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EXPERTLY ENGINEERED WATER HEATING

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How Hotels can really profit from sustainability

Bespoke hot water and heating applications for the hotel industry

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Room for sustainablility

Hotels are continually fighting with their competition to offer the most affordable rates, the best amenities, and the most outstanding guest services — all while making a profit. Now more than ever green, or sustainable tourism is becoming a deciding factor when choosing a holiday.

From boutique to national chains, **Adveco specialises in creating bespoke hot water and heating applications for the hotel industry** that leverages all the advantages of renewable technologies, from air source heat pumps, and solar thermal to heat recovery. We can also smartly combine these with existing gas-fired systems or new all electric appliances to drive sustainability and greater efficiency to support improved guest amenities while reducing both CO emissions and operational costs. This can all be brought together in prefabricated structures that relocate heating and hot water plant to ‘dead spaces’ such as yards, alleys and in particular roof tops to maximise space and profit.

Solar Thermal panels supplied for central London hotel.

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Adveco Ltd. was established in 2015 as the sister company to Adveco (AWP) Ltd., who trade as A.O. Smith Water Heaters and has been the UK supplier of A.O. Smith products and services through a partnership lasting 50 years.

Today, Adveco Ltd. is the trusted specialist provider of bespoke hot water, heating and power systems to the building services industry. Committed to partnering with its commercial and government customers, Adveco helps create comfortable, efficient, functional, safe and sustainable buildings through invaluable support in the design, supply, commissioning and service of business-critical hot water, heating and power.

Our industry-leading Technical & Design teams support contractors with a single, versatile, specialist sales resource that ensures delivery of the most cost-effective system. Specifiers and designers gain informed support and partnership for the design and delivery of industry defining systems optimised to be highly efficient. Adveco also offers a full range of service and preventative maintenance packages designed to fit the specific needs of the client. Facility Managers gain reliable, business-critical hot water, heating and power systems that exhibit maximum system performance for low running costs, ease of management and longevity to realise low total cost of ownership.

WHY ADVECO?

50 years of expertise

- Adveco Ltd. is the sister company to Adveco (AWP) Ltd, who trade as A.O. Smith Water Heaters in the UK

Highest quality products and services

- We prioritise our clients' needs to deliver bespoke, practical systems

Full aftersales support

- Training
- Maintenance and service packages, commissioning, spares, warranty, servicing and technical support for your application.

How environmental sustainability can be achieved

IMPROVE EFFICIENCY

Improve efficiency for a calculable reduction in energy consumption.

REDUCE EMISSIONS

Reduce or completely remove emissions from estate building.

ADAPT EXISTING SYSTEMS

Adapt or replace existing hot water and heating with low carbon hybrid systems that economically bridge to future sustainable technologies.

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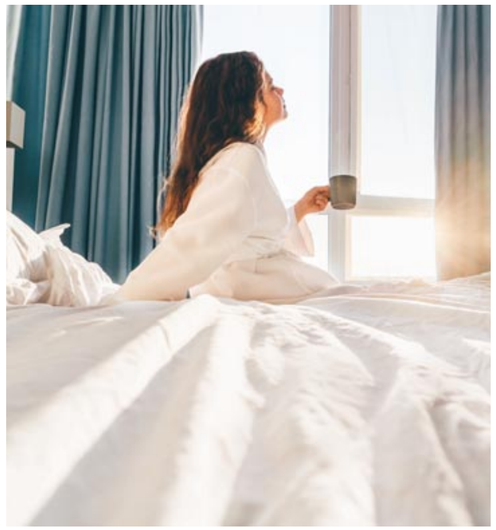
Heat Pumps for lower carbon emissions in new hotels



Commercial hot water (DHW) applications using air source heat pumps (ASHP) are going to be complex and, compared to gas-fired alternatives, are going to have higher up-front costs.

Designing the system for peak efficiency, and therefore sustainability, is a must to help offset this additional capital investment when compared to traditional gas-fired systems.

A viable alternative for the provision of commercial-grade hot water in hotels

NEW INNOVATIONS

NEW INNOVATIONS IN HEAT PUMP TECHNOLOGY AND REFRIGERANTS THIS COMING YEAR will further enhance the advantages of the technology, lowering the impact on global warming, while improving efficiency from more compact units that will also operate more quietly.

