

Automatic Low Pressure Water Mist Nozzle Model OH

Automatic Nozzle Model OH

Applications:

Model OH is an automatic Low Pressure Water Mist Nozzle for automatic fire protection of locations with fire hazards such as hotels, offices, restaurant seating areas and other similar locations with ceiling heights up to 5m.

Description:

The Model OH Automatic Low Pressure Water Mist Nozzle is a modern method of providing fire protection with water mist. The nozzle design is based upon more than 20 years of experience from designing and manufacturing fire sprinklers and water mist nozzles.

Model OH Automatic Low Pressure Water Mist Nozzle combines the best of the fire sprinkler technology with the best of the water mist technology into one product. Model OH provides the reliability and water pressures from sprinklers together with enhanced fire fighting performances and low water requirements from water mist nozzles.

The Model OH Automatic Low Pressure Water Mist Nozzle is visually discrete and the nozzles blend into the ceiling surfaces.

The Model OH Automatic nozzles are simple to install and are flush with the ceiling surface with a unique rosette.

Installation:

Automatic Model OH nozzles are installed in pendent position with a maximum spacing of 4m between nozzles, and maximum 2m from nozzles to the walls up to 5m height.

Automatic Model OH Nozzle system should be installed in clean pipe work, typically copper, plastic, stainless or good quality galvanised.

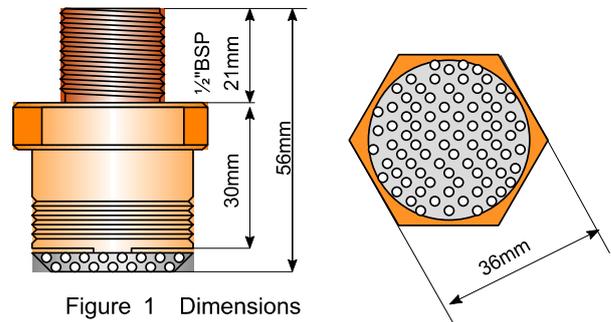


Figure 1 Dimensions

Model OH Water Mist Nozzles are installed in hydraulically designed pipe systems having identical design areas and water supply as the standards require for sprinkler systems for similar fire hazard classes.

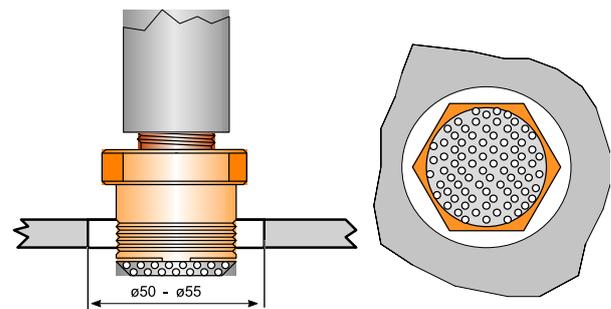


Figure 2 Installation in ceiling

Model OH Water Mist Nozzles are installed in accordance with figure 2 & 3, with the nozzle head positioned “flush” to the ceiling surface. After installation the rosette is fitted the nozzle to make a fine finish around the concealed nozzle.

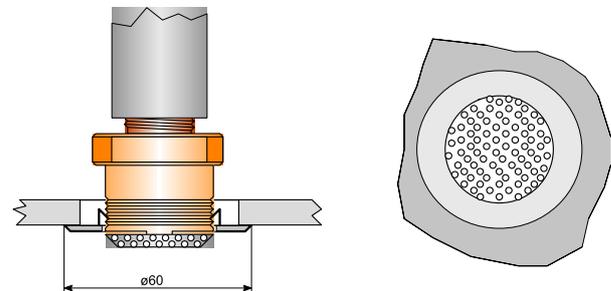


Figure 3 Installation of rosette



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Technical data and requirements:

General:

Minimum Water Pressure on Nozzle (bar)	6
Maximum working pressure: (bar)	16
Nozzle K-factor (l/min/√bar) (± 5%)	14,3
Nozzle materials:	Nozzle house: Brass
	Nozzle strainer: Stainless steel
	Nozzle cover: Aluminium.
Time response index (metric) RTI <	45
	Fast response
Nominal release temperatures: (°C)	57,68,72,93,141

Finish on cover plates: chrome

Nozzle installation:

Nozzle position:	pendent
Nozzle to be installed with cover plate positioned minimum 7 mm below the ceiling surface. *	
Maximum spacing nozzle to wall: (m)	2
Maximum spacing between nozzles (m)	4
Pipes should have clean internal surfaces, which are free from any kind of impurities.	

Hydraulic system design:

Design water density: (mm/m ²)	2,2
Design coverage area: As for sprinkler systems installed in similar hazards. Nozzle coverage 4m x 4m	

System design:

System to be designed in accordance with applicable system design requirements as for sprinkler systems for protection of similar fire hazards, with the exceptions of the Model OH system requiring:

- Less water supply, water densities, and water reservoirs.
- Pipes should be in non-corrosive material
- There shall be fitted a strainer, with sufficient capacity of minimum 30minute water duration and with a mesh size of 1mm - 1,2mm on the water supply pipe to the nozzles. The filter should be easy to access, and it should be possible to clean the filter after the system has been activated.
- The alarm valve should not include a by-pass exceeding a k-factor of 5 (litres/minute/√bar).

Locations and Hazards:

Hazards:	Hotels, offices, restaurants, clubs, schools, homes, institutions, museums, churches, theatres etc.
Rooms:	Ceiling heights up to 5m

Maintenance and checks:

- Inspection of deliveries: All nozzles delivered should be checked not to be damaged during the transport, and to have the required nominal release temperature. The nozzles should be visual checked to see that the glass bulbs have not been damaged.
- During installation: During the installation of nozzles, it is checked that all installed nozzles have no defects. Nozzles which have been dropped or damaged should not be installed. The nozzles should be returned to the manufacturer to be re-tested.
- Commissioning: The system is leak tested for 30 minutes at 1,5 x system pressure. All nozzles are inspected to be correctly installed and not to leak. The alarm systems and the pump system are tested. During commissioning it should also be checked that the nozzle coverage plates have not been painted on site, and that there is a minimum 5mm gap between the rosette and the cover plate.
- After system activation due to fire: All activated nozzles should be replaced with new, and all nozzles installed in the vicinity of the fire should also be replaced with new nozzles. (Nozzles which have not activated may be returned to the manufacture for tests.)
- Regular system inspections: The sprinkler system should be inspected in regular intervals and at least each one year. Pump and alarm valve system should be checked and tested in accordance with current standards for sprinkler systems. The nozzle heads should be inspected not to have had the cover plates painted on site, and that the gap between the cover plate and the rosette is no less than 5mm. If glass bulbs are found not to contain fluids, the nozzle should be changed with new and the re-placed nozzle should be returned to the manufacture for tests. Maximum after 10 years of service samples of installed sprinklers should be returned to the manufacture for inspection and test.

Caution:

- Nozzles which have been dropped or physical abused during installation should not be installed.
- Nozzles which have been painted by others than the manufacture should be replaced with new nozzles.