

Title (en)

METHOD AND DEVICE FOR PREVENTING FIRE AND SMOKE PROPAGATION IN STRUCTURES

Title (de)

VERFAHREN UND ANORDNUNG ZUR ABSCHOTTUNG VON FEUER UND RAUCH AN BAULICHEN ANLAGEN

Title (fr)

PROCEDE ET DISPOSITIF POUR INTERROMPRE LA PROPAGATION DU FEU ET DE LA FUMEE DANS DES CONSTRUCTIONS

Publication

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Application

**EP 02767216 A 20020716**

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Abstract (en)

[origin: WO03022362A1] The invention concerns a method and a device for preventing fire and smoke propagation in structures. It aims at efficiently preventing fire and smoke propagation in particular in installations which are interconnected or connected to an external space through tunnel tubes. The present invention can be used in particular for partitioning openings of railway tunnels or for making secure escalator zones in road terminals with respect to zones located at a higher level. The invention aims at creating a partition protecting tunnel-type structures against propagation of fire, smoke or any other fire products and against radiating heat, said partition being dependably sealed and not collapsing under obstacle load. Furthermore, the persons or objects should be able to pass freely without opening the partition. Therefor, pressurized water is permanently conveyed to at least two arcuate spraying tubes along the top edge and the lateral edges of the opening of a structure arranged at a certain distance from each other, then the water swirls and is dispersed by pulses in the form of hollow cones of fine water particles, said cones intersecting in offset manner several times, via a plurality of nozzles arranged at regular intervals and at an angle of inclination opposite to the side where the fire is expected, so as to form a thick water curtain matching the contour of the entire cross-section.

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