Deluge valve sets are used in extinguishing systems where pipeworks with open nozzles are a must. Their use is always advisable where water needs to be discharged in larger areas via an appropriate number of nozzles.

Simultaneously for activation, an acoustic alarm is set off by a hydraulically operated alarm gong, and an electric alarm is transmitted to a permanently manned location (e.g. fire brigade). The deluge valve set can be activated either electrically, pneumatically or hydraulically. An additional manual release is also provided.
Electric activation with impulse valve

The electric activation of the deluge valve set is accomplished by means of a detection system, which triggers the solenoid valve in the event of fire. The solenoid valve opens, the pressure in the deluge valve control chamber drops and the nozzle pipe work will be flooded.

In the event of fire, an electric alarm is released and transmitted to a permanently manned location. In addition, an acoustic alarm is released by means of an alarm gong. This applies to all activation modes.

In addition, Minimax offers an external panel that enables the manual activation of the Minimax deluge valve set from a remote location.

It can be used for the following tasks:
- Activation of the extinguishing process
- Minimisation of water damage through interruption of the water supply
- Easy and repeated reactivation if required
- Recommissioning of the deluge valve set which guarantees continuous protection

Hydraulic activation

As far as the hydraulic activation is concerned, the pilot line is directly connected to the control chamber of the deluge valve. The system pressure of the water supply is permanently applied to the pilot line. Should a pilot sprinkler release, the pressure in the control chamber drops and the deluge valve opens.

Pneumatic activation

The pneumatic activation of the deluge valve set is accomplished via a pilot line filled with compressed air and equipped with sprinklers or special heat sensors. In order to avoid a nuisance activation, the pilot line operating pressure is maintained by means of an automatic compressed air replenishment system. A diaphragm valve is positioned between the pneumatic pilot line and the control chamber of the deluge valve. If one of the sprinklers or heat sensors release, the pressure in the pilot line drops and opens the diaphragm valve. This causes a pressure release in the deluge valve control chamber, the valve opens and water flows into the nozzle pipe work.

The deluge valve set with pneumatic activation is particularly suitable for areas exposed to frost.