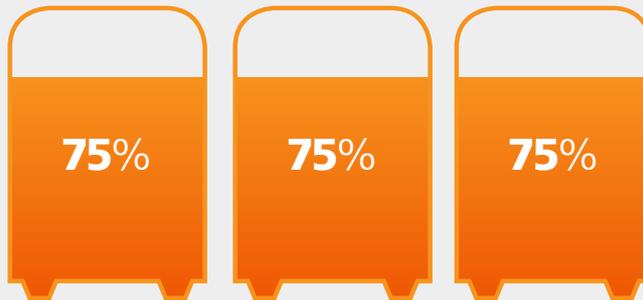
Looking at the boiler itself, built-in advanced controls help to improve efficiencies by e. g. establishing a wide differential temperature between the flow and return of the boiler. This helps to achieve condensing operation, such as 70/40°C, which means it is operating most efficiently and saving money. A wide Delta T also enables the boiler to work effectively alongside other technologies such as CHP.

When running multiple boilers at once, efficiency can be further improved. Several small boilers can work at more efficient lower loads compared to a larger model on its own. Using built-in controls, the whole installation can be operated in different modes, unison or cascade control. Each method has its own merits dependent on the hydraulic configuration local to the boilers. See diagram on top right for more information.



### Unison control

In **unison control**, the controller attempts to hold as many boiler modules firing at the same time to match the base load of the building. The aim of this setting is to have them all modulate to more efficient low fire together.



### Cascade control

In **cascade control**, the controller attempts to match the base load with as few boiler modules as possible. This means the next boiler module is switched on once the previous reaches 100% of its capacity.



Siemens LMS controls on Hamworthy boilers

### How can I control heating and hot water circuits at the same time?

Underfloor heating circuits can only take water temperatures of **up to 50°C** in order to prevent structural damage. What happens, however, if there is also a hot water requirement that needs to be satisfied? Built-in controls manage to juggle both.

This not only makes it possible to combine both but also improves operating efficiencies. How? **Move on to the next page to read about Riverside Children's Centre in Canterbury which was dealing with such a case.**

# USING CONTROLS THE RIGHT WAY

at Riverside Children's Centre



Canterbury-based nursery Riverside Children's Centre provides childcare and cooked meals for children aged 6 weeks to 5 years. **Philip Kiss**, Building Services Engineer at Canterbury City Council, turned to Hamworthy for a reliable and efficient solution for a heating and hot water refurbishment.

The chosen products **have already achieved cost savings of 16.7% after 7 months of operation** thanks to high efficiency in combination with advanced built-in boiler controls.

**Ian McGregor**, Area Sales Manager at Hamworthy Heating, identified Hamworthy's Stratton mk2 wall hung condensing boiler with stainless steel heat exchanger and a Halstock HS305UV stainless steel calorifier as an ideal replacement. The boiler delivers an output of 43kW, a gross seasonal efficiency of 95.75% and features an extensive Siemens LMS controls platform to supply heat and hot water the most efficient way. With a turndown ratio of up to 5:1, the boiler can closely match the heat from 8kW up to 43kW, avoiding wastage of energy.

The chosen calorifier delivers a continuous output of 390 litres per hour at a differential temperature (difference between hot water system flow and supply temperature) of 44°C. This model is suited for combination with smaller output boilers such as the chosen Hamworthy Stratton mk2.

## Finding a hard and soft water solution

Canterbury has very (temporary) hard water, caused by dissolved calcium hydrogen carbonate, which is why a water softener has been installed. Initially falling as rain, the water absorbs carbon dioxide from the air, transforming it into carbonic acid. When water is softened, it is no longer saturated by dissolved hardness which makes the contained acid more aggressive. This can become a problem for storage vessels, which is why the corrosion-resistant stainless steel products were chosen.

## Balancing hot water supply and low-temperature underfloor heating

The nursery has underfloor heating which can only take a maximum water temperature of 50°C to avoid structural damage to floors. With this in mind, a hot water priority strategy using the Stratton mk2 boiler's built-in controls was applied.

