

Title (en)  
SUPPORT STRUCTURE WITH FIRE PROTECTION

Title (de)  
BRANDSCHUTZGERECHTES TRAGWERK

Title (fr)  
STRUCTURE PORTEUSE IGNIFUG E

Publication  
**EP 1294450 A1 20030326 (DE)**

Application  
**EP 01955195 A 20010601**

Priority  
• DE 0102108 W 20010601  
• DE 10030971 A 20000624

Abstract (en)  
[origin: WO0200303A1] The invention relates to a fire-protected support structure which can be used for any type of structural works consisting of steel, a metal lightweight construction or wood, regardless of its functional purpose. The aim of the invention is to develop a fire-protected support structure which has good, long-lasting resistance to overheating and softening while being inexpensive to assemble and maintain and which has reasonable extinguishing requirements. The resistance to overheating should already be effective in the initial stages of a fire and should be immediately effective in any given area of the support structure, regardless of the material of which the latter consists and its properties. According to the invention, the support structure is designed according to the static requirements determined by its constructional purpose alone. Its fire resistance is provided by water discharging devices in the form of spray nozzles (6) which are located along at least a part of the support structure and are designed in such a way that the water is discharged from them in the form of finely dispersed spray droplets or aerosol, hereafter referred to as mist. The edge areas of the exit cones (7) of adjacent spray nozzles (6) penetrate each other and in the event of a fire, the exit cones (7) of all spray nozzles (6) activated by the fire warning envelope all parts of the support structure within their range in mist.

IPC 1-7  
**A62C 35/60**; E04B 1/94; A62C 39/00

IPC 8 full level  
**A62C 35/60** (2006.01); **A62C 99/00** (2010.01); E04B 1/94 (2006.01)

CPC (source: EP US)  
**A62C 35/60** (2013.01 - EP US); **A62C 99/0072** (2013.01 - EP US); E04B 2001/949 (2013.01 - EP US); Y02A 20/00 (2017.12 - EP US)

Citation (search report)  
See references of WO 0200303A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**WO 0200303 A1 20020103**; CA 2412500 A1 20021223; DE 10030971 A1 20020117; EP 1294450 A1 20030326; NO 20026208 D0 20021223; NO 20026208 L 20030224; US 2004026094 A1 20040212

DOCDB simple family (application)  
**DE 0102108 W 20010601**; CA 2412500 A 20010601; DE 10030971 A 20000624; EP 01955195 A 20010601; NO 20026208 A 20021223; US 31237903 A 20030804