

Case Study: Public Records Office - High Pressure WaterMist

The Public Records Office is a four storey, steel, glass & concrete constructed building with four repositories each of approximately 900 M2 in area. The system requirements were such that minimisation of damage was a critical issue and following discussions with the client's representatives, where proposals for gaseous suppression, oxygen reduction and high pressure watermist were investigated, a pre-action watermist system was deemed the most suitable.



The system was used in conjunction with an early warning aspirating smoke detection system to provide the pre-alarm for the system. All pipe work is monitored 'dry' at nominal 2 bar air pressure, safe guarding the protected area from accidental breakage/discharge. This monitoring pressure is fed back to the BMS. Upon receipt of a confirmed 'fire' signal, the relevant air filled repository pipe work would be 'primed' with water via the zone valves.

Once filled, the system would maintain a 'wet' monitoring pressure for the pipe work concerned with no watermist discharge taking place until the breakage of a fast action, 57 °C frangible bulb. Watermist discharge would therefore be from bulbs broken local to the fire only, thus providing the required fire suppression whilst minimising damage during an actual fire and giving the customer maximum safe usage in the case of a false alarm.

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