Philip comments,

*"I have worked with Ian over many years and he had a clear understanding as to what we needed: Primarily reliable delivery with maximum possible energy savings. So, I was confident enough to let him take the lead on designing the control regime."*

Ian explains the chosen control strategy for the children's centre:

*"We wanted to make full use of the built-in LMS controls of the boiler for controlling the heating and hot water. The Halstock calorifier heats up quickly – in only 38 minutes from cold. When required, the heating circuit is switched off and all power directed to hot water production at 80°C in non-condensing mode which takes merely a few minutes to top up water in the water heater. As soon as excess heat has been distributed around the hot water supply primary circuit, heating operation goes back to lower temperature condensing mode. This way, the underfloor heating circuit is protected from high temperatures and boiler running time in less efficient non-condensing mode is minimised. All this is done from the boiler itself, without the need for extra controls."*



## Gas savings after less than a year

When the new gas bill arrived in July 2017, the new boiler had been running for 7 months.

Philip comments,

*"For the year ending July 2016, our annual consumption was 152,433kWh at a cost of £9,545. For the year ending July 2017, it was 129,995kWh at a cost of £7,951 which means we're looking at savings of 22,438kWh and £1,593. The new boiler has only been running for just over half a year and we've saved 16.7% on expenditure for gas.*

*It's great to already be benefiting from cost savings. We're looking forward to comparing bills again in 2018 once the boiler has been running for a whole year."*



## Dependable energy-efficient heating supply supported by intelligent controls

The installation of the new boiler and calorifier benefits Riverside Children's Centre in several ways. The stainless steel boiler is delivering reliable heating and together with the calorifier a continuous hot water supply. Thanks to the fast recovery time of the calorifier in combination with the boiler's built-in controls with hot water priority setting, operation time in less efficient non-condensing mode for hot water production is effectively minimised, saving the centre gas and money.

About working with Hamworthy, Philip concludes,

*"I have enjoyed working with Hamworthy on this project because both their sales managers, Ian and Stuart, know what they are talking about and look after me. I know that I will receive sensible and practical answers to my questions."*

# FEATURED PRODUCTS

## Stratton mk2 wall hung boiler

*Compact wall hung boiler with corrosion-resistant stainless steel heat exchanger*

- Ideal for smaller commercial and public buildings including community schools, care homes, hotels, churches and retail units
- Available in 7 models with outputs starting from 43kW up to 146kW
- Built-in LMS boiler controls platform to control multiple boilers, including hot water or heating priority settings
- Benefits from low height – less than 2.2 metres to the top of the flue header when mounted on a low height pipe kit
- A concentric flue connector and integral flue gas non return valve allow space saving flue arrangements
- 6 models eligible for the Enhanced Capital Allowance (ECA) scheme which allows writing off 100% of the cost against tax profits
- Backed up by a 5-year heat exchanger warranty



## Halstock calorifier

*Indirect fired corrosion-resistant stainless steel calorifier*

- Available in 5 unvented and open-vented models with continuous outputs (@44°C ΔT) of 390, 527 and 1055 l/h and storage capacities from 305 up to 965 litres
- Highly efficient heat transfer from a corrugated coil design
- Minimal heat loss thanks to protective plastisol cladding
- Low maintenance due to no requirement for sacrificial or powered anodes
- Backed up by a 5-year cylinder warranty



# CIBSE'S LOOK AHEAD



We were invited to the annual policy briefing of the Chartered Institute of Building Service Engineers (CIBSE). Technical Director **Hywel Davies** updated CIBSE Patrons on legislation in the industry, with a focus of Brexit's impact on it. Our Marketing Communications Executive **Julia Maul** reports.

Right from the start, Mr Davies underlined that not as much is uncertain about the future of legislation as usually presented in the media. One reason for this is the strong link between EU and UK legislation. An example named was the Climate Change Act 2008 as UK legislation committing the UK to an 80% carbon emissions reduction compared to the 1990 baseline by 2050. The Minimum

Energy Efficiency Standards (MEES, UK legislation) which come into effect on April 1st this year, support these efforts but rely on EPC ratings which come from the EU. Some, however, are completely independent of the EU such as the Paris Agreement committing countries to keep the global average temperature rise significantly below 2°C (ideally 1.5 °C) compared to pre-industrial levels.



