

# F.D Hall & Son Ltd - Case Study

## Project Type

Industrial - Agricultural - Insulating A Nissen Hut

## The Project

FD Hall & Sons Ltd are a Cornish Construction company who were sourced by their client to refurbish an agricultural nissen hut in Tavistock. The structure sat on the grounds of a large country house and the project included a change of use from agricultural barn to an entertainment barn for family and friends.

The corrugated structure had unique features that included wooden beams and it was at the clients request that these be left exposed. With this in mind, the project guidelines meant that the insulation was to be left exposed as a decorative finish and therefore required a first class installation.

Once insulated, the client wanted the Spray Foam to be painted a Brilliant White colour and the rest of the structure was going to be tastefully refurbished to include a new polished concrete floor, windows and roller shutter doors, making it the perfect place to entertain guests!

## The Specification

The insulating qualities of Spray Foam were the most important aspect for this installation along with the ability of the insulation to strengthen the corrugated panels. Following the site survey and after discussing the clients requirements, we specified 50mm of our Closed Cell Insulation.

To meet the specific requirements of how the nissen hut should look once completed, we had to ensure that a Class 1 fire rated Spray Foam was installed for maximum protection. Furthermore, the install would need attention to detail

with a slower spraying pattern and the foam layered up to the right depth in a consistently even style.

We budgeted a 5 day install which also included the application of a Class 0 Intumescent coating that was compatible with Polyurethane. The height of the building was not particularly difficult to reach and therefore, we made use of a small scaffold tower to reach every area.

**Agricultural buildings come in all shapes and sizes with many uses. They usually have one thing in common - corrugated metal, cement fibre or asbestos roofs.**

The roof and wall substrates often condensate in winter months and the external bolts that hold roofing sheets together can degrade, allowing moisture to penetrate the building.

High density foam such as Closed-cell provides a strong bond to the surface on which it's applied. The closed-cell nature of the foam means that it offers an exceptional barrier against vapour transfer and therefore does not hold or trap moisture.

A Closed-Cell Spray Foam application, when installed properly, should live with the life of the boat/vessel and is guaranteed for a minimum of 25 years.

## The Installation

We had to co-ordinate our installation with other trades working within the building. There was a short time frame to deliver this project to completion and therefore, we had to be mindful that electricians were working on site and new electric roller shutter doors were being installed.

Whilst we leave every property as tidy, if not tidier than the way in which we found it, the major risks on this install were the potential for overspray to become stuck on the floor and the windows. We spent the initial part of the install, completely protecting all areas before commencing.

Although we experienced a few machine breakdowns along the way, we managed to work late into the evenings to keep on schedule. We were very aware of the requirements for a first class finish to the Closed-Cell Foam and we worked carefully to achieve the best possible results.

## **Client Feedback**

We sourced the help of a Spray Foam Insulation company because we knew it was the only product that could be applied to the curved corrugated panels that are so typical of a Nissen Hut. Our clients specification meant that we had to choose an insulation company who could deliver the required results.

ThermoFoam conducted a site survey and discussed their suggestions with us at length. They highlighted the process of an install and the length of time they would need to be on site and they worked with us to mobilise on site at a time that was suitable for us.

The install team were conscientious and regularly checked with my client and my workers on site to ensure that they were happy with the progress of the install and the finished insulation product. Once complete, our client was delighted with how the structure looked and this was thanks for ThermoFoam's careful and considered approach.

Mark Hall, Managing Director, FD Hall & Son Ltd