An important consideration when considering guest comfort.

Such technical improvements are helping to cementing the positioning of heat pumps as a truly viable alternative for the provision of commercial-grade hot water in hotels.

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Solar Thermal
for refurbishing Hotel accommodations

A proven and extremely reliable technology, solar thermal offers a clear path to reducing CO_2 emissions.

Correctly designed and sized to the application, such as hotel accommodation, solar thermal systems can generate a considerable proportion of the hot water requirements for buildings that are already on-gas with relatively short payback periods on the initial capital expenditure, while leveraging lower-cost gas to meet peak demands.

Hotel accommodation will typically use paired condensing gas water heaters sized to supply up to 100% of hot water demand to ensure consistent hot water availability throughout the year. The addition of solar thermal preheat on the cold feed reduces the need to fully employ the gas water heaters, reducing energy demands, costs and emissions. Solar Thermal alone will not provide for the entire hot water demand of a building, but, a typical preheat system with 1500-3000L storage will employ 12-24 panels and be able to service the demands of hotels from 50 to approximately 120 guests.

Application design specialists

Leveraging Adveco's application design specialists is especially valuable when assessing the demands and limitations of a building. For instance, flat roofs will find up to 25% of the total space available for solar panels will be limited by the allowance for access and prevention of shade which would otherwise compromise system efficiency.

As building footprints become more compact and high rise, especially in the case of city hotels, available roof space to demand sharply decreases and solar thermal will come into competition with other heating and ventilation systems using the roof as real estate for installation.

Solar thermal panels St James Square, London

Solar thermal plant, Horseguards Hotel

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reclaim useable space

Packaged plant rooms

When it comes to making a profit, the easiest way to charge more for a room is by adding space to it, or by adding more rooms in total.

Either way that is going to help improve the bottom line. The same goes for hotel restaurants, where maximising floor space means more tables. Architects and hoteliers will therefore be look to every square centimetre of their properties for opportunities to maximise revenue.

Simply upgrading to a new gas-condensing boiler or electric water heater can deliver notable efficiency improvements over models from just 10 years ago, and today's modern appliances pack that into much more compact, space saving formats. So, you could gain greater capability from a smaller footprint in your plantroom, and potentially reclaim a few square meters. But what if you could reclaim the entire plantroom?

Adveco can help by smartly combinng renewable technologies, from air source heat pumps, and solar thermal to heat recovery with existing gas-fired systems or new all electric appliances in prefabricated structures that relocate heating and hot water plant to previous 'dead spaces' such as yards, alleys and in particular roof tops, reclaiming valuable indoor space to provide for additional or larger rooms, or extend dining spaces.

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Flat roof tops are truly 'dead space' for most buildings, but it provides a broad opportunity to relocate heating and hot water plant safely and more securely.

A simple crane lift is all it takes to locate a prefabricated plant room, and these can be of considerable size and complexity should the roof space be large enough to accommodate.

All you need is underutilised space.

Additionally, the space lends itself to locating hybrid systems that integrate renewable and sustainable technologies. A rooftop placement of heat pumps not only typically supplies unimpeded air flow, the noise, though relatively low, now becomes almost unnoticeable to those on the ground, an important consideration for guests and neighbours of city hotels especially.

Our packaged plant rooms can be dropped into any crane accessible space

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Heat Recovery - be more sustainable by recovering waste heat from kitchen freezers

The Adveco **HR001**, a standalone Heat Recovery Unit providing a convenient, packaged unit to recover refrigerant system waste heat.

Perfect connecting between fridge and freezer condenser units and a hot water installation in hotels operating busy kitchens, the **HR001** utilises the waste heat generated by the compressor to indirectly pre-heat the incoming mains within a hot water installation.

Capable of achieving preheat working flow temperatures as high as 50°C, comprehensive customer experience of the HROO1 comparing both gas and electric heating systems shows weekly heat recovery averaging at 155 kWh/wk per site. Hotels therefore not only save money by recovering ‘free’ heat, but this saved energy means less overall power demands and reduced building emissions helping a building towards new sustainability goals.

The **HR001** connects directly to Adveco’s control panels for seamless integration into a water heating installation.

Seamless integration into a water heating installation

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maximise space and profit

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