## Carbon emissions gap

Mr Davies summarised the findings of the 2017 report by the Climate Change Committee (CCC). The CCC advises the Government on what the carbon budget should be and monitors it while the Government sets out plans how to achieve it. The UK has made significant progress on carbon emissions which have fallen by 42% from 1990 to 2016. Interestingly, we have also seen energy demand growth break away from growth in GDP (energy demand usually increases with GDP). However, it is currently not set to meet the fourth (2023-27) and fifth (2028-32) carbon budget even with all EU legislation considered.

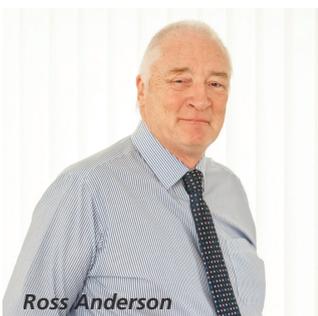
Mr Davies made it clear scrapping EU legislation to combat climate change would not contribute to the cause but rather "dig a deeper hole". Although how

carbon savings are achieved might change slightly, the UK has signed up to challenging targets, especially on grounds of the Climate Change Act.

## The Clean Growth Strategy

The Clean Growth Strategy was published in October last year to set out how the UK will achieve its carbon budgets. In January the CCC published an analysis of it which calls for firming up policies and proposals, along with more details to close the "emissions gap" to the fourth and fifth carbon budget. While there is a strong commitment to climate change targets, there is a real risk of underdelivery.

**Given that the fourth carbon budget is merely 5 years away, this is a reason for concern.**



Ross Anderson

## GREATER CLARITY OF GOVERNMENT THINKING

At a time when our industry faces many uncertainties it's encouraging to see both central and local government promoting, and in some cases funding, the development of new heating technologies – as well as improvement of existing technologies.

At central government level, the Department for Business, Energy and Industrial Strategy (BEIS) has launched its Clean Growth Strategy, with a stated intention of extending heat networks across the country. However, it also supports phasing out of coal and oil - a future challenge for off-grid facilities.

At local government level, the Mayor of London's Energy for Londoners Scheme promotes several energy efficiency initiatives, including plans for a commercial boiler scrappage scheme.

These, and other, initiatives have the potential to give a real boost to the more innovative and forward-looking companies

within the commercial and industrial heating sector. This increased clarity on how government bodies are thinking is a useful guide to where new product development should be focused.

Ross Anderson

Industrial & Commercial Energy Association



The commitment to MEES has been very clearly restated in the Clean Growth Strategy. **They are enforced on 1st April this year** and make it unlawful to let a non-domestic property with substandard energy rating (EPC band of F or G) to new and existing tenants (renewal or extensions). From 1 April 2023, this will be extended to all remaining leases (from 1st April 2020 for domestic properties).

The Energy Savings Opportunity Scheme (ESOS), an energy assessment scheme for organisations in the UK meeting certain criteria, originating from the EU Energy Efficiency Directive, is another piece of legislation which is unlikely to be scrapped. Although Mr Davies said there is a trend towards the ISO 50001 certification which companies can use instead of an ESOS audit.



Other topics mentioned were the **Carbon Reduction Commitment** (reporting of emissions from electricity and gas supply not already covered by Climate Change Agreements and the EU Emissions Trading System) ending in April 2019 and a consultation by the Government with the industry that resulted in a request for a common reporting framework to cover emissions.

## Implications of transferring EU law

A white paper published in March 2017 set out how the UK plans to leave the EU, incorporating all applicable EU law into UK law, including directives and regulations. The former means the EU sets out a goal and the member states have to implement their own laws to achieve it. The latter is law directly applicable in all member states. A concern raised by Mr Davies is the **non-transfer of fundamental principles such as “polluter pays”** as set out in treaties and so-called “recitals”, the numbered paragraphs at the start before the articles in directives and regulations. Henry VIII's clauses have also been added to the bill which effectively enable ministers to amend legislation without any consultation or scrutiny by Parliament once it has been transferred. He warns there is not only “a fundamental democratic principle at stake” but also that “there is some uncertainty over what happens once legislation has transferred across”. An example would be impact assessments on e. g. businesses which are usually supposed to be carried out when the Government can change legislation. He concludes that “whether any of that’s going to happen, is questionable.”

