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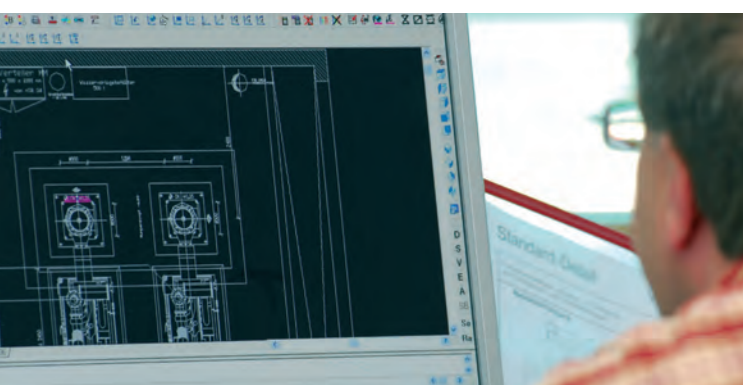
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**Fire Protection
Solutions**

More options
in your **warehouse.**
Well protected by CalanMegaDrop®

Firefighting concept **without the addition** of film-forming foaming agents



Safely protected: **CalanMegaDrop®** warehouse sprinklers

Application

Due to the increasing concentration of value, fires in the storage areas of production facilities lead to high damage costs if fire-detection and firefighting systems fail to respond as quickly as possible. Therefore, where the risk of fire is high, any fire has to be tackled quickly and effectively in the propagation phase to prevent the fire from spreading.

Meanwhile, more and more businesses store their goods in load carriers made of plastic products (including SLCs and LLCs). Due to the chemical and physical properties of the plastics used, it is difficult to control a fire successfully if fire breaks out.

With CalanMegaDrop powered by EuroSprinkler, you are effectively protected against risks in freestanding warehouses and block-stacking areas with storage containers made of plastic or with stored plastic at a storage height of up to 4.60 m and a maximum roof or ceiling height of up to 13.70 m.

The system can also provide effective protection for the risks involved in storage type ST1 up to Fire Hazard Class HHS4 and a maximum permitted storage height of 4.40 m with a maximum ceiling height of 13.7 m without requiring an increase in the rate of water discharge.

Operational description

Upon activation of a sprinkler in the CalanMegaDrop powered by EuroSprinkler firefighting system in the corresponding active region, the area to be protected is quickly drenched with a large amount of water (flow rate = 200 l / min at 1 bar system pressure), so that the fire is hindered at an early stage in the spread and the fire is controlled.

The dimensioning and design of extinguishing system is critically influenced by the size and arrangement of the protected storage risk.

There is no need for additional water in the system design. This means that the rate of water discharge is to be set at a minimum value of 30 mm/min for up to a maximum ceiling height of 13.70 m.

The system has a very fast response sensitivity (RTI <30 m^{1/2}·s^{1/2}) in order to be able to fight the fire effectively already in the development phase. The smaller the RTI value of a sprinkler, the shorter the response time and the the faster the response of the sprinkler to the fire.

Furthermore, the system uses additive-free firefighting water. This means that a normal firefighting water quality, without the addition of film-forming foaming agents, is sufficient to meet the requirements of VdS CEA 4001.

Facts

Specifications

The K200 sprinkler is a spray-type sprinkler with the following performance parameters:

- Flow factor: k = 200 l/min/bar^{1/2}
- Nominal opening temperature: 68°C
- Response sensitivity class: „schnell“ (RTI < 30)
- Installation type: pendent
- Connecting thread: 3/4"
- Maximum permissible operating pressure: 12 bar

System design

- System type: Wet system
- Water-discharge rate: > 17,5 mm/min
- Operating time: according to the fire hazard classes
- Minimum effective area: 300 m²
- Maximum protected area: HHS 9m²

Advantages

- Comparatively low water-discharge rate
→ good potential for cost savings
 - Response sensitivity RTI < 30
→ very fast response in case of fire
 - Powerful (K 200) and fast (RTI < 30) initial impact
→ effective prevention of the spread of fire
 - In individual cases, compensation for exceedances and deviations in terms of construction law
 - Extinguishing concept without the addition of film-forming foaming agents
(additive-free firefighting water)
 - For HHS1–HHS4, no additional design cost on exceeding the maximum distance of 4 m between the top of stored goods and the ceiling
- Example**
- Storage type ST1 / storage risk HHS 4 /
Stacking height 4.40 m / ceiling height 13.70 m
This gives a distance between the top of the stored goods and the ceiling of 9.30 m
- VdS CEA 4001, Para. 6.2.2,
required minimum water-discharge rate
= 37.5 mm/min
 - CalanMegaDrop extinguishing system required
minimum water-discharge rate = 30 mm/min
- ST1 plastic storage and max. stacking height of 4.6 m up to a ceiling height of 13.70 allowed with dedicated ceiling protection.