

# Meeting Unique Specifications for the Agriculture Industry



## Background

One of the world's leading agriculture companies, through their technologies, helps farmers all over the globe maximise the use of limited agricultural resources.

For over 100 years, their Manufacturing Centre in the North of England has produced crop protection products that ensure growers can meet demands for fuel, food and feed. With a dedicated workforce of up to 400 people, this site specifically manufactures herbicides and insecticides for export worldwide.

As well as Chemical Industries Association National Awards for Reputation and Excellence in Engineering, the site has also been lauded for their Process Safety Leadership by the association. This demonstrates their hard work and dedication to protecting their employees in the workplace.

## Objective

The manufacture of herbicides and insecticides involves the use of various hazardous chemicals, such as diquat dibromide, which can cause skin irritation and calcium dodecylbenzenesulphonate, contact with which can lead to skin irritation and eye damage. To minimise injury in the event of a spill or splash, safety showers must be placed within 10 seconds reach (15 metres) of these hazards.

As many of the chemicals are explosive, all electrical equipment included in the safety showers must be certified for this hazardous environment. The company have strict site-specific safety standards that they must adhere to and exceed to protect their workforce.

## Solution

The Hughes engineered solutions team provided complete project planning, working closely with the site to ensure the units were customised exactly to their specifications.

As the site is located in the changeable and often cold climate of the UK, temperature-controlled trace-tape heated units were specified to ensure that the pipework was protected from freezing temperatures. Frozen water in the pipes could damage the unit or cause it to fail to activate in an emergency. These freeze-protected outdoor units have polyethylene outer jackets for corrosion and impact resistance and polyurethane foam for maximum insulation.

To ensure the units stood out on site the outer casing was customised in bright orange. A large green LED indicator light was added to illuminate the area at night and indicate the position of the showers, especially important when the site is darker in the winter months.



The eye/face wash was positioned to the right-hand side of the units rather than directly below the shower to allow it to be used independently whilst also allowing for a body wash nozzle to be fitted at waist height to help ensure full decontamination.

Due to the explosive properties of the chemicals used at the site, a high specification rating was required for all electrical equipment. Hughes specified ATEX/IECEx certified electricals, a high level of international certification where full compliance with IEC Standards is required.

**If you need Hughes to provide a bespoke engineered solution for you, please contact our team to discuss your requirements in detail.**

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