It is also uncertain how EU legislation will be dealt with which only comes into full effect after the UK has left the EU. An example is an update to the EU Energy Performance of Buildings Directive (EPBD) to promote the use of smart technology and building renovation.

## The UK is on the right track, but there is more to do

To sum up Mr Davies’ point: **There are some uncertainties, but there is no rational argument to abandon plans the UK has already made to achieve the carbon savings it has committed to.** The words of warning by the CCC about the UK not meeting future carbon budgets with all currently planned actions considered should ring alarm bells. Scrapping existing laws would be even more counterproductive.

Given that EU and UK legislation are intertwined in many respects, it would not make much sense to, either. On the contrary, further measures are necessary to be able to achieve the carbon budgets.

The uncertainties that do exist stem from how EU legislation which will come into effect after the UK has left the EU will be handled, and how ministers might apply the Henry VIII’s clauses once EU legislation has been written into UK law.

*At Hamworthy, we are committed to staying ahead of legislation. We maintain close links to our industry bodies not only to make sure we comply but also to be able to advise our customers.*

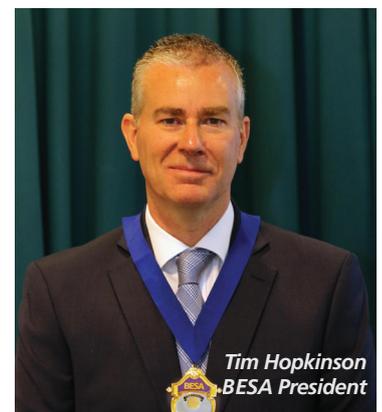
Find out more at [hamworthy-heating.com/legislation](https://hamworthy-heating.com/legislation)

# HOW DO YOU SOLVE A PROBLEM LIKE RETENTIONS?

More than £10.5bn of SME’s potential working capital is locked up in retentions every year and £700m was entirely lost to SMEs over the past three years. This amounts to £20m a month, £4.5m a week or £900,000 per working day.

A BESA backed bill introduced to Parliament by Peter Aldous MP on January 9, seeks to amend the current Construction Act to ensure that any money held back from suppliers by main contractors in the form of ‘retention payments’ are protected by being placed in a special ring-fenced deposit protection scheme.

Tim Hopkinson, BESA President commented “In the wake of the Carillion collapse, it is paramount that the impact of upstream insolvency on the supply chain is mitigated, and this bill should be a stepping stone on an industry roadmap to full abolition of retentions in the near future.”



Tim Hopkinson  
BESA President



# THE DEMISE OF THE ATMOSPHERIC WATER HEATER

A reliable hot water supply is vital. Many buildings, such as government premises, hospitals, and schools cannot open if they have no hot water.

But if you are faced with replacing old atmospheric hot water plant, your choices are likely to include:

- Replace** like for like with an atmospheric water heater
- Upgrade** to a condensing water heater
- Switch** to an indirect calorifier or plate heat exchanger heated by a boiler
- De-centralise** and install point of use hot water heaters

From September this year, you'll have one less choice as you can no longer replace like for like with a new atmospheric heater. How come? Let's look back at the reason behind the change.



## Recap on the regulations

In our last issue of Boiling Point, we covered the Energy-related Products Directive (ErP) and the phased regulations that were coming. From 26th September 2018, tier 3 of the regulations will be enforced. This includes NO<sub>x</sub> emission limits and more stringent rules for efficiency that atmospheric water heaters cannot meet.

