



**SOL<sub>2</sub>O**  
GREEN BUILDING SOLUTIONS

# Solar Thermal Monkseaton High School

**Client** Shepherd Construction

## The Brief

SOL<sub>2</sub>O were tasked with the installation of a solar thermal system to Monkseaton High School in Whitley Bay to help supply the buildings with hot water from a renewable energy source.

## The Solution

SOL<sub>2</sub>O installed two solar arrays of evacuated tube solar panels and preheat cylinders to supplement the schools hot water supply with solar generated hot water.

After the initial development of the roof structure the contractor installed two steelwork mounts on which SOL<sub>2</sub>O were to install the two solar systems including all necessary pipe work links.

The installation comprised of two independent solar thermal systems, one 18m<sup>2</sup> evacuated tube solar panel fixing and another 12m<sup>2</sup> evacuated tube solar thermal array. The systems were fed into two separate preheat cylinders located across two separate plant rooms, one of 1,500 litres and another 1,000 litre cylinder— each heating one half of the building.

All work was carried out under the strictest health and safety regulations, as access to the complicated roof structure of the building was limited. A 'Mansafe' system was utilised so that any persons working on the roof were safely connected to the building at all times, eliminating any risk of personal injury from slipping or falling.

To ensure the contract ran smoothly and that targets were being met SOL<sub>2</sub>O had constant communication with the contractors and a total of 6 weekly meetings took place over the two-month project.

All the work carried out at Monkseaton High School was covered by a 12 month labour warranty from SOL<sub>2</sub>O.

## The Result

SOL<sub>2</sub>O successfully installed two large solar arrays onto Monkseaton High School, which has helped the school both reduce their energy costs and carbon footprint.

By installing these panels SOL<sub>2</sub>O have helped the school achieve a 'very good' efficiency rating in the BREEAM awarded environmental assessments.