

Pressurized foam fire protection system for large diameter atmospheric storage tanks

One of our partners developed a technology that provides uncompromised safety against full surface fires for large diameter atmospheric storage tanks - even if personnel, water supply, and electrical resources are vague and terrain, room, and climate are unfavourable - without polluting the environment or endangering lives. The client is looking for business partners for licensing the technology and know-how.

BACKGROUND:

The current ruling procedure is that only rim seal fires have to be taken out. In the case of a large full surface tank fire, the ruling tactic in most cases is to use whatever resources there are to contain the crisis and let the tank burn out. However in this way, the business disruption and environmental exposure is unacceptably huge. If other tanks are nearby, there is little chance of isolating a single tank if supplies are limited, and the whole terminal could be endangered.

INNOVATION OF THE TECHNOLOGY:

The pressurized foam is a revolutionary new storage tank fire extinguishing technology, using a very high foam application rate. The extremely high foam flow rate is provided through the new foam application device, which accommodates the expansive foam flow and prevents excessive velocities in the nozzle. It provides an ideal curtain like foam application pattern, thus providing substantial and continuous cooling of the tank wall. As of this date, the company possesses the most effective fire protection solution in its category. The technology does not need water to operate, nor need human intervention and it costs less to install than standard systems.



HIGH TECH FIRE PROTECTION FOR STORAGE TANKS

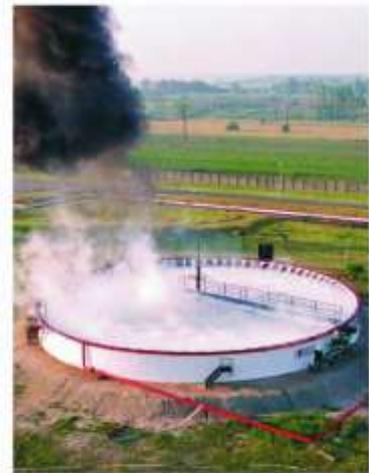
500 sqm GASOLINE FIRE EXTINGUISHED IN 25 seconds



0 sec



20 sec



25 sec

MAIN ADVANTAGES:

- Its simplicity eliminates the need for specialists to operate and maintain the system. Only a few key elements require regular inspection so the chance of malfunctioning is very low.
- Since the effective burning area is narrowed from the outset, environmental and property damage is at minimal.
- The system does not require firewater at all. It was originally developed to provide protection in remote territories under harsh conditions like extreme temperature or aridity.
- It does not require external energy sources, like fire trucks or electric pump.

APPLICATIONS:

The result of the combination of factors described above is an extremely efficient system. Tests carried out on a 500 m² of surface gasoline tank on fire repeatedly resulted in extinguishment in less than 40 seconds. Foam inflow starts 4 seconds after ignition and only the velocity of the blankets spreading limits the extinguishment time. For a 120m diameter large tank it is still within 3 minutes.

Some potential applications could be Oil storage sites, Marketing Terminals, Oil Harbours, Refineries, Chemical industry, Military applications, building Airport Crash Tenders, and Fast Response fire fighting Vehicles.

STAGE OF DEVELOPMENT:

The technology and the know-how is ready made, approved by the market. It is approved and implemented by a multinational oil company, tested and classified by TÜV SÜD.

TYPE OF COLLABORATION:

Our partner's intention is to sell or licensing his granted patents and his Know-how with training for the technology.

If you are interested, please respond to:

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