Load profile of water heater <sup>1</sup> /Year of implementation	Minimum Energy Efficiency <sup>2</sup>		
	2015 Tier 1	2017 Tier 2	2018 Tier 3
3XS	22%	32%	Water heaters with low max load profiles become obsolete
XXS	23%	32%	
XS	26%	32%	
S	26%	32%	
M	30%	36%	
L	30%	37%	
XL	30%	37%	
XXL	32%	37%	60%
3XL	32%	37%	64%
4XL	32%	38%	64%

1. Load profile as indicated by the manufacturer.  
2. Different efficiency levels apply for water heaters with smart controls.

But consider a system with a bank of atmospheric boilers and atmospheric water heaters on a combined flue. If you need to upgrade the water heaters to condensing, you'll need to separate the flue systems as the mixed appliances cannot be combined on the same flue.

Separating the two appliance groups might not be possible due to space, budget constraints and possible flue runs. In this situation one might consider using a calorifier if there is sufficient boiler capacity, or even replacing both the boilers and water heaters to highly efficient condensing models for greater efficiency and energy saving gains.

## Condensate

As well as dealing with condensate in the flues, you'll also need to consider how you will drain the condensate from the water heater. When operating at suitable condensing temperatures, a condensing water heater has the potential to produce condensate at up to 13 litres per hour per 100 kW input energy. A condensate pipe will be required from the water heaters to a suitable drain. If there isn't an accessible drainage point, for instance in a basement plant room, then a pump can be used to pump the condensate to a drain, possibly at a higher level.

## Integrating a calorifier with existing products

We've talked about the challenges you would face by changing to a condensing water heating unit. This might lead us to think the method of an indirect fired calorifier coupled to an existing boiler looks favourable – no flues needed, no condensate to get rid of, cheaper, easy to install and can be just as efficient as a condensing water heater. However, if using an existing boiler, you'll need to break into the heating circuit to install the calorifier which can mean disruption to service in the building. The existing boilers may not have the capacity to also provide heat for hot water. This means you may need new or additional boilers and you'll need extra pumps and maybe controls to prioritise hot water over heating (unless these are built in to the boiler as with Hamworthy boilers, which you can read more about on [pages 6-7](#).)

## Influencing the choice

What do you need to consider when assessing your hot water system options? There are many factors that affect the choice and they will always be client and site specific. What works best for a school or leisure centre may not suit a church or office building as they will have different hot water demand profiles and 'minimum safety levels' to ensure they don't run out of hot water.

## Flues

If you are changing from atmospheric water heaters to condensing water heaters, a full flue system change will be needed. This is to enable the flue system to cope with the condensate released from the flue gases and positive pressure created by the fan assisted burner.



## The art of separation

Then there is the consideration of efficiencies and how to best use the individual products, either working together or separately. To heat a calorifier, you will need higher temperatures from a boiler. For a condensing boiler to be working most efficiently, it should operate with low return temperatures to provide greater opportunities for condensing boilers to actually condense and run in their most efficient state.

The ratio of hot water demand to heating is a key consideration. During the summer months, demand for heating will be low so you may not want a large boiler only delivering heat to a calorifier. However, due to the modulation rates of modern boilers, often 5:1 turndown, they do not need to work flat out at full capacity. They can operate at, say, 20% to meet the hot water demand and then when heating demand returns in the autumn/winter, they can modulate up incrementally to full capacity.

On the other hand, by separating the heating and hot water with the use of standalone direct fired units, you can raise the efficiency of the hot water generation, particularly in summer. Another benefit is the ability to have separate control of your systems. There may be higher costs for installation and maintenance associated with direct fired water heating units. However, many premises cannot risk a combined system, as they need the assurance and backup of the heating and hot water systems operating independently. Take a hospital or prison, they typically design their systems with 100% redundancy and we generally see them opting for direct fired units. This gives them the best security in supply for safety of their building occupants.

## Bringing it all together

With so much to consider, we always recommend starting with the client's key objectives – security of supply, efficiency, cost. Next step is to consider these in relation to the site, as well as hot water demand and the practicalities of the existing space (plant room) and equipment (boilers and flues).

