



Client:

SPITFIRE
HOMES

Location:

Solihull, Birmingham



Products Used:



CLIMEX®
Climate
Controls

Heating Helps Keep a Newbuild Basement Free From Water Ingress

Project Overview

Spitfire Homes are an award-winning homebuilder with a design-led approach that ensures new homes are both beautiful and practical in equal parts.

In July 2023, Spitfire Homes were tackling the construction of a high-value, newbuild home in Birmingham.

Challenge

One of the earlier stages of construction involved basement works. The basement measured 585m³ volume and laid the foundation for achieving completion and handover by the end of the year.

As the newbuild project was in the early stages, the house did not yet have a roof. This meant that when rainfall arrived unexpectedly, the basement works currently underway had to pause due to flooding, with drying of wet trades facing potential delay.

Once the flood water was cleared, the basement needed to be sufficiently dried out before the project could progress onto the next stage. Once the basement was sealed and the risk of additional water ingress was low, the drying out-process could start.

Due to the size of the basement, Spitfire Homes needed an effective climate solution that would warm and circulate air sufficiently whilst removing moisture from the air whilst keeping them on-track for the end-of-year deadline. They reached out to RVT Group via a Trade Hire Desk Partner to carry out a thorough site assessment and make a recommendation that worked for them.

The benefits of heating during summer months:



Drying-out projects can be quicker, benefitting from both natural heat and supplemented by forced heat.



Maintaining warmth from the summer costs less than heating up a building that is cold or wet.



Fuel consumption is reduced in warmer weather when using a thermostatic system.



If there is warmer weather outside, even if the building is not well maintained, less heat will escape in summer than in winter.

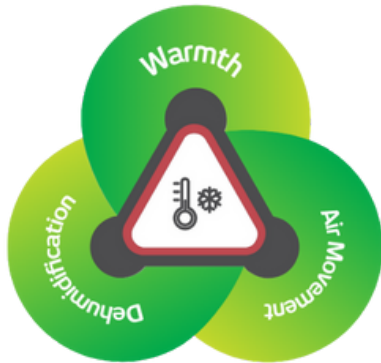
Tool Box Talk:
How To
Effectively
Dry-Out a
Building



Solution

RVT Group recommended a bespoke solution including a 65kW CLIMEX® Indirect Oil-Fired Heater which constantly heated large volumes of fresh air and was then forced into a building via ducting. These units continuously displace the damp air in the building with fresh warm dry air, thereby achieving regular air change through positive pressure.

The heater was paired with 3 warm air distribution kits to ensure the heated air was circulated across the entire basement area and 3 CLIMEX® Dehumidifier 96 Litres removed the significant levels of moisture from the air. Together, these three solutions not only helped to speed up the drying process but also fulfilled effective drying-out in-line with RVT Group's methodology pictured below:

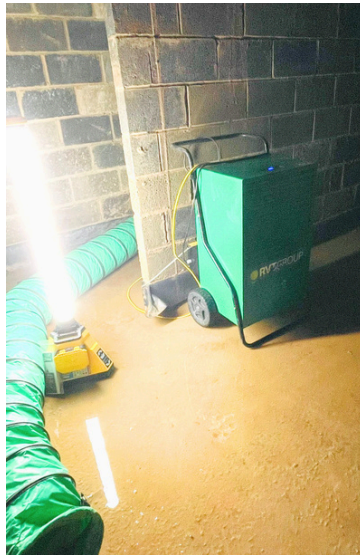


Air movement across a material draws the water to the surface, where it evaporates.

Dehumidification extracts water from the air, to be transferred from the work area.

Heat raises the room temperature and lowers the relative humidity of the air. This allows the air to absorb more water from surrounding surfaces.

RVT Group also supplied products to support the lack of power during the early construction phases. This included a generator, a bunded fuel tank, distribution boards and several other ancillaries. By trusting RVT Group with their drying-out requirements, Spitfire Homes could rest assured that all angles of their challenge were covered and their project was able to continue with minimal disruption to timelines and maintenance of the integrity of completed work.



Does your project require a bespoke heating or drying-out solution?

We'll assess your site for free!

[Read more about our Hazard Control Assessments >](#)