



## Security Fencing Protects Medical Gas at Hospitals

**Jacksons  
Fencing**

### Products

- 38m 2.4m high Securi-Mesh fencing, powder coated green
- Cantilever sliding gates

### Background

Following the 2020 pandemic and the surge in respiratory-related conditions, the demand on supplies of oxygen significantly increased. With oxygen cylinders being used more routinely in hospitals, guidance was updated on the safe use of oxygen supplies, with all healthcare organisations requested to carry out an urgent risk assessment of all acute clinical areas where gas cylinders are in use.

Oxygen became so crucial in the treatment of patients, that a few hospitals declared major incidents due to shortages. Without the essential resources, they couldn't provide treatment and had to divert patients elsewhere. Since this, the government has invested over £15 million in upgrading oxygen supplies, ensuring that demands are met and care is not disrupted.

Some larger hospitals now have their own liquid oxygen storage facilities on site; vast industrial tankers kept externally, with facilities to convert it back to gas when required and piped directly to bedsides. These are industrial facilities that freeze air so that the oxygen and nitrogen separate and liquid oxygen is formed. Liquid oxygen – which takes up less space than the gas form – is then transported and stored in the tankers. Usually, cryogenic plants are owned and run by major gas companies, which charge hospitals a fee to deliver the oxygen, fill the tankers and maintain the equipment.



## Challenges with storing oxygen and medical gases

The safe storage of liquid oxygen (LOX) prevents several challenges including the extremely low temperature and exact pressure it requires, the materials it reacts with, and the fire and explosion risks it presents. Because of this, it is essential that any supplies are secured, monitored, and managed carefully. Not only are the immediate safety risks high, but the knock-on effect of any incidents could cause a shortage and put patients' lives in danger.

Our Jakoustic Reflective acoustic fencing was installed by fencing contractor, Pro Fencing, around the perimeter of the development. With its solid timber construction made from tongue and groove boards, it creates a serene and private backdrop to the new housing development, reducing noise by up to 28dB, and providing a long-lasting, sustainable fencing solution with a 25 year guarantee.

### Solution

To provide security and controlled access for a new oxygen storage compound at a UK hospital, we supplied and installed our Securi-Mesh® mesh fencing system and gates. Installed at an overall height of 2.4m, 38 metres of fencing were installed onto concrete hardstanding. In addition, two cantilever sliding gates opening in opposite directions were installed, alongside a single leaf pedestrian gate with push pad exit and key entry.

358 mesh security fencing such as Securi-Mesh is ideal for industrial purposes for several reasons:

- **Anti-climb design:** The mesh pattern is tightly woven, making it difficult to gain a foothold or handhold; deterring climbing attempts.
- **Cut-resistance:** The material and construction of the mesh is designed to reduce cutting time with tools due to the small apertures, enhancing its security against intrusion attempts.
- **High visibility:** The 'invisible screen' effect that the mesh provides ensures that the fence does not obstruct views, working well with surveillance and monitoring, and enabling any issues to be identified swiftly.

### Why cantilever sliding security gates were used:

- **Limited space:** The area in front of the facility was restricted. Unlike swing gates, cantilever security gates slide parallel to the fence line, requiring minimal space both in front and behind the fence.
- **Enhanced security:** The security of the compound was a top priority. Cantilever gates are known for their operational efficiency, with quick opening and closing cycles. Their smooth, rapid movement allows for faster vehicle and goods transit, reducing the time the gates remain open and thus minimising potential security risks.
- **Low maintenance requirements:** Although the hospital grounds are well-maintained, cantilever gates offer an advantage by not needing ground tracks. This design reduces the risk of issues from debris or track damage, leading to fewer repairs and less downtime.

In addition, Jacksons' Securi-Mesh and associated gates are guaranteed for 25 years against rust, providing a long-lasting solution that is needed particularly where underground pipes and services are present, to avoid disturbances. Choosing the option of a green polyester powder coating over a galvanised finish, the security fencing solution installed for this oxygen compound has extra corrosion resistance, minimal maintenance requirements, and delivers lower long-term costs for the hospital.

With varying heights being created by sections of fencing being installed on different levels, extra protection was needed against climbing. We installed a Barbican® vertical bar fan panel. Not only does this provide a barrier to intrusion, but also a visual deterrent.



Securi-Mesh cantilever sliding gate.



Securi-Mesh detail.

For further information on products featured visit: [www.jacksons-security.co.uk](http://www.jacksons-security.co.uk)

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