Given that there are many factors to consider, the planning and design stage will take longer. We highly recommend you review your hot water equipment as soon as possible to ensure it meets all objectives. We can help with one of our free bespoke site surveys. You can request one for your site here:

[hamworthy-heating.com/site-survey](http://hamworthy-heating.com/site-survey)

# A model for every building



## Get ahead of 2018 ErP rules for water heaters

From September this year, atmospheric water heaters will not meet the efficiency requirements of the Energy-related Products Directive (ErP). Your choice? Condensing water heaters or indirect fired calorifiers.

Talk to us to find your  
ErP compliant solution

| 01202 662500

| [enquiries@hamworthy-heating.com](mailto:enquiries@hamworthy-heating.com)

| [hamworthy-heating.com/erp-water-heaters](http://hamworthy-heating.com/erp-water-heaters)

| @heatingatwork

***\*Under ErP rules most atmospheric water heaters can no longer be manufactured from 26th September. You may be able to purchase after this date while stock lasts.***

# THE UPTON BOILER IS UP FOR THE H&V NEWS AWARDS



Our highest output modular boiler, the Upton, has been shortlisted for one of the biggest prizes in the industry, the H&V News Awards, as Commercial HVAC Product of the Year.

The Upton boiler was released in summer 2017 after years of research and development to meet the challenges of the heating industry. The boiler with aluminium heat exchanger can deliver 1MW of output from less than 1m<sup>2</sup> of footprint and is ideal for city-centres where space is limited.

Hamworthy's customers say:  
"They really are incredible, the space saving is huge"  
and "The high kW output from a very small footprint is the main USP that draws me to the product".

The precision-engineered aluminium heat exchanger features a sectional design which provides quick heat up times and a high water flow velocity to prevent scale formation and remove particle residues for a reliable heat supply.

A high turndown ratio of 5:1 per module in combination with low NO<sub>x</sub> emissions makes its operation highly energy efficient and environmentally friendly.

**Sam Boshier**, Marketing Manager at Hamworthy Heating, comments

"We're very excited about being shortlisted for the H&V News Awards 2018. It's a wonderful opportunity to showcase excellence in manufacturing and product development. We're looking forward to the ceremony and hope the judges recognise the hard work put into this product when choosing a winner."

The H&V News Awards ceremony will be held on April 19th at the Grosvenor Hotel in London.

Learn more about the Upton:  
[hamworthy-heating.com/upton](http://hamworthy-heating.com/upton)

**FINALIST**



The Upton boiler builds on a long and successful heritage of Hamworthy designing and manufacturing commercial modular boilers in the UK.

## CAST YOUR EYES ON THIS



This year, we are building on the legacy of the Purewell Variheat cast iron boiler. We're enhancing our popular boiler range – with some new features. The cast iron boiler is already robust and great in refurbishment projects due to its tolerance of older heating systems. With a heat exchanger design featuring large waterways that has been used for more than 50 years, we are assured of its dependability and performance.

### What enhancements are we making?

- Siemens LMS controls – for controlling multiple boilers, hot water circuit and standardisation across our whole boiler range
- Changing from hot surface ignition to spark ignition

Look out for the Purewell Variheat mk2 coming later this year. To be the first to hear about this product, sign up to our product news: [www.hamworthy-heating.com/signup](http://www.hamworthy-heating.com/signup)

## GET FAMILIAR WITH HYDRAULIC SEPARATION

New CPD seminar



Heating refurbishment projects can be challenging. To keep the primary heating circuit with new boilers on it clean, hydraulic separation can help. In our free CIBSE-accredited CPD "A Story of Separation: New Boilers on Old Heating Systems", attendees can learn about different methods of hydraulic separation such as the installation of a low loss header, a plate heat exchanger or using a no flow boiler and buffer vessel, and how problems can be overcome. CPD points gained contribute to CIBSE members' required annual CPD hours. To learn more about this CPD seminar and others we offer, visit [hamworthy-heating.com/cpd](http://hamworthy-heating.com/cpd)

### What do our customers think?

**Dave Saunders** from Skanska who attended our CPD event in February at our training centre in Wokingham says about our newest seminar: "An excellent course, well delivered & easy to understand."

## Boiling Point

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Heating *at work.*