

Fire Protection in Air Structures

Arizon works with fire protection contractors to design the best system for any application. Contact Arizon for more information about fire protection equipment options with air supported structures.

Arizon's air supported structures have been accepted and used around the world with a variety of fire protection equipment. The equipment needed are dependent on the application and municipal requirements, and normally it is determined that due to the dome's fire resistant construction and easy egress only fire alarm pull boxes and fire extinguishers in accessible locations are needed. Of course the building contents and occupancy may require additional fire protection equipment. Attached you will find photographic examples of various fire protection systems and the applications where they were used.

It is important to note that there are no examples of air supported structures with full overhead sprinklers. These are never used in domes for several somewhat obvious reasons. It is not possible to support the weight of water piping from the fabric. The air structure is a flexible building and the water piping would be damaged during normal building movement. Also, the attachment methods to the dome will not support the point weight of pipe hangers and piping. Such a combination with overhead piping is also less safe than other methods listed below.

Fire Alarm Pull Boxes: This is the most common system used in air structures. Depending on occupancy levels, the alarm boxes may need to be annunciated or just a local alarm. There is no water involved in this type of Fire Protection, but accessible fire extinguishers are often added as part of the system.



Standpipe: This is basically a fire hydrant within the dome. They are often padded for the safety of occupants.



Directional Water Cannons: If automatic water-based deluge equipment is determined to be required, then directional water cannons can be implemented. These units can be simple or computer controlled with thermal cameras to reduce water damage when triggered.

