



Hydramist protects HMP Littlehey with Hydramist Mobile 8 fire fighting equipment

Her Majesty's Prison (HMP) / Young Offender Institute (YOI) Littlehey is a purpose build Category C prison in Huntingdon Cambridgeshire which holds 1206 convicted and sentenced adults and young adults within the YOI.

The Problem

All custodial buildings are subject to the risk of a fire occurring within the cell; accidental fires and arson attacks occur every year and the procedures for evacuation of a prison are far more challenging than those for an open access building. The prison service manage this scenario by undertaking regular fire risk assessments of the site. These assessments form the basis for determining what fire protection equipment and training is required to protect the occupants of the building from the effects of fire.

The Solution

Hydramist's UK Custodial Distributor, supplied a number of Hydramist Mobile 8 units to HMP Littlehey to ensure the prison would provide the best fire protection for the occupants.

The Hydramist Mobile 8 unit is a mobile fire suppression system which provides 5 minutes of watermist fire suppression (in accordance with Ministry of Justice prison regulations) delivered from an on-board tank. The unit is fitted with a 35m hose and 15m electrical cable providing a flexible reach of 50 metres extending from a 3 pin 240Vac electrical socket. The unit is very robust and manoeuvrable and enables a rapid response to fire.

In extensive evaluation trials by UK Buildings Research Establishment and 8 years of prison service the Hydramist Mobile 8 has been proven to suppress the fire, maintain a tenable atmosphere and provide sufficient time to assemble an extraction team for even the most high risk prisoners.

Employing high pressure watermist allows water to be used in its most efficient fire suppression mode –

resulting in the cell being able to be re-instated very quickly and without water damage to the surrounding cells. The Mobile 8 unit has already saved many lives in prisons to date.

Experience

Hydramist equipment has been installed throughout UK's prisons since 2006. The UK home Office figures for current prison population is over 86,000 inmates; most prisons in the UK are now protected by Hydramist equipment.

On numbers of persons protected by watermist systems Hydramist is undoubtedly protecting more people in the world on a continuous basis than any other manufacturer!

Hydramist systems were selected by the Ministry of Justice and the Home Office after extensive fire testing at the UK Building Research Establishment proved that Hydramist systems were much more effective than traditional hose reel systems and would save lives in prisons.

The BRE test criteria were:

- **Maintain a tenable atmosphere for a period of 20 minutes when fire tested in accordance with the Ministry of Justice specifications**
- **Discharge a relatively small amount of water**
- **Deliver a spray of water mist with sufficient momentum to discharge droplets to the back wall of a cell.**

The Inundation must last for 5 minutes after pre-burn and operation of internal cell fire detection systems followed by a simulated 'rescue' of an inmate which involved opening the door for a set period of one minute. After the rescue the door is closed and a period of 10 minutes allowed to elapse during which time the fire must not to resume.

Watermist Ltd tested Hydramist® products as follows:

- **Mobile 8 and Hose reel mounted hand held lances**
- **Fixed in cell nozzle with glass frangible bulb operation using a locally mounted pump unit.**

In all tests Hydramist®:

- **Successfully extinguished the fire at the first attempt**
- **Dramatically reduced cell temperature, toxic gases & smoke to 'tenable' levels**
- **Ensured sufficient oxygen was available to sustain life throughout the cell.**

Note: During the 'rescue' and the ten minute waiting period after inundation the fire did not resume; temperatures & toxic gases in the cell continued to fall, remaining well below levels that could be harmful to life.

The life-saving capabilities of the Hydramist system were borne out within weeks of the first installation when a young woman's life became at risk due to a fire breaking out in her cell. The Hydramist system was deployed and she was safely evacuated – this was the first of many lives saved.



hydramist®
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