

## Description

The FIRE KILL™ Low Pressure Water Mist System Model Facade is a system utilizing very small open water mist nozzles integrated in stainless steel pipes designed specifically for the protection of facades. The system can however also function as a water curtain in openings not higher than 7m.

Besides saving water, the system is designed to blend into the building structure for esthetic appearance. The design does further save cost on fittings as well as reduces the risk of getting impurities into the pipe when installing the system.



## Technical data

General Description	
Minimum water pressure (bar)	5
Maximum working pressure (bar)	16
K-factor 6m pipe (metric (l/t/√bar))	25,8
Flow 6m pipe (L/min)	57,69
Drop size	DN90 < 300 µm
Application	
Coverage Area from one side installation (m)	2-2.5m from wall measured 7m below
Installation height	1,5 m – 7 m
Design area and system operation time	Minimum 2 zones each minimum 6m long, and minimum 30 min operation time.
System Stats & Dimensions	
Standard Pipes	6m AISI316L ø28x1.2mm with open ends for press fitting connections. 6 installation holes each with M10x1mm female thread.
Standard nozzles	6 x 32-45A nozzles with M10x1mm male thread.
Hydraulic system	
Water density on a 5m wall	1.92 l/min/m <sup>2</sup>
Water density on a floor	9.62 l/min/m <sup>2</sup>
Design area and system operation time	Minimum 2 zones each minimum 6m long, and minimum 30 min operation time.
Related products	
Nozzle Extensions (For hidden applications)	Custom length & ø12x1.5 mm
Zone Control valve	Model C-EL
Flame detector	Model Deflametec
Filter	Model F

## Design

The system being a deluge system needs a control valve and electrical detection system. VID Fire-Kill recommends the use of a fast and reliable detection system which can locate the fire independent of wind and other such external impacts. Such method could be approved flame detectors. VID Fire-Kill further recommends the use of control deluge valves designed for water mist systems.

As the system is a deluge system, it can be zoned up in smaller zones to reduce the total amount of water needed as well as to reduce the amount of water which is sprayed into the application in case of fire. Each zone shall be minimum 6m long and the full height of the facade (up to 7m height per system), and the system shall be designed so minimum two zones can operate at the same time. The water supply shall be able to supply water for minimum 30 min, or the specified time required from the AHJ.

The system is supplied in 6 meter length stainless steel pipes with 6 prefabricated installation holes (Thread type M10x1) positioned 0.5m from each pipe end and with 1m between them on the pipes. The pipes can be supplied in the dimensions found to be appropriate for the installation. In each installation hole a Model 32-45A nozzle is installed positioned downwards.

Each nozzle has a metric k-factor of 4.3 and work with a minimum pressure of 5 bar. The nominal flow rate per meter Model FACADE is therefore 9.61 l/min. The final design shall always undergo a hydraulic pressure loss calculation determining the project flow and pressure needed.

In case of 2 zones of each 6m length and 5 m height, and required 30 min operation time, the water supply shall be able to deliver a minimum of 3462 liter at nominal pressure.

### Installation

The system pipes can be positioned where the roof and wall meet, and the nozzles shall be positioned downwards with the hook pointed away from the wall.

The nozzles can be installed directly on the pipes, but can also be installed on extension pipes, provided by VID Fire-Kill, so the main stainless-steel pipe can be installed indoor and only the nozzles outdoor for a more esthetical expression.

Other requirements found in local water mist codes such as NFPA 750, CEN/TS 14972, etc. and not mentioned here, shall be followed together with the VID Fire-Kill requirements.

### Approvals

The Model FACADE is an extension of the well tested VID Fire-kill Model APS systems designed to protect atriums and other such applications, which has been tested in accordance with DFL TM 70111-04, developed in accordance with CEN/TS 14972, appendix B and tested in an ISO 17025 accredited fire test laboratory.

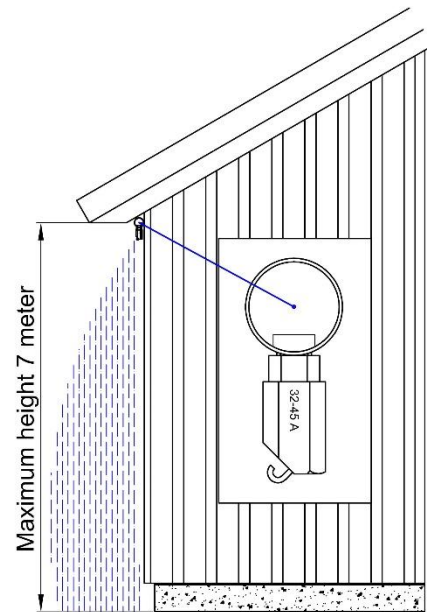
### Caution

The FACADE System consists of fragile components and should be handled with care as not to compromise any of the components.

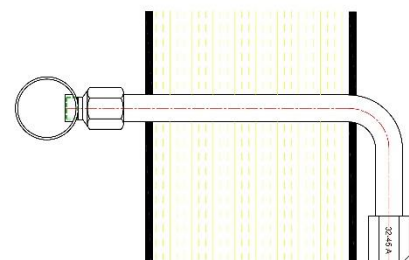
Dropped or otherwise damaged nozzles should not be installed.

### Contact

For further information on FIRE KILL™ products, please contact our sales department at Sales@vidfirekill.com



Drawing A – position on wall



Drawing B – Extension